

**2023 ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT**

**ALABAMA POWER COMPANY
PLANT BARRY
GYPSUM POND**

January 31, 2024

Prepared for

Alabama Power Company
Birmingham, Alabama

By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

This 2023 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), ADEM Admin. Code Ch. 335-13-15, and Part E of ADEM Administrative Order No. 18-094-GW, under the supervision of a licensed professional engineer in the State of Alabama. As such, I certify that the information contained herein is true and accurate to the best of my knowledge.



1/31/2024

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EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D), the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, and Part E of ADEM Administrative Order No. 18-094-GW, this 2023 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the first and second semi-annual assessment groundwater monitoring activities at the Alabama Power Company (APC) Plant Barry Gypsum Pond and to satisfy the requirements of 40 CFR § 257.90(e), ADEM Admin. Code r. 335-13-15-.06(1)(f), and Part E of ADEM Administrative Order No. 18-094-GW. Semi-annual assessment monitoring and associated reporting for Plant Barry Gypsum Pond is performed in accordance with the monitoring requirements 40 CFR § 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 40 CFR § 257.95 and ADEM Admin. Code r. 335-13-15-.06(6). Statistically significant increases (SSI) of Appendix III constituents over background were identified in the results of the first detection monitoring event and assessment monitoring was initiated in January 2018. Statistically significant levels (SSL) of Appendix IV parameters have not been identified during assessment monitoring and therefore, the Site has remained in assessment monitoring.

SSL of Appendix IV parameters were not identified from statistical evaluation of assessment monitoring data collected during the 2023 annual monitoring period, and in accordance with 40 CFR § 257.95(d) and ADEM Admin. Code r. 335-13-15-.06(6)(d), APC will continue semi-annual assessment monitoring.

The following summarizes results and activities conducted during the 2023 annual assessment monitoring period:

- Submitted the 2022 Annual Groundwater Monitoring and Corrective Action Report to ADEM on January 31, 2023.
- Performed the first 2023 semi-annual assessment groundwater monitoring event between April 3, 2023, and April 12, 2023.
- Submitted the first 2023 Semi-Annual Groundwater Monitoring and Corrective Action Report to ADEM on July 31, 2023.

- Performed the second 2023 semi-annual assessment groundwater monitoring event between August 7, 2023, and August 15, 2023.

The CCR unit concluded the monitoring period in Assessment Monitoring. The following corrective action and/or monitoring-related activities are planned for the CCR unit:

- Conduct the first semi-annual assessment monitoring event in the spring of 2024 and subsequently submit the first Semi-Annual Groundwater Monitoring and Corrective Action Report summarizing the findings to ADEM by July 31, 2024.

Pursuant to 40 CFR § 257.90(e)(6), an **Executive Summary Table** has been prepared to describe the status of groundwater monitoring and corrective action during the monitoring period for this report.

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

Assessment Monitoring Inintiated: January 15, 2018
 Monitoring Period: January 1 - December 31, 2023
 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	None.
Fluoride	None.
pH	None.
Sulfate	None.
TDS	BY-GSA-MW-6.

Appendix IV SSLs

No Significant Results.

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

Assessment of Corrective Measures & Groundwater Remedy

Assessment of Corrective Measures

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

Groundwater Remedy

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

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ABBREVIATIONS

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”
NAVD88	North American Vertical Datum of 1988
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity unit
ORP	oxidation reduction potential
pCi/L	picocuries per liter
PE	Professional Engineer
PG	Professional Geologist
PL	prediction limits
PQL	practical quantitation limit
PVC	polymerizing vinyl chloride
QA/QC	quality assurance/quality control
RL	reporting limit
RPD	relative percent difference
SM	Standard Method(s)
SSI	statistically significant increase
SSL	statistically significant level
TAL	Test America, Inc.
TOC	top of casing
TDS	total dissolved solids
USGS	United States Geological Survey
UTLs	Upper Tolerance Limits

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D), the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, and Part E of ADEM Administrative Order No. 18-094-GW, this 2023 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the first and second 2023 semi-annual assessment groundwater monitoring activities at the Plant Barry Gypsum Pond and to satisfy the requirements of 40 CFR § 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 40 CFR § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

2.0 MONITORING PROGRAM STATUS

In accordance with 40 CFR § 257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. Statistically significant increases (SSI) of Appendix III were identified from statistical evaluation of analytical data during the first sampling event conducted in 2018. Appendix IV constituents detected on-Site have not statistically exceeded their respective groundwater protection standard (GWPS), and therefore, have not historically constituted any statistically significant levels (SSL). The Site has remained in assessment monitoring. 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 40 CFR § 257.96 and ADEM Admin. Code r. 335-13-15-.06(7).

3.0 SITE LOCATION AND DESCRIPTION

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

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

3.1 PHYSICAL SETTING

Plant Barry is located within the Southern Pine Hills and the Alluvial-deltaic Plain districts of the East Gulf Coastal Plain physiographic section. The Alluvial-deltaic Plain district is composed of alluvium and terrace deposits of the Mobile River delta and is characterized by very little topographical relief (Gillet et al., 2000). The Southern Pine Hills district is a southward sloping plain developed on Miocene Series clay, sand, and gravel deposits. The Southern Pine Hills district is dissected by surface water features, and near Plant Barry, displays gentle topographic relief (Davis, 1987). Land surface elevations near the Gypsum Pond slope from west to east and range from approximately 30 feet above the North American Vertical Datum of 1988 (feet NAVD88) to 10 feet NAVD88, respectively. **Figure 2, Site Topographic Map**, provides the topography of the site.

3.2 SITE GEOLOGY AND HYDROGEOLOGY

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

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

Generalized near-surface stratigraphy of the site, in descending order, consists of (1) lean to flat clay down to an elevation of 10 feet NAVD88, (2) a poorly to well-sorted sand with lenses of clay down to elevations between -45 and -50 feet NAVD88, 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). Regionally, 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, data suggest this unit is approximately 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 Miocene-Pliocene Aquifer, which consists of the Miocene Series undifferentiated and the Pliocene-age Citronelle Formation, is about 3,400 feet thick 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. Regionally, 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 occur at the base of the Miocene-Pliocene sequence (Gillett et al., 2000). Although adequate supplies are available shallower, the Miocene-Pliocene Aquifer will yield 1.0 million gallons per day per well in deeper wells. Large-capacity wells screened in this aquifer generally range in depths from 150 to 800 feet below ground surface (BGS), with specific capacities ranging 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 BGS yield large capacities where saturated sands are of sufficient thickness. Specific capacities in these wells range from 6 to 73 gallons per minute per foot of drawdown (Reed and McCain, 1972).

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

3.2.1 Uppermost Aquifer

The uppermost aquifer beneath the site corresponds to alluvial, low terrace, and coastal deposit sands, which are part of the Watercourse Aquifer system. At the site, the Watercourse Aquifer consists of medium to

coarse sands with discrete gravelly sand and gravel. Clay nodules, lenses, and stringers are present, but are not prevalent. Depths to the top of the Watercourse Aquifer generally range between 15 and 25 feet BGS and appear to extend 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 vertical migration to the water table. Regionally, the Watercourse and Miocene-Pliocene Aquifers are considered 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 water bearing sand units.

3.2.2 Flow Interpretation

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

3.3 GROUNDWATER MONITORING SYSTEM

Pursuant to 40 CFR § 257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Barry has installed a groundwater monitoring well network to assess groundwater quality within the uppermost aquifer. The certified groundwater monitoring system for the Plant Barry Gypsum Pond is designed to monitor groundwater flow passing the waste boundary of the CCR unit. Wells were sited to serve as upgradient or downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps. All groundwater monitoring wells were designed and constructed using “Design and Installation of Groundwater Monitoring Wells in Aquifers,” ASTM Subcommittee D18.21, as a guideline.

3.3.1 Monitoring Wells

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

The location and designations of site wells are presented on **Figure 5, Monitoring Well Location Map**, **Table 1a, Compliance Monitoring Well Network Details**, and **Table 1b, Piezometer Well Network Details**, summarize the monitoring well construction details, surveyed elevations, and design purpose for the Plant Barry Gypsum Pond.

3.3.1.1 Upgradient Wells

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

Monitoring well locations BY-UP-MW-1 through BY-UP-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.

3.3.1.2 Downgradient Wells

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

3.3.1.3 Piezometers

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

3.3.1.4 Monitoring Well Replacement and Abandonment

Monitoring well replacements or abandonment activities were not performed at the Site during 2023.

3.4 GROUNDWATER MONITORING HISTORY

In accordance with 40 CFR § 257.94(b), eight independent samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendix III and IV prior to October 17, 2017. Background sampling was performed over the period of February 2016 to June 2017. Groundwater sampling for the first detection monitoring event after the background period was performed in September 2017.

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

3.4.1 Available Monitoring Data

Laboratory analytical data are available for the groundwater monitoring history outlined in **Section 4.4**. Tabulated results for Appendix III and Appendix IV constituents by monitoring well are included in **Appendix A, Analytical Data Summary**.

3.4.2 Historical Groundwater Flow

Historical groundwater elevations and potentiometric surface maps show that groundwater flow patterns are consistent across monitoring events and as described in **Section 4.2.2**. Tables summarizing groundwater elevations from all groundwater assessment monitoring events conducted since 2016 are included in **Appendix B, Historical Groundwater Elevations Summary**.

3.4.3 Monitoring Variance

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

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

2. Authorizes the use of Federally-published GWPS of 0.006 milligrams per liter (mg/L) for cobalt; 0.015 mg/L for lead; 0.040 mg/L for lithium; and 0.100 mg/L for molybdenum in lieu of background where levels are greater than background values.

3.5 GROUNDWATER SAMPLING AND ANALYSIS

Site compliance wells are sampled semi-annually between: (1) late winter and mid spring and (2) early to late fall. The spacing between sampling events is sufficient to ensure independent groundwater samples and a general representation of the different climatic or meteorological seasons that create a degree of natural variability in groundwater quality.

During routine semi-annual monitoring events, all compliance wells are sampled and analyzed for Appendix III and Appendix IV constituents.

As required by 40 CFR § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following subsections summarize the sequential steps and process for the sampling, handling and transport, and analysis of compliance-related groundwater samples at the Site.

3.5.1 Groundwater Sample Collection

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

Groundwater samples were collected from monitoring wells using low-flow sampling procedures in accordance with 40 CFR § 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 downhole pump. Monitoring wells were purged and sampled using low-flow sampling procedures. In this procedure, field groundwater quality parameters – pH, turbidity, temperature, oxidation reduction potential (ORP), conductivity, and dissolved oxygen (DO) – are measured to determine stabilization, and groundwater samples are collected when the following stabilization criteria are met:

- 0.2 standard units for pH.
- 5% for specific conductance.

- 0.2 mg/L or 10% for DO > 0.5 mg/L (whichever is greater).
- Turbidity measurements less than 10 NTU.
- Temperature and ORP – record only, no stabilization criteria.

During purging and sampling an in-situ Aqua Troll instrument was used to monitor and record field parameters. All downhole groundwater sampling equipment was calibrated prior to sample collection per the manufacturer’s specifications outlined in the Alabama Power Environmental Affairs (EA) Water and Field Group (WFG) Technical Standard Operating Procedure, dated December 14, 2021.

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 period are included in **Appendix C, Laboratory and Field Records**.

3.5.2 Sample Preservation and Handling

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

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

3.5.3 Chain of Custody

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

3.5.4 Laboratory Analysis

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

3.5.5 Monitoring Period Sampling Events

As required by 40 CFR § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following describes monitoring-related activities performed during the preceding monitoring period. The first 2023 semi-annual assessment monitoring sampling event took place between April 3, 2023, and April 12, 2023. The second 2023 semi-annual assessment monitoring sampling event took place between August 7, 2023, and August 15, 2023.

Groundwater samples were analyzed for the full list of Appendix III and Appendix IV parameters during the assessment monitoring events. All groundwater sampling activities were conducted by APC Field and Water Services. Pace Analytical Services performed the laboratory analyses of Radium-226 and Radium-228 (reported as combined). APCEL performed the remaining Appendix III, Appendix IV, and general chemistry analyses. Analytical data from the groundwater monitoring event are included as **Appendix C**, in accordance with the requirements of 40 CFR § 257.90(e)(3) and ADEM Admin. Code r. 335-13-15-.06(1)(f)3.

4.0 GROUNDWATER ELEVATIONS AND FLOW

During the first 2023 semi-annual assessment monitoring event, groundwater elevations ranged from 3.66 to 6.03 feet NAVD88. **Figure 6A, Potentiometric Surface Contour Map (June 11, 2023)** depicts groundwater elevations and inferred groundwater flow direction from higher elevation to lower.

During the second 2023 semi-annual assessment monitoring event, groundwater elevations ranged from 3.44 to 5.50 feet NAVD88. **Figure 6B Potentiometric Surface Contour Map (August 7, 2023)** depicts groundwater elevations and inferred groundwater flow direction from higher elevation to lower.

As shown on **Figures 6A and 6B**, groundwater generally flows from south to north-northeast consistent with historic observations. Recent groundwater elevation data collected during the 2023 annual assessment monitoring period have been tabulated and included in **Table 3, Groundwater Elevations Summary**. All available groundwater elevation data recorded since 2016 have been tabulated and included in **Appendix B**.

4.1 GROUNDWATER FLOW VELOCITY CALCULATIONS

Groundwater flow rates at the Site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug test results, and an estimated effective porosity of the screened horizon. Slug testing results from piezometers located near the Gypsum Pond provide an average hydraulic conductivity of 4.27×10^{-3} cm/sec, which correlates favorably with a long duration pumping test of the Watercourse Aquifer that revealed an average hydraulic conductivity of 3.3×10^{-3} cm/sec. 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:

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

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

i = Horizontal hydraulic gradient

n_e = Effective porosity

Using this equation, horizontal groundwater flow velocity is calculated for the site and is tabulated in **Appendix D, Horizontal Groundwater Flow Velocity Calculations**. **Appendix D** presents the estimated horizontal flow velocity calculated using groundwater elevation data from the first and second semi-annual monitoring events in 2023.

5.0 EVALUATION OF GROUNDWATER QUALITY DATA

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

5.1 DATA VALIDATION – QUALITY ASSURANCE/QUALITY CONTROL

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

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

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

Where the RPD is below 20%, the difference is considered acceptable, and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 4, Relative Percent Difference (RPD) Calculations**, provides the RPDs for sample and sample duplicates during the first and second semi-annual assessment monitoring events of 2023.

All RPDs were below 20% during the first and second semi-annual assessment monitoring events of 2023 except for sulfate detected in the groundwater sample collected during the first semi-annual assessment event from monitoring well BY-GSA-MW-7 and its field duplicate. Sulfate was detected at a concentration

of 2.35 mg/L in the original sample and 3.13 mg/L in the field duplicate, resulting in an RPD of 28.47%. However, since (1) neither result is greater than 5 times the RL (2-6 mg/L) and (2) the difference between the original and duplicate is less than the reporting limit, the detected concentrations were flagged with a (+)J, (ND) U.

RPD and blank data validation is generally performed prior to statistical analysis and to determine if data quality reviews, laboratory re-analyses, or re-sampling and analyses are needed. The results of the above data validation procedures were determined to be highly biased and were subsequently replaced with non-detect concentrations. Furthermore, no Appendix III or Appendix IV constituents were detected in any of the collected field or equipment blanks during the 2023 annual assessment monitoring period.

5.2 STATISTICAL METHODOLOGY AND TESTS

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

5.2.1 Appendix III Evaluation

Intrawell prediction limits, combined with a 1-of-2 verification strategy, are used to evaluate calcium, chloride, sulfate, and TDS. Interwell prediction limits, combined with a 1-of-2 verification strategy, are used to evaluate boron, fluoride, and pH. Intrawell prediction limits use screened historical data within a given well to establish limits for parameters at that well. The most recent sample from the same well is compared to its respective background to identify SSI 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 SSI.

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

The following adjustments were made:

- No statistical analyses are required on wells and analytes containing 100% non-detects (EPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects in the background, simple substitution of one-half the reporting limit is used in the statistical analysis. The reporting limit used for non-detects is the practical quantitation limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects the Kaplan-Meier non-detect adjustment is applied to the background data
- Non-parametric prediction limits are used on data containing greater than 50% non-detects.

5.2.2 Appendix IV Evaluation

When in assessment monitoring, Appendix IV constituents are sampled semi-annually, and concentrations are compared to GWPS. Following the Unified Guidance, spatial variation for Appendix III parameters is tested using the ANOVA; this test is not prescribed for Appendix IV constituents. Unlike the statistical evaluation of Appendix III constituents (where single-sample results are compared to the statistical limit), Appendix IV analysis uses the pooled results from each downgradient well to develop a well-specific Confidence Interval that is compared to the statistical limit. The statistical limit is either the Interwell Tolerance limit (i.e., background) calculated using the pool of all available upgradient well data (see Chapter 7 of the Unified Guidance), or an applicable groundwater protection standard such as the MCL. Appendix IV background data are screened for outliers and extreme trending patterns that would lead to artificially elevated statistical limits.

Parametric tolerance limits (UTL) were calculated using pooled upgradient well data for Appendix IV parameters with a target of 95% confidence and 95% coverage. The confidence and coverage levels for nonparametric tolerance limits are dependent on the number of background samples. The UTLs were then used as the GWPS.

As described in 40 CFR §§ 257.95(h)(1)-(3) and the ADEM Variance the GWPS is:

- (1) The maximum contaminant level (MCL) established under 40 CFR §§ 141.62 and 141.66.
- (2) Where an MCL has not been established:
 - (i) Cobalt 0.006 mg/L.
 - (ii) Lead 0.015 mg/L.

(iii) Lithium 0.040 mg/L.

(iv) Molybdenum 0.100 mg/L.

- (3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

In assessment monitoring, when the Lower Confidence Limit (LCL), or the entire interval, exceeds the GWPS as discussed in the USEPA Unified Guidance (2009), the result is recorded as an SSL. GWPS for Appendix IV constituents are updated on a biennial schedule. This schedule was initiated in 2019 with updates generally occurring after the second semi-annual sampling event of each biennial year. Data from upgradient wells collected between updates may still be used to support ASDs, if merited.

5.3 STATISTICAL EXCEEDANCES

Analytical data from the first and second 2023 semi-annual monitoring event were statistically analyzed in accordance with the Professional Engineer (PE)-certified Statistical Analysis Plan (October 2017) and updated August 2020 performed by Groundwater Stats Consulting. Appendix III statistical analysis was performed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard.

5.3.1 Appendix III Constituents

A review of the Sanitas results presented in **Appendix E, Statistical Analyses** identified the following Appendix III SSI during the *first* 2023 semi-annual monitoring event:

- BY-GSA-MW-5: Boron, Calcium, Sulfate, and TDS.
- BY-GSA-MW-6: Boron, Calcium, Chloride, Fluoride, pH, Sulfate, and TDS.
- BY-GSA-MW-7: Chloride.

A review of the Sanitas results presented in **Appendix E** identified the following Appendix III SSI during the *second* 2023 semi-annual monitoring event:

- BY-GSA-MW-5: Calcium.
- BY-GSA-MW-6: Boron, Calcium, and TDS.

Statistical evaluation of the second 2023 semi-annual assessment monitoring data did not identify Appendix III SSI of the parameters chloride, fluoride, pH, or sulfate at any on-Site monitoring well.

5.3.2 Appendix IV Constituents

Table 5, Summary of Background Levels and Groundwater Protection Standards, summarizes the background limit established at each monitoring well and the GWPS. A summary table of the statistical limits accompanies the prediction limits in **Appendix E**. A review of the Sanitas results presented in **Appendix E** did not identify any Appendix IV SSL during the 2023 annual monitoring period. **Table 6, First Semi-Annual Monitoring Event Analytical Results Summary**, provides a summary of all constituent concentrations for the first semi-annual sampling event of 2023. **Table 7, Second Semi-Annual Monitoring Event Analytical Results Summary**, provides a summary of all constituent concentrations for the second semi-annual sampling event of 2023.

6.0 SUMMARY AND CONCLUSIONS

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

The certified compliance monitoring well network is sampled on a semi-annual basis. The groundwater samples were analyzed for all Appendix III and IV parameters. Statistical evaluations of the first and second 2023 semi-annual assessment monitoring data did not identify any SSL of Appendix IV constituents above the GWPS. Therefore, in accordance with 40 CFR § 257.95(d) and Alabama Admin. Code r. 335-13-15-.06(6)(d), APC will continue assessment monitoring.

The following summarizes results and activities conducted during the 2023 annual assessment monitoring period:

- Submitted the 2022 Annual Groundwater Monitoring and Corrective Action Report to ADEM on January 31, 2023.
- Performed the first 2023 semi-annual assessment groundwater monitoring event between April 3, 2023, and April 12, 2023.
- Submitted the first 2023 Semi-Annual Groundwater Monitoring and Corrective Action Report to ADEM on July 31, 2023.
- Performed the second 2023 semi-annual assessment groundwater monitoring event between August 7, 2023, and August 15, 2023.

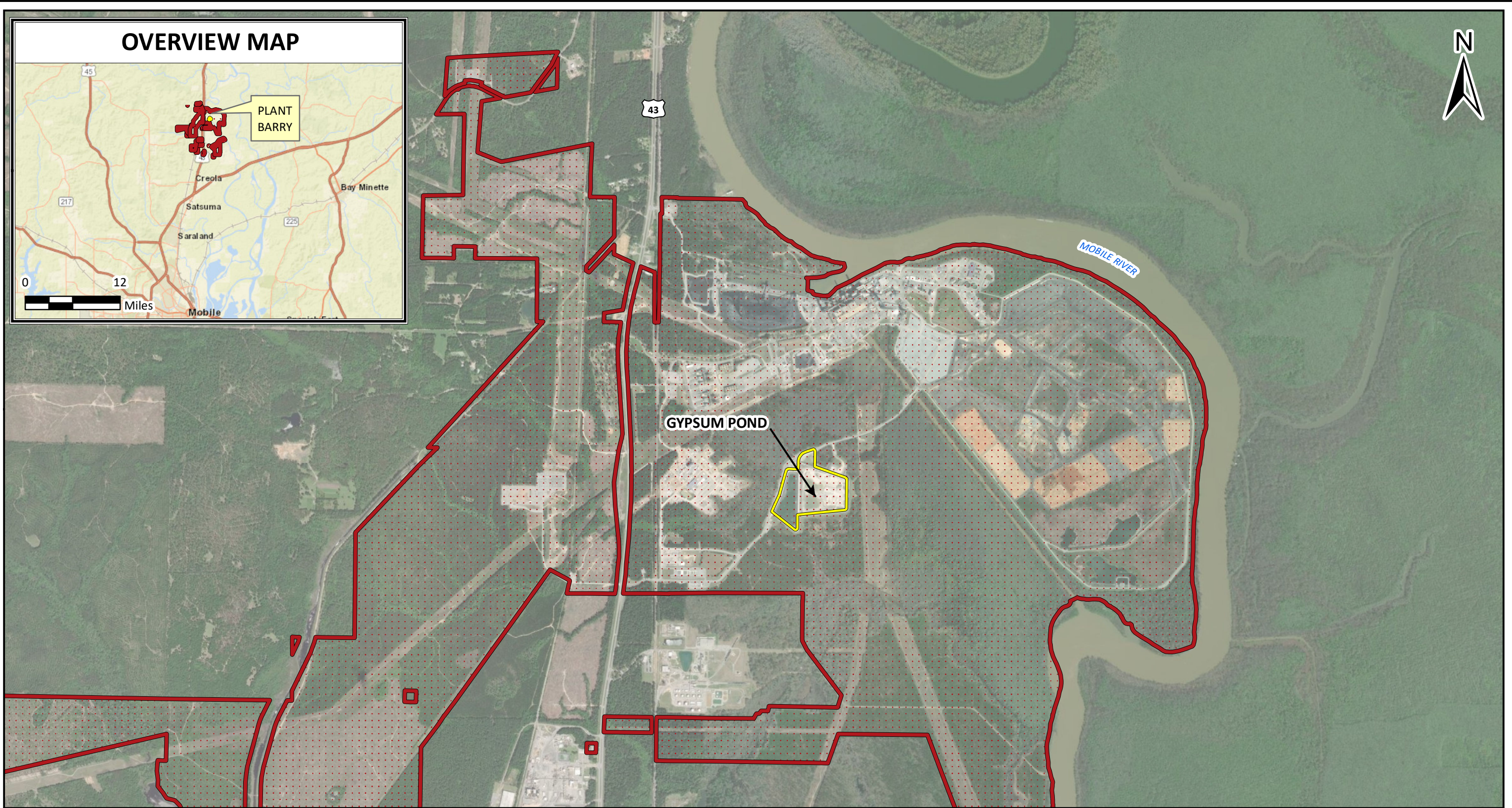
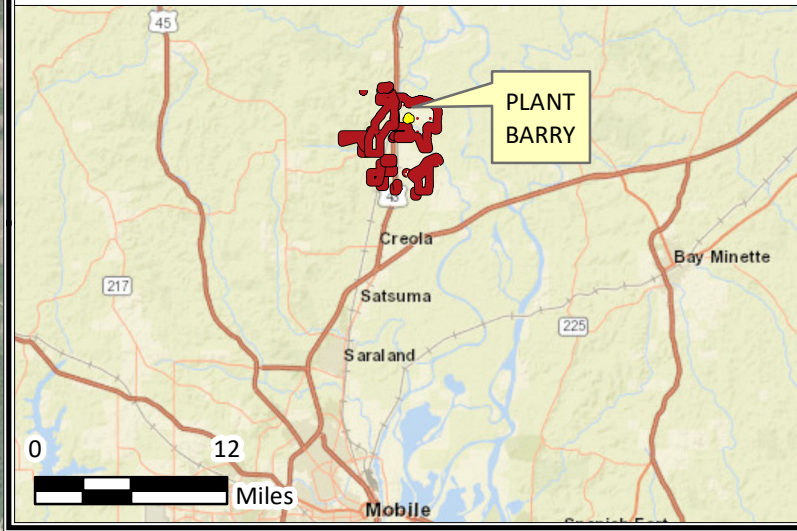
The CCR Unit concluded the monitoring period in assessment monitoring. The first semi-annual assessment monitoring event is tentatively scheduled for the spring of 2024. A report summarizing the findings of the first 2024 semi-annual monitoring event will be submitted to ADEM by July 31, 2024.



7.0 REFERENCES

- Alabama Department of Environmental Management (ADEM), 2018, Solid Waste Program, Division 13, ADEM Admin. Code r. 335-13-15.
- Alabama Power Company (APC) Environmental Affairs (EA) Water and Field Group (WFG), 2021, Technical Standard Operating Procedure.
- 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 257 and 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

OVERVIEW MAP



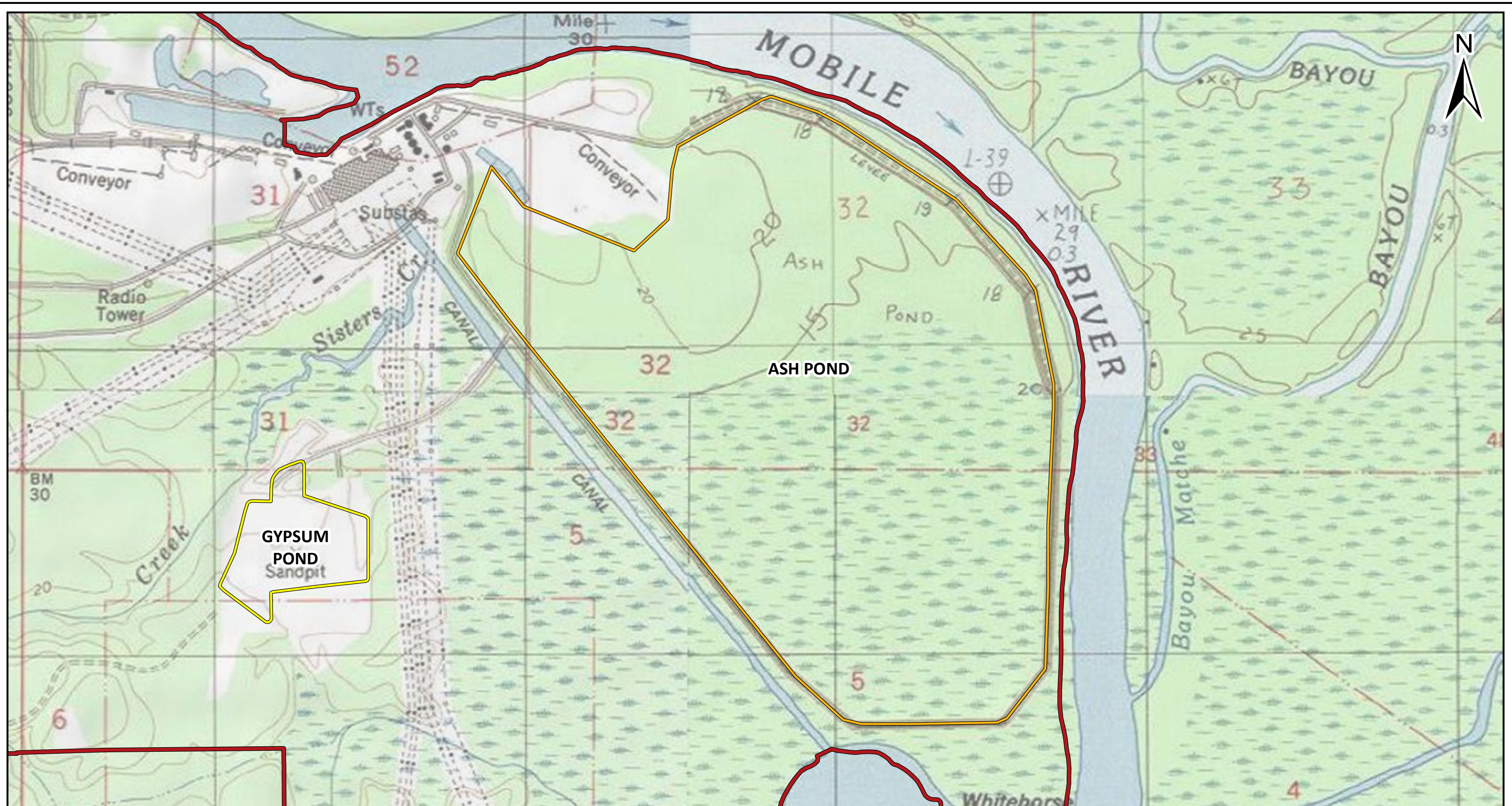
- LEGEND**
-  Property Boundary (Approximate)
 -  Gypsum Pond Boundary

Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Advanced, 10/21/2022

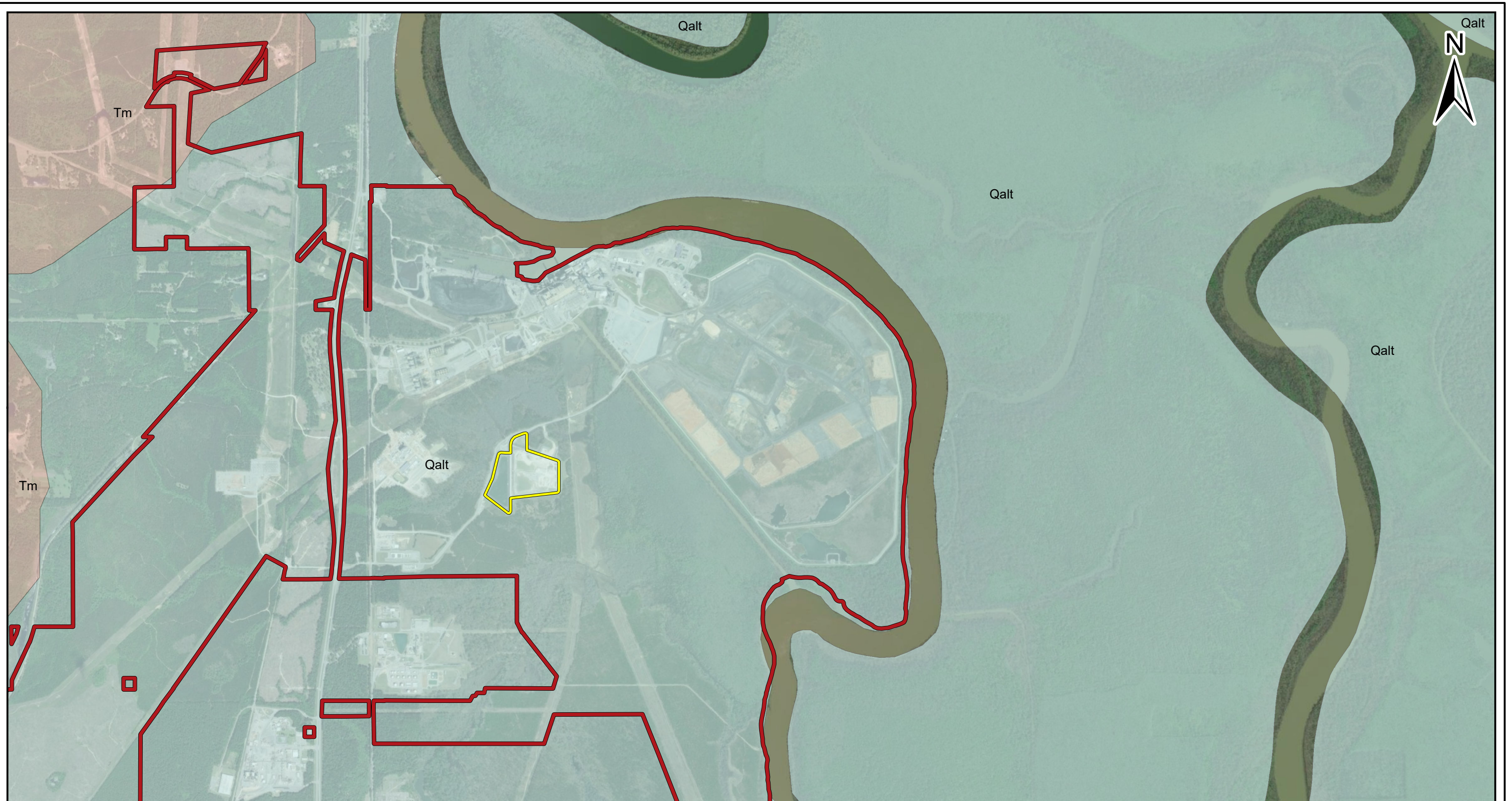
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DRAWN BY	KWR
CHECKED BY	AWH

DRAWING TITLE:	SITE LOCATION MAP PLANT BARRY GYPSUM POND
FIGURE NO.	





LEGEND Ash Pond Boundary Gypsum Pond Boundary Property Boundary (Approximate)			SCALE 1:12,000		DRAWING TITLE: SITE TOPOGRAPHIC MAP PLANT BARRY GYPSUM POND
	Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet Base Map: Creola, Alabama 1982 (Photorevised 1985); Mount Vernon, Alabama 1982; Stiggins Lake, Alabama Provisional Edition 1983; and The Basin, Alabama 1980 (Photorevised 1985) 7.5' U.S. Geological Survey Topographic Quadrangles		DATE 10/18/2023		
			DRAWN BY KWR		FIGURE NO. FIGURE 2
			CHECKED BY AWH		



LEGEND

- Gypsum Pond Boundary
- Property Boundary (Approximate)

Geologic Units

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



Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE 1:24,000

DATE 11/6/2023

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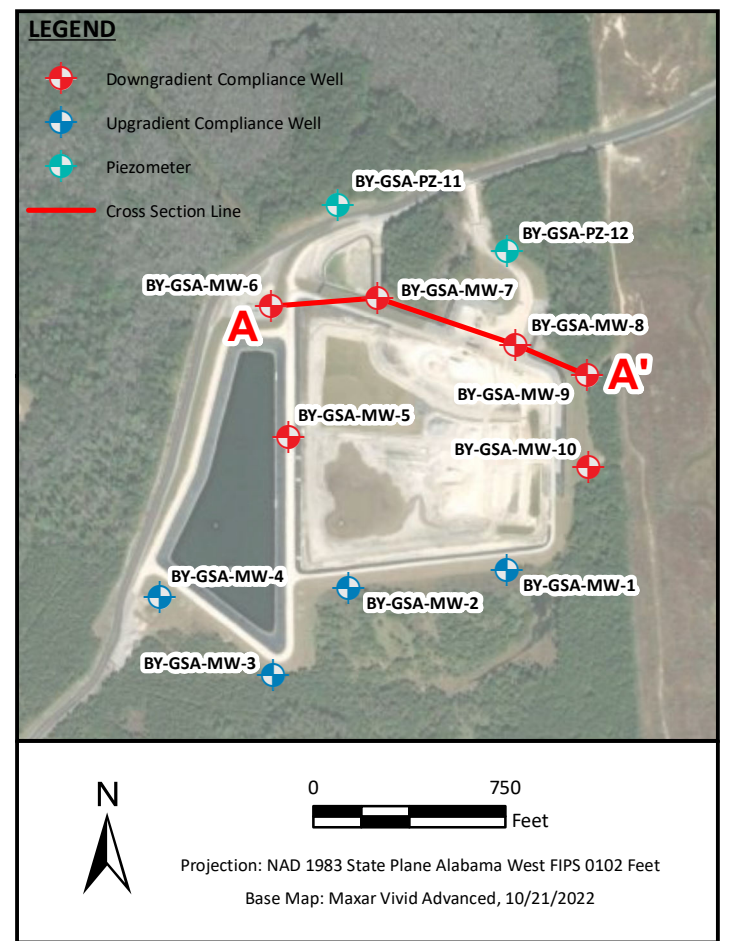
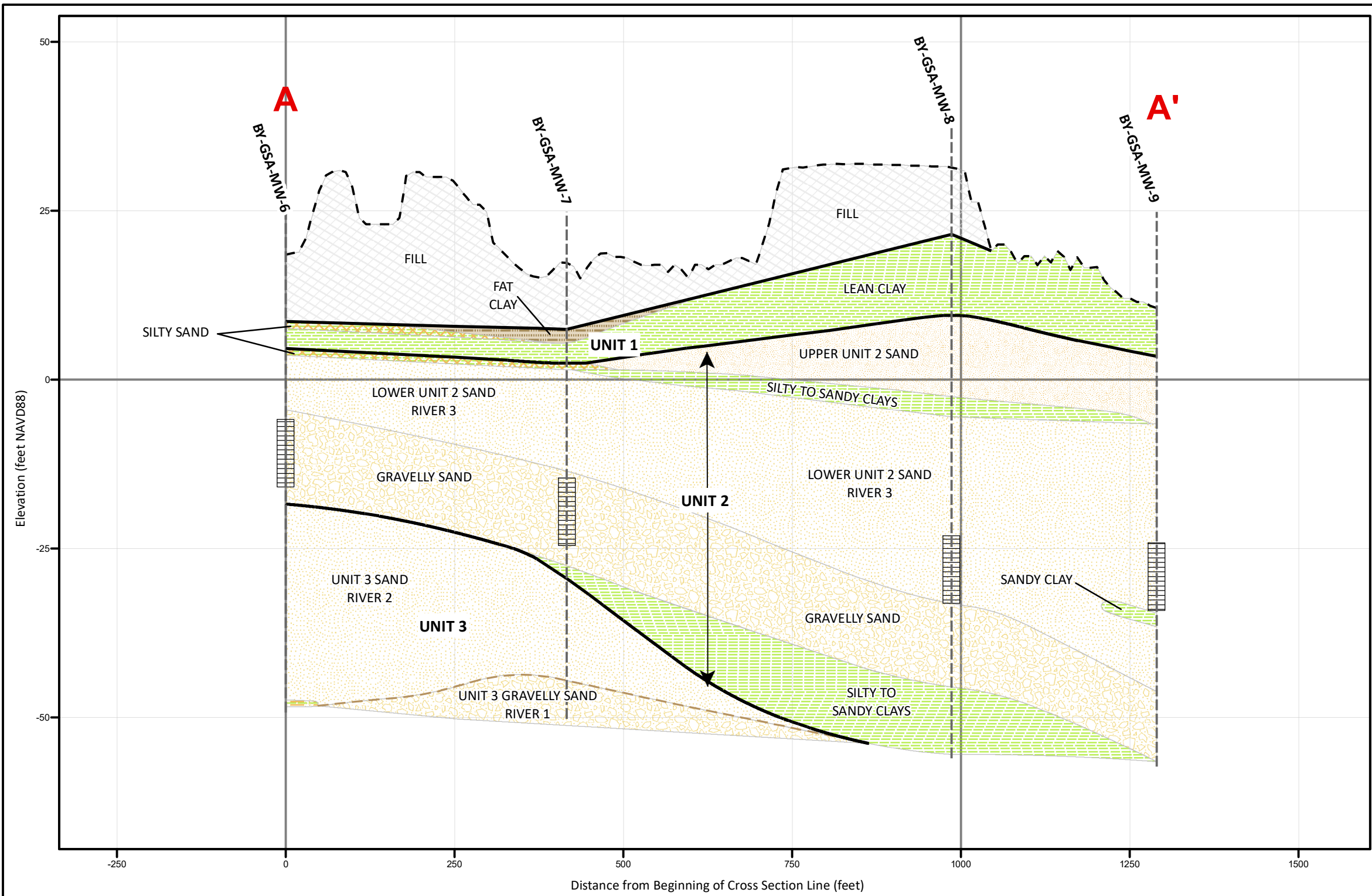
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**SITE GEOLOGIC MAP
 PLANT BARRY GYPSUM POND**

FIGURE NO.

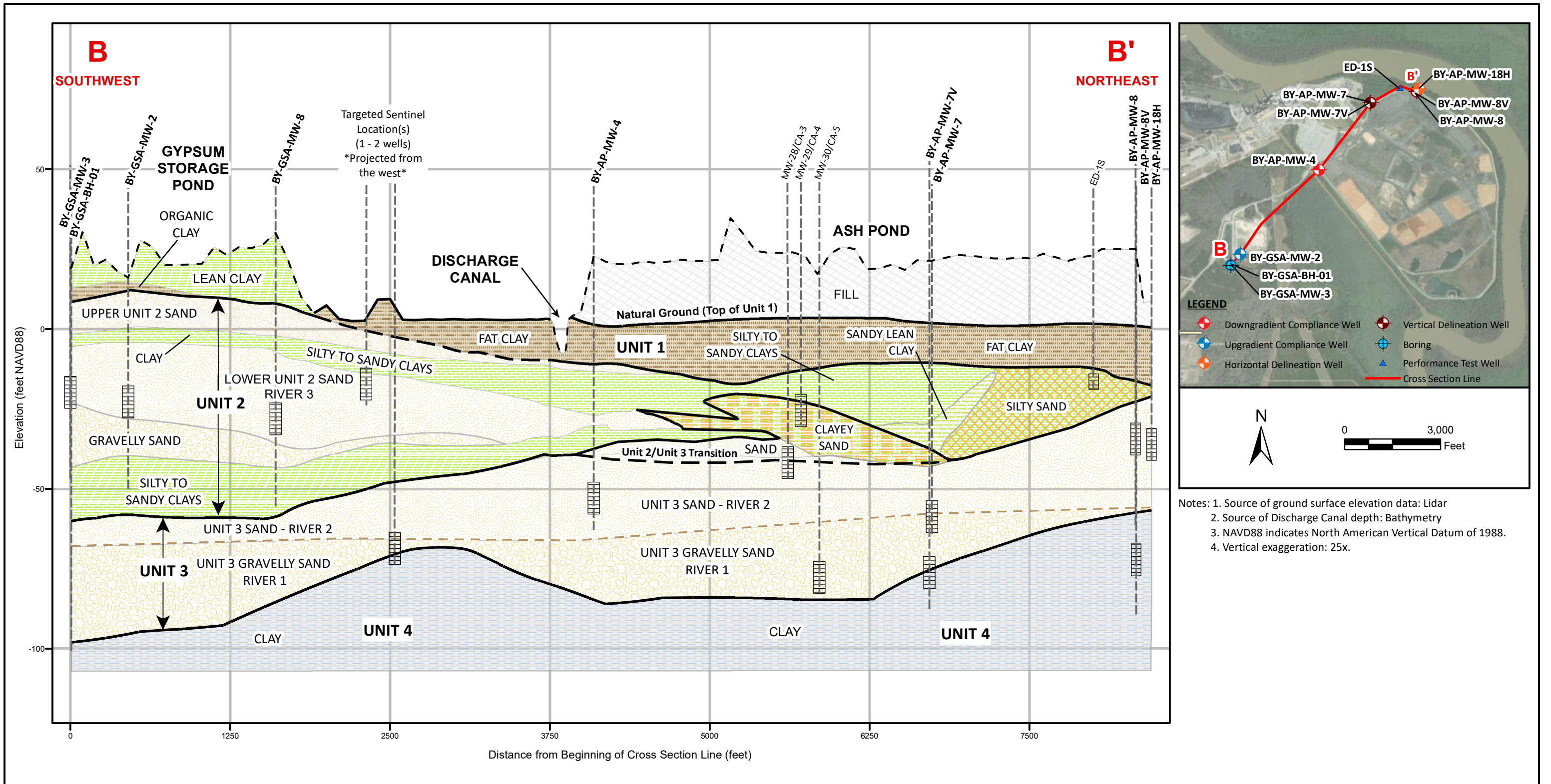
FIGURE 3





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 Well Location Screened Interval Unit Boundary Transition Within Unit Fill Fat Clay Silty to Sandy Clays Clayey Sand Sandy Silt or Silty Sand Upper Unit 2 Sand Lower Unit 2 Sand Gravelly Sand UNIT 1 Organic clay			UNIT 2 Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.	UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.	SCALE AS SHOWN DATE 11/03/2023 DRAWN BY KAR CHECKED BY ACP	DRAWING TITLE GEOLOGIC CROSS SECTION A - A' PLANT BARRY GYPSUM POND FIGURE NO FIGURE 4A	
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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 			Mixed Unit: Interbedded clay, silt, and thin silty sands grading downward to silt and clay. Upper sand and clay unit is discontinuous but, when existing, occurs typically between -11 and -22 ft MSL. Laterally, Unit 2 grades eastward into coarser materials. Unit 2 is interpreted to terminate near the base of the modern river thalweg (-37 to -48 ft MSL) and can include silty sands near the base.	UNIT 3 Sand Unit: Gradational sand where sands grade from silty or fine grained to medium sands or gravels.	SCALE AS SHOWN	DRAWING TITLE GEOLIG CROSS SECTION B - B' PLANT BARRY GYPSUM POND	
				UNIT 4 Lower Clay: Silty Clay to Sandy Clay.	DATE 11/03/2023	FIGURE NO FIGURE 4B	
					DRAWN BY KAR		
					CHECKED BY ACP		



LEGEND

-  Downgradient Compliance Well
-  Upgradient Compliance Well
-  Piezometer
-  Gypsum Pond Boundary



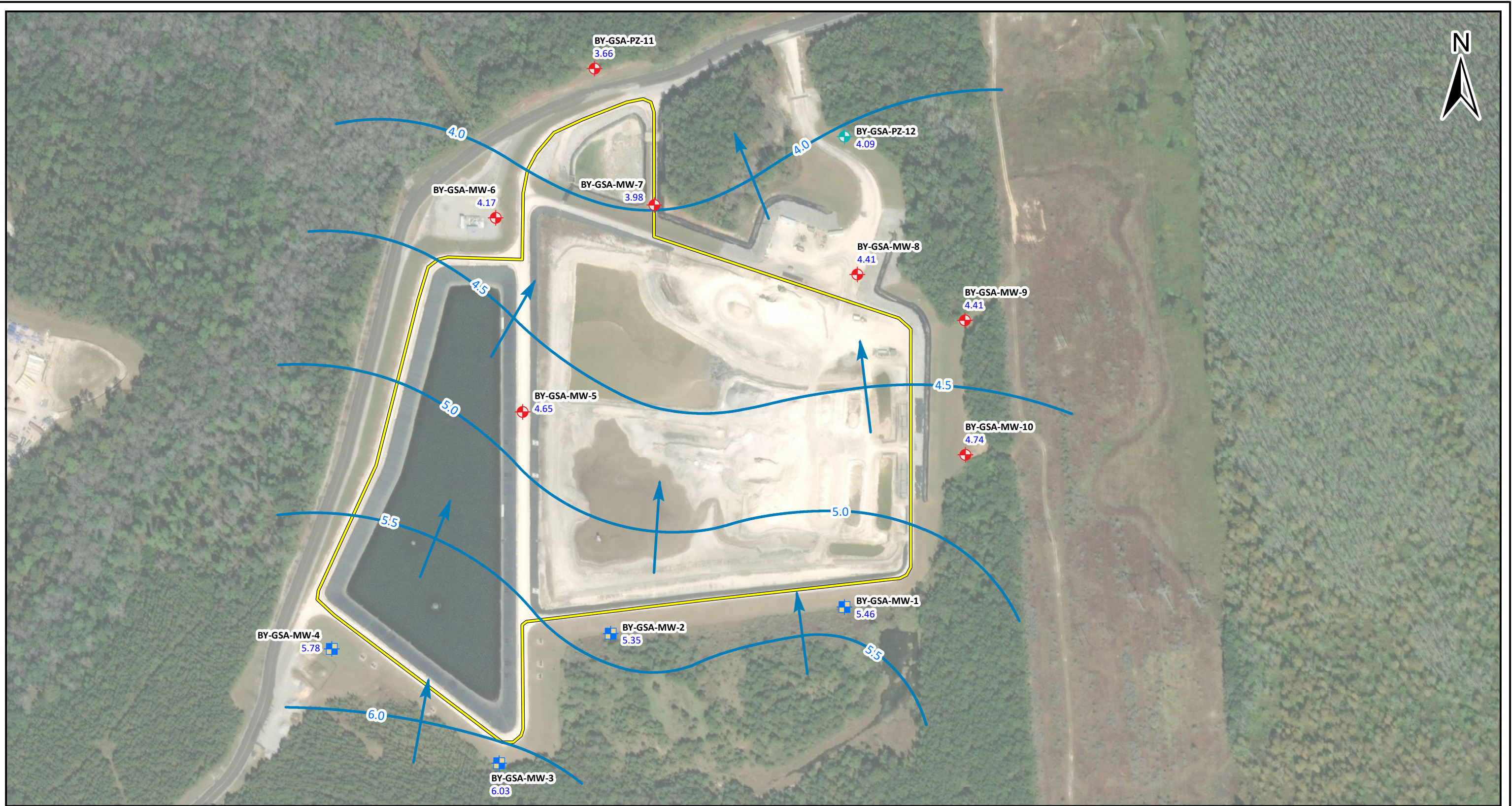
Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
 Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE	1:3000
DATE	11/6/2023
DRAWN BY	KWR
CHECKED BY	AWH







DRAWING TITLE: **MONITORING WELL LOCATION MAP
 PLANT BARRY GYPSUM POND**

FIGURE NO.
FIGURE 5





LEGEND

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

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



Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE 1:3000

DATE 11/2/2023

DRAWN BY KWR

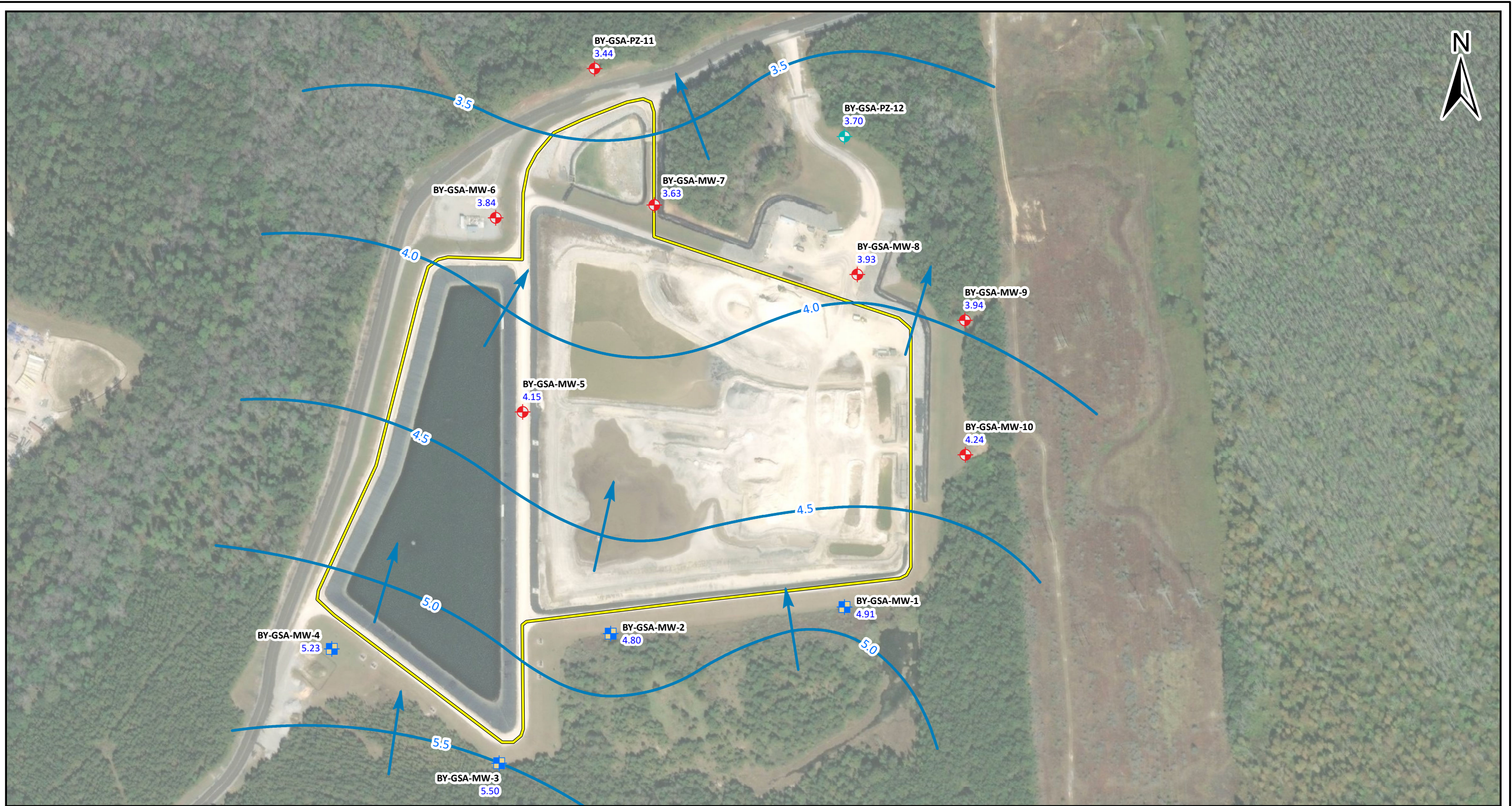
CHECKED BY AWH

DRAWING TITLE: **POTENTIOMETRIC SURFACE CONTOUR MAP**
JUNE 11, 2023
PLANT BARRY GYPSUM POND







FIGURE NO.

FIGURE 6A





LEGEND

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

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



Projection: NAD 1983 State Plane Alabama West FIPS 0102 Feet
Base Map: Maxar Vivid Advanced, 10/21/2022

SCALE 1:3000

DATE 11/2/2023

DRAWN BY KWR

CHECKED BY AWH

DRAWING TITLE: **POTENTIOMETRIC SURFACE CONTOUR MAP**

AUGUST 7, 2023

PLANT BARRY GYPSUM POND

FIGURE NO.

FIGURE 6B



Tables



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

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
BY-UP-MW-1	Upgradient	Unit 2: Mixed Sand and Clay	30.99445	-88.01134	17.49	20.66	44.4	-13.23	-23.23	10	10/7/2015
BY-UP-MW-2	Upgradient	Unit 2: Mixed Sand and Clay	30.99425	-88.01331	17.00	19.95	47.6	-17.23	-27.23	10	10/7/2015
BY-UP-MW-3	Upgradient	Unit 2: Mixed Sand and Clay	30.99331	-88.01425	20.15	23.24	48.5	-14.89	-24.89	10	10/7/2015
BY-UP-MW-4	Upgradient	Unit 2: Mixed Sand and Clay	30.99414	-88.01566	26.16	29.12	64.1	-24.54	-34.54	10	10/7/2015
BY-GSA-MW-5	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99585	-88.01406	31.21	34.31	69.1	-24.41	-34.41	10	10/8/2015
BY-GSA-MW-6	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	30.99726	-88.0143	18.60	21.68	37.9	-5.80	-15.80	10	10/8/2015
BY-GSA-MW-7	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99736	-88.01296	17.46	20.60	45.5	-14.54	-24.54	10	10/8/2015
BY-GSA-MW-8	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99686	-88.01125	31.51	34.36	68.8	-24.08	-34.08	10	10/8/2015
BY-GSA-MW-9	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99654	-88.01034	10.44	13.32	46.1	-22.42	-32.42	10	10/8/2015
BY-GSA-MW-10	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99556	-88.01032	14.65	17.61	44.7	-16.68	-26.68	10	10/8/2015
BY-GSA-PZ-11	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	30.99835	-88.01347	23.56	25.92	57.9	-21.60	-31.60	10	10/8/2015

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



**Table 1b. - Piezometer Well Network Details
Plant Barry Gypsum Storage Area**

Well ID	Hydraulic Location	Geologic Unit	Latitude	Longitude	Ground Surface Elevation (ft NAVD)	Top Of Casing Elevation (ft NAVD)	Well Depth (ft BTOC)	Top Of Screen Elevation (ft NAVD)	Bottom Of Screen Elevation (ft NAVD)	Screen Length (ft)	Date Of Installation
WELL NETWORK											
BY-GSA-PZ-12	Piezometer	Unit 3: Middle Sands (Watercourse Aq)	30.99787	-88.01136	14.14	17.44	43.5	-15.65	-25.65	10	10/8/2015

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

Table 2. Parameters And Reporting Limits

Plant Barry Gypsum Storage Area
08/15/2023 - 08/16/2023

Appendix III Parameters			
Parameters	Analytical Methods	Reporting Limits	Units of Measure
Boron	EPA 200.7	0.1015	mg/L
Calcium	EPA 200.7	0.406	mg/L
Chloride	SM4500Cl E	1	mg/L
Fluoride	SM4500F G 2017	0.125	mg/L
pH Field	Field Sampling	NA	SU
Sulfate	SM4500SO4 E 2011	2	mg/L
TDS	NA	NA	mg/L
Appendix IV Parameters			
Parameters	Analytical Methods	Reporting Limits	Units of Measure
Antimony	EPA 200.8	0.001015	mg/L
Arsenic	EPA 200.8	0.000203	mg/L
Barium	EPA 200.8	0.001015	mg/L
Beryllium	EPA 200.8	0.001015	mg/L
Cadmium	EPA 200.8	0.000203	mg/L
Chromium	EPA 200.8	0.001015	mg/L
Cobalt	EPA 200.8	0.000203	mg/L
Fluoride	SM4500F G 2017	0.125	mg/L
Lead	EPA 200.8	0.000203	mg/L
Lithium	EPA 200.7	0.02	mg/L
Mercury	EPA 245.1	0.0005	mg/L
Molybdenum	EPA 200.7	0.01015	mg/L
Selenium	EPA 200.8	0.001015	mg/L
Thallium	EPA 200.8	0.000203	mg/L
Combined Radium 226 + 228	Total Radium Calculation	1.06-1.43	pCi/L

Notes:

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



Table 3. Groundwater Elevations Summary

Plant Barry Gypsum Storage Area
04/03/2023 - 08/07/2023

Measurement Date		04/03/2023		04/11/2023		6/11/2023		08/07/2023	
Well	TOC Elevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)	Depth To Water (ft. BTOC)	Groundwater Elevation (ft. NAVD)
BY-UP-MW-1	20.66	13.35	7.31	13.41	7.12	15.20	5.46	15.75	4.91
BY-UP-MW-2	19.95	12.70	7.25	12.86	7.23	14.60	5.35	15.15	4.80
BY-UP-MW-3	23.24	15.44	7.8	15.61	7.55	17.21	6.03	17.74	5.50
BY-UP-MW-4	29.12	21.38	7.74	21.73	7.28	23.34	5.78	23.89	5.23
BY-GSA-MW-5	34.31	N/A	N/A	27.65	6.66	29.66	4.65	30.16	4.15
BY-GSA-MW-6	21.68	N/A	N/A	15.55	6.13	17.51	4.17	17.84	3.84
BY-GSA-MW-7	20.59	N/A	N/A	14.49	6.10	16.61	3.98	16.96	3.63
BY-GSA-MW-8	34.36	N/A	N/A	27.92	6.44	29.95	4.41	30.43	3.93
BY-GSA-MW-9	13.32	N/A	N/A	6.94	6.38	8.91	4.41	9.38	3.94
BY-GSA-MW-10	17.61	N/A	N/A	10.99	6.62	12.87	4.74	13.37	4.24
BY-GSA-PZ-11	25.92	N/A	N/A	20.02	5.90	22.26	3.66	22.48	3.44
BY-GSA-PZ-12	17.43	N/A	N/A	11.14	6.29	13.34	4.09	13.73	3.70

Notes:

ft. = feet; ft. NAVD = elevation in feet, referenced to North American Vertical Datum (1988); TOC = top of casing; BTOC = below top of casing; N/A = Not Acquired



Table 4. Relative Percent Difference (RPD) Calculations

Plant Barry Gypsum Storage Area
04/11/2023 - 08/16/2023

BY-UP-MW-4				
Sample Date = 4/12/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.76	1.76	0.00%
Chloride	mg/L	3.42	3.39	0.88%
Sulfate	mg/L	5.93	5.92	0.17%
Barium	mg/L	0.116	0.117	0.86%
Chromium	mg/L	0.00128	0.00126	1.58%
Cobalt	mg/L	0.00127	0.00124	2.39%
Sample Date = 8/16/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.71	1.76	2.88%
Chloride	mg/L	3.12	3.22	3.16%
Sulfate	mg/L	7.05	6.51	7.97%
Arsenic	mg/L	0.00021	0.00023	7.82%
Barium	mg/L	0.121	0.122	0.82%
Chromium	mg/L	0.00158	0.00164	3.73%
Cobalt	mg/L	0.00161	0.00153	5.10%
BY-GSA-MW-7				
Sample Date = 4/11/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	1.82	1.83	0.55%
Chloride	mg/L	22.6	22	2.69%
Sulfate	mg/L	2.35	3.13	28.47%
Arsenic	mg/L	0.0004	0.00035	10.95%
Barium	mg/L	0.12	0.118	1.68%
Chromium	mg/L	0.00143	0.00136	5.02%
Cobalt	mg/L	0.00215	0.00215	0.00%
Sample Date = 8/15/2023				
Analyte	Units	Original Result	Duplicate Result	RPD (%)
Calcium	mg/L	0.941	0.945	0.42%
Chloride	mg/L	7.69	7.73	0.52%
Sulfate	mg/L	3.85	3.79	1.57%
Barium	mg/L	0.0687	0.0654	4.92%
Chromium	mg/L	0.00173	0.00163	5.95%
Cobalt	mg/L	0.00115	0.00119	3.42%



Table 4. Relative Percent Difference (RPD) Calculations

**Plant Barry Gypsum Storage Area
04/11/2023 - 08/16/2023**

Notes:

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



Table 5. Summary of Background Levels and Groundwater Protection Standards

Plant Barry Gypsum Storage Area

Appendix IV Analytes			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.001015	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.001015	0.004
Cadmium	mg/L	0.000203	0.005
Chromium	mg/L	0.00604	0.1
Cobalt	mg/L	0.0157	0.0157
Combined Radium 226 + 228	pCi/L	3	5
Fluoride	mg/L	0.125	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01015	0.1
Selenium	mg/L	0.001015	0.05
Thallium	mg/L	0.000203	0.002

Notes:

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

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 04/11/2023 - 04/12/2023

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Upgradient	BY-UP-MW-1	04/12/2023	50.26	0.28	234.04	4.77	20.31	2.86
Upgradient	BY-UP-MW-2	04/12/2023	51.68	6.08	422.56	4.67	19.45	8.09
Upgradient	BY-UP-MW-3	04/12/2023	54.29	5.66	397.4	4.83	19.52	3.14
Upgradient	BY-UP-MW-4	04/12/2023	57.67	5.97	397.5	4.73	20.79	4.96
Downgradient	BY-GSA-MW-10	04/11/2023	61.58	4.64	424.86	4.43	20.53	7.12
Downgradient	BY-GSA-MW-5	04/11/2023	120.51	5.05	400.28	4.63	21.77	1.74
Downgradient	BY-GSA-MW-6	04/11/2023	180.08	4.44	351.25	5.34	22.17	3.31
Downgradient	BY-GSA-MW-7	04/11/2023	91.6	2.17	370.17	4.3	21.47	9.41
Downgradient	BY-GSA-MW-8	04/11/2023	47.2	0.82	412.45	4.04	21.63	3
Downgradient	BY-GSA-MW-9	04/11/2023	61.43	2.05	428.61	4.17	21.48	2.05
Downgradient	BY-GSA-PZ-11	04/11/2023	54.62	4.84	366.37	4.8	22.76	4.79

Notes:

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

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 04/11/2023 - 04/12/2023

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	BY-UP-MW-1	04/12/2023	0.0464 J	1.02	2.31	<0.06	4.77	11.8
Upgradient	BY-UP-MW-2	04/12/2023	<0.03	1.16	2.25	<0.06	4.67	8.54
Upgradient	BY-UP-MW-3	04/12/2023	<0.03	1.83	3.11	<0.06	4.83	7.59
Upgradient	BY-UP-MW-4	04/12/2023	<0.03	1.76	3.42	<0.06	4.73	5.93
Downgradient	BY-GSA-MW-10	04/11/2023	0.0503 J	1.16	3.17	<0.06	4.43	11.9
Downgradient	BY-GSA-MW-5	04/11/2023	0.54	6.62	5.21	0.0834 J	4.63	34.8
Downgradient	BY-GSA-MW-6	04/11/2023	0.925	10.9	7.94	0.135	5.34	53.6
Downgradient	BY-GSA-MW-7	04/11/2023	<0.03	1.82	22.6	<0.06	4.3	2.35
Downgradient	BY-GSA-MW-8	04/11/2023	0.0345 J	0.971	5.2	<0.06	4.04	5.57
Downgradient	BY-GSA-MW-9	04/11/2023	0.0664 J	1.49	4.32	<0.06	4.17	10.2
Downgradient	BY-GSA-PZ-11	04/11/2023	0.0507 J	1.31	7.33	<0.06	4.8	5.92

Notes:

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

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 04/11/2023 - 04/12/2023

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	BY-UP-MW-1	04/12/2023	<0.00071	0.00023	0.082	<0.000406	<6.8e-005	0.000215 J	0.00398	<0.06
Upgradient	BY-UP-MW-2	04/12/2023	<0.00071	0.0002 J	0.138	0.000416 J	<6.8e-005	0.00152	0.00157	<0.06
Upgradient	BY-UP-MW-3	04/12/2023	<0.00071	<0.000112	0.0925	<0.000406	<6.8e-005	0.00138	0.0013	<0.06
Upgradient	BY-UP-MW-4	04/12/2023	<0.00071	0.000114 J	0.116	<0.000406	<6.8e-005	0.00128	0.00127	<0.06
Downgradient	BY-GSA-MW-10	04/11/2023	<0.00071	<0.000112	0.127	<0.000406	<6.8e-005	0.000659 J	0.00265	<0.06
Downgradient	BY-GSA-MW-5	04/11/2023	<0.00071	0.000274	0.0629	0.000693 J	0.000133 J	0.00199	0.00397	0.0834 J
Downgradient	BY-GSA-MW-6	04/11/2023	<0.00071	0.000738	0.267	0.00091 J	0.000185 J	0.0046	0.0079	0.135
Downgradient	BY-GSA-MW-7	04/11/2023	<0.00071	0.000395	0.12	<0.000406	<6.8e-005	0.00143	0.00215	<0.06
Downgradient	BY-GSA-MW-8	04/11/2023	<0.00071	<0.000112	0.0481	<0.000406	<6.8e-005	0.00201	0.000338	<0.06
Downgradient	BY-GSA-MW-9	04/11/2023	<0.00071	<0.000112	0.123	<0.000406	<6.8e-005	0.000839 J	0.000888	<0.06
Downgradient	BY-GSA-PZ-11	04/11/2023	<0.00071	<0.000112	0.0842	<0.000406	<6.8e-005	0.00301	0.00139	<0.06

Notes:

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3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 04/11/2023 - 04/12/2023

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Upgradient	BY-UP-MW-1	04/12/2023	7.57e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.03 U
Upgradient	BY-UP-MW-2	04/12/2023	0.00014 J	<0.007105	<0.0003	<0.005075	0.000702 J	<6.8e-005	1.07
Upgradient	BY-UP-MW-3	04/12/2023	8.25e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.28
Upgradient	BY-UP-MW-4	04/12/2023	8.65e-005 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.17
Downgradient	BY-GSA-MW-10	04/11/2023	0.000131 J	<0.007105	<0.0003	<0.005075	0.00108	<6.8e-005	1.87
Downgradient	BY-GSA-MW-5	04/11/2023	9.39e-005 J	<0.007105	<0.0003	<0.005075	0.0168	<6.8e-005	1.24
Downgradient	BY-GSA-MW-6	04/11/2023	0.000112 J	<0.007105	<0.0003	<0.005075	0.0232	<6.8e-005	3.05
Downgradient	BY-GSA-MW-7	04/11/2023	0.000123 J	<0.007105	<0.0003	<0.005075	0.000519 J	<6.8e-005	1.96
Downgradient	BY-GSA-MW-8	04/11/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	0.00055 J	<6.8e-005	1.6
Downgradient	BY-GSA-MW-9	04/11/2023	0.000204	<0.007105	<0.0003	<0.005075	0.00123	<6.8e-005	1.98
Downgradient	BY-GSA-PZ-11	04/11/2023	8.21e-005 J	<0.007105	<0.0003	<0.005075	0.00168	<6.8e-005	1.05

Notes:

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Analytical Results Summary Plant Barry Gypsum Storage Area 04/11/2023 - 04/12/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Sulfide mg/L	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Potassium mg/L	Magnesium Total mg/L	Manganese Total mg/L	Sodium mg/L
Upgradient	BY-UP-MW-1	04/12/2023	0	0.0616	1.02	3.9	0.474 J	1.83	0.135	1.85
Upgradient	BY-UP-MW-2	04/12/2023	0	0.232	1.16	0.22	0.857	2.21	0.0216	2.11
Upgradient	BY-UP-MW-3	04/12/2023	0	0.0764	1.83	0.0691	0.935	1.85	0.0189	2.91
Upgradient	BY-UP-MW-4	04/12/2023	0	0.154	1.76	0.0726	0.944	1.94	0.0159	2.61
Downgradient	BY-GSA-MW-10	04/11/2023	0	0.316	1.16	0.0664	0.88	2.53	0.0432	2.23
Downgradient	BY-GSA-MW-5	04/11/2023	0	0.15	6.62	0.00919 J	1.37	5.31	0.0453	3.1
Downgradient	BY-GSA-MW-6	04/11/2023	0	0.358	10.9	0.0342 J	1.4	9.64	0.0985	3.98
Downgradient	BY-GSA-MW-7	04/11/2023	0	0.147	1.82	0.115	1.31	1.94	0.0225	9.17
Downgradient	BY-GSA-MW-8	04/11/2023	0	0.024 J	0.971	0.0199 J	0.861	1.07	0.0174	4.61
Downgradient	BY-GSA-MW-9	04/11/2023	0	0.17	1.49	0.0105 J	0.868	2.23	0.0371	2.42
Downgradient	BY-GSA-PZ-11	04/11/2023	0	0.186	1.31	0.0368 J	1.32	1.42	0.0137	3.83

Notes:

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

Analytical Results Summary Plant Barry Gypsum Storage Area 04/11/2023 - 04/12/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Silica mg/L	Silicon mg/L	Chloride mg/L	Nitrate Nitrite mg/L as N	Sulfate mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO3 mg CaCO3/L	Carbonate Alkalinity as CaCO3 mg CaCO3/L
Upgradient	BY-UP-MW-1	04/12/2023	6.93	3.24	2.31	<0.2	11.8	1.04 J	7.32	NC
Upgradient	BY-UP-MW-2	04/12/2023	8.54	3.99	2.25	1.27	8.54	<1	2.96	NC
Upgradient	BY-UP-MW-3	04/12/2023	8.56	4	3.11	1.65	7.59	<1	1	NC
Upgradient	BY-UP-MW-4	04/12/2023	9.05	4.23	3.42	2.09	5.93	<1	1.2	NC
Downgradient	BY-GSA-MW-10	04/11/2023	7.77	3.63	3.17	0.534	11.9	<1	0.44	NC
Downgradient	BY-GSA-MW-5	04/11/2023	9.59	4.48	5.21	0.953	34.8	<1	0.22	NC
Downgradient	BY-GSA-MW-6	04/11/2023	10.7	5.01	7.94	1.42	53.6	<1	6.02	NC
Downgradient	BY-GSA-MW-7	04/11/2023	10.5	4.92	22.6	0.344	2.35	<1	2.62	NC
Downgradient	BY-GSA-MW-8	04/11/2023	11.2	5.22	5.2	<0.2	5.57	<1	5.4	NC
Downgradient	BY-GSA-MW-9	04/11/2023	8.28	3.87	4.32	<0.2	10.2	<1	1.02	NC
Downgradient	BY-GSA-PZ-11	04/11/2023	10.4	4.88	7.33	0.565	5.92	<1	2	NC

Notes:

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

Table 6. First Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
04/11/2023 - 04/12/2023

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Bicarbonate Alkalinity as CaCO ₃ mg CaCO ₃ /L
Upgradient	BY-UP-MW-1	04/12/2023	7.32
Upgradient	BY-UP-MW-2	04/12/2023	2.96
Upgradient	BY-UP-MW-3	04/12/2023	1
Upgradient	BY-UP-MW-4	04/12/2023	1.2
Downgradient	BY-GSA-MW-10	04/11/2023	NC
Downgradient	BY-GSA-MW-5	04/11/2023	NC
Downgradient	BY-GSA-MW-6	04/11/2023	6.02
Downgradient	BY-GSA-MW-7	04/11/2023	2.62
Downgradient	BY-GSA-MW-8	04/11/2023	5.4
Downgradient	BY-GSA-MW-9	04/11/2023	1.02
Downgradient	BY-GSA-PZ-11	04/11/2023	2

Notes:

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

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 08/15/2023 - 08/16/2023

Field Parameters								
Hydraulic Location	Well	Sample Date	Conductivity uS/cm	DO mg/L	ORP mv	pH_Field SU	Field Temperature C	Turbidity NTU
Upgradient	BY-UP-MW-1	08/16/2023	44.7	0.25	258.81	4.45	20.83	0.87
Upgradient	BY-UP-MW-2	08/16/2023	43.84	6.46	394.68	4.49	20.48	4.64
Upgradient	BY-UP-MW-3	08/16/2023	47.03	5.94	427.07	4.03	20.38	2.41
Upgradient	BY-UP-MW-4	08/16/2023	42.26	5.8	412.07	4.58	22.17	9.48
Downgradient	BY-GSA-MW-10	08/15/2023	53.55	4.73	425.12	4.17	21.51	9.83
Downgradient	BY-GSA-MW-5	08/15/2023	55.28	5.28	398.91	4.1	23.43	1.65
Downgradient	BY-GSA-MW-6	08/15/2023	123.07	5.06	383.81	4.33	23.77	7.05
Downgradient	BY-GSA-MW-7	08/15/2023	49.25	3.61	369.2	4.56	22.01	8.99
Downgradient	BY-GSA-MW-8	08/15/2023	41.02	0.65	335.1	4.45	22.85	4.17
Downgradient	BY-GSA-MW-9	08/15/2023	59.67	1.62	433.08	3.86	22.39	4
Downgradient	BY-GSA-PZ-11	08/15/2023	62.32	4.39	394.82	4.45	22.99	8.46

Notes:

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

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 08/15/2023 - 08/16/2023

EPA Appendix III Set								
Hydraulic Location	Well	Sample Date	Boron mg/L	Calcium mg/L	Chloride mg/L	Fluoride mg/L	pH_Field SU	Sulfate mg/L
Upgradient	BY-UP-MW-1	08/16/2023	0.0364 J	0.816	2.61	<0.06	4.45	9.38
Upgradient	BY-UP-MW-2	08/16/2023	<0.03	1.03	2.01	<0.06	4.49	8.28
Upgradient	BY-UP-MW-3	08/16/2023	<0.03	1.77	2.94	<0.06	4.03	7.26
Upgradient	BY-UP-MW-4	08/16/2023	<0.03	1.71	3.12	<0.06	4.58	7.05
Downgradient	BY-GSA-MW-10	08/15/2023	0.0492 J	1.08	2.98	<0.06	4.17	11.7
Downgradient	BY-GSA-MW-5	08/15/2023	0.143	2.46	3.72	<0.06	4.1	11.9
Downgradient	BY-GSA-MW-6	08/15/2023	0.6	7.55	5.49	0.0957 J	4.33	38.2
Downgradient	BY-GSA-MW-7	08/15/2023	<0.03	0.941	7.69	<0.06	4.56	3.85
Downgradient	BY-GSA-MW-8	08/15/2023	0.04 J	0.903	4.57	<0.06	4.45	5.94
Downgradient	BY-GSA-MW-9	08/15/2023	0.0622 J	1.58	5.16	<0.06	3.86	10.4
Downgradient	BY-GSA-PZ-11	08/15/2023	0.0341 J	1.54	11.5	<0.06	4.45	5.65

Notes:

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

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 08/15/2023 - 08/16/2023

EPA Appendix IV Set										
Hydraulic Location	Well	Sample Date	Antimony mg/L	Arsenic mg/L	Barium mg/L	Beryllium mg/L	Cadmium mg/L	Chromium mg/L	Cobalt mg/L	Fluoride mg/L
Upgradient	BY-UP-MW-1	08/16/2023	<0.00071	0.000134 J	0.0689	<0.000406	<6.8e-005	0.000205 J	0.0034	<0.06
Upgradient	BY-UP-MW-2	08/16/2023	<0.00071	<0.000112	0.13	<0.000406	<6.8e-005	0.00111	0.00157	<0.06
Upgradient	BY-UP-MW-3	08/16/2023	<0.00071	<0.000112	0.0912	<0.000406	<6.8e-005	0.00126	0.00133	<0.06
Upgradient	BY-UP-MW-4	08/16/2023	<0.00071	0.000209	0.121	<0.000406	<6.8e-005	0.00158	0.00161	<0.06
Downgradient	BY-GSA-MW-10	08/15/2023	<0.00071	<0.000112	0.12	<0.000406	<6.8e-005	0.000926 J	0.00251	<0.06
Downgradient	BY-GSA-MW-5	08/15/2023	<0.00071	<0.000112	0.093	<0.000406	7.95e-005 J	0.00155	0.0017	<0.06
Downgradient	BY-GSA-MW-6	08/15/2023	<0.00071	0.000632	0.195	0.000592 J	0.000125 J	0.00467	0.00804	0.0957 J
Downgradient	BY-GSA-MW-7	08/15/2023	<0.00071	0.000288	0.0687	<0.000406	<6.8e-005	0.00173	0.00115	<0.06
Downgradient	BY-GSA-MW-8	08/15/2023	<0.00071	<0.000112	0.0486	<0.000406	<6.8e-005	0.00228	0.000504	<0.06
Downgradient	BY-GSA-MW-9	08/15/2023	<0.00071	<0.000112	0.134	<0.000406	<6.8e-005	0.00087 J	0.00117	<0.06
Downgradient	BY-GSA-PZ-11	08/15/2023	<0.00071	<0.000112	0.109	<0.000406	<6.8e-005	0.00323	0.00184	<0.06

Notes:

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 08/15/2023 - 08/16/2023

EPA Appendix IV Set									
Hydraulic Location	Well	Sample Date	Lead mg/L	Lithium mg/L	Mercury mg/L	Molybdenum mg/L	Selenium mg/L	Thallium mg/L	Combined Radium 226 + 228 pCi/L
Upgradient	BY-UP-MW-1	08/16/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.516 U
Upgradient	BY-UP-MW-2	08/16/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	0.000614 J	<6.8e-005	0.389 U
Upgradient	BY-UP-MW-3	08/16/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.1 U
Upgradient	BY-UP-MW-4	08/16/2023	0.000177 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	1.56
Downgradient	BY-GSA-MW-10	08/15/2023	0.000153 J	<0.007105	<0.0003	<0.005075	0.0011	<6.8e-005	1.2 U
Downgradient	BY-GSA-MW-5	08/15/2023	<6.8e-005	<0.007105	<0.0003	<0.005075	0.00465	<6.8e-005	1.29
Downgradient	BY-GSA-MW-6	08/15/2023	0.000377	<0.007105	<0.0003	<0.005075	0.0162	<6.8e-005	1.71
Downgradient	BY-GSA-MW-7	08/15/2023	0.000107 J	<0.007105	<0.0003	<0.005075	0.000571 J	<6.8e-005	1.18 U
Downgradient	BY-GSA-MW-8	08/15/2023	0.000109 J	<0.007105	<0.0003	<0.005075	<0.000508	<6.8e-005	0.8 U
Downgradient	BY-GSA-MW-9	08/15/2023	0.000253	<0.007105	<0.0003	<0.005075	0.00137	<6.8e-005	0.994 U
Downgradient	BY-GSA-PZ-11	08/15/2023	0.000171 J	<0.007105	<0.0003	<0.005075	0.00154	<6.8e-005	1.26 U

Notes:

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

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
08/15/2023 - 08/16/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Nitrate Nitrite mg/L as N	Aluminum mg/L	Calcium mg/L	Iron Total mg/L	Potassium mg/L	Magnesium Total mg/L	Manganese Total mg/L	Sodium mg/L
Upgradient	BY-UP-MW-1	08/16/2023	<0.2	0.0498 J	0.816	2.52	0.457 J	1.51	0.109	2.43
Upgradient	BY-UP-MW-2	08/16/2023	1.11	0.125	1.03	0.0763	0.839	2.07	0.0203	2.17
Upgradient	BY-UP-MW-3	08/16/2023	1.45	0.0342 J	1.77	0.0142 J	0.908	1.83	0.0174	2.87
Upgradient	BY-UP-MW-4	08/16/2023	2.05	0.322	1.71	0.195	0.987	1.96	0.0174	2.65
Downgradient	BY-GSA-MW-10	08/15/2023	0.436	0.383	1.08	0.14	0.891	2.5	0.0417	2.4
Downgradient	BY-GSA-MW-5	08/15/2023	0.71	0.0516	2.46	0.00901 J	1.06	2.14	0.018	2.96
Downgradient	BY-GSA-MW-6	08/15/2023	1	0.939	7.55	0.384	1.29	6.52	0.0922	3.53
Downgradient	BY-GSA-MW-7	08/15/2023	0.803	0.115	0.941	0.112	0.911	1.02	0.0121	6.2
Downgradient	BY-GSA-MW-8	08/15/2023	<0.2	0.0464 J	0.903	0.0687	0.907	1.06	0.0203	4.65
Downgradient	BY-GSA-MW-9	08/15/2023	0.231 J	0.237	1.58	0.0425	0.967	2.52	0.042	2.89
Downgradient	BY-GSA-PZ-11	08/15/2023	0.499	0.365	1.54	0.091	1.43	1.78	0.0169	5.52

Notes:

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- DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
- mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
- NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary Plant Barry Gypsum Storage Area 08/15/2023 - 08/16/2023

General Chemistry and MNA Parameters										
Hydraulic Location	Well	Sample Date	Silica mg/L	Silicon mg/L	Sulfide mg/L	Chloride mg/L	Sulfate mg/L	Carbon, Total Organic mg/L	Alkalinity Total as CaCO3 mg CaCO3/L	Carbonate Alkalinity as CaCO3 mg CaCO3/L
Upgradient	BY-UP-MW-1	08/16/2023	7.06	3.3	0	2.61	9.38	1.29 J	3.92	NC
Upgradient	BY-UP-MW-2	08/16/2023	8.35	3.9	0	2.01	8.28	<1	0.694	NC
Upgradient	BY-UP-MW-3	08/16/2023	8.35	3.9	0	2.94	7.26	<1	0.979	NC
Upgradient	BY-UP-MW-4	08/16/2023	9.01	4.21	0	3.12	7.05	<1	0.898	NC
Downgradient	BY-GSA-MW-10	08/15/2023	7.66	3.58	0	2.98	11.7	<1	0.78	NC
Downgradient	BY-GSA-MW-5	08/15/2023	9.05	4.23	0	3.72	11.9	<1	0.55	NC
Downgradient	BY-GSA-MW-6	08/15/2023	10.3	4.83	0	5.49	38.2	<1	2.69	NC
Downgradient	BY-GSA-MW-7	08/15/2023	10.2	4.75	0	7.69	3.85	<1	2.02	NC
Downgradient	BY-GSA-MW-8	08/15/2023	11.1	5.2	0	4.57	5.94	<1	4.79	NC
Downgradient	BY-GSA-MW-9	08/15/2023	8.17	3.82	0	5.16	10.4	1.16 J	1.51	NC
Downgradient	BY-GSA-PZ-11	08/15/2023	10.1	4.74	0	11.5	5.65	<1	1.43	NC

Notes:

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4. DO - Dissolved Oxygen, ORP - Oxidation Reduction Potential, TDS - Total Dissolved Solids.
5. mg/L - milligrams per liter, mv - millivolts, NTU - nephelometric turbidity unit, C - celsius, SU - standard unit, uS/cm - microseimens per centimeter, pCi/L - picocuries per liter.
6. NC = value not detected with alkalinity calculation

Table 7. Second Semi-Annual Monitoring Event

Analytical Results Summary
Plant Barry Gypsum Storage Area
08/15/2023 - 08/16/2023

General Chemistry and MNA Parameters			
Hydraulic Location	Well	Sample Date	Bicarbonate Alkalinity as CaCO ₃ mg CaCO ₃ /L
Upgradient	BY-UP-MW-1	08/16/2023	3.92
Upgradient	BY-UP-MW-2	08/16/2023	NC
Upgradient	BY-UP-MW-3	08/16/2023	NC
Upgradient	BY-UP-MW-4	08/16/2023	NC
Downgradient	BY-GSA-MW-10	08/15/2023	0.78
Downgradient	BY-GSA-MW-5	08/15/2023	NC
Downgradient	BY-GSA-MW-6	08/15/2023	2.69
Downgradient	BY-GSA-MW-7	08/15/2023	2.02
Downgradient	BY-GSA-MW-8	08/15/2023	4.79
Downgradient	BY-GSA-MW-9	08/15/2023	1.51
Downgradient	BY-GSA-PZ-11	08/15/2023	1.43

Notes:

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

Appendix A



ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1								
		02/23/2016	04/19/2016	06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017
Appendix III										
Boron	mg/L	0.0212 J	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02
Calcium	mg/L	1.28	1.19	1.19	1.11	1.04	1.19	--	1.05	0.978
Chloride	mg/L	3.59	2.89	3.12	3.91	3.9	--	3.5	3.5	3.1
Fluoride	mg/L	0.03 J	0.023 J	0.062 J	0.053 J	0.042 J	--	<0.032	0.04 J	0.1
pH_Field	SU	4.62	4.74	4.65	4.64	4.74	4.54	4.67	4.79	4.76
Sulfate	mg/L	8.59	8.27	8.66	9.74	10.2	--	8.3	6.6	7.6
TDS	mg/L	26.7	--	32.7	33.3	27.3	32	--	31.3	35.3
Appendix IV										
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000925 J	--	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.117	0.099	0.107	0.106	0.102	0.0944	--	0.0868	0.0799
Beryllium	mg/L	<0.0006	<0.0006	0.000612 J	<0.0006	<0.0006	<0.0006	--	0.00069 J	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Cobalt	mg/L	0.0035 J	0.0038 J	0.00427 J	0.00348 J	0.00338 J	0.00308 J	--	0.00314 J	0.0036 J
Combined Radium	pCi/L	2.8971 U	1 U	0.841	1.74	1.47	0.952	--	0.768	1.04
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1								
		09/13/2017	01/23/2018	05/02/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021
Appendix III										
Boron	mg/L	<0.02	--	0.0362 J	0.11	0.188	0.097 J	0.157	0.0999 J	0.0841 J
Calcium	mg/L	1.14	--	1.64	2.01	1.85	1.55	1.96	1.43	1.34
Chloride	mg/L	4	--	9.9	4.7	5.48	3.65	3.17	2.92	2.18
Fluoride	mg/L	0.04 J	<0.032	0.04 J	<0.032	0.0502 J	<0.05	<0.06	<0.06	<0.06
pH_Field	SU	4.81	4.79	4.62	4.73	4.65	4.57	4.64	4.65	4.74
Sulfate	mg/L	8.4	--	5.9	22	23.3	17.5	24.3	16.5	16.3
TDS	mg/L	36.7	--	34	50.7	58	46	53.3	42	--
Appendix IV										
Antimony	mg/L	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000336
Barium	mg/L	--	0.0884	0.137	0.157	0.166	0.129	0.176	0.124	0.123
Beryllium	mg/L	--	<0.0006	<0.0006	0.000856 J	<0.0006	<0.0006	<0.0006	<0.0006	0.000694 J
Cadmium	mg/L	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000296 J
Cobalt	mg/L	--	0.00586 J	0.00702 J	0.0157	0.0109	0.0129	0.0123	0.00697	0.00611
Combined Radium	pCi/L	--	0.513 U	0.916	1.37	1.57	0.905	1.77	1.77	0.639 U
Lead	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	9.79e-005 J
Lithium	mg/L	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1					BY-UP-MW-2			
		10/19/2021	05/31/2022	11/01/2022	04/12/2023	08/16/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016
Appendix III										
Boron	mg/L	0.0708 J	0.0567 J	0.0501 J	0.0464 J	0.0364 J	0.0252 J	<0.02	0.0202 J	<0.02
Calcium	mg/L	1.17	1.14	1.01	1.02	0.816	1.11	1.09	1.16	1.08
Chloride	mg/L	2.37	1.93	2.37	2.31	2.61	3.99	4.08	4.28	4.26
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.021 J	0.06 J	0.05 J
pH_Field	SU	4.67	3.89	4.6	4.77	4.45	4.79	4.84	4.81	4.76
Sulfate	mg/L	15.5	12.8	11.3	11.8	9.38	7.2	7.22	7.92	8.17
TDS	mg/L	--	--	--	--	--	30.7	--	35.3	27.3
Appendix IV										
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006
Arsenic	mg/L	0.000346	0.000237	0.000345	0.00023	0.000134 J	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.103	0.1	0.0804	0.082	0.0689	0.111	0.0875	0.0979	0.108
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	0.00093 J	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.000301 J	0.000334 J	0.000212 J	0.000215 J	0.000205 J	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.00517	0.00487	0.00394	0.00398	0.0034	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	1.77	1.34	1.11	1.03 U	0.516 U	1 U	1 U	0.652	0.411 U
Lead	mg/L	0.000115 J	8.38e-005 J	0.00017 J	7.57e-005 J	<6.8e-005	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2								
		10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018
Appendix III										
Boron	mg/L	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	0.0207 J
Calcium	mg/L	1.03	1.23	--	1.28	1.25	1.6	--	1.58	1.49
Chloride	mg/L	4.26	--	4.1	5	3.9	4.3	--	3.7	3.2
Fluoride	mg/L	0.04 J	--	<0.032	0.04 J	0.04 J	0.043 J	0.04 J	0.04 J	<0.032
pH_Field	SU	4.84	4.6	4.71	4.8	4.72	4.71	4.67	4.61	4.72
Sulfate	mg/L	7.99	--	6.1	5	5.3	4.9 J	--	4.2 J	3.7 J
TDS	mg/L	--	32.7	--	30.7	34.7	39.3	--	42	31.3
Appendix IV										
Antimony	mg/L	<0.0006	0.000898 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008
Arsenic	mg/L	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Barium	mg/L	0.103	0.109	--	0.125	0.108	--	0.153	0.167	0.158
Beryllium	mg/L	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	0.000801 J
Cadmium	mg/L	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	0.00596 J	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	0.0021 J	<0.002	0.00209 J
Combined Radium	pCi/L	1	0.398 U	--	0.66	0.639	--	0.669 U	1.06	0.636
Lead	mg/L	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002

Notes:

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2. pCi/L - picocuries per Liter
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5. 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.
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2								
		05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/11/2021	10/19/2021	05/31/2022	11/01/2022	04/12/2023
Appendix III										
Boron	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.59	1.7	1.43	1.5	1.39	1.32	1.24	1.23	1.16
Chloride	mg/L	2.93	2.75	2.72	2.32	2.16	2.08	2.17	2.22	2.25
Fluoride	mg/L	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.58	4.43	4.6	4.67	4.29	4.6	3.31	4.42	4.67
Sulfate	mg/L	5.94	6.04	6.83	6.08	7.92	7.48	8.09	7.11	8.54
TDS	mg/L	40	41.3	40	40.7	--	--	--	--	--
Appendix IV										
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	0.000136 J	0.000122 J	8.79e-005 J	0.000379	0.0002 J
Barium	mg/L	0.172	0.183	0.171	0.172	0.165	0.145	0.153	0.145	0.138
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	0.000413 J	0.000429 J	0.000416 J
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	0.00136	0.00135	0.0012	0.00209	0.00152
Cobalt	mg/L	0.00248 J	0.00244 J	0.00224 J	0.00219 J	0.00194	0.00192	0.00194	0.0016	0.00157
Combined Radium	pCi/L	0.579 U	1.33	0.814	0.653 U	0.945 U	1.85	1.38	1	1.07
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	0.000118 J	0.0001 J	7.81e-005 J	0.000411	0.00014 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2	BY-UP-MW-3							
		08/16/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017
Appendix III										
Boron	mg/L	<0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02
Calcium	mg/L	1.03	1.77	1.68	1.68	1.62	1.53	1.65	--	1.58
Chloride	mg/L	2.01	3.68	3.72	3.66	3.7	3.77	--	3.7	4.6
Fluoride	mg/L	<0.06	0.02 J	0.016 J	0.052 J	0.038 J	0.03 J	--	<0.032	0.1
pH_Field	SU	4.49	4.96	4.94	4.96	4.92	4.98	4.74	4.9	4.98
Sulfate	mg/L	8.28	7.44	7.66	8.16	8.43	8.47	--	7.4	6.3
TDS	mg/L	--	40	32	38.7	31.3	26.7	30	--	30.7
Appendix IV										
Antimony	mg/L	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000911 J	--	<0.0006
Arsenic	mg/L	<0.000112	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
Barium	mg/L	0.13	0.0862	0.0718	0.0754	0.0768	0.0727	0.0698	--	0.0723
Beryllium	mg/L	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
Cadmium	mg/L	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002
Chromium	mg/L	0.00111	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Cobalt	mg/L	0.00157	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Combined Radium	pCi/L	0.389 U	1 U	1 U	0.342 U	0.702	0.791	0.0613 U	--	0.974
Lead	mg/L	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
Lithium	mg/L	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01
Mercury	mg/L	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025
Molybdenum	mg/L	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002

Notes:

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5. 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.
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-3								
		06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020
Appendix III										
Boron	mg/L	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.55	1.71	--	1.76	1.69	1.74	1.86	1.92	1.97
Chloride	mg/L	3.4	3.9	--	4.1	3.5	3.58	3.64	3.47	3.47
Fluoride	mg/L	0.1	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06
pH_Field	SU	4.94	4.93	4.91	4.87	4.94	4.8	4.52	4.4	4.76
Sulfate	mg/L	7.1	7.3	--	6.9	6.5	7.81	7.62	7.98	7.13
TDS	mg/L	32.7	38	--	35.3	36	37.3	36.7	39.3	42.7
Appendix IV										
Antimony	mg/L	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.07	--	0.0747	0.0877	0.0804	0.0831	0.089	0.0927	0.0919
Beryllium	mg/L	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	--	0.00229 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	0.748	--	0.558 U	0.296 U	0.357 U	0.275 U	0.458 U	0.941	1.05
Lead	mg/L	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Notes:

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APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-3						BY-UP-MW-4		
		05/11/2021	10/18/2021	05/31/2022	11/01/2022	04/12/2023	08/16/2023	02/23/2016	04/19/2016	06/06/2016
Appendix III										
Boron	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.0257 J	<0.02	<0.02
Calcium	mg/L	2.06	2.1	1.95	1.94	1.83	1.77	1.42	1.31	1.35
Chloride	mg/L	3.42	3.45	3.41	3.09	3.11	2.94	3.5	3.63	3.6
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.015 J	0.05 J
pH_Field	SU	4.53	4.55	3.54	4.12	4.83	4.03	4.74	4.86	4.88
Sulfate	mg/L	7.73	7.36	7.18	6.83	7.59	7.26	7.04	6.74	7.04
TDS	mg/L	--	--	--	--	--	--	--	--	28.7
Appendix IV										
Antimony	mg/L	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	0.000606 J	<0.0006	<0.0006
Arsenic	mg/L	<6.8e-005	8.69e-005 J	<8.1e-005	<8.1e-005	<0.000112	<0.000112	<0.001	<0.001	<0.001
Barium	mg/L	0.0981	0.0935	0.101	0.0963	0.0925	0.0912	0.0973	0.0802	0.0862
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	7.25e-005 J	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.00146	0.0013	0.00134	0.0012	0.00138	0.00126	<0.002	<0.002	<0.002
Cobalt	mg/L	0.00142	0.00146	0.00152	0.00143	0.0013	0.00133	<0.002	<0.002	<0.002
Combined Radium	pCi/L	0.521 U	1.75	1.67	0.53 U	1.28	1.1 U	2.1138	1 U	0.757
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	8.25e-005 J	<6.8e-005	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002

Notes:

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APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-4								
		08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/12/2017	01/23/2018	05/01/2018
Appendix III										
Boron	mg/L	<0.02	0.022 J	<0.02	--	<0.02	<0.02	<0.02	--	<0.02
Calcium	mg/L	1.31	1.22	1.36	--	1.24	1.28	1.47	--	1.47
Chloride	mg/L	3.54	3.68	--	4.6	3.9	3.4	4.3	--	3.8
Fluoride	mg/L	0.036 J	0.025 J	--	<0.032	0.1	<0.032	<0.032	<0.032	<0.032
pH_Field	SU	4.91	4.95	4.71	4.83	4.93	4.9	4.82	4.85	4.8
Sulfate	mg/L	7.57	6.62	--	7	5.6	6.6	7.2	--	5.9
TDS	mg/L	25.3	--	26	--	--	42.7	26.7	--	34.7
Appendix IV										
Antimony	mg/L	<0.0006	<0.0006	0.000928 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.0841	0.0715	0.0825	--	0.0777	0.078	--	0.0825	0.102
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Combined Radium	pCi/L	0.992	0.905	1.08	--	1.18	1.1	--	1.32 U	1.19
Lead	mg/L	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-4								
		11/26/2018	05/28/2019	10/02/2019	03/31/2020	09/08/2020	05/11/2021	10/18/2021	05/31/2022	11/01/2022
Appendix III										
Boron	mg/L	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.52	1.6	1.7	1.78	1.94	1.93	2.01	2.02	1.59
Chloride	mg/L	3.6	3.6	3.5	3.34	3.29	3.33	3.32	3.31	3.3
Fluoride	mg/L	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.88	4.73	4.67	4.51	4.75	4.67	4.38	3.97	4.74
Sulfate	mg/L	5.1	7.1	6.88	10.8	6.52	6.8	6.58	7.94	4.59
TDS	mg/L	32.7	31.3	36	36.7	39.3	--	--	--	--
Appendix IV										
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	0.0017 J	<0.001	0.000217	0.000193 J	0.000203	0.000115 J
Barium	mg/L	0.0994	0.102	0.111	0.129	0.125	0.125	0.124	0.129	0.116
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	0.00604 J	<0.002	0.00159	0.00146	0.00156	0.00124
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00137	0.00139	0.0015	0.00169
Combined Radium	pCi/L	0.863	0.474 U	0.624 U	1.09	1.27	0.969 U	2.19	1.47	1.36
Lead	mg/L	<0.001	<0.001	<0.001	0.00126 J	<0.001	0.000159 J	0.00012 J	0.000173 J	0.000105 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING	
		BY-UP-MW-4	
		04/12/2023	08/16/2023
Appendix III			
Boron	mg/L	<0.03	<0.03
Calcium	mg/L	1.76	1.76
Chloride	mg/L	3.39	3.22
Fluoride	mg/L	<0.06	<0.06
pH_Field	SU	4.73	4.58
Sulfate	mg/L	5.92	6.51
TDS	mg/L	--	--
Appendix IV			
Antimony	mg/L	<0.00071	<0.00071
Arsenic	mg/L	0.000114 J	0.000209
Barium	mg/L	0.117	0.121
Beryllium	mg/L	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00126	0.00158
Cobalt	mg/L	0.00124	0.00153
Combined Radium	pCi/L	1.17	1.56
Lead	mg/L	8.65e-005 J	0.000177 J
Lithium	mg/L	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003
Molybdenum	mg/L	<0.005075	<0.005075

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1								
		02/23/2016	04/19/2016	06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1								
		09/13/2017	01/23/2018	05/02/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021
Appendix IV										
Selenium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1					BY-UP-MW-2			
		10/19/2021	05/31/2022	11/01/2022	04/12/2023	08/16/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016
Appendix IV										
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
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Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2								
		10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018
Appendix IV										
Selenium	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2								
		05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/11/2021	10/19/2021	05/31/2022	11/01/2022	04/12/2023
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	0.000602 J	<0.000508	0.000633 J	0.000558 J	0.000702 J
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2	BY-UP-MW-3							
		08/16/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017
Appendix IV										
Selenium	mg/L	0.000614 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Thallium	mg/L	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-3								
		06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020
Appendix IV										
Selenium	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-3						BY-UP-MW-4		
		05/11/2021	10/18/2021	05/31/2022	11/01/2022	04/12/2023	08/16/2023	02/23/2016	04/19/2016	06/06/2016
Appendix IV										
Selenium	mg/L	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
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ANALYTICAL DATA SUMMARY
Barry AP and Gyp Pond Shared Upgradient (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-4								
		08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/12/2017	01/23/2018	05/01/2018
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
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APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-4								
		11/26/2018	05/28/2019	10/02/2019	03/31/2020	09/08/2020	05/11/2021	10/18/2021	05/31/2022	11/01/2022
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING	
		BY-UP-MW-4	
		04/12/2023	08/16/2023
Appendix IV			
Selenium	mg/L	<0.000508	<0.000508
Thallium	mg/L	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1								
		02/23/2016	04/19/2016	06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017
Appendix III										
Boron	mg/L	0.0212 J	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02	<0.02
Calcium	mg/L	1.28	1.19	1.19	1.11	1.04	1.19	--	1.05	0.978
Chloride	mg/L	3.59	2.89	3.12	3.91	3.9	--	3.5	3.5	3.1
Fluoride	mg/L	0.03 J	0.023 J	0.062 J	0.053 J	0.042 J	--	<0.032	0.04 J	0.1
pH_Field	SU	4.62	4.74	4.65	4.64	4.74	4.54	4.67	4.79	4.76
Sulfate	mg/L	8.59	8.27	8.66	9.74	10.2	--	8.3	6.6	7.6
TDS	mg/L	26.7	--	32.7	33.3	27.3	32	--	31.3	35.3
Appendix IV										
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000925 J	--	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.117	0.099	0.107	0.106	0.102	0.0944	--	0.0868	0.0799
Beryllium	mg/L	<0.0006	<0.0006	0.000612 J	<0.0006	<0.0006	<0.0006	--	0.00069 J	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Cobalt	mg/L	0.0035 J	0.0038 J	0.00427 J	0.00348 J	0.00338 J	0.00308 J	--	0.00314 J	0.0036 J
Combined Radium	pCi/L	2.8971 U	1 U	0.841	1.74	1.47	0.952	--	0.768	1.04
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1								
		09/13/2017	01/23/2018	05/02/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021
Appendix III										
Boron	mg/L	<0.02	--	0.0362 J	0.11	0.188	0.097 J	0.157	0.0999 J	0.0841 J
Calcium	mg/L	1.14	--	1.64	2.01	1.85	1.55	1.96	1.43	1.34
Chloride	mg/L	4	--	9.9	4.7	5.48	3.65	3.17	2.92	2.18
Fluoride	mg/L	0.04 J	<0.032	0.04 J	<0.032	0.0502 J	<0.05	<0.06	<0.06	<0.06
pH_Field	SU	4.81	4.79	4.62	4.73	4.65	4.57	4.64	4.65	4.74
Sulfate	mg/L	8.4	--	5.9	22	23.3	17.5	24.3	16.5	16.3
TDS	mg/L	36.7	--	34	50.7	58	46	53.3	42	--
Appendix IV										
Antimony	mg/L	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000336
Barium	mg/L	--	0.0884	0.137	0.157	0.166	0.129	0.176	0.124	0.123
Beryllium	mg/L	--	<0.0006	<0.0006	0.000856 J	<0.0006	<0.0006	<0.0006	<0.0006	0.000694 J
Cadmium	mg/L	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000296 J
Cobalt	mg/L	--	0.00586 J	0.00702 J	0.0157	0.0109	0.0129	0.0123	0.00697	0.00611
Combined Radium	pCi/L	--	0.513 U	0.916	1.37	1.57	0.905	1.77	1.77	0.639 U
Lead	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	9.79e-005 J
Lithium	mg/L	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1					BY-UP-MW-2			
		10/19/2021	05/31/2022	11/01/2022	04/12/2023	08/16/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016
Appendix III										
Boron	mg/L	0.0708 J	0.0567 J	0.0501 J	0.0464 J	0.0364 J	0.0252 J	<0.02	0.0202 J	<0.02
Calcium	mg/L	1.17	1.14	1.01	1.02	0.816	1.11	1.09	1.16	1.08
Chloride	mg/L	2.37	1.93	2.37	2.31	2.61	3.99	4.08	4.28	4.26
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.021 J	0.06 J	0.05 J
pH_Field	SU	4.67	3.89	4.6	4.77	4.45	4.79	4.84	4.81	4.76
Sulfate	mg/L	15.5	12.8	11.3	11.8	9.38	7.2	7.22	7.92	8.17
TDS	mg/L	--	--	--	--	--	30.7	--	35.3	27.3
Appendix IV										
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006
Arsenic	mg/L	0.000346	0.000237	0.000345	0.00023	0.000134 J	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.103	0.1	0.0804	0.082	0.0689	0.111	0.0875	0.0979	0.108
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	0.00093 J	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.000301 J	0.000334 J	0.000212 J	0.000215 J	0.000205 J	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.00517	0.00487	0.00394	0.00398	0.0034	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	1.77	1.34	1.11	1.03 U	0.516 U	1 U	1 U	0.652	0.411 U
Lead	mg/L	0.000115 J	8.38e-005 J	0.00017 J	7.57e-005 J	<6.8e-005	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2								
		10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018
Appendix III										
Boron	mg/L	<0.02	<0.02	--	<0.02	<0.02	<0.02	--	<0.02	0.0207 J
Calcium	mg/L	1.03	1.23	--	1.28	1.25	1.6	--	1.58	1.49
Chloride	mg/L	4.26	--	4.1	5	3.9	4.3	--	3.7	3.2
Fluoride	mg/L	0.04 J	--	<0.032	0.04 J	0.04 J	0.043 J	0.04 J	0.04 J	<0.032
pH_Field	SU	4.84	4.6	4.71	4.8	4.72	4.71	4.67	4.61	4.72
Sulfate	mg/L	7.99	--	6.1	5	5.3	4.9 J	--	4.2 J	3.7 J
TDS	mg/L	--	32.7	--	30.7	34.7	39.3	--	42	31.3
Appendix IV										
Antimony	mg/L	<0.0006	0.000898 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008
Arsenic	mg/L	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Barium	mg/L	0.103	0.109	--	0.125	0.108	--	0.153	0.167	0.158
Beryllium	mg/L	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	0.000801 J
Cadmium	mg/L	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	0.00596 J	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	0.0021 J	<0.002	0.00209 J
Combined Radium	pCi/L	1	0.398 U	--	0.66	0.639	--	0.669 U	1.06	0.636
Lead	mg/L	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2								
		05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/11/2021	10/19/2021	05/31/2022	11/01/2022	04/12/2023
Appendix III										
Boron	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.59	1.7	1.43	1.5	1.39	1.32	1.24	1.23	1.16
Chloride	mg/L	2.93	2.75	2.72	2.32	2.16	2.08	2.17	2.22	2.25
Fluoride	mg/L	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.58	4.43	4.6	4.67	4.29	4.6	3.31	4.42	4.67
Sulfate	mg/L	5.94	6.04	6.83	6.08	7.92	7.48	8.09	7.11	8.54
TDS	mg/L	40	41.3	40	40.7	--	--	--	--	--
Appendix IV										
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	0.000136 J	0.000122 J	8.79e-005 J	0.000379	0.0002 J
Barium	mg/L	0.172	0.183	0.171	0.172	0.165	0.145	0.153	0.145	0.138
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	0.000413 J	0.000429 J	0.000416 J
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	0.00136	0.00135	0.0012	0.00209	0.00152
Cobalt	mg/L	0.00248 J	0.00244 J	0.00224 J	0.00219 J	0.00194	0.00192	0.00194	0.0016	0.00157
Combined Radium	pCi/L	0.579 U	1.33	0.814	0.653 U	0.945 U	1.85	1.38	1	1.07
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	0.000118 J	0.0001 J	7.81e-005 J	0.000411	0.00014 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075

Notes:

1. mg/L - Milligrams per Liter
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2	BY-UP-MW-3							
		08/16/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017
Appendix III										
Boron	mg/L	<0.03	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	--	<0.02
Calcium	mg/L	1.03	1.77	1.68	1.68	1.62	1.53	1.65	--	1.58
Chloride	mg/L	2.01	3.68	3.72	3.66	3.7	3.77	--	3.7	4.6
Fluoride	mg/L	<0.06	0.02 J	0.016 J	0.052 J	0.038 J	0.03 J	--	<0.032	0.1
pH_Field	SU	4.49	4.96	4.94	4.96	4.92	4.98	4.74	4.9	4.98
Sulfate	mg/L	8.28	7.44	7.66	8.16	8.43	8.47	--	7.4	6.3
TDS	mg/L	--	40	32	38.7	31.3	26.7	30	--	30.7
Appendix IV										
Antimony	mg/L	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000911 J	--	<0.0006
Arsenic	mg/L	<0.000112	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
Barium	mg/L	0.13	0.0862	0.0718	0.0754	0.0768	0.0727	0.0698	--	0.0723
Beryllium	mg/L	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006
Cadmium	mg/L	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002
Chromium	mg/L	0.00111	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Cobalt	mg/L	0.00157	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Combined Radium	pCi/L	0.389 U	1 U	1 U	0.342 U	0.702	0.791	0.0613 U	--	0.974
Lead	mg/L	<6.8e-005	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001
Lithium	mg/L	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01
Mercury	mg/L	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025
Molybdenum	mg/L	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-3								
		06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020
Appendix III										
Boron	mg/L	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.55	1.71	--	1.76	1.69	1.74	1.86	1.92	1.97
Chloride	mg/L	3.4	3.9	--	4.1	3.5	3.58	3.64	3.47	3.47
Fluoride	mg/L	0.1	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06
pH_Field	SU	4.94	4.93	4.91	4.87	4.94	4.8	4.52	4.4	4.76
Sulfate	mg/L	7.1	7.3	--	6.9	6.5	7.81	7.62	7.98	7.13
TDS	mg/L	32.7	38	--	35.3	36	37.3	36.7	39.3	42.7
Appendix IV										
Antimony	mg/L	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.07	--	0.0747	0.0877	0.0804	0.0831	0.089	0.0927	0.0919
Beryllium	mg/L	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	--	0.00229 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	0.748	--	0.558 U	0.296 U	0.357 U	0.275 U	0.458 U	0.941	1.05
Lead	mg/L	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-3						BY-UP-MW-4		
		05/11/2021	10/18/2021	05/31/2022	11/01/2022	04/12/2023	08/16/2023	02/23/2016	04/19/2016	06/06/2016
Appendix III										
Boron	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	0.0257 J	<0.02	<0.02
Calcium	mg/L	2.06	2.1	1.95	1.94	1.83	1.77	1.42	1.31	1.35
Chloride	mg/L	3.42	3.41	3.41	3.09	3.11	2.94	3.5	3.63	3.6
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J	0.015 J	0.05 J
pH_Field	SU	4.53	4.55	3.54	4.12	4.83	4.03	4.74	4.86	4.88
Sulfate	mg/L	7.73	7.36	7.02	6.83	7.59	7.26	7.04	6.74	7.04
TDS	mg/L	--	--	--	--	--	--	--	--	28.7
Appendix IV										
Antimony	mg/L	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	0.000606 J	<0.0006	<0.0006
Arsenic	mg/L	<6.8e-005	<6.8e-005	<8.1e-005	<8.1e-005	<0.000112	<0.000112	<0.001	<0.001	<0.001
Barium	mg/L	0.0981	0.0935	0.101	0.0963	0.0925	0.0912	0.0973	0.0802	0.0862
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	7.25e-005 J	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.00146	0.0013	0.00134	0.0012	0.00138	0.00126	<0.002	<0.002	<0.002
Cobalt	mg/L	0.00142	0.00146	0.00152	0.00143	0.0013	0.00133	<0.002	<0.002	<0.002
Combined Radium	pCi/L	0.521 U	1.75	1.67	0.53 U	1.28	1.1 U	2.1138	1 U	0.757
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	8.25e-005 J	<6.8e-005	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002

Notes:

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2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-4								
		08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/12/2017	01/23/2018	05/01/2018
Appendix III										
Boron	mg/L	<0.02	0.022 J	<0.02	--	<0.02	<0.02	<0.02	--	<0.02
Calcium	mg/L	1.31	1.22	1.36	--	1.24	1.28	1.47	--	1.47
Chloride	mg/L	3.54	3.68	--	4.6	3.9	3.4	4.3	--	3.8
Fluoride	mg/L	0.036 J	0.025 J	--	<0.032	0.1	0.1	<0.032	<0.032	<0.032
pH_Field	SU	4.91	4.95	4.71	4.83	4.93	4.9	4.82	4.85	4.8
Sulfate	mg/L	7.57	6.62	--	7	5.6	6.6	7.2	--	5.9
TDS	mg/L	25.3	--	26	--	--	42.7	26.7	--	34.7
Appendix IV										
Antimony	mg/L	<0.0006	<0.0006	0.000928 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.0841	0.0715	0.0825	--	0.0777	0.078	--	0.0825	0.102
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Combined Radium	pCi/L	0.992	0.905	1.08	--	1.18	1.1	--	1.32 U	1.19
Lead	mg/L	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-4								
		11/26/2018	05/28/2019	10/02/2019	03/31/2020	09/08/2020	05/11/2021	10/18/2021	05/31/2022	11/01/2022
Appendix III										
Boron	mg/L	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03
Calcium	mg/L	1.52	1.6	1.7	1.78	1.94	1.93	2.01	2.02	1.59
Chloride	mg/L	3.6	3.6	3.5	3.34	3.29	3.33	3.32	3.31	3.31
Fluoride	mg/L	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.88	4.73	4.67	4.51	4.75	4.67	4.38	3.97	4.74
Sulfate	mg/L	5.1	7.1	6.88	10.8	6.52	6.8	6.58	7.94	4.59
TDS	mg/L	32.7	31.3	36	36.7	39.3	--	--	--	--
Appendix IV										
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	0.0017 J	<0.001	0.000217	0.000193 J	0.000203	0.000115 J
Barium	mg/L	0.0994	0.102	0.111	0.129	0.125	0.125	0.124	0.129	0.116
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	0.00604 J	<0.002	0.00159	0.00146	0.00156	0.00111
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	0.00137	0.00139	0.0015	0.00169
Combined Radium	pCi/L	0.863	0.474 U	0.624 U	1.09	1.27	0.969 U	2.19	1.47	1.36
Lead	mg/L	<0.001	<0.001	<0.001	0.00126 J	<0.001	0.000159 J	0.00012 J	0.000173 J	8.6e-005 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102

Notes:

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2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-4		BY-GSA-MW-5						
		04/12/2023	08/16/2023	02/23/2016	04/18/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/21/2017
Appendix III										
Boron	mg/L	<0.03	<0.03	0.163	0.361	0.169	0.0858 J	0.0778 J	0.077 J	--
Calcium	mg/L	1.76	1.71	2.42	4.65	3.1	2.19	1.97	1.73	--
Chloride	mg/L	3.42	3.12	3.86	4.46	3.74	3.5	3.5	--	2.8
Fluoride	mg/L	<0.06	<0.06	0.02 J	0.04 J	0.066 J	0.046 J	0.034 J	--	<0.032
pH_Field	SU	4.73	4.58	4.76	4.75	4.77	4.82	4.82	4.8	4.86
Sulfate	mg/L	5.92	7.05	12.5	28.6	18.7	13.8	12.2	--	8.6
TDS	mg/L	--	--	38	62	51.3	38	28.7	34	--
Appendix IV										
Antimony	mg/L	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000866 J	--
Arsenic	mg/L	0.000121 J	0.000209	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
Barium	mg/L	0.116	0.122	0.109	0.135	0.0892	0.083	0.0859	0.0779	--
Beryllium	mg/L	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--
Cadmium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--
Chromium	mg/L	0.00128	0.00164	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--
Cobalt	mg/L	0.00124	0.00161	<0.002	0.00278 J	<0.002	<0.002	<0.002	<0.002	--
Combined Radium	pCi/L	1.17	1.56	1 U	1 U	1.03	0.696	0.966	0.724	--
Lead	mg/L	9.78e-005 J	0.000205	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--
Lithium	mg/L	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--
Mercury	mg/L	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--
Molybdenum	mg/L	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--

Notes:

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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-5								
		05/02/2017	06/06/2017	09/13/2017	01/24/2018	05/02/2018	11/27/2018	05/28/2019	10/02/2019	03/30/2020
Appendix III										
Boron	mg/L	0.0602 J	0.0442 J	0.0411 J	--	0.0334 J	0.0265 J	<0.03	<0.03	<0.03
Calcium	mg/L	1.74	1.66	1.61	--	1.44	1.3	1.25	1.33	1.26
Chloride	mg/L	3.9	3.4	3.9	--	3.5	3.7	3.69	3.49	3.45
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06
pH_Field	SU	4.89	4.86	4.89	4.86	4.87	4.92	4.8	4.44	4.83
Sulfate	mg/L	8	8.6	7.6	--	6	5.5	6.5	6.55	6.34
TDS	mg/L	37.3	36.7	37.3	--	30.7	--	26	34.7	32
Appendix IV										
Antimony	mg/L	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.0799	0.0788	--	0.0746	0.085	0.072	0.0684	0.0728	0.0718
Beryllium	mg/L	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	0.587	0.591	--	0.566 U	0.401	0.611	0.391 U	0.954	0.525
Lead	mg/L	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-5						BY-GSA-MW-6		
		09/08/2020	05/12/2021	10/19/2021	05/31/2022	11/02/2022	04/11/2023	08/15/2023	02/23/2016	04/18/2016
Appendix III										
Boron	mg/L	0.521	0.511	0.243	0.939	1.69	0.54	0.143	0.638	0.908
Calcium	mg/L	3.24	7	2.75	8.52	10.9	6.62	2.46	18.3	23.2
Chloride	mg/L	6.23	5.89	4.81	7.83	8.44	5.21	3.72	6.06	6.13
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	0.0834 J	<0.06	0.06 J	0.138 J
pH_Field	SU	4.77	4.61	4.79	4.61	4.42	4.63	4.1	6.59	6.21
Sulfate	mg/L	15.1	38.2	12.3	48.7	51.4	34.8	11.9	36.5	80.2
TDS	mg/L	55.3	--	--	--	--	--	--	128	166
Appendix IV										
Antimony	mg/L	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006
Arsenic	mg/L	<0.001	0.000501	0.000199 J	0.000527	0.000548	0.000274	<0.000112	<0.001	<0.001
Barium	mg/L	0.181	0.106	0.0998	0.226	0.146	0.0629	0.093	0.237	0.263
Beryllium	mg/L	<0.0006	0.000575 J	<0.000406	0.000713 J	0.000937 J	0.000693 J	<0.000406	<0.0006	0.000681 J
Cadmium	mg/L	<0.0003	8.67e-005 J	0.000137 J	0.000122 J	0.000189 J	0.000133 J	7.95e-005 J	<0.0002	<0.0002
Chromium	mg/L	0.00221 J	0.00232	0.00268	0.00281	0.00259	0.00199	0.00155	0.00209 J	0.00324 J
Cobalt	mg/L	0.00227 J	0.0046	0.00217	0.00606	0.00667	0.00397	0.0017	<0.002	0.00338 J
Combined Radium	pCi/L	0.845	0.465 U	0.719 U	2.31	1.24	1.24	1.29	1.2261 U	1.92151 U
Lead	mg/L	<0.001	9.94e-005 J	0.00026	0.000182 J	0.000144 J	9.39e-005 J	<6.8e-005	<0.001	<0.001
Lithium	mg/L	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	0.000362 J	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<6.8e-005	0.000105 J	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-6								
		06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/21/2017	05/02/2017	06/06/2017	09/12/2017	01/22/2018
Appendix III										
Boron	mg/L	0.733	0.448	0.249	0.121	--	0.0695 J	0.0509 J	0.0709 J	--
Calcium	mg/L	19.7	10.9	8.74	7.89	--	5.81	4.72	4.39	--
Chloride	mg/L	5.52	5.35	4.55	--	3.5	4.8	3.6	4.3	--
Fluoride	mg/L	0.148 J	0.072 J	0.049 J	--	<0.032	0.1	0.1	<0.032	<0.032
pH_Field	SU	5.97	5.99	5.94	5.92	5.74	5.82	5.77	5.64	5.66
Sulfate	mg/L	0.498 J	27.8	22.5	--	15	11	10	7.5	--
TDS	mg/L	131	86.7	67.3	60.7	--	50	47.3	42.7	--
Appendix IV										
Antimony	mg/L	0.000633 J	<0.0006	<0.0006	0.000926 J	--	<0.0006	<0.0006	--	<0.0006
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001
Barium	mg/L	0.206	0.165	0.148	0.123	--	0.098	0.0844	--	0.0593
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	--	0.000704 J	<0.0006	--	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0003
Chromium	mg/L	0.0031 J	0.00227 J	<0.002	<0.002	--	<0.002	<0.002	--	<0.002
Cobalt	mg/L	0.00361 J	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002
Combined Radium	pCi/L	1.47	1.91	0.966	1.01	--	1.41	0.476	--	0.814 U
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-6								
		05/01/2018	11/26/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021	10/18/2021	05/31/2022
Appendix III										
Boron	mg/L	0.0365 J	0.0836 J	0.556	0.186	0.304	0.362	0.876	0.987	0.685
Calcium	mg/L	4.66	3.41	10	4.94	7.56	6.38	13.5	9.06	9.88
Chloride	mg/L	3.8	3.5	6.26	4.13	4.95	5.71	7.77	10	7.22
Fluoride	mg/L	<0.032	<0.032	0.0591 J	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	5.71	5.58	5.21	5.4	5.51	5.15	5.46	5.28	4.98
Sulfate	mg/L	8.5	7.4	32.7	15.9	21.8	17.7	37.1	24.7	38.6
TDS	mg/L	44	38	77.3	50.7	58	59.3	--	--	--
Appendix IV										
Antimony	mg/L	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000821	0.000317	0.000515
Barium	mg/L	0.081	0.0657	0.17	0.0985	0.142	0.0981	0.159	0.146	0.205
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000763 J	<0.000406	0.000674 J
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.000154 J	0.000111 J	0.000242
Chromium	mg/L	<0.002	<0.002	0.00223 J	<0.002	0.00273 J	0.00237 J	0.0034	0.00335	0.00412
Cobalt	mg/L	<0.002	<0.002	0.00301 J	<0.002	0.0031 J	0.00296 J	0.0054	0.00552	0.00732
Combined Radium	pCi/L	0.931	0.815	2.08	0.836	1.54	0.402 U	2.47	2.03	2.22
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000213	0.000112 J	0.000112 J
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	0.000345 J
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-6			BY-GSA-MW-7					
		11/02/2022	04/11/2023	08/15/2023	02/23/2016	04/18/2016	06/06/2016	08/30/2016	10/18/2016	01/30/2017
Appendix III										
Boron	mg/L	0.741	0.925	0.6	0.0314 J	<0.02	<0.02	<0.02	<0.02	<0.02
Calcium	mg/L	7.78	10.9	7.55	1.4	1.2	1.48	1.13	1.45	1.95
Chloride	mg/L	6.58	7.94	5.49	4.08	4.14	4.09	4.6	8.32	--
Fluoride	mg/L	<0.06	0.135	0.0957 J	0.02 J	0.018 J	0.051 J	0.039 J	0.025 J	--
pH_Field	SU	4.84	5.34	4.33	5.12	5.11	5.14	5.06	5.01	4.74
Sulfate	mg/L	36.9	53.6	38.2	3.82	3.48	3.76	3.62	2.58	--
TDS	mg/L	--	--	--	--	--	32.7	25.3	28	45.3
Appendix IV										
Antimony	mg/L	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.00119 J
Arsenic	mg/L	0.000429	0.000738	0.000632	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.204	0.267	0.195	0.0546	0.0421	0.0457	0.0469	0.0611	0.0801
Beryllium	mg/L	0.000408 J	0.00091 J	0.000592 J	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	0.000178 J	0.000185 J	0.000125 J	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.00344	0.0046	0.00467	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.00684	0.0079	0.00804	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	1.7	3.05	1.71	1 U	1 U	0.427	0.869	0.927	0.649
Lead	mg/L	0.000146 J	0.000112 J	0.000377	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-7								
		03/21/2017	05/02/2017	06/07/2017	09/12/2017	01/22/2018	05/01/2018	11/27/2018	05/28/2019	10/02/2019
Appendix III										
Boron	mg/L	--	<0.02	<0.02	<0.02	--	<0.02	<0.02	<0.03	<0.03
Calcium	mg/L	--	0.908	1.29	1.44	--	0.695	0.798	0.973	0.929
Chloride	mg/L	5.6	4.8	6.3	8.5	--	4	4.3	4.63	5.02
Fluoride	mg/L	<0.032	0.1	0.1	<0.032	<0.032	<0.032	<0.032	<0.05	<0.05
pH_Field	SU	5.04	5.08	5.07	5.03	5.06	4.89	5.05	4.83	5.04
Sulfate	mg/L	3.3 J	2.5 J	3.1 J	3 J	--	1.6 J	1.9 J	4.86	4.6
TDS	mg/L	--	26.7	28	35.3	--	30.7	30.7	33.3	30.7
Appendix IV										
Antimony	mg/L	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008
Arsenic	mg/L	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	--	0.0388	0.0437	--	0.0399	0.04	0.0427	0.0524	0.0492
Beryllium	mg/L	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	--	0.804	0.136 U	--	0.726 U	0.63	0.109 U	-0.428 U	0.43 U
Lead	mg/L	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003
Molybdenum	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-7								BY-GSA-MW-8
		03/30/2020	09/08/2020	05/12/2021	10/18/2021	06/01/2022	11/02/2022	04/11/2023	08/15/2023	02/23/2016
Appendix III										
Boron	mg/L	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.03	<0.02
Calcium	mg/L	1.32	1.12	1.63	1.53	1.27	1.96	1.82	0.941	0.618
Chloride	mg/L	10.5	8.74	17.2	16.7	14.7	18.8	22.6	7.69	4.47
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	0.02 J
pH_Field	SU	4.91	4.39	4.84	5.05	4.56	4.75	4.3	4.56	4.92
Sulfate	mg/L	4.29	3.59	3.58	2.54	3.4	2.24	3.13	3.85	3.33
TDS	mg/L	39.3	42	--	--	--	--	--	--	30
Appendix IV										
Antimony	mg/L	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	0.000586 J	<0.00071	<0.00071	<0.0006
Arsenic	mg/L	<0.001	<0.001	0.000177 J	0.000308	0.000238	0.000363	0.000395	0.00018 J	<0.001
Barium	mg/L	0.0788	0.0615	0.1	0.0859	0.0803	0.131	0.118	0.0687	0.0352
Beryllium	mg/L	<0.0006	<0.0006	0.000464 J	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006
Cadmium	mg/L	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002
Chromium	mg/L	<0.002	<0.002	0.00139	0.00131	0.00157	0.00149	0.00136	0.00163	<0.002
Cobalt	mg/L	<0.002	<0.002	0.00192	0.00167	0.00162	0.00228	0.00215	0.00115	<0.002
Combined Radium	pCi/L	0.939	1.13	1.09	0.69 U	0.99	1.09	1.96	1.18 U	1 U
Lead	mg/L	<0.001	<0.001	7.98e-005 J	7.62e-005 J	7.97e-005 J	0.000125 J	0.000123 J	<6.8e-005	<0.001
Lithium	mg/L	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-8								
		04/18/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/21/2017	05/02/2017	06/07/2017	09/13/2017
Appendix III										
Boron	mg/L	<0.02	<0.02	<0.02	0.0207 J	<0.02	--	<0.02	<0.02	<0.02
Calcium	mg/L	0.505	0.587	0.495 J	0.503	0.554	--	0.548	0.545	0.723
Chloride	mg/L	4.74	4.52	4.71	4.73	--	4.9	5.7	4.1	4.9
Fluoride	mg/L	0.019 J	0.053 J	0.038 J	0.028 J	--	<0.032	0.1	0.1	<0.032
pH_Field	SU	5.16	5.11	5.14	5.09	5.01	5.07	5.13	5.05	5.06
Sulfate	mg/L	3.78	4.44	4.29	4.27	--	3.6 J	2.9 J	2.9 J	3.2 J
TDS	mg/L	27.3	32	--	28	26	--	25.3	--	31.3
Appendix IV										
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	0.000885 J	--	<0.0006	<0.0006	--
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--
Barium	mg/L	0.0251	0.0299	0.0287	0.0309	0.0282	--	0.0309	0.0287	--
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006	--
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--
Chromium	mg/L	0.00201 J	<0.002	0.00205 J	0.00218 J	<0.002	--	0.00208 J	0.0022 J	--
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--
Combined Radium	pCi/L	1 U	0.69	0.687	0.62	0.266 U	--	0.853	0.477	--
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001	--
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01	--
Mercury	mg/L	<0.00025	0.00031 J	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025	--
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-8								
		01/24/2018	05/02/2018	11/27/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021	10/19/2021
Appendix III										
Boron	mg/L	--	<0.02	<0.02	<0.03	<0.03	<0.03	<0.03	<0.03	0.0303 J
Calcium	mg/L	--	0.751	0.743	0.789	0.882	0.841	0.981	1.02	1.01
Chloride	mg/L	--	4.1	4.9	4.43	4.32	4.38	4.61	5.25	5.34
Fluoride	mg/L	<0.032	<0.032	<0.032	<0.05	<0.05	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	5.02	4.99	5.06	4.92	4.86	4.92	4.35	4.83	4.77
Sulfate	mg/L	--	2.6 J	2.8 J	4.46	4.96	4.84	4.56	4.7	4.2
TDS	mg/L	--	30.7	35.3	28.7	37.3	30	38	--	--
Appendix IV										
Antimony	mg/L	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	0.000164 J
Barium	mg/L	0.0351	0.0398	0.0388	0.0412	0.0453	0.0444	0.0494	0.0488	0.0452
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00258 J	0.00202 J	<0.002	0.00209 J	0.00223 J	0.00275 J	0.00224 J	0.00218	0.00246
Cobalt	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000437	0.000495
Combined Radium	pCi/L	0.411 U	0.718	0.691	0.311 U	0.969	0.397 U	0.0249 U	1.29	1.54
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<6.8e-005	<6.8e-005
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105	<0.007105
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005	7.96e-005 J

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-8				BY-GSA-MW-9				
		06/01/2022	11/02/2022	04/11/2023	08/15/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016
Appendix III										
Boron	mg/L	<0.03	0.0343 J	0.0345 J	0.04 J	0.0297 J	0.0269 J	0.0271 J	0.0272 J	<0.02
Calcium	mg/L	0.94	1.04	0.971	0.903	1.15	1.04	1.22	1.18	1.12
Chloride	mg/L	5.38	5.08	5.2	4.57	4.1	3.11	3.72	4.8	4.71
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	0.05 J	0.039 J	0.085 J	0.078 J	0.071 J
pH_Field	SU	4.03	3.84	4.04	4.45	4.56	4.62	4.64	4.58	4.58
Sulfate	mg/L	5.11	5.34	5.57	5.94	7.71	7.85	7.76	8.22	9.29
TDS	mg/L	--	--	--	--	25.3	28	34.7	26.7	32
Appendix IV										
Antimony	mg/L	<0.000508	<0.000508	<0.00071	<0.00071	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Arsenic	mg/L	<8.1e-005	8.32e-005 J	<0.000112	<0.000112	<0.001	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.0477	0.055	0.0481	0.0486	0.121	0.0926	0.0998	0.106	0.106
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002
Chromium	mg/L	0.00226	0.00209	0.00201	0.00228	<0.002	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	0.000482	0.000514	0.000338	0.000504	<0.002	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	1.37	1.06	1.6	0.8 U	1 U	3.81872	0.941	0.98	1.06
Lead	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	0.000109 J	<0.001	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025
Molybdenum	mg/L	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<0.002	<0.002	<0.002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-9								
		01/30/2017	03/21/2017	05/02/2017	06/07/2017	09/13/2017	01/23/2018	05/01/2018	11/26/2018	05/29/2019
Appendix III										
Boron	mg/L	0.0269 J	--	0.027 J	<0.02	0.032 J	--	0.0302 J	0.139	0.141
Calcium	mg/L	1.23	--	1.2	1.17	1.25	--	1.25	1.61	1.8
Chloride	mg/L	--	5.3	6.6	5.2	6.5	--	5.7	11	8.56
Fluoride	mg/L	--	0.05 J	0.06 J	0.07 J	0.08 J	0.07 J	0.07 J	0.07 J	<0.05
pH_Field	SU	4.44	4.57	4.64	4.58	4.54	4.53	4.46	4.5	4.45
Sulfate	mg/L	--	7.1	5.7	7.1	7.3	--	7.1	7.3	12.3
TDS	mg/L	32.7	--	30.7	--	37.3	--	39.3	48	60
Appendix IV										
Antimony	mg/L	0.000859 J	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0008	<0.0008
Arsenic	mg/L	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001
Barium	mg/L	0.111	--	0.111	0.107	--	0.122	0.139	0.152	0.155
Beryllium	mg/L	<0.0006	--	<0.0006	<0.0006	--	<0.0006	<0.0006	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	--	<0.0002	<0.0002	--	<0.0003	<0.0003	<0.0003	<0.0003
Chromium	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Cobalt	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Combined Radium	pCi/L	1.15	--	1.31	1.12	--	1.16 U	0.961	1.72	2.2
Lead	mg/L	<0.001	--	<0.001	<0.001	--	<0.001	<0.001	<0.001	<0.001
Lithium	mg/L	<0.01	--	<0.01	<0.01	--	<0.01	<0.01	<0.01	<0.01
Mercury	mg/L	<0.00025	--	<0.00025	<0.00025	--	<0.00025	<0.00025	<0.00025	<0.0003
Molybdenum	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002

Notes:

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2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-9								
		10/02/2019	03/31/2020	09/09/2020	05/12/2021	10/19/2021	06/01/2022	11/02/2022	04/11/2023	08/15/2023
Appendix III										
Boron	mg/L	0.116	0.112	0.0873 J	0.0834 J	0.0966 J	0.0933 J	0.0809 J	0.0664 J	0.0622 J
Calcium	mg/L	1.85	1.67	1.79	1.82	1.75	1.55	1.67	1.49	1.58
Chloride	mg/L	8.48	6.87	7.94	8.77	6.33	4.29	3.14	4.32	5.16
Fluoride	mg/L	<0.05	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.49	4.45	4.46	4.43	4.34	4.49	3.93	4.17	3.86
Sulfate	mg/L	11.6	12.5	10.7	12.5	12.6	13	12.2	10.2	10.4
TDS	mg/L	46.7	37.3	50.7	--	--	--	--	--	--
Appendix IV										
Antimony	mg/L	<0.0008	<0.0008	<0.0008	<0.000507	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071
Arsenic	mg/L	<0.001	<0.001	<0.001	0.000173 J	<6.8e-005	0.000105 J	0.000146 J	<0.000112	<0.000112
Barium	mg/L	0.16	0.165	0.17	0.184	0.151	0.142	0.141	0.123	0.134
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<0.0003	<0.0003	<0.0003	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	<0.002	<0.002	<0.002	0.000783 J	0.000812 J	0.00104	0.000918 J	0.000839 J	0.00087 J
Cobalt	mg/L	<0.002	<0.002	<0.002	0.00177	0.00156	0.00131	0.00118	0.000888	0.00117
Combined Radium	pCi/L	2	1.88	2.11	1.94	3.15	2.05	1.93	1.98	0.994 U
Lead	mg/L	<0.001	<0.001	<0.001	0.000288	0.000253	0.000232	0.000233	0.000204	0.000253
Lithium	mg/L	<0.01	<0.01	<0.01	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.002	<0.002	<0.002	<6.8e-005	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075

Notes:

1. mg/L - Milligrams per Liter
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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-10								
		02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/30/2017	03/21/2017	05/02/2017	06/07/2017
Appendix III										
Boron	mg/L	0.0294 J	0.0257 J	0.0257 J	0.0317 J	<0.02	0.0243 J	--	0.0259 J	<0.02
Calcium	mg/L	0.795	0.761	0.799	0.788	0.788	0.755	--	0.763	0.706
Chloride	mg/L	3.57	3.12	3.14	2.93	2.96	--	4.4	3.7	3.3
Fluoride	mg/L	0.05 J	0.05 J	0.098 J	0.089 J	0.092 J	--	0.06 J	0.07 J	0.07 J
pH_Field	SU	4.67	4.79	4.73	4.68	4.75	4.65	4.68	4.75	4.7
Sulfate	mg/L	9.29	9.92	10	11.1	11.7	--	9	7.9	8.4
TDS	mg/L	37.3	34	38.7	34	31.3	--	--	29.3	36
Appendix IV										
Antimony	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	0.000838 J	--	<0.0006	<0.0006
Arsenic	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Barium	mg/L	0.134	0.114	0.118	0.126	0.127	0.1	--	0.114	0.0991
Beryllium	mg/L	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	--	<0.0006	<0.0006
Cadmium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002
Chromium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Cobalt	mg/L	0.00247 J	0.00241 J	0.00247 J	0.00251 J	0.00272 J	<0.002	--	0.00205 J	0.00201 J
Combined Radium	pCi/L	1 U	1 U	1.03	1.05	1.36	0.847	--	0.649	1.4
Lead	mg/L	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	--	<0.001	<0.001
Lithium	mg/L	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	--	<0.01	<0.01
Mercury	mg/L	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	<0.00025	--	<0.00025	<0.00025
Molybdenum	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002

Notes:

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3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-10								
		09/13/2017	01/23/2018	05/01/2018	11/26/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021
Appendix III										
Boron	mg/L	0.0394 J	--	0.0338 J	0.0484 J	0.0669 J	0.0671 J	0.0442 J	0.0509 J	0.0423 J
Calcium	mg/L	0.873	--	1.05	0.922	1.07	1.32	0.98	1.1	1.06
Chloride	mg/L	5.1	--	4	3.8	4.34	4.34	3.89	4.11	3.94
Fluoride	mg/L	0.08 J	0.08 J	0.09 J	0.08 J	<0.05	<0.05	<0.06	<0.06	<0.06
pH_Field	SU	4.71	4.6	4.61	4.65	4.54	4.6	4.55	4.58	4.4
Sulfate	mg/L	8.7	--	10	8.3	11.1	13.2	11.1	9.28	11
TDS	mg/L	35.3	--	32	31.3	43.3	36	33.3	39.3	--
Appendix IV										
Antimony	mg/L	--	<0.0006	<0.0006	<0.0008	<0.0008	<0.0008	<0.0008	<0.0008	<0.000507
Arsenic	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000129 J
Barium	mg/L	--	0.119	0.132	0.112	0.125	0.136	0.122	0.125	0.121
Beryllium	mg/L	--	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.0006	<0.000406
Cadmium	mg/L	--	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<6.8e-005
Chromium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000695 J
Cobalt	mg/L	--	0.00229 J	0.00216 J	0.00205 J	0.00261 J	0.00262 J	0.00238 J	0.00241 J	0.00237
Combined Radium	pCi/L	--	1.36 U	1.03	1.04	0.548 U	2.19	1.01	1.32	2.02
Lead	mg/L	--	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	0.000113 J
Lithium	mg/L	--	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.007105
Mercury	mg/L	--	<0.00025	<0.00025	<0.00025	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-10					BY-GSA-PZ-11			
		10/19/2021	06/01/2022	11/02/2022	04/11/2023	08/15/2023	03/31/2020	09/08/2020	05/12/2021	10/19/2021
Appendix III										
Boron	mg/L	0.0444 J	0.0493 J	0.0502 J	0.0503 J	0.0492 J	0.0864 J	0.0638 J	0.0742 J	0.0551 J
Calcium	mg/L	0.977	1.04	1.15	1.16	1.08	0.663	0.724	0.861	0.941
Chloride	mg/L	3.79	3.35	3.07	3.17	2.98	4.13	3.96	4.89	5.02
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.48	4.56	4.39	4.43	4.17	4.91	4.12	4.93	4.8
Sulfate	mg/L	10.1	11.4	11.5	11.9	11.7	3.16	3.61	4.62	4.92
TDS	mg/L	--	--	--	--	--	--	29.3	--	--
Appendix IV										
Antimony	mg/L	<0.000508	<0.000508	<0.000508	<0.00071	<0.00071	<0.0008	<0.0008	<0.000507	<0.000508
Arsenic	mg/L	0.000128 J	8.93e-005 J	0.000147 J	<0.000112	<0.000112	<0.001	<0.001	0.000111 J	0.000126 J
Barium	mg/L	0.115	0.136	0.133	0.127	0.12	0.0499	0.05	0.0597	0.0599
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406	<0.000406	<0.0006	<0.0006	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0003	<0.0003	<6.8e-005	<6.8e-005
Chromium	mg/L	0.000793 J	0.000893 J	0.000663 J	0.000659 J	0.000926 J	0.00249 J	0.00253 J	0.00281	0.00336
Cobalt	mg/L	0.00238	0.0027	0.00249	0.00265	0.00251	<0.002	<0.002	0.00101	0.00117
Combined Radium	pCi/L	1.6	2.27	1.34	1.87	1.2 U	0.968	0.468 U	0.515 U	0.87 U
Lead	mg/L	9.96e-005 J	0.000102 J	0.000122 J	0.000131 J	0.000153 J	<0.001	<0.001	0.000208	0.000138 J
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105	<0.007105	<0.01	<0.01	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<6.8e-005	<0.000102	<0.000102	<0.005075	<0.005075	<0.002	<0.002	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS			
		BY-GSA-PZ-11			
		06/01/2022	11/02/2022	04/11/2023	08/15/2023
Appendix III					
Boron	mg/L	0.0564 J	0.035 J	0.0507 J	0.0341 J
Calcium	mg/L	1.13	1.31	1.31	1.54
Chloride	mg/L	7.97	7.81	7.33	11.5
Fluoride	mg/L	<0.06	<0.06	<0.06	<0.06
pH_Field	SU	4.74	4.57	4.8	4.45
Sulfate	mg/L	4.75	4.65	5.92	5.65
TDS	mg/L	--	--	--	--
Appendix IV					
Antimony	mg/L	<0.000508	<0.000508	<0.00071	<0.00071
Arsenic	mg/L	<8.1e-005	8.52e-005 J	<0.000112	<0.000112
Barium	mg/L	0.0821	0.0903	0.0842	0.109
Beryllium	mg/L	<0.000406	<0.000406	<0.000406	<0.000406
Cadmium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005
Chromium	mg/L	0.00292	0.00276	0.00301	0.00323
Cobalt	mg/L	0.00143	0.00144	0.00139	0.00184
Combined Radium	pCi/L	1.13	0.625 U	1.05	1.26 U
Lead	mg/L	0.00012 J	<6.8e-005	8.21e-005 J	0.000171 J
Lithium	mg/L	<0.007105	<0.007105	<0.007105	<0.007105
Mercury	mg/L	<0.0003	<0.0003	<0.0003	<0.0003
Molybdenum	mg/L	<0.000102	<0.000102	<0.005075	<0.005075

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1								
		02/23/2016	04/19/2016	06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1								
		09/13/2017	01/23/2018	05/02/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021
Appendix IV										
Selenium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507
Thallium	mg/L	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-1					BY-UP-MW-2			
		10/19/2021	05/31/2022	11/01/2022	04/12/2023	08/16/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016
Appendix IV										
Selenium	mg/L	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2								
		10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018
Appendix IV										
Selenium	mg/L	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2								
		05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/11/2021	10/19/2021	05/31/2022	11/01/2022	04/12/2023
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	0.000602 J	<0.000508	0.000633 J	0.000558 J	0.000702 J
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-2	BY-UP-MW-3							
		08/16/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017
Appendix IV										
Selenium	mg/L	0.000614 J	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002
Thallium	mg/L	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-3								
		06/06/2017	09/13/2017	01/23/2018	05/01/2018	11/27/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020
Appendix IV										
Selenium	mg/L	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-3						BY-UP-MW-4		
		05/11/2021	10/18/2021	05/31/2022	11/01/2022	04/12/2023	08/16/2023	02/23/2016	04/19/2016	06/06/2016
Appendix IV										
Selenium	mg/L	<0.000507	<0.000508	<0.000508	<0.000508	<0.000508	<0.000508	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-4								
		08/30/2016	10/18/2016	01/31/2017	03/20/2017	05/02/2017	06/06/2017	09/12/2017	01/23/2018	05/01/2018
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	--	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-4								
		11/26/2018	05/28/2019	10/02/2019	03/31/2020	09/08/2020	05/11/2021	10/18/2021	05/31/2022	11/01/2022
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	<0.000508	<0.000508	<0.000508
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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ANALYTICAL DATA SUMMARY
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-UP-MW-4		BY-GSA-MW-5						
		04/12/2023	08/16/2023	02/23/2016	04/18/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/21/2017
Appendix IV										
Selenium	mg/L	<0.000508	<0.000508	0.00572 J	0.0141	0.00698 J	0.0042 J	0.00386 J	0.00247 J	--
Thallium	mg/L	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
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5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-5								
		05/02/2017	06/06/2017	09/13/2017	01/24/2018	05/02/2018	11/27/2018	05/28/2019	10/02/2019	03/30/2020
Appendix IV										
Selenium	mg/L	0.00284 J	0.003 J	--	0.00201 J	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-5						BY-GSA-MW-6		
		09/08/2020	05/12/2021	10/19/2021	05/31/2022	11/02/2022	04/11/2023	08/15/2023	02/23/2016	04/18/2016
Appendix IV										
Selenium	mg/L	0.0052 J	0.0163	0.0029	0.0217	0.0247	0.0168	0.00465	0.0266	0.0529
Thallium	mg/L	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-6								
		06/06/2016	08/30/2016	10/18/2016	01/31/2017	03/21/2017	05/02/2017	06/06/2017	09/12/2017	01/22/2018
Appendix IV										
Selenium	mg/L	0.0382	0.014	0.0105	0.0104	--	0.00778 J	0.00576 J	--	0.00287 J
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-6								
		05/01/2018	11/26/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021	10/18/2021	05/31/2022
Appendix IV										
Selenium	mg/L	0.00367 J	0.00286 J	0.0089 J	0.00472 J	0.00658 J	0.0052 J	0.0123	0.00672	0.0132
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-6			BY-GSA-MW-7					
		11/02/2022	04/11/2023	08/15/2023	02/23/2016	04/18/2016	06/06/2016	08/30/2016	10/18/2016	01/30/2017
Appendix IV										
Selenium	mg/L	0.0156	0.0232	0.0162	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-7								
		03/21/2017	05/02/2017	06/07/2017	09/12/2017	01/22/2018	05/01/2018	11/27/2018	05/28/2019	10/02/2019
Appendix IV										
Selenium	mg/L	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-7								BY-GSA-MW-8
		03/30/2020	09/08/2020	05/12/2021	10/18/2021	06/01/2022	11/02/2022	04/11/2023	08/15/2023	02/23/2016
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.000507	0.000572 J	0.000581 J	<0.000508	0.000519 J	0.000558 J	<0.002
Thallium	mg/L	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-8								
		04/18/2016	06/07/2016	08/30/2016	10/18/2016	01/31/2017	03/21/2017	05/02/2017	06/07/2017	09/13/2017
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002	--
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002	--

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-8								
		01/24/2018	05/02/2018	11/27/2018	05/28/2019	10/02/2019	03/30/2020	09/08/2020	05/12/2021	10/19/2021
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.000507	0.000523 J
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-8				BY-GSA-MW-9				
		06/01/2022	11/02/2022	04/11/2023	08/15/2023	02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016
Appendix IV										
Selenium	mg/L	<0.000508	<0.000508	0.00055 J	<0.000508	<0.002	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-9								
		01/30/2017	03/21/2017	05/02/2017	06/07/2017	09/13/2017	01/23/2018	05/01/2018	11/26/2018	05/29/2019
Appendix IV										
Selenium	mg/L	<0.002	--	<0.002	<0.002	--	<0.002	<0.002	<0.002	<0.002
Thallium	mg/L	<0.0002	--	<0.0002	<0.0002	--	<0.0002	<0.0002	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-9								
		10/02/2019	03/31/2020	09/09/2020	05/12/2021	10/19/2021	06/01/2022	11/02/2022	04/11/2023	08/15/2023
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	0.00128	0.00118	0.00204	0.00198	0.00123	0.00137
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-10								
		02/23/2016	04/19/2016	06/07/2016	08/30/2016	10/18/2016	01/30/2017	03/21/2017	05/02/2017	06/07/2017
Appendix IV										
Selenium	mg/L	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	--	<0.002	<0.002
Thallium	mg/L	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	--	<0.0002	<0.0002

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-10								
		09/13/2017	01/23/2018	05/01/2018	11/26/2018	05/29/2019	10/02/2019	03/31/2020	09/09/2020	05/12/2021
Appendix IV										
Selenium	mg/L	--	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	0.000778 J
Thallium	mg/L	--	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<0.0002	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS								
		BY-GSA-MW-10					BY-GSA-PZ-11			
		10/19/2021	06/01/2022	11/02/2022	04/11/2023	08/15/2023	03/31/2020	09/08/2020	05/12/2021	10/19/2021
Appendix IV										
Selenium	mg/L	0.000832 J	0.00125	0.00133	0.00108	0.0011	<0.002	<0.002	0.00111	0.00114
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005	<0.0002	<0.0002	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. 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
Gypsum Storage Area (02/23/2016 - 08/16/2023)
APC Plant Barry
Mobile County Alabama

Analyte	Units	GROUNDWATER MONITORING WELLS			
		BY-GSA-PZ-11			
		06/01/2022	11/02/2022	04/11/2023	08/15/2023
Appendix IV					
Selenium	mg/L	0.00132	0.00163	0.00168	0.00154
Thallium	mg/L	<6.8e-005	<6.8e-005	<6.8e-005	<6.8e-005

Notes:

1. mg/L - Milligrams per Liter
2. pCi/L - picocuries per Liter
3. J - Result is an estimated value. The result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
4. < - Constituent was analyzed for, but was not detected above the MDL and is considered a non-detect. Value is displayed as less than the PQL.
5. 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.
6. Annual sampling for Appendix IV constituents only was completed following initiation of assessment monitoring. Appendix III constituents were not required during this monitoring event.

Appendix B



Appendix B. Historical Groundwater Elevations Summary

Plant Barry Gypsum Storage Area
02/22/2016 - 08/7/2023

Well	Hydraulic Location	Geologic Unit	Measure Date														
			02/22/16	04/18/16	06/06/16	08/29/16	10/17/16	01/30/17	03/20/17	05/01/17	06/05/17	09/12/17	11/15/17	01/22/18	04/30/18	08/27/18	11/26/18
BY-UP-MW-1	Upgradient	Unit 2: Mixed Sand and Clay	7.73	7.92	5.81	5.13	4.59	6.94	5.42	5.51	6.64	5.45	5.43	4.75	6.83	5.22	5.84
BY-UP-MW-2	Upgradient	Unit 2: Mixed Sand and Clay	7.55	7.77	5.75	5.04	4.50	6.82	5.30	5.48	6.45	5.30	5.28	4.68	6.66	5.06	5.73
BY-UP-MW-3	Upgradient	Unit 2: Mixed Sand and Clay	8.19	8.45	6.52	5.78	5.19	7.55	6.04	6.16	7.39	6.16	6.08	5.46	7.19	5.76	6.40
BY-UP-MW-4	Upgradient	Unit 2: Mixed Sand and Clay	7.83	8.13	6.21	5.47	4.93	7.25	5.71	5.98	6.87	5.74	5.69	5.18	6.99	5.47	6.13
BY-GSA-MW-5	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	7.08	7.41	5.28	4.61	4.09	6.52	4.78	5.17	5.77	8.59	4.67	4.18	6.42	4.61	5.30
BY-GSA-MW-6	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	6.49	6.96	4.63	4.02	3.47	6.14	4.08	4.73	5.06	3.87	3.93	3.56	6.02	4.07	4.72
BY-GSA-MW-7	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	6.57	6.97	4.63	4.02	3.47	6.16	4.10	4.64	5.08	3.80	3.92	3.47	6.00	3.99	4.77
BY-GSA-MW-8	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	6.97	7.21	4.98	4.26	3.79	6.36	4.52	4.90	5.48	4.22	4.36	3.82	6.28	4.34	5.15
BY-GSA-MW-9	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	6.68	7.02	4.81	4.14	3.65	6.23	4.37	4.75	5.48	4.17	4.25	3.72	6.10	4.26	5.07
BY-GSA-MW-10	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	7.08	7.40	5.22	4.55	4.05	6.57	4.82	5.04	5.96	4.69	4.76	4.15	6.41	4.69	5.41
BY-GSA-PZ-11	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	6.20	6.71	4.30	3.63	3.00	5.95	3.71	4.42	4.74	NM	13.46	3.15	5.96	3.79	4.46
BY-GSA-PZ-12	Piezometer	Unit 3: Middle Sands (Watercourse Aq)	6.68	7.08	4.74	4.05	3.51	6.29	4.19	4.71	5.2	3.82	3.97	3.52	6.18	4.12	4.97

Notes:
(1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.



Appendix B. Historical Groundwater Elevations Summary

Plant Barry Gypsum Storage Area
02/22/2016 - 08/7/2023

Well	Hydraulic Location	Geologic Unit	Measure Date														
			05/28/19	10/02/19	03/30/20	09/08/20	05/11/21	05/12/21	05/24/21	10/18/21	05/23/22	5/31/22	10/31/22	04/03/23	04/11/23	6/11/23	8/7/23
BY-UP-MW-1	Upgradient	Unit 2: Mixed Sand and Clay	6.60	4.78	8.38	5.31	7.41	NM	7.13	6.64	6.17	NM	5.04	7.31	7.25	5.46	4.91
BY-UP-MW-2	Upgradient	Unit 2: Mixed Sand and Clay	6.32	4.71	8.05	5.16	7.25	NM	6.80	6.40	6.03	NM	5.00	7.25	7.09	5.35	4.80
BY-UP-MW-3	Upgradient	Unit 2: Mixed Sand and Clay	7.02	5.37	8.54	5.83	8.03	NM	7.49	7.19	6.75	NM	5.79	7.80	7.63	6.03	5.50
BY-UP-MW-4	Upgradient	Unit 2: Mixed Sand and Clay	6.57	5.16	8.20	5.53	NM	NM	6.99	6.68	6.37	NM	5.53	7.74	7.39	5.78	5.23
BY-GSA-MW-5	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	5.62	4.35	7.44	4.55	NM	7.09	5.95	5.44	NM	6.12	4.53	NM	6.66	4.65	4.15
BY-GSA-MW-6	Downgradient	Unit 3: Upper Sands (Watercourse Aq)	4.74	3.85	6.91	4.00	NM	6.96	5.17	4.78	NM	5.74	4.07	NM	6.13	4.17	3.84
BY-GSA-MW-7	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	4.84	3.84	6.86	3.91	NM	6.74	5.19	4.76	NM	5.72	3.89	NM	6.10	3.98	3.64
BY-GSA-MW-8	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	5.36	4.07	7.21	4.31	NM	6.85	5.75	5.28	NM	6.02	4.20	NM	6.44	4.41	3.93
BY-GSA-MW-9	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	5.29	3.91	7.17	4.34	NM	6.81	5.80	5.32	NM	6.01	4.17	NM	6.38	4.41	3.94
BY-GSA-MW-10	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	5.85	4.31	7.48	4.63	NM	6.98	6.24	5.76	NM	6.25	4.41	NM	6.62	4.74	4.24
BY-GSA-PZ-11	Downgradient	Unit 3: Middle Sands (Watercourse Aq)	4.41	3.68	6.70	3.54	NM	6.71	4.70	4.22	NM	5.51	3.59	NM	5.90	3.66	3.44
BY-GSA-PZ-12	Piezometer	Unit 3: Middle Sands (Watercourse Aq)	4.98	3.87	6.98	4	NM	NM	5.33	4.84	NM	5.83	3.92	NM	6.29	4.09	3.71

Notes:
(1) Groundwater elevations measured in vertical feet relative to the North American Vertical Datum (NAVD) 1988.

Appendix C

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

Field Case Narrative



Plant Barry Gypsum Pond

2023 Compliance Event 1

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

Field 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.

Plant Barry Gypsum Storage Area
Field Parameter Summary

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
APCO- BY-UP-MW-1	COND	Conductivity	4/12/23 12:45	51.89	uS/cm
APCO- BY-UP-MW-1	DO	DO	4/12/23 12:45	0.31	mg/L
APCO- BY-UP-MW-1	DTW	Depth to Water Detail	4/12/23 12:45	13.42	ft
APCO- BY-UP-MW-1	ORP	Oxidation Reduction Potention	4/12/23 12:45	229.85	mv
APCO- BY-UP-MW-1	PH	pH	4/12/23 12:45	4.76	SU
APCO- BY-UP-MW-1	TEMP	Temperature	4/12/23 12:45	20.25	C
APCO- BY-UP-MW-1	TURB	Turbidity	4/12/23 12:45	5.73	NTU
APCO- BY-UP-MW-1	COND	Conductivity	4/12/23 12:50	50.89	uS/cm
APCO- BY-UP-MW-1	DO	DO	4/12/23 12:50	0.28	mg/L
APCO- BY-UP-MW-1	DTW	Depth to Water Detail	4/12/23 12:50	13.42	ft
APCO- BY-UP-MW-1	ORP	Oxidation Reduction Potention	4/12/23 12:50	230.01	mv
APCO- BY-UP-MW-1	PH	pH	4/12/23 12:50	4.79	SU
APCO- BY-UP-MW-1	TEMP	Temperature	4/12/23 12:50	20.28	C
APCO- BY-UP-MW-1	TURB	Turbidity	4/12/23 12:50	4.23	NTU
APCO- BY-UP-MW-1	COND	Conductivity	4/12/23 12:55	50.71	uS/cm
APCO- BY-UP-MW-1	DO	DO	4/12/23 12:55	0.27	mg/L
APCO- BY-UP-MW-1	DTW	Depth to Water Detail	4/12/23 12:55	13.42	ft
APCO- BY-UP-MW-1	ORP	Oxidation Reduction Potention	4/12/23 12:55	230.75	mv
APCO- BY-UP-MW-1	PH	pH	4/12/23 12:55	4.81	SU
APCO- BY-UP-MW-1	TEMP	Temperature	4/12/23 12:55	20.28	C
APCO- BY-UP-MW-1	TURB	Turbidity	4/12/23 12:55	2.95	NTU
APCO- BY-UP-MW-1	COND	Conductivity	4/12/23 13:00	50.26	uS/cm
APCO- BY-UP-MW-1	DO	DO	4/12/23 13:00	0.28	mg/L
APCO- BY-UP-MW-1	DTW	Depth to Water Detail	4/12/23 13:00	13.42	ft
APCO- BY-UP-MW-1	ORP	Oxidation Reduction Potention	4/12/23 13:00	234.04	mv
APCO- BY-UP-MW-1	PH	pH	4/12/23 13:00	4.77	SU
APCO- BY-UP-MW-1	SULFIDE	Sulfide	4/12/23 13:00	0	mg/L
APCO- BY-UP-MW-1	TEMP	Temperature	4/12/23 13:00	20.31	C
APCO- BY-UP-MW-1	TURB	Turbidity	4/12/23 13:00	2.86	NTU
APCO- BY-UP-MW-2	COND	Conductivity	4/12/23 11:48	51.94	uS/cm
APCO- BY-UP-MW-2	DO	DO	4/12/23 11:48	6.43	mg/L
APCO- BY-UP-MW-2	DTW	Depth to Water Detail	4/12/23 11:48	12.92	ft
APCO- BY-UP-MW-2	ORP	Oxidation Reduction Potention	4/12/23 11:48	396.32	mv
APCO- BY-UP-MW-2	PH	pH	4/12/23 11:48	4.62	SU
APCO- BY-UP-MW-2	TEMP	Temperature	4/12/23 11:48	19.54	C
APCO- BY-UP-MW-2	TURB	Turbidity	4/12/23 11:48	17.3	NTU
APCO- BY-UP-MW-2	COND	Conductivity	4/12/23 11:53	51.82	uS/cm
APCO- BY-UP-MW-2	DO	DO	4/12/23 11:53	6.26	mg/L
APCO- BY-UP-MW-2	DTW	Depth to Water Detail	4/12/23 11:53	12.92	ft
APCO- BY-UP-MW-2	ORP	Oxidation Reduction Potention	4/12/23 11:53	409.68	mv
APCO- BY-UP-MW-2	PH	pH	4/12/23 11:53	4.65	SU
APCO- BY-UP-MW-2	TEMP	Temperature	4/12/23 11:53	19.54	C
APCO- BY-UP-MW-2	TURB	Turbidity	4/12/23 11:53	17.8	NTU
APCO- BY-UP-MW-2	COND	Conductivity	4/12/23 11:58	51.84	uS/cm
APCO- BY-UP-MW-2	DO	DO	4/12/23 11:58	6.17	mg/L
APCO- BY-UP-MW-2	DTW	Depth to Water Detail	4/12/23 11:58	12.92	ft
APCO- BY-UP-MW-2	ORP	Oxidation Reduction Potention	4/12/23 11:58	420.19	mv
APCO- BY-UP-MW-2	PH	pH	4/12/23 11:58	4.59	SU
APCO- BY-UP-MW-2	TEMP	Temperature	4/12/23 11:58	19.55	C
APCO- BY-UP-MW-2	TURB	Turbidity	4/12/23 11:58	14.6	NTU
APCO- BY-UP-MW-2	COND	Conductivity	4/12/23 12:03	51.71	uS/cm
APCO- BY-UP-MW-2	DO	DO	4/12/23 12:03	6.14	mg/L
APCO- BY-UP-MW-2	DTW	Depth to Water Detail	4/12/23 12:03	12.92	ft
APCO- BY-UP-MW-2	ORP	Oxidation Reduction Potention	4/12/23 12:03	422.45	mv
APCO- BY-UP-MW-2	PH	pH	4/12/23 12:03	4.63	SU
APCO- BY-UP-MW-2	TEMP	Temperature	4/12/23 12:03	19.49	C
APCO- BY-UP-MW-2	TURB	Turbidity	4/12/23 12:03	11.16	NTU
APCO- BY-UP-MW-2	COND	Conductivity	4/12/23 12:08	51.68	uS/cm
APCO- BY-UP-MW-2	DO	DO	4/12/23 12:08	6.08	mg/L
APCO- BY-UP-MW-2	DTW	Depth to Water Detail	4/12/23 12:08	12.92	ft

Plant Barry Gypsum Storage Area
Field Parameter Summary

APCO- BY-UP-MW-2	ORP	Oxidation Reduction Potention	4/12/23 12:08	422.56	mv
APCO- BY-UP-MW-2	PH	pH	4/12/23 12:08	4.67	SU
APCO- BY-UP-MW-2	SULFIDE	Sulfide	4/12/23 12:08	0	mg/L
APCO- BY-UP-MW-2	TEMP	Temperature	4/12/23 12:08	19.45	C
APCO- BY-UP-MW-2	TURB	Turbidity	4/12/23 12:08	8.09	NTU
APCO- BY-UP-MW-3	COND	Conductivity	4/12/23 10:45	54.26	uS/cm
APCO- BY-UP-MW-3	DO	DO	4/12/23 10:45	5.78	mg/L
APCO- BY-UP-MW-3	DTW	Depth to Water Detail	4/12/23 10:45	15.66	ft
APCO- BY-UP-MW-3	ORP	Oxidation Reduction Potention	4/12/23 10:45	373.43	mv
APCO- BY-UP-MW-3	PH	pH	4/12/23 10:45	4.72	SU
APCO- BY-UP-MW-3	TEMP	Temperature	4/12/23 10:45	19.5	C
APCO- BY-UP-MW-3	TURB	Turbidity	4/12/23 10:45	5.48	NTU
APCO- BY-UP-MW-3	COND	Conductivity	4/12/23 10:50	54.31	uS/cm
APCO- BY-UP-MW-3	DO	DO	4/12/23 10:50	5.7	mg/L
APCO- BY-UP-MW-3	DTW	Depth to Water Detail	4/12/23 10:50	15.66	ft
APCO- BY-UP-MW-3	ORP	Oxidation Reduction Potention	4/12/23 10:50	387.46	mv
APCO- BY-UP-MW-3	PH	pH	4/12/23 10:50	4.77	SU
APCO- BY-UP-MW-3	TEMP	Temperature	4/12/23 10:50	19.51	C
APCO- BY-UP-MW-3	TURB	Turbidity	4/12/23 10:50	3.98	NTU
APCO- BY-UP-MW-3	COND	Conductivity	4/12/23 10:55	54.24	uS/cm
APCO- BY-UP-MW-3	DO	DO	4/12/23 10:55	5.68	mg/L
APCO- BY-UP-MW-3	DTW	Depth to Water Detail	4/12/23 10:55	15.66	ft
APCO- BY-UP-MW-3	ORP	Oxidation Reduction Potention	4/12/23 10:55	393.4	mv
APCO- BY-UP-MW-3	PH	pH	4/12/23 10:55	4.81	SU
APCO- BY-UP-MW-3	TEMP	Temperature	4/12/23 10:55	19.52	C
APCO- BY-UP-MW-3	TURB	Turbidity	4/12/23 10:55	3.96	NTU
APCO- BY-UP-MW-3	COND	Conductivity	4/12/23 11:00	54.29	uS/cm
APCO- BY-UP-MW-3	DO	DO	4/12/23 11:00	5.66	mg/L
APCO- BY-UP-MW-3	DTW	Depth to Water Detail	4/12/23 11:00	15.66	ft
APCO- BY-UP-MW-3	ORP	Oxidation Reduction Potention	4/12/23 11:00	397.4	mv
APCO- BY-UP-MW-3	PH	pH	4/12/23 11:00	4.83	SU
APCO- BY-UP-MW-3	SULFIDE	Sulfide	4/12/23 11:00	0	mg/L
APCO- BY-UP-MW-3	TEMP	Temperature	4/12/23 11:00	19.52	C
APCO- BY-UP-MW-3	TURB	Turbidity	4/12/23 11:00	3.14	NTU
APCO- BY-UP-MW-4	COND	Conductivity	4/12/23 9:27	58.91	uS/cm
APCO- BY-UP-MW-4	DO	DO	4/12/23 9:27	6.12	mg/L
APCO- BY-UP-MW-4	DTW	Depth to Water Detail	4/12/23 9:27	21.84	ft
APCO- BY-UP-MW-4	ORP	Oxidation Reduction Potention	4/12/23 9:27	354.83	mv
APCO- BY-UP-MW-4	PH	pH	4/12/23 9:27	4.74	SU
APCO- BY-UP-MW-4	TEMP	Temperature	4/12/23 9:27	20.73	C
APCO- BY-UP-MW-4	TURB	Turbidity	4/12/23 9:27	9.38	NTU
APCO- BY-UP-MW-4	COND	Conductivity	4/12/23 9:32	58.83	uS/cm
APCO- BY-UP-MW-4	DO	DO	4/12/23 9:32	6.12	mg/L
APCO- BY-UP-MW-4	DTW	Depth to Water Detail	4/12/23 9:32	21.84	ft
APCO- BY-UP-MW-4	ORP	Oxidation Reduction Potention	4/12/23 9:32	379.72	mv
APCO- BY-UP-MW-4	PH	pH	4/12/23 9:32	4.6	SU
APCO- BY-UP-MW-4	TEMP	Temperature	4/12/23 9:32	20.75	C
APCO- BY-UP-MW-4	TURB	Turbidity	4/12/23 9:32	7.55	NTU
APCO- BY-UP-MW-4	COND	Conductivity	4/12/23 9:37	58.42	uS/cm
APCO- BY-UP-MW-4	DO	DO	4/12/23 9:37	6.1	mg/L
APCO- BY-UP-MW-4	DTW	Depth to Water Detail	4/12/23 9:37	21.84	ft
APCO- BY-UP-MW-4	ORP	Oxidation Reduction Potention	4/12/23 9:37	388.26	mv
APCO- BY-UP-MW-4	PH	pH	4/12/23 9:37	4.66	SU
APCO- BY-UP-MW-4	TEMP	Temperature	4/12/23 9:37	20.75	C
APCO- BY-UP-MW-4	TURB	Turbidity	4/12/23 9:37	6.75	NTU
APCO- BY-UP-MW-4	COND	Conductivity	4/12/23 9:42	58.11	uS/cm
APCO- BY-UP-MW-4	DO	DO	4/12/23 9:42	6.03	mg/L
APCO- BY-UP-MW-4	DTW	Depth to Water Detail	4/12/23 9:42	21.84	ft
APCO- BY-UP-MW-4	ORP	Oxidation Reduction Potention	4/12/23 9:42	393.08	mv
APCO- BY-UP-MW-4	PH	pH	4/12/23 9:42	4.7	SU
APCO- BY-UP-MW-4	TEMP	Temperature	4/12/23 9:42	20.77	C

Plant Barry Gypsum Storage Area
Field Parameter Summary

APCO- BY-UP-MW-4	TURB	Turbidity	4/12/23 9:42	5.72	NTU
APCO- BY-UP-MW-4	COND	Conductivity	4/12/23 9:47	57.67	uS/cm
APCO- BY-UP-MW-4	DO	DO	4/12/23 9:47	5.97	mg/L
APCO- BY-UP-MW-4	DTW	Depth to Water Detail	4/12/23 9:47	21.84	ft
APCO- BY-UP-MW-4	ORP	Oxidation Reduction Potention	4/12/23 9:47	397.5	mv
APCO- BY-UP-MW-4	PH	pH	4/12/23 9:47	4.73	SU
APCO- BY-UP-MW-4	SULFIDE	Sulfide	4/12/23 9:47	0	mg/L
APCO- BY-UP-MW-4	TEMP	Temperature	4/12/23 9:47	20.79	C
APCO- BY-UP-MW-4	TURB	Turbidity	4/12/23 9:47	4.96	NTU
APCO- BY-GSA-MW-5	COND	Conductivity	4/11/23 9:10	120.44	uS/cm
APCO- BY-GSA-MW-5	DO	DO	4/11/23 9:10	5.12	mg/L
APCO- BY-GSA-MW-5	DTW	Depth to Water Detail	4/11/23 9:10	27.79	ft
APCO- BY-GSA-MW-5	ORP	Oxidation Reduction Potential	4/11/23 9:10	366.48	mv
APCO- BY-GSA-MW-5	PH	pH	4/11/23 9:10	4.68	SU
APCO- BY-GSA-MW-5	TEMP	Temperature	4/11/23 9:10	21.62	C
APCO- BY-GSA-MW-5	TURB	Turbidity	4/11/23 9:10	3.43	NTU
APCO- BY-GSA-MW-5	COND	Conductivity	4/11/23 9:15	121.53	uS/cm
APCO- BY-GSA-MW-5	DO	DO	4/11/23 9:15	5.08	mg/L
APCO- BY-GSA-MW-5	DTW	Depth to Water Detail	4/11/23 9:15	27.79	ft
APCO- BY-GSA-MW-5	ORP	Oxidation Reduction Potential	4/11/23 9:15	381.59	mv
APCO- BY-GSA-MW-5	PH	pH	4/11/23 9:15	4.68	SU
APCO- BY-GSA-MW-5	TEMP	Temperature	4/11/23 9:15	21.75	C
APCO- BY-GSA-MW-5	TURB	Turbidity	4/11/23 9:15	2.82	NTU
APCO- BY-GSA-MW-5	COND	Conductivity	4/11/23 9:20	124.27	uS/cm
APCO- BY-GSA-MW-5	DO	DO	4/11/23 9:20	5.06	mg/L
APCO- BY-GSA-MW-5	DTW	Depth to Water Detail	4/11/23 9:20	27.79	ft
APCO- BY-GSA-MW-5	ORP	Oxidation Reduction Potential	4/11/23 9:20	396.32	mv
APCO- BY-GSA-MW-5	PH	pH	4/11/23 9:20	4.57	SU
APCO- BY-GSA-MW-5	TEMP	Temperature	4/11/23 9:20	21.78	C
APCO- BY-GSA-MW-5	TURB	Turbidity	4/11/23 9:20	1.83	NTU
APCO- BY-GSA-MW-5	COND	Conductivity	4/11/23 9:25	120.51	uS/cm
APCO- BY-GSA-MW-5	DO	DO	4/11/23 9:25	5.05	mg/L
APCO- BY-GSA-MW-5	DTW	Depth to Water Detail	4/11/23 9:25	27.79	ft
APCO- BY-GSA-MW-5	ORP	Oxidation Reduction Potential	4/11/23 9:25	400.28	mv
APCO- BY-GSA-MW-5	PH	pH	4/11/23 9:25	4.63	SU
APCO- BY-GSA-MW-5	SULFIDE	Sulfide	4/11/23 9:25	0	mg/L
APCO- BY-GSA-MW-5	TEMP	Temperature	4/11/23 9:25	21.77	C
APCO- BY-GSA-MW-5	TURB	Turbidity	4/11/23 9:25	1.74	NTU
APCO- BY-GSA-MW-6	COND	Conductivity	4/11/23 10:03	202.6	uS/cm
APCO- BY-GSA-MW-6	DO	DO	4/11/23 10:03	4.44	mg/L
APCO- BY-GSA-MW-6	DTW	Depth to Water Detail	4/11/23 10:03	15.68	ft
APCO- BY-GSA-MW-6	ORP	Oxidation Reduction Potential	4/11/23 10:03	316.02	mv
APCO- BY-GSA-MW-6	PH	pH	4/11/23 10:03	5.48	SU
APCO- BY-GSA-MW-6	TEMP	Temperature	4/11/23 10:03	21.98	C
APCO- BY-GSA-MW-6	TURB	Turbidity	4/11/23 10:03	3.1	NTU
APCO- BY-GSA-MW-6	COND	Conductivity	4/11/23 10:08	196.13	uS/cm
APCO- BY-GSA-MW-6	DO	DO	4/11/23 10:08	4.42	mg/L
APCO- BY-GSA-MW-6	DTW	Depth to Water Detail	4/11/23 10:08	15.68	ft
APCO- BY-GSA-MW-6	ORP	Oxidation Reduction Potential	4/11/23 10:08	334.86	mv
APCO- BY-GSA-MW-6	PH	pH	4/11/23 10:08	5.48	SU
APCO- BY-GSA-MW-6	TEMP	Temperature	4/11/23 10:08	22.04	C
APCO- BY-GSA-MW-6	TURB	Turbidity	4/11/23 10:08	3.85	NTU
APCO- BY-GSA-MW-6	COND	Conductivity	4/11/23 10:13	189.68	uS/cm
APCO- BY-GSA-MW-6	DO	DO	4/11/23 10:13	4.43	mg/L
APCO- BY-GSA-MW-6	DTW	Depth to Water Detail	4/11/23 10:13	15.68	ft
APCO- BY-GSA-MW-6	ORP	Oxidation Reduction Potential	4/11/23 10:13	344.74	mv
APCO- BY-GSA-MW-6	PH	pH	4/11/23 10:13	5.43	SU
APCO- BY-GSA-MW-6	TEMP	Temperature	4/11/23 10:13	22.03	C
APCO- BY-GSA-MW-6	TURB	Turbidity	4/11/23 10:13	3.61	NTU
APCO- BY-GSA-MW-6	COND	Conductivity	4/11/23 10:18	182.37	uS/cm
APCO- BY-GSA-MW-6	DO	DO	4/11/23 10:18	4.44	mg/L

Plant Barry Gypsum Storage Area
Field Parameter Summary

APCO- BY-GSA-MW-6	DTW	Depth to Water Detail	4/11/23 10:18	15.68	ft
APCO- BY-GSA-MW-6	ORP	Oxidation Reduction Potential	4/11/23 10:18	354.13	mv
APCO- BY-GSA-MW-6	PH	pH	4/11/23 10:18	5.29	SU
APCO- BY-GSA-MW-6	TEMP	Temperature	4/11/23 10:18	22.13	C
APCO- BY-GSA-MW-6	TURB	Turbidity	4/11/23 10:18	4.44	NTU
APCO- BY-GSA-MW-6	COND	Conductivity	4/11/23 10:23	180.04	uS/cm
APCO- BY-GSA-MW-6	DO	DO	4/11/23 10:23	4.43	mg/L
APCO- BY-GSA-MW-6	DTW	Depth to Water Detail	4/11/23 10:23	15.68	ft
APCO- BY-GSA-MW-6	ORP	Oxidation Reduction Potential	4/11/23 10:23	353.87	mv
APCO- BY-GSA-MW-6	PH	pH	4/11/23 10:23	5.32	SU
APCO- BY-GSA-MW-6	TEMP	Temperature	4/11/23 10:23	22.19	C
APCO- BY-GSA-MW-6	TURB	Turbidity	4/11/23 10:23	3.97	NTU
APCO- BY-GSA-MW-6	COND	Conductivity	4/11/23 10:28	180.08	uS/cm
APCO- BY-GSA-MW-6	DO	DO	4/11/23 10:28	4.44	mg/L
APCO- BY-GSA-MW-6	DTW	Depth to Water Detail	4/11/23 10:28	15.68	ft
APCO- BY-GSA-MW-6	ORP	Oxidation Reduction Potential	4/11/23 10:28	351.25	mv
APCO- BY-GSA-MW-6	PH	pH	4/11/23 10:28	5.34	SU
APCO- BY-GSA-MW-6	SULFIDE	Sulfide	4/11/23 10:28	0	mg/L
APCO- BY-GSA-MW-6	TEMP	Temperature	4/11/23 10:28	22.17	C
APCO- BY-GSA-MW-6	TURB	Turbidity	4/11/23 10:28	3.31	NTU
APCO- BY-GSA-MW-7	COND	Conductivity	4/11/23 12:10	91.76	uS/cm
APCO- BY-GSA-MW-7	DO	DO	4/11/23 12:10	2.16	mg/L
APCO- BY-GSA-MW-7	DTW	Depth to Water Detail	4/11/23 12:10	14.56	ft
APCO- BY-GSA-MW-7	ORP	Oxidation Reduction Potential	4/11/23 12:10	383.22	mv
APCO- BY-GSA-MW-7	PH	pH	4/11/23 12:10	4.06	SU
APCO- BY-GSA-MW-7	TEMP	Temperature	4/11/23 12:10	21.6	C
APCO- BY-GSA-MW-7	TURB	Turbidity	4/11/23 12:10	38.6	NTU
APCO- BY-GSA-MW-7	COND	Conductivity	4/11/23 12:15	88.94	uS/cm
APCO- BY-GSA-MW-7	DO	DO	4/11/23 12:15	2.2	mg/L
APCO- BY-GSA-MW-7	DTW	Depth to Water Detail	4/11/23 12:15	14.56	ft
APCO- BY-GSA-MW-7	ORP	Oxidation Reduction Potential	4/11/23 12:15	344.66	mv
APCO- BY-GSA-MW-7	PH	pH	4/11/23 12:15	4.08	SU
APCO- BY-GSA-MW-7	TEMP	Temperature	4/11/23 12:15	21.46	C
APCO- BY-GSA-MW-7	TURB	Turbidity	4/11/23 12:15	44	NTU
APCO- BY-GSA-MW-7	COND	Conductivity	4/11/23 12:20	89.31	uS/cm
APCO- BY-GSA-MW-7	DO	DO	4/11/23 12:20	2.16	mg/L
APCO- BY-GSA-MW-7	DTW	Depth to Water Detail	4/11/23 12:20	14.56	ft
APCO- BY-GSA-MW-7	ORP	Oxidation Reduction Potential	4/11/23 12:20	310.35	mv
APCO- BY-GSA-MW-7	PH	pH	4/11/23 12:20	4.17	SU
APCO- BY-GSA-MW-7	TEMP	Temperature	4/11/23 12:20	21.44	C
APCO- BY-GSA-MW-7	TURB	Turbidity	4/11/23 12:20	38.3	NTU
APCO- BY-GSA-MW-7	COND	Conductivity	4/11/23 12:25	89.02	uS/cm
APCO- BY-GSA-MW-7	DO	DO	4/11/23 12:25	2.19	mg/L
APCO- BY-GSA-MW-7	DTW	Depth to Water Detail	4/11/23 12:25	14.56	ft
APCO- BY-GSA-MW-7	ORP	Oxidation Reduction Potential	4/11/23 12:25	320.87	mv
APCO- BY-GSA-MW-7	PH	pH	4/11/23 12:25	4.17	SU
APCO- BY-GSA-MW-7	TEMP	Temperature	4/11/23 12:25	21.47	C
APCO- BY-GSA-MW-7	TURB	Turbidity	4/11/23 12:25	31	NTU
APCO- BY-GSA-MW-7	COND	Conductivity	4/11/23 12:30	89.51	uS/cm
APCO- BY-GSA-MW-7	DO	DO	4/11/23 12:30	2.18	mg/L
APCO- BY-GSA-MW-7	DTW	Depth to Water Detail	4/11/23 12:30	14.56	ft
APCO- BY-GSA-MW-7	ORP	Oxidation Reduction Potential	4/11/23 12:30	332.95	mv
APCO- BY-GSA-MW-7	PH	pH	4/11/23 12:30	4.19	SU
APCO- BY-GSA-MW-7	TEMP	Temperature	4/11/23 12:30	21.54	C
APCO- BY-GSA-MW-7	TURB	Turbidity	4/11/23 12:30	20.8	NTU
APCO- BY-GSA-MW-7	COND	Conductivity	4/11/23 12:35	89.65	uS/cm
APCO- BY-GSA-MW-7	DO	DO	4/11/23 12:35	2.19	mg/L
APCO- BY-GSA-MW-7	DTW	Depth to Water Detail	4/11/23 12:35	14.56	ft
APCO- BY-GSA-MW-7	ORP	Oxidation Reduction Potential	4/11/23 12:35	346.12	mv
APCO- BY-GSA-MW-7	PH	pH	4/11/23 12:35	4.24	SU
APCO- BY-GSA-MW-7	TEMP	Temperature	4/11/23 12:35	21.48	C

Plant Barry Gypsum Storage Area
Field Parameter Summary

APCO- BY-GSA-MW-7	TURB	Turbidity	4/11/23 12:35	11.3	NTU
APCO- BY-GSA-MW-7	COND	Conductivity	4/11/23 12:40	91.01	uS/cm
APCO- BY-GSA-MW-7	DO	DO	4/11/23 12:40	2.18	mg/L
APCO- BY-GSA-MW-7	DTW	Depth to Water Detail	4/11/23 12:40	14.56	ft
APCO- BY-GSA-MW-7	ORP	Oxidation Reduction Potential	4/11/23 12:40	359.84	mv
APCO- BY-GSA-MW-7	PH	pH	4/11/23 12:40	4.26	SU
APCO- BY-GSA-MW-7	TEMP	Temperature	4/11/23 12:40	21.45	C
APCO- BY-GSA-MW-7	TURB	Turbidity	4/11/23 12:40	11.56	NTU
APCO- BY-GSA-MW-7	COND	Conductivity	4/11/23 12:45	91.6	uS/cm
APCO- BY-GSA-MW-7	DO	DO	4/11/23 12:45	2.17	mg/L
APCO- BY-GSA-MW-7	DTW	Depth to Water Detail	4/11/23 12:45	14.56	ft
APCO- BY-GSA-MW-7	ORP	Oxidation Reduction Potential	4/11/23 12:45	370.17	mv
APCO- BY-GSA-MW-7	PH	pH	4/11/23 12:45	4.3	SU
APCO- BY-GSA-MW-7	SULFIDE	Sulfide	4/11/23 12:45	0	mg/L
APCO- BY-GSA-MW-7	TEMP	Temperature	4/11/23 12:45	21.47	C
APCO- BY-GSA-MW-7	TURB	Turbidity	4/11/23 12:45	9.41	NTU
APCO- BY-GSA-MW-8	COND	Conductivity	4/11/23 13:57	46.95	uS/cm
APCO- BY-GSA-MW-8	DO	DO	4/11/23 13:57	0.86	mg/L
APCO- BY-GSA-MW-8	DTW	Depth to Water Detail	4/11/23 13:57	27.92	ft
APCO- BY-GSA-MW-8	ORP	Oxidation Reduction Potential	4/11/23 13:57	393.02	mv
APCO- BY-GSA-MW-8	PH	pH	4/11/23 13:57	4.02	SU
APCO- BY-GSA-MW-8	TEMP	Temperature	4/11/23 13:57	21.75	C
APCO- BY-GSA-MW-8	TURB	Turbidity	4/11/23 13:57	6.68	NTU
APCO- BY-GSA-MW-8	COND	Conductivity	4/11/23 14:02	46.95	uS/cm
APCO- BY-GSA-MW-8	DO	DO	4/11/23 14:02	0.83	mg/L
APCO- BY-GSA-MW-8	DTW	Depth to Water Detail	4/11/23 14:02	27.92	ft
APCO- BY-GSA-MW-8	ORP	Oxidation Reduction Potential	4/11/23 14:02	405.63	mv
APCO- BY-GSA-MW-8	PH	pH	4/11/23 14:02	4.01	SU
APCO- BY-GSA-MW-8	TEMP	Temperature	4/11/23 14:02	21.59	C
APCO- BY-GSA-MW-8	TURB	Turbidity	4/11/23 14:02	4.65	NTU
APCO- BY-GSA-MW-8	COND	Conductivity	4/11/23 14:07	47.15	uS/cm
APCO- BY-GSA-MW-8	DO	DO	4/11/23 14:07	0.82	mg/L
APCO- BY-GSA-MW-8	DTW	Depth to Water Detail	4/11/23 14:07	27.92	ft
APCO- BY-GSA-MW-8	ORP	Oxidation Reduction Potential	4/11/23 14:07	409.24	mv
APCO- BY-GSA-MW-8	PH	pH	4/11/23 14:07	4.03	SU
APCO- BY-GSA-MW-8	TEMP	Temperature	4/11/23 14:07	21.65	C
APCO- BY-GSA-MW-8	TURB	Turbidity	4/11/23 14:07	3.5	NTU
APCO- BY-GSA-MW-8	COND	Conductivity	4/11/23 14:12	47.2	uS/cm
APCO- BY-GSA-MW-8	DO	DO	4/11/23 14:12	0.82	mg/L
APCO- BY-GSA-MW-8	DTW	Depth to Water Detail	4/11/23 14:12	27.92	ft
APCO- BY-GSA-MW-8	ORP	Oxidation Reduction Potential	4/11/23 14:12	412.45	mv
APCO- BY-GSA-MW-8	PH	pH	4/11/23 14:12	4.04	SU
APCO- BY-GSA-MW-8	SULFIDE	Sulfide	4/11/23 14:12	0	mg/L
APCO- BY-GSA-MW-8	TEMP	Temperature	4/11/23 14:12	21.63	C
APCO- BY-GSA-MW-8	TURB	Turbidity	4/11/23 14:12	3	NTU
APCO- BY-GSA-MW-9	COND	Conductivity	4/11/23 15:02	0.06	uS/cm
APCO- BY-GSA-MW-9	DO	DO	4/11/23 15:02	8.12	mg/L
APCO- BY-GSA-MW-9	DTW	Depth to Water Detail	4/11/23 15:02	6.98	ft
APCO- BY-GSA-MW-9	ORP	Oxidation Reduction Potential	4/11/23 15:02	419.49	mv
APCO- BY-GSA-MW-9	PH	pH	4/11/23 15:02	4.09	SU
APCO- BY-GSA-MW-9	TEMP	Temperature	4/11/23 15:02	23.94	C
APCO- BY-GSA-MW-9	TURB	Turbidity	4/11/23 15:02	4.48	NTU
APCO- BY-GSA-MW-9	COND	Conductivity	4/11/23 15:07	61.63	uS/cm
APCO- BY-GSA-MW-9	DO	DO	4/11/23 15:07	2.09	mg/L
APCO- BY-GSA-MW-9	DTW	Depth to Water Detail	4/11/23 15:07	6.98	ft
APCO- BY-GSA-MW-9	ORP	Oxidation Reduction Potential	4/11/23 15:07	430.59	mv
APCO- BY-GSA-MW-9	PH	pH	4/11/23 15:07	4.09	SU
APCO- BY-GSA-MW-9	TEMP	Temperature	4/11/23 15:07	21.47	C
APCO- BY-GSA-MW-9	TURB	Turbidity	4/11/23 15:07	4.6	NTU
APCO- BY-GSA-MW-9	COND	Conductivity	4/11/23 15:12	61.48	uS/cm
APCO- BY-GSA-MW-9	DO	DO	4/11/23 15:12	2.07	mg/L

Plant Barry Gypsum Storage Area
Field Parameter Summary

APCO- BY-GSA-MW-9	DTW	Depth to Water Detail	4/11/23 15:12	6.98	ft
APCO- BY-GSA-MW-9	ORP	Oxidation Reduction Potential	4/11/23 15:12	430.94	mv
APCO- BY-GSA-MW-9	PH	pH	4/11/23 15:12	4.12	SU
APCO- BY-GSA-MW-9	TEMP	Temperature	4/11/23 15:12	21.48	C
APCO- BY-GSA-MW-9	TURB	Turbidity	4/11/23 15:12	2.27	NTU
APCO- BY-GSA-MW-9	COND	Conductivity	4/11/23 15:17	61.43	uS/cm
APCO- BY-GSA-MW-9	DO	DO	4/11/23 15:17	2.05	mg/L
APCO- BY-GSA-MW-9	DTW	Depth to Water Detail	4/11/23 15:17	6.98	ft
APCO- BY-GSA-MW-9	ORP	Oxidation Reduction Potential	4/11/23 15:17	428.61	mv
APCO- BY-GSA-MW-9	PH	pH	4/11/23 15:17	4.17	SU
APCO- BY-GSA-MW-9	SULFIDE	Sulfide	4/11/23 15:17	0	mg/L
APCO- BY-GSA-MW-9	TEMP	Temperature	4/11/23 15:17	21.48	C
APCO- BY-GSA-MW-9	TURB	Turbidity	4/11/23 15:17	2.05	NTU
APCO- BY-GSA-MW-10	COND	Conductivity	4/11/23 16:24	0.05	uS/cm
APCO- BY-GSA-MW-10	DO	DO	4/11/23 16:24	8.02	mg/L
APCO- BY-GSA-MW-10	DTW	Depth to Water Detail	4/11/23 16:24	11.03	ft
APCO- BY-GSA-MW-10	ORP	Oxidation Reduction Potential	4/11/23 16:24	295.46	mv
APCO- BY-GSA-MW-10	PH	pH	4/11/23 16:24	4.92	SU
APCO- BY-GSA-MW-10	TEMP	Temperature	4/11/23 16:24	26.2	C
APCO- BY-GSA-MW-10	TURB	Turbidity	4/11/23 16:24	6.85	NTU
APCO- BY-GSA-MW-10	COND	Conductivity	4/11/23 16:29	62.16	uS/cm
APCO- BY-GSA-MW-10	DO	DO	4/11/23 16:29	4.54	mg/L
APCO- BY-GSA-MW-10	DTW	Depth to Water Detail	4/11/23 16:29	11.13	ft
APCO- BY-GSA-MW-10	ORP	Oxidation Reduction Potential	4/11/23 16:29	390.12	mv
APCO- BY-GSA-MW-10	PH	pH	4/11/23 16:29	4.41	SU
APCO- BY-GSA-MW-10	TEMP	Temperature	4/11/23 16:29	20.57	C
APCO- BY-GSA-MW-10	TURB	Turbidity	4/11/23 16:29	10.28	NTU
APCO- BY-GSA-MW-10	COND	Conductivity	4/11/23 16:34	61.46	uS/cm
APCO- BY-GSA-MW-10	DO	DO	4/11/23 16:34	4.65	mg/L
APCO- BY-GSA-MW-10	DTW	Depth to Water Detail	4/11/23 16:34	11.13	ft
APCO- BY-GSA-MW-10	ORP	Oxidation Reduction Potential	4/11/23 16:34	422.19	mv
APCO- BY-GSA-MW-10	PH	pH	4/11/23 16:34	4.34	SU
APCO- BY-GSA-MW-10	TEMP	Temperature	4/11/23 16:34	20.5	C
APCO- BY-GSA-MW-10	TURB	Turbidity	4/11/23 16:34	9.66	NTU
APCO- BY-GSA-MW-10	COND	Conductivity	4/11/23 16:39	61.52	uS/cm
APCO- BY-GSA-MW-10	DO	DO	4/11/23 16:39	4.66	mg/L
APCO- BY-GSA-MW-10	DTW	Depth to Water Detail	4/11/23 16:39	11.13	ft
APCO- BY-GSA-MW-10	ORP	Oxidation Reduction Potential	4/11/23 16:39	425.39	mv
APCO- BY-GSA-MW-10	PH	pH	4/11/23 16:39	4.39	SU
APCO- BY-GSA-MW-10	TEMP	Temperature	4/11/23 16:39	20.53	C
APCO- BY-GSA-MW-10	TURB	Turbidity	4/11/23 16:39	7.72	NTU
APCO- BY-GSA-MW-10	COND	Conductivity	4/11/23 16:44	61.58	uS/cm
APCO- BY-GSA-MW-10	DO	DO	4/11/23 16:44	4.64	mg/L
APCO- BY-GSA-MW-10	DTW	Depth to Water Detail	4/11/23 16:44	11.13	ft
APCO- BY-GSA-MW-10	ORP	Oxidation Reduction Potential	4/11/23 16:44	424.86	mv
APCO- BY-GSA-MW-10	PH	pH	4/11/23 16:44	4.43	SU
APCO- BY-GSA-MW-10	SULFIDE	Sulfide	4/11/23 16:44	0	mg/L
APCO- BY-GSA-MW-10	TEMP	Temperature	4/11/23 16:44	20.53	C
APCO- BY-GSA-MW-10	TURB	Turbidity	4/11/23 16:44	7.12	NTU
APCO- BY-GSA-PZ-11	COND	Conductivity	4/11/23 11:06	54.58	uS/cm
APCO- BY-GSA-PZ-11	DO	DO	4/11/23 11:06	4.89	mg/L
APCO- BY-GSA-PZ-11	DTW	Depth to Water Detail	4/11/23 11:06	20.12	ft
APCO- BY-GSA-PZ-11	ORP	Oxidation Reduction Potential	4/11/23 11:06	311.8	mv
APCO- BY-GSA-PZ-11	PH	pH	4/11/23 11:06	4.53	SU
APCO- BY-GSA-PZ-11	TEMP	Temperature	4/11/23 11:06	22.77	C
APCO- BY-GSA-PZ-11	TURB	Turbidity	4/11/23 11:06	7.67	NTU
APCO- BY-GSA-PZ-11	COND	Conductivity	4/11/23 11:11	54.62	uS/cm
APCO- BY-GSA-PZ-11	DO	DO	4/11/23 11:11	4.86	mg/L
APCO- BY-GSA-PZ-11	DTW	Depth to Water Detail	4/11/23 11:11	20.12	ft
APCO- BY-GSA-PZ-11	ORP	Oxidation Reduction Potential	4/11/23 11:11	332.9	mv
APCO- BY-GSA-PZ-11	PH	pH	4/11/23 11:11	4.72	SU

Plant Barry Gypsum Storage Area
Field Parameter Summary

APCO- BY-GSA-PZ-11	TEMP	Temperature	4/11/23 11:11	22.7	C
APCO- BY-GSA-PZ-11	TURB	Turbidity	4/11/23 11:11	5.86	NTU
APCO- BY-GSA-PZ-11	COND	Conductivity	4/11/23 11:16	54.65	uS/cm
APCO- BY-GSA-PZ-11	DO	DO	4/11/23 11:16	4.86	mg/L
APCO- BY-GSA-PZ-11	DTW	Depth to Water Detail	4/11/23 11:16	20.12	ft
APCO- BY-GSA-PZ-11	ORP	Oxidation Reduction Potential	4/11/23 11:16	352.86	mv
APCO- BY-GSA-PZ-11	PH	pH	4/11/23 11:16	4.78	SU
APCO- BY-GSA-PZ-11	TEMP	Temperature	4/11/23 11:16	22.72	C
APCO- BY-GSA-PZ-11	TURB	Turbidity	4/11/23 11:16	5.02	NTU
APCO- BY-GSA-PZ-11	COND	Conductivity	4/11/23 11:21	54.62	uS/cm
APCO- BY-GSA-PZ-11	DO	DO	4/11/23 11:21	4.84	mg/L
APCO- BY-GSA-PZ-11	DTW	Depth to Water Detail	4/11/23 11:21	20.12	ft
APCO- BY-GSA-PZ-11	ORP	Oxidation Reduction Potential	4/11/23 11:21	366.37	mv
APCO- BY-GSA-PZ-11	PH	pH	4/11/23 11:21	4.8	SU
APCO- BY-GSA-PZ-11	SULFIDE	Sulfide	4/11/23 11:21	0	mg/L
APCO- BY-GSA-PZ-11	TEMP	Temperature	4/11/23 11:21	22.76	C
APCO- BY-GSA-PZ-11	TURB	Turbidity	4/11/23 11:21	4.79	NTU

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

Analytical Report



Sample Group : WMWBARG_1407

Project/Site : Barry Gypsum
Bucks, AL 36512

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

Attention : Dustin Brooks & Greg Dyer

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

May 08, 2023

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on April 14, 2023. 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, 2023

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

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2023.05.08
15:02:33 -05'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, gn=T Durant Maske, c=US
United States, +4US United States
e=tdmaske@southernco.com
Reason: I am the author of this document
Location:
Date: 2023-05-09 07:54:05:00



REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted.
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Alabama Power's General Test Laboratory.



Total Metals ICP

Barry Gypsum

WMWBARG_1407

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07391	752646	WMWBARG_1407
BD07392	752646	WMWBARG_1407
BD07393	752646	WMWBARG_1407
BD07394	752646	WMWBARG_1407
BD07395	752646	WMWBARG_1407
BD07396	752646	WMWBARG_1407
BD07397	752646	WMWBARG_1407
BD07398	752646	WMWBARG_1407
BD07399	752646	WMWBARG_1407
BD07400	752646	WMWBARG_1407

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed, and all criteria were met.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were analyzed, and all criteria were met.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed, and all acceptance criteria were met.

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

Matrix Specific Quality Control Procedures

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICP

Barry Gypsum

WMWBARG_1407

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07391	752648	WMWBARG_1407
BD07392	752648	WMWBARG_1407
BD07393	752648	WMWBARG_1407
BD07394	752648	WMWBARG_1407
BD07395	752648	WMWBARG_1407
BD07396	752648	WMWBARG_1407
BD07397	752648	WMWBARG_1407
BD07399	752648	WMWBARG_1407

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

General Quality Control Procedures:

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

qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures

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

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Barry Gypsum

WMWBARG_1407

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07391	753307	WMWBARG_1407
BD07392	753307	WMWBARG_1407
BD07393	753307	WMWBARG_1407
BD07394	753307	WMWBARG_1407
BD07395	753307	WMWBARG_1407
BD07396	753307	WMWBARG_1407
BD07397	753307	WMWBARG_1407
BD07398	753307	WMWBARG_1407
BD07399	753307	WMWBARG_1407
BD07400	753307	WMWBARG_1407

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

General Quality Control Procedures:

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

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICPMS

Barry Gypsum

WMWBARG_1407

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07391	753308	WMWBARG_1407
BD07392	753308	WMWBARG_1407
BD07393	753308	WMWBARG_1407
BD07394	753308	WMWBARG_1407
BD07395	753308	WMWBARG_1407
BD07396	753308	WMWBARG_1407
BD07397	753308	WMWBARG_1407
BD07399	753308	WMWBARG_1407

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

General Quality Control Procedures:

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

QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Mercury

Barry Gypsum

WMWBARG_1407

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07391	753076	WMWBARG_1407
BD07392	753076	WMWBARG_1407
BD07393	753076	WMWBARG_1407
BD07394	753076	WMWBARG_1407
BD07395	753076	WMWBARG_1407
BD07396	753076	WMWBARG_1407
BD07397	753076	WMWBARG_1407
BD07398	753076	WMWBARG_1407
BD07399	753076	WMWBARG_1407
BD07400	753076	WMWBARG_1407

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for accuracy were met, except for the following:
 - BD07399 MS and/or MSD recovery is outside of specification limit.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for precision were met, except for the following:
 - BD07399 Precision is out of specification limit.
7. All samples were analyzed without dilution.
 8. The raw data results are shown with dilution factors included.

Total Dissolved Solids

Barry Gypsum

WMWBARG_1407

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07391	752518	WMWBARG_1407
BD07392	752518	WMWBARG_1407
BD07393	752518	WMWBARG_1407
BD07394	752518	WMWBARG_1407
BD07395	752518	WMWBARG_1407
BD07396	752518	WMWBARG_1407
BD07397	752518	WMWBARG_1407
BD07398	752518	WMWBARG_1407
BD07399	752518	WMWBARG_1407
BD07400	752518	WMWBARG_1407

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD was $\leq 10\%$
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue $< 2.5\text{mg}$ had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BD07398
 - BD07400

Alkalinity

Barry Gypsum

WMWBARG_1407

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07391	753593, 753594, 753595	WMWBARG_1407
BD07392	753593, 753594, 753595	WMWBARG_1407
BD07393	753593, 753594, 753595	WMWBARG_1407
BD07394	753593, 753594, 753595	WMWBARG_1407
BD07395	753593, 753594, 753595	WMWBARG_1407
BD07396	753593, 753594, 753595	WMWBARG_1407
BD07397	753593, 753594, 753595	WMWBARG_1407
BD07399	753593, 753594, 753595	WMWBARG_1407

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

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met, except for the following:
 - BD07396 Precision is out of specification limit.

Anions

Barry Gypsum

WMWBARG_1407

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07391	752950, 752952, 752698	WMWBARG_1407
BD07392	752950, 752952, 752698	WMWBARG_1407
BD07393	752950, 752952, 752698	WMWBARG_1407
BD07394	752950, 752952, 752698	WMWBARG_1407
BD07395	752950, 752952, 752698	WMWBARG_1407
BD07396	752950, 752952, 752698	WMWBARG_1407
BD07397	752950, 752952, 752698	WMWBARG_1407
BD07398	752950, 752952, 752698	WMWBARG_1407
BD07399	752950, 752952, 752698	WMWBARG_1407
BD07400	752950, 752952, 752698	WMWBARG_1407

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

Revision 5

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

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
BD07392	Sulfate	3
BD07394	Chloride	2
BD07395	Chloride	2

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

Nitrate-Nitrite

Barry Gypsum

WMWBARG_1407

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07391	752616	WMWBARG_1407
BD07392	752616	WMWBARG_1407
BD07393	752616	WMWBARG_1407
BD07394	752616	WMWBARG_1407
BD07395	752616	WMWBARG_1407
BD07396	752616	WMWBARG_1407
BD07397	752616	WMWBARG_1407
BD07398	752616	WMWBARG_1407
BD07399	752616	WMWBARG_1407
BD07400	752616	WMWBARG_1407

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

General Quality Control Procedures:

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

EPA 353.2 Specific QC:

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

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

Total Organic Carbon

Barry Gypsum

WMWBARG_1407

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD07391	752564	WMWBARG_1407
BD07392	752564	WMWBARG_1407
BD07393	752564	WMWBARG_1407
BD07394	752564	WMWBARG_1407
BD07395	752564	WMWBARG_1407
BD07396	752564	WMWBARG_1407
BD07397	752564	WMWBARG_1407
BD07398	752564	WMWBARG_1407
BD07399	752564	WMWBARG_1407
BD07400	752564	WMWBARG_1407

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

7. All samples were analyzed without a dilution factor.

Revision 5

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

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 4/11/23 09:28
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07391

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/17/23 11:22	4/19/23 11:36		1.015	0.540	mg/L	0.030000	0.1015	
* Calcium, Total	4/17/23 11:22	4/19/23 11:36		1.015	6.62	mg/L	0.070035	0.406	
* Iron, Total	4/17/23 11:22	4/19/23 11:36		1.015	0.00919	mg/L	0.008120	0.0406	J
* Lithium, Total	4/17/23 11:22	4/19/23 11:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/17/23 11:22	4/19/23 11:36		1.015	5.31	mg/L	0.021315	0.406	
* Molybdenum, Total	4/17/23 11:22	4/19/23 11:36		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/17/23 11:22	4/19/23 11:36		1	9.59	mg/L			
* Silicon, Total	4/17/23 11:22	4/19/23 11:36		1.015	4.48	mg/L	0.02030	0.25375	
* Sodium, Total	4/17/23 11:22	4/19/23 11:36		1.015	3.10	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	4/17/23 09:24	4/19/23 12:27		1.015	0.543	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/17/23 09:24	4/19/23 12:27		1.015	6.57	mg/L	0.070035	0.406	
* Iron, Dissolved	4/17/23 09:24	4/19/23 12:27		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	4/17/23 09:24	4/19/23 12:27		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/17/23 09:24	4/19/23 12:27		1.015	5.37	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/17/23 09:24	4/19/23 12:27		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/17/23 09:24	4/19/23 12:27		1	9.61	mg/L			
* Silicon, Dissolved	4/17/23 09:24	4/19/23 12:27		1.015	4.49	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/17/23 09:24	4/19/23 12:27		1.015	3.16	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/17/23 11:22	4/17/23 12:01		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/17/23 11:22	4/17/23 12:01		1.015	0.150	mg/L	0.009135	0.05075	
* Arsenic, Total	4/17/23 11:22	4/17/23 12:01		1.015	0.000274	mg/L	0.000112	0.000203	
* Barium, Total	4/17/23 11:22	4/17/23 12:01		1.015	0.0629	mg/L	0.000508	0.001015	
* Beryllium, Total	4/17/23 11:22	4/17/23 12:01		1.015	0.000693	mg/L	0.000406	0.001015	J
* Cadmium, Total	4/17/23 11:22	4/17/23 12:01		1.015	0.000133	mg/L	0.000068	0.000203	J
* Chromium, Total	4/17/23 11:22	4/17/23 12:01		1.015	0.00199	mg/L	0.000203	0.001015	
* Cobalt, Total	4/17/23 11:22	4/17/23 12:01		1.015	0.00397	mg/L	0.000068	0.000203	
* Lead, Total	4/17/23 11:22	4/17/23 12:01		1.015	0.0000939	mg/L	0.000068	0.000203	J
* Manganese, Total	4/17/23 11:22	4/17/23 12:01		1.015	0.0453	mg/L	0.000152	0.001015	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 4/11/23 09:28
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07391

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:22	4/17/23 12:01		1.015	1.37	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:22	4/17/23 12:01		1.015	0.0168	mg/L	0.000508	0.001015	
* Thallium, Total	4/17/23 11:22	4/17/23 12:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	0.139	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	0.000232	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	0.0668	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	0.000694	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	0.000117	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	0.00200	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	0.00395	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	0.0000921	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	0.0459	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	1.43	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	0.0167	mg/L	0.000508	0.001015	
* Thallium, Dissolved	4/17/23 09:24	4/17/23 11:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 00:17		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 14:57	4/17/23 14:57		1	0.953	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 09:10	4/25/23 09:21		1	0.22	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	70.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 09:21		1	Not Detected	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 09:21		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 14:07	4/17/23 14:07		1	Not Detected	mg/L	1.00	2	U

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 4/11/23 09:28
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07391

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:18	4/19/23 11:18		1	5.21	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:19	4/19/23 13:19		1	0.0834	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:17	4/18/23 09:17		1	34.8	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/11/23 09:25	4/11/23 09:25			120.51	uS/cm			FA
pH	4/11/23 09:25	4/11/23 09:25			4.63	SU			FA
Temperature	4/11/23 09:25	4/11/23 09:25			21.77	C			FA
Turbidity	4/11/23 09:25	4/11/23 09:25			1.74	NTU			FA
Sulfide	4/11/23 09:25	4/11/23 09:25			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 09:28
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-5

Laboratory ID Number: BD07391

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07399	Aluminum, Dissolved	mg/L	-0.000171	0.0198	0.100	0.289	0.290	0.0986	0.0850 to 0.115	95.0	70.0 to 130	0.345	20.0
BD07400	Aluminum, Total	mg/L	0.000292	0.0198	0.100	0.0977	0.0993	0.100	0.0850 to 0.115	97.7	70.0 to 130	1.62	20.0
BD07399	Antimony, Dissolved	mg/L	0.000258	0.00100	0.100	0.0959	0.0937	0.0902	0.0850 to 0.115	95.9	70.0 to 130	2.32	20.0
BD07400	Antimony, Total	mg/L	0.000465	0.00100	0.100	0.0909	0.0910	0.0928	0.0850 to 0.115	90.9	70.0 to 130	0.110	20.0
BD07399	Arsenic, Dissolved	mg/L	0.0000061	0.000200	0.100	0.101	0.0996	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BD07400	Arsenic, Total	mg/L	0.0000125	0.000200	0.100	0.101	0.0983	0.101	0.0850 to 0.115	101	70.0 to 130	2.71	20.0
BD07399	Barium, Dissolved	mg/L	0.0000142	0.00100	0.100	0.230	0.227	0.105	0.0850 to 0.115	102	70.0 to 130	1.31	20.0
BD07400	Barium, Total	mg/L	0.0000399	0.00100	0.100	0.0977	0.0982	0.0993	0.0850 to 0.115	97.7	70.0 to 130	0.510	20.0
BD07399	Beryllium, Dissolved	mg/L	0.0000254	0.000880	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07400	Beryllium, Total	mg/L	0.0000361	0.000880	0.100	0.101	0.0973	0.100	0.0850 to 0.115	101	70.0 to 130	3.73	20.0
BD07399	Boron, Dissolved	mg/L	-0.000368	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	99.9	70.0 to 130	0.00	20.0
BD07400	Boron, Total	mg/L	-0.000262	0.0650	1.00	1.01	1.00	1.02	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07399	Cadmium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.102	0.0987	0.0978	0.0850 to 0.115	102	70.0 to 130	3.29	20.0
BD07400	Cadmium, Total	mg/L	0.0000049	0.000147	0.100	0.0968	0.0997	0.0990	0.0850 to 0.115	96.8	70.0 to 130	2.95	20.0
BD07399	Calcium, Dissolved	mg/L	0.0230	0.152	5.00	6.06	6.08	4.81	4.25 to 5.75	98.0	70.0 to 130	0.329	20.0
BD07400	Calcium, Total	mg/L	-0.000853	0.152	5.00	4.90	4.83	4.92	4.25 to 5.75	98.0	70.0 to 130	1.44	20.0
BD07400	Chloride	mg/L	0.0673	1.00	10.0	10.6	11.1	10.9	9.00 to 11.0	106	80.0 to 120	4.61	20.0
BD07399	Chromium, Dissolved	mg/L	-0.0000006	0.000440	0.100	0.101	0.0987	0.102	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BD07400	Chromium, Total	mg/L	0.0000180	0.000440	0.100	0.0974	0.0996	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BD07399	Cobalt, Dissolved	mg/L	-0.0000963	0.000147	0.100	0.104	0.103	0.104	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD07400	Cobalt, Total	mg/L	-0.0000969	0.000147	0.100	0.0997	0.102	0.103	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BD07400	Fluoride	mg/L	0.0397	0.125	2.50	2.54	2.58	2.58	2.25 to 2.75	102	80.0 to 120	1.56	20.0
BD07399	Iron, Dissolved	mg/L	-0.000078	0.0176	0.2	0.200	0.203	0.200	0.170 to 0.230	100	70.0 to 130	1.49	20.0
BD07400	Iron, Total	mg/L	0.000261	0.0176	0.2	0.200	0.199	0.202	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 09:28
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-5

Laboratory ID Number: BD07391

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07399	Lead, Dissolved	mg/L	0.0000076	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BD07400	Lead, Total	mg/L	0.0000103	0.000147	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07399	Lithium, Dissolved	mg/L	0.00129	0.0154	0.200	0.199	0.199	0.196	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BD07400	Lithium, Total	mg/L	0.00111	0.0154	0.200	0.198	0.197	0.196	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07399	Magnesium, Dissolved	mg/L	0.0339	0.0462	5.00	7.53	7.50	4.87	4.25 to 5.75	99.4	70.0 to 130	0.399	20.0
BD07400	Magnesium, Total	mg/L	-0.000437	0.0462	5.00	4.90	4.87	4.93	4.25 to 5.75	98.0	70.0 to 130	0.614	20.0
BD07399	Manganese, Dissolved	mg/L	-0.0000078	0.00033	0.100	0.143	0.142	0.104	0.0850 to 0.115	101	70.0 to 130	0.702	20.0
BD07400	Manganese, Total	mg/L	0.0000232	0.00033	0.100	0.0999	0.101	0.103	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD07399	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00399	0.00273	0.00393	0.00340 to 0.00460	99.8	70.0 to 130	37.5	20.0
BD07399	Molybdenum, Dissolved	mg/L	0.00118	0.0100	0.2	0.195	0.198	0.197	0.170 to 0.230	97.5	70.0 to 130	1.53	20.0
BD07400	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.197	0.198	0.199	0.170 to 0.230	98.5	70.0 to 130	0.506	20.0
BD07399	Potassium, Dissolved	mg/L	0.00344	0.367	10.0	10.8	10.5	9.97	8.50 to 11.5	99.6	70.0 to 130	2.82	20.0
BD07400	Potassium, Total	mg/L	-0.00915	0.367	10.0	9.78	9.86	10.0	8.50 to 11.5	97.8	70.0 to 130	0.815	20.0
BD07399	Selenium, Dissolved	mg/L	0.0000691	0.00100	0.100	0.105	0.103	0.102	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD07400	Selenium, Total	mg/L	0.0000783	0.00100	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07399	Silicon, Dissolved	mg/L	-0.000795	0.0440	1.00	4.63	4.61	1.01	0.850 to 1.15	104	70.0 to 130	0.433	20.0
BD07400	Silicon, Total	mg/L	-0.00143	0.0440	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BD07399	Sodium, Dissolved	mg/L	0.0143	0.0880	5.00	7.10	7.07	4.82	4.25 to 5.75	97.0	70.0 to 130	0.423	20.0
BD07400	Sodium, Total	mg/L	-0.00191	0.0880	5.00	4.89	4.82	4.81	4.25 to 5.75	97.8	70.0 to 130	1.44	20.0
BD07400	Sulfate	mg/L	0.426	2.0	20.0	22.2	22.7	21.3	18.0 to 22.0	107	80.0 to 120	2.23	20.0
BD07399	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD07400	Thallium, Total	mg/L	-0.000109	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07400	Total Organic Carbon	mg/L	0.0844	1.00	10.0	9.63	10.6	25.4		96.3	80.0 to 120	9.59	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 09:28
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-5

Laboratory ID Number: BD07391

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07396	Alkalinity to pH 4.5	mg CaCO3/L					4.84	52.04	45.0 to 55.0			10.9	10.0
BD07400	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.09	-0.095	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD07399	Solids, Dissolved	mg/L	1.00	25.0			33.3	55.0	40.0 to 60.0			2.08	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 4/11/23 10:30
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07392

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/17/23 11:22	4/19/23 11:40		1.015	0.925	mg/L	0.030000	0.1015	
* Calcium, Total	4/17/23 11:22	4/19/23 11:40		1.015	10.9	mg/L	0.070035	0.406	
* Iron, Total	4/17/23 11:22	4/19/23 11:40		1.015	0.0342	mg/L	0.008120	0.0406	J
* Lithium, Total	4/17/23 11:22	4/19/23 11:40		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/17/23 11:22	4/19/23 11:40		1.015	9.64	mg/L	0.021315	0.406	
* Molybdenum, Total	4/17/23 11:22	4/19/23 11:40		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/17/23 11:22	4/19/23 11:40		1	10.7	mg/L			
* Silicon, Total	4/17/23 11:22	4/19/23 11:40		1.015	5.01	mg/L	0.02030	0.25375	
* Sodium, Total	4/17/23 11:22	4/19/23 11:40		1.015	3.98	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	4/17/23 09:24	4/19/23 12:30		1.015	0.919	mg/L	0.030000	0.1015	
* Calcium, Dissolved	4/17/23 09:24	4/19/23 12:30		1.015	10.8	mg/L	0.070035	0.406	
* Iron, Dissolved	4/17/23 09:24	4/19/23 12:30		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	4/17/23 09:24	4/19/23 12:30		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/17/23 09:24	4/19/23 12:30		1.015	9.54	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/17/23 09:24	4/19/23 12:30		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/17/23 09:24	4/19/23 12:30		1	10.6	mg/L			
* Silicon, Dissolved	4/17/23 09:24	4/19/23 12:30		1.015	4.93	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/17/23 09:24	4/19/23 12:30		1.015	3.96	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/17/23 11:22	4/17/23 12:05		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/17/23 11:22	4/17/23 12:05		1.015	0.358	mg/L	0.009135	0.05075	
* Arsenic, Total	4/17/23 11:22	4/17/23 12:05		1.015	0.000738	mg/L	0.000112	0.000203	
* Barium, Total	4/17/23 11:22	4/17/23 12:05		1.015	0.267	mg/L	0.000508	0.001015	
* Beryllium, Total	4/17/23 11:22	4/17/23 12:05		1.015	0.000910	mg/L	0.000406	0.001015	J
* Cadmium, Total	4/17/23 11:22	4/17/23 12:05		1.015	0.000185	mg/L	0.000068	0.000203	J
* Chromium, Total	4/17/23 11:22	4/17/23 12:05		1.015	0.00460	mg/L	0.000203	0.001015	
* Cobalt, Total	4/17/23 11:22	4/17/23 12:05		1.015	0.00790	mg/L	0.000068	0.000203	
* Lead, Total	4/17/23 11:22	4/17/23 12:05		1.015	0.000112	mg/L	0.000068	0.000203	J
* Manganese, Total	4/17/23 11:22	4/17/23 12:05		1.015	0.0985	mg/L	0.000152	0.001015	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 4/11/23 10:30
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07392

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:22	4/17/23 12:05		1.015	1.40	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:22	4/17/23 12:05		1.015	0.0232	mg/L	0.000508	0.001015	
* Thallium, Total	4/17/23 11:22	4/17/23 12:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	0.202	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	0.000670	mg/L	0.000112	0.000203	
* Barium, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	0.270	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	0.000827	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	0.000189	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	0.00433	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	0.00679	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	0.0859	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	1.38	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	0.0230	mg/L	0.000508	0.001015	
* Thallium, Dissolved	4/17/23 09:24	4/17/23 11:11		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 00:21		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 14:59	4/17/23 14:59		1	1.42	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 09:10	4/25/23 09:21		1	6.02	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	106	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 09:21		1	6.02	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 09:21		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 14:22	4/17/23 14:22		1	Not Detected	mg/L	1.00	2	U

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 4/11/23 10:30
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07392

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:19	4/19/23 11:19		1	7.94	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:20	4/19/23 13:20		1	0.135	mg/L	0.06	0.125	
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:31	4/18/23 09:31		3	53.6	mg/L	1.8	6	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/11/23 10:28	4/11/23 10:28			180.08	uS/cm			FA
pH	4/11/23 10:28	4/11/23 10:28			5.34	SU			FA
Temperature	4/11/23 10:28	4/11/23 10:28			22.17	C			FA
Turbidity	4/11/23 10:28	4/11/23 10:28			3.31	NTU			FA
Sulfide	4/11/23 10:28	4/11/23 10:28			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 10:30
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-6

Laboratory ID Number: BD07392

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD07399	Aluminum, Dissolved	mg/L	-0.000171	0.0198	0.100	0.289	0.290	0.0986	0.0850 to 0.115	95.0	70.0 to 130	0.345	20.0
BD07400	Aluminum, Total	mg/L	0.000292	0.0198	0.100	0.0977	0.0993	0.100	0.0850 to 0.115	97.7	70.0 to 130	1.62	20.0
BD07399	Antimony, Dissolved	mg/L	0.000258	0.00100	0.100	0.0959	0.0937	0.0902	0.0850 to 0.115	95.9	70.0 to 130	2.32	20.0
BD07400	Antimony, Total	mg/L	0.000465	0.00100	0.100	0.0909	0.0910	0.0928	0.0850 to 0.115	90.9	70.0 to 130	0.110	20.0
BD07399	Arsenic, Dissolved	mg/L	0.0000061	0.000200	0.100	0.101	0.0996	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BD07400	Arsenic, Total	mg/L	0.0000125	0.000200	0.100	0.101	0.0983	0.101	0.0850 to 0.115	101	70.0 to 130	2.71	20.0
BD07399	Barium, Dissolved	mg/L	0.0000142	0.00100	0.100	0.230	0.227	0.105	0.0850 to 0.115	102	70.0 to 130	1.31	20.0
BD07400	Barium, Total	mg/L	0.0000399	0.00100	0.100	0.0977	0.0982	0.0993	0.0850 to 0.115	97.7	70.0 to 130	0.510	20.0
BD07399	Beryllium, Dissolved	mg/L	0.0000254	0.000880	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07400	Beryllium, Total	mg/L	0.0000361	0.000880	0.100	0.101	0.0973	0.100	0.0850 to 0.115	101	70.0 to 130	3.73	20.0
BD07399	Boron, Dissolved	mg/L	-0.000368	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	99.9	70.0 to 130	0.00	20.0
BD07400	Boron, Total	mg/L	-0.000262	0.0650	1.00	1.01	1.00	1.02	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07399	Cadmium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.102	0.0987	0.0978	0.0850 to 0.115	102	70.0 to 130	3.29	20.0
BD07400	Cadmium, Total	mg/L	0.0000049	0.000147	0.100	0.0968	0.0997	0.0990	0.0850 to 0.115	96.8	70.0 to 130	2.95	20.0
BD07399	Calcium, Dissolved	mg/L	0.0230	0.152	5.00	6.06	6.08	4.81	4.25 to 5.75	98.0	70.0 to 130	0.329	20.0
BD07400	Calcium, Total	mg/L	-0.000853	0.152	5.00	4.90	4.83	4.92	4.25 to 5.75	98.0	70.0 to 130	1.44	20.0
BD07400	Chloride	mg/L	0.0673	1.00	10.0	10.6	11.1	10.9	9.00 to 11.0	106	80.0 to 120	4.61	20.0
BD07399	Chromium, Dissolved	mg/L	-0.0000006	0.000440	0.100	0.101	0.0987	0.102	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BD07400	Chromium, Total	mg/L	0.0000180	0.000440	0.100	0.0974	0.0996	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BD07399	Cobalt, Dissolved	mg/L	-0.0000963	0.000147	0.100	0.104	0.103	0.104	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD07400	Cobalt, Total	mg/L	-0.0000969	0.000147	0.100	0.0997	0.102	0.103	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BD07400	Fluoride	mg/L	0.0397	0.125	2.50	2.54	2.58	2.58	2.25 to 2.75	102	80.0 to 120	1.56	20.0
BD07399	Iron, Dissolved	mg/L	-0.000078	0.0176	0.2	0.200	0.203	0.200	0.170 to 0.230	100	70.0 to 130	1.49	20.0
BD07400	Iron, Total	mg/L	0.000261	0.0176	0.2	0.200	0.199	0.202	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 10:30
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-6

Laboratory ID Number: BD07392

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07399	Lead, Dissolved	mg/L	0.0000076	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BD07400	Lead, Total	mg/L	0.0000103	0.000147	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07399	Lithium, Dissolved	mg/L	0.00129	0.0154	0.200	0.199	0.199	0.196	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BD07400	Lithium, Total	mg/L	0.00111	0.0154	0.200	0.198	0.197	0.196	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07399	Magnesium, Dissolved	mg/L	0.0339	0.0462	5.00	7.53	7.50	4.87	4.25 to 5.75	99.4	70.0 to 130	0.399	20.0
BD07400	Magnesium, Total	mg/L	-0.000437	0.0462	5.00	4.90	4.87	4.93	4.25 to 5.75	98.0	70.0 to 130	0.614	20.0
BD07399	Manganese, Dissolved	mg/L	-0.0000078	0.00033	0.100	0.143	0.142	0.104	0.0850 to 0.115	101	70.0 to 130	0.702	20.0
BD07400	Manganese, Total	mg/L	0.0000232	0.00033	0.100	0.0999	0.101	0.103	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD07399	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00399	0.00273	0.00393	0.00340 to 0.00460	99.8	70.0 to 130	37.5	20.0
BD07399	Molybdenum, Dissolved	mg/L	0.00118	0.0100	0.2	0.195	0.198	0.197	0.170 to 0.230	97.5	70.0 to 130	1.53	20.0
BD07400	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.197	0.198	0.199	0.170 to 0.230	98.5	70.0 to 130	0.506	20.0
BD07399	Potassium, Dissolved	mg/L	0.00344	0.367	10.0	10.8	10.5	9.97	8.50 to 11.5	99.6	70.0 to 130	2.82	20.0
BD07400	Potassium, Total	mg/L	-0.00915	0.367	10.0	9.78	9.86	10.0	8.50 to 11.5	97.8	70.0 to 130	0.815	20.0
BD07399	Selenium, Dissolved	mg/L	0.0000691	0.00100	0.100	0.105	0.103	0.102	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD07400	Selenium, Total	mg/L	0.0000783	0.00100	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07399	Silicon, Dissolved	mg/L	-0.000795	0.0440	1.00	4.63	4.61	1.01	0.850 to 1.15	104	70.0 to 130	0.433	20.0
BD07400	Silicon, Total	mg/L	-0.00143	0.0440	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BD07399	Sodium, Dissolved	mg/L	0.0143	0.0880	5.00	7.10	7.07	4.82	4.25 to 5.75	97.0	70.0 to 130	0.423	20.0
BD07400	Sodium, Total	mg/L	-0.00191	0.0880	5.00	4.89	4.82	4.81	4.25 to 5.75	97.8	70.0 to 130	1.44	20.0
BD07400	Sulfate	mg/L	0.426	2.0	20.0	22.2	22.7	21.3	18.0 to 22.0	107	80.0 to 120	2.23	20.0
BD07399	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD07400	Thallium, Total	mg/L	-0.000109	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07400	Total Organic Carbon	mg/L	0.0844	1.00	10.0	9.63	10.6	25.4		96.3	80.0 to 120	9.59	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 10:30
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-6

Laboratory ID Number: BD07392

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
BD07396	Alkalinity to pH 4.5	mg CaCO3/L					4.84	52.04	45.0 to 55.0			10.9	10.0
BD07400	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.09	-0.095	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD07399	Solids, Dissolved	mg/L	1.00	25.0			33.3	55.0	40.0 to 60.0			2.08	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 4/11/23 11:25
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07393

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/17/23 11:22	4/19/23 11:43		1.015	0.0507	mg/L	0.030000	0.1015	J
* Calcium, Total	4/17/23 11:22	4/19/23 11:43		1.015	1.31	mg/L	0.070035	0.406	
* Iron, Total	4/17/23 11:22	4/19/23 11:43		1.015	0.0368	mg/L	0.008120	0.0406	J
* Lithium, Total	4/17/23 11:22	4/19/23 11:43		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/17/23 11:22	4/19/23 11:43		1.015	1.42	mg/L	0.021315	0.406	
* Molybdenum, Total	4/17/23 11:22	4/19/23 11:43		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/17/23 11:22	4/19/23 11:43		1	10.4	mg/L			
* Silicon, Total	4/17/23 11:22	4/19/23 11:43		1.015	4.88	mg/L	0.02030	0.25375	
* Sodium, Total	4/17/23 11:22	4/19/23 11:43		1.015	3.83	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/17/23 09:24	4/19/23 12:33		1.015	0.0505	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/17/23 09:24	4/19/23 12:33		1.015	1.29	mg/L	0.070035	0.406	
* Iron, Dissolved	4/17/23 09:24	4/19/23 12:33		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	4/17/23 09:24	4/19/23 12:33		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/17/23 09:24	4/19/23 12:33		1.015	1.43	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/17/23 09:24	4/19/23 12:33		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/17/23 09:24	4/19/23 12:33		1	10.3	mg/L			
* Silicon, Dissolved	4/17/23 09:24	4/19/23 12:33		1.015	4.83	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/17/23 09:24	4/19/23 12:33		1.015	3.84	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/17/23 11:22	4/17/23 12:08		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/17/23 11:22	4/17/23 12:08		1.015	0.186	mg/L	0.009135	0.05075	
* Arsenic, Total	4/17/23 11:22	4/17/23 12:08		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/17/23 11:22	4/17/23 12:08		1.015	0.0842	mg/L	0.000508	0.001015	
* Beryllium, Total	4/17/23 11:22	4/17/23 12:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/17/23 11:22	4/17/23 12:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/17/23 11:22	4/17/23 12:08		1.015	0.00301	mg/L	0.000203	0.001015	
* Cobalt, Total	4/17/23 11:22	4/17/23 12:08		1.015	0.00139	mg/L	0.000068	0.000203	
* Lead, Total	4/17/23 11:22	4/17/23 12:08		1.015	0.0000821	mg/L	0.000068	0.000203	J
* Manganese, Total	4/17/23 11:22	4/17/23 12:08		1.015	0.0137	mg/L	0.000152	0.001015	

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

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

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 4/11/23 11:25
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07393

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:22	4/17/23 12:08		1.015	1.32	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:22	4/17/23 12:08		1.015	0.00168	mg/L	0.000508	0.001015	
* Thallium, Total	4/17/23 11:22	4/17/23 12:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	0.0259	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	0.0826	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	0.00260	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	0.00135	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	0.0132	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	1.32	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	0.00182	mg/L	0.000508	0.001015	
* Thallium, Dissolved	4/17/23 09:24	4/17/23 11:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 00:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:00	4/17/23 15:00		1	0.565	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 09:10	4/25/23 10:48		1	2.00	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	32.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	2.00	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 14:34	4/17/23 14:34		1	Not Detected	mg/L	1.00	2	U

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

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

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 4/11/23 11:25
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07393

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:20	4/19/23 11:20		1	7.33	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:21	4/19/23 13:21		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:19	4/18/23 09:19		1	5.92	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/11/23 11:21	4/11/23 11:21			54.62	uS/cm			FA
pH	4/11/23 11:21	4/11/23 11:21			4.80	SU			FA
Temperature	4/11/23 11:21	4/11/23 11:21			22.76	C			FA
Turbidity	4/11/23 11:21	4/11/23 11:21			4.79	NTU			FA
Sulfide	4/11/23 11:21	4/11/23 11:21			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 11:25
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BD07393

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD07399	Aluminum, Dissolved	mg/L	-0.000171	0.0198	0.100	0.289	0.290	0.0986	0.0850 to 0.115	95.0	70.0 to 130	0.345	20.0
BD07400	Aluminum, Total	mg/L	0.000292	0.0198	0.100	0.0977	0.0993	0.100	0.0850 to 0.115	97.7	70.0 to 130	1.62	20.0
BD07399	Antimony, Dissolved	mg/L	0.000258	0.00100	0.100	0.0959	0.0937	0.0902	0.0850 to 0.115	95.9	70.0 to 130	2.32	20.0
BD07400	Antimony, Total	mg/L	0.000465	0.00100	0.100	0.0909	0.0910	0.0928	0.0850 to 0.115	90.9	70.0 to 130	0.110	20.0
BD07399	Arsenic, Dissolved	mg/L	0.0000061	0.000200	0.100	0.101	0.0996	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BD07400	Arsenic, Total	mg/L	0.0000125	0.000200	0.100	0.101	0.0983	0.101	0.0850 to 0.115	101	70.0 to 130	2.71	20.0
BD07399	Barium, Dissolved	mg/L	0.0000142	0.00100	0.100	0.230	0.227	0.105	0.0850 to 0.115	102	70.0 to 130	1.31	20.0
BD07400	Barium, Total	mg/L	0.0000399	0.00100	0.100	0.0977	0.0982	0.0993	0.0850 to 0.115	97.7	70.0 to 130	0.510	20.0
BD07399	Beryllium, Dissolved	mg/L	0.0000254	0.000880	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07400	Beryllium, Total	mg/L	0.0000361	0.000880	0.100	0.101	0.0973	0.100	0.0850 to 0.115	101	70.0 to 130	3.73	20.0
BD07399	Boron, Dissolved	mg/L	-0.000368	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	99.9	70.0 to 130	0.00	20.0
BD07400	Boron, Total	mg/L	-0.000262	0.0650	1.00	1.01	1.00	1.02	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07399	Cadmium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.102	0.0987	0.0978	0.0850 to 0.115	102	70.0 to 130	3.29	20.0
BD07400	Cadmium, Total	mg/L	0.0000049	0.000147	0.100	0.0968	0.0997	0.0990	0.0850 to 0.115	96.8	70.0 to 130	2.95	20.0
BD07399	Calcium, Dissolved	mg/L	0.0230	0.152	5.00	6.06	6.08	4.81	4.25 to 5.75	98.0	70.0 to 130	0.329	20.0
BD07400	Calcium, Total	mg/L	-0.000853	0.152	5.00	4.90	4.83	4.92	4.25 to 5.75	98.0	70.0 to 130	1.44	20.0
BD07400	Chloride	mg/L	0.0673	1.00	10.0	10.6	11.1	10.9	9.00 to 11.0	106	80.0 to 120	4.61	20.0
BD07399	Chromium, Dissolved	mg/L	-0.0000006	0.000440	0.100	0.101	0.0987	0.102	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BD07400	Chromium, Total	mg/L	0.0000180	0.000440	0.100	0.0974	0.0996	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BD07399	Cobalt, Dissolved	mg/L	-0.0000963	0.000147	0.100	0.104	0.103	0.104	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD07400	Cobalt, Total	mg/L	-0.0000969	0.000147	0.100	0.0997	0.102	0.103	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BD07400	Fluoride	mg/L	0.0397	0.125	2.50	2.54	2.58	2.58	2.25 to 2.75	102	80.0 to 120	1.56	20.0
BD07399	Iron, Dissolved	mg/L	-0.000078	0.0176	0.2	0.200	0.203	0.200	0.170 to 0.230	100	70.0 to 130	1.49	20.0
BD07400	Iron, Total	mg/L	0.000261	0.0176	0.2	0.200	0.199	0.202	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 11:25
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BD07393

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07399	Lead, Dissolved	mg/L	0.0000076	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BD07400	Lead, Total	mg/L	0.0000103	0.000147	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07399	Lithium, Dissolved	mg/L	0.00129	0.0154	0.200	0.199	0.199	0.196	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BD07400	Lithium, Total	mg/L	0.00111	0.0154	0.200	0.198	0.197	0.196	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07399	Magnesium, Dissolved	mg/L	0.0339	0.0462	5.00	7.53	7.50	4.87	4.25 to 5.75	99.4	70.0 to 130	0.399	20.0
BD07400	Magnesium, Total	mg/L	-0.000437	0.0462	5.00	4.90	4.87	4.93	4.25 to 5.75	98.0	70.0 to 130	0.614	20.0
BD07399	Manganese, Dissolved	mg/L	-0.0000078	0.00033	0.100	0.143	0.142	0.104	0.0850 to 0.115	101	70.0 to 130	0.702	20.0
BD07400	Manganese, Total	mg/L	0.0000232	0.00033	0.100	0.0999	0.101	0.103	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD07399	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00399	0.00273	0.00393	0.00340 to 0.00460	99.8	70.0 to 130	37.5	20.0
BD07399	Molybdenum, Dissolved	mg/L	0.00118	0.0100	0.2	0.195	0.198	0.197	0.170 to 0.230	97.5	70.0 to 130	1.53	20.0
BD07400	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.197	0.198	0.199	0.170 to 0.230	98.5	70.0 to 130	0.506	20.0
BD07399	Potassium, Dissolved	mg/L	0.00344	0.367	10.0	10.8	10.5	9.97	8.50 to 11.5	99.6	70.0 to 130	2.82	20.0
BD07400	Potassium, Total	mg/L	-0.00915	0.367	10.0	9.78	9.86	10.0	8.50 to 11.5	97.8	70.0 to 130	0.815	20.0
BD07399	Selenium, Dissolved	mg/L	0.0000691	0.00100	0.100	0.105	0.103	0.102	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD07400	Selenium, Total	mg/L	0.0000783	0.00100	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07399	Silicon, Dissolved	mg/L	-0.000795	0.0440	1.00	4.63	4.61	1.01	0.850 to 1.15	104	70.0 to 130	0.433	20.0
BD07400	Silicon, Total	mg/L	-0.00143	0.0440	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BD07399	Sodium, Dissolved	mg/L	0.0143	0.0880	5.00	7.10	7.07	4.82	4.25 to 5.75	97.0	70.0 to 130	0.423	20.0
BD07400	Sodium, Total	mg/L	-0.00191	0.0880	5.00	4.89	4.82	4.81	4.25 to 5.75	97.8	70.0 to 130	1.44	20.0
BD07400	Sulfate	mg/L	0.426	2.0	20.0	22.2	22.7	21.3	18.0 to 22.0	107	80.0 to 120	2.23	20.0
BD07399	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD07400	Thallium, Total	mg/L	-0.000109	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07400	Total Organic Carbon	mg/L	0.0844	1.00	10.0	9.63	10.6	25.4		96.3	80.0 to 120	9.59	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 11:25
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BD07393

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07396	Alkalinity to pH 4.5	mg CaCO3/L					4.84	52.04	45.0 to 55.0			10.9	10.0
BD07400	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.09	-0.095	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD07399	Solids, Dissolved	mg/L	1.00	25.0			33.3	55.0	40.0 to 60.0			2.08	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 4/11/23 12:50
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07394

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/17/23 11:22	4/19/23 11:46		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/17/23 11:22	4/19/23 11:46		1.015	1.82	mg/L	0.070035	0.406	
* Iron, Total	4/17/23 11:22	4/19/23 11:46		1.015	0.115	mg/L	0.008120	0.0406	
* Lithium, Total	4/17/23 11:22	4/19/23 11:46		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/17/23 11:22	4/19/23 11:46		1.015	1.94	mg/L	0.021315	0.406	
* Molybdenum, Total	4/17/23 11:22	4/19/23 11:46		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/17/23 11:22	4/19/23 11:46		1	10.5	mg/L			
* Silicon, Total	4/17/23 11:22	4/19/23 11:46		1.015	4.92	mg/L	0.02030	0.25375	
* Sodium, Total	4/17/23 11:22	4/19/23 11:46		1.015	9.17	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/17/23 09:24	4/19/23 12:36		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	4/17/23 09:24	4/19/23 12:36		1.015	1.80	mg/L	0.070035	0.406	
* Iron, Dissolved	4/17/23 09:24	4/19/23 12:36		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	4/17/23 09:24	4/19/23 12:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/17/23 09:24	4/19/23 12:36		1.015	1.98	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/17/23 09:24	4/19/23 12:36		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/17/23 09:24	4/19/23 12:36		1	10.4	mg/L			
* Silicon, Dissolved	4/17/23 09:24	4/19/23 12:36		1.015	4.87	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/17/23 09:24	4/19/23 12:36		1.015	9.32	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/17/23 11:22	4/17/23 12:12		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/17/23 11:22	4/17/23 12:12		1.015	0.147	mg/L	0.009135	0.05075	
* Arsenic, Total	4/17/23 11:22	4/17/23 12:12		1.015	0.000395	mg/L	0.000112	0.000203	
* Barium, Total	4/17/23 11:22	4/17/23 12:12		1.015	0.120	mg/L	0.000508	0.001015	
* Beryllium, Total	4/17/23 11:22	4/17/23 12:12		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/17/23 11:22	4/17/23 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/17/23 11:22	4/17/23 12:12		1.015	0.00143	mg/L	0.000203	0.001015	
* Cobalt, Total	4/17/23 11:22	4/17/23 12:12		1.015	0.00215	mg/L	0.000068	0.000203	
* Lead, Total	4/17/23 11:22	4/17/23 12:12		1.015	0.000123	mg/L	0.000068	0.000203	J
* Manganese, Total	4/17/23 11:22	4/17/23 12:12		1.015	0.0225	mg/L	0.000152	0.001015	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 4/11/23 12:50
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07394

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:22	4/17/23 12:12		1.015	1.31	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:22	4/17/23 12:12		1.015	0.000519	mg/L	0.000508	0.001015	J
* Thallium, Total	4/17/23 11:22	4/17/23 12:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	0.0188	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	0.120	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	0.00104	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	0.00214	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	0.0232	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	1.31	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/17/23 09:24	4/17/23 11:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 00:29		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:02	4/17/23 15:02		1	0.344	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 09:10	4/25/23 10:48		1	2.62	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	50.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	2.62	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 14:46	4/17/23 14:46		1	Not Detected	mg/L	1.00	2	U

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 4/11/23 12:50
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07394

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:32	4/19/23 11:32		2	22.6	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:22	4/19/23 13:22		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:21	4/18/23 09:21		1	2.35	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/11/23 12:45	4/11/23 12:45			91.60	uS/cm			FA
pH	4/11/23 12:45	4/11/23 12:45			4.30	SU			FA
Temperature	4/11/23 12:45	4/11/23 12:45			21.47	C			FA
Turbidity	4/11/23 12:45	4/11/23 12:45			9.41	NTU			FA
Sulfide	4/11/23 12:45	4/11/23 12:45			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 12:50
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-7

Laboratory ID Number: BD07394

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD07399	Aluminum, Dissolved	mg/L	-0.000171	0.0198	0.100	0.289	0.290	0.0986	0.0850 to 0.115	95.0	70.0 to 130	0.345	20.0
BD07400	Aluminum, Total	mg/L	0.000292	0.0198	0.100	0.0977	0.0993	0.100	0.0850 to 0.115	97.7	70.0 to 130	1.62	20.0
BD07399	Antimony, Dissolved	mg/L	0.000258	0.00100	0.100	0.0959	0.0937	0.0902	0.0850 to 0.115	95.9	70.0 to 130	2.32	20.0
BD07400	Antimony, Total	mg/L	0.000465	0.00100	0.100	0.0909	0.0910	0.0928	0.0850 to 0.115	90.9	70.0 to 130	0.110	20.0
BD07399	Arsenic, Dissolved	mg/L	0.0000061	0.000200	0.100	0.101	0.0996	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BD07400	Arsenic, Total	mg/L	0.0000125	0.000200	0.100	0.101	0.0983	0.101	0.0850 to 0.115	101	70.0 to 130	2.71	20.0
BD07399	Barium, Dissolved	mg/L	0.0000142	0.00100	0.100	0.230	0.227	0.105	0.0850 to 0.115	102	70.0 to 130	1.31	20.0
BD07400	Barium, Total	mg/L	0.0000399	0.00100	0.100	0.0977	0.0982	0.0993	0.0850 to 0.115	97.7	70.0 to 130	0.510	20.0
BD07399	Beryllium, Dissolved	mg/L	0.0000254	0.000880	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07400	Beryllium, Total	mg/L	0.0000361	0.000880	0.100	0.101	0.0973	0.100	0.0850 to 0.115	101	70.0 to 130	3.73	20.0
BD07399	Boron, Dissolved	mg/L	-0.000368	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	99.9	70.0 to 130	0.00	20.0
BD07400	Boron, Total	mg/L	-0.000262	0.0650	1.00	1.01	1.00	1.02	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07399	Cadmium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.102	0.0987	0.0978	0.0850 to 0.115	102	70.0 to 130	3.29	20.0
BD07400	Cadmium, Total	mg/L	0.0000049	0.000147	0.100	0.0968	0.0997	0.0990	0.0850 to 0.115	96.8	70.0 to 130	2.95	20.0
BD07399	Calcium, Dissolved	mg/L	0.0230	0.152	5.00	6.06	6.08	4.81	4.25 to 5.75	98.0	70.0 to 130	0.329	20.0
BD07400	Calcium, Total	mg/L	-0.000853	0.152	5.00	4.90	4.83	4.92	4.25 to 5.75	98.0	70.0 to 130	1.44	20.0
BD07400	Chloride	mg/L	0.0673	1.00	10.0	10.6	11.1	10.9	9.00 to 11.0	106	80.0 to 120	4.61	20.0
BD07399	Chromium, Dissolved	mg/L	-0.0000006	0.000440	0.100	0.101	0.0987	0.102	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BD07400	Chromium, Total	mg/L	0.0000180	0.000440	0.100	0.0974	0.0996	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BD07399	Cobalt, Dissolved	mg/L	-0.0000963	0.000147	0.100	0.104	0.103	0.104	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD07400	Cobalt, Total	mg/L	-0.0000969	0.000147	0.100	0.0997	0.102	0.103	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BD07400	Fluoride	mg/L	0.0397	0.125	2.50	2.54	2.58	2.58	2.25 to 2.75	102	80.0 to 120	1.56	20.0
BD07399	Iron, Dissolved	mg/L	-0.000078	0.0176	0.2	0.200	0.203	0.200	0.170 to 0.230	100	70.0 to 130	1.49	20.0
BD07400	Iron, Total	mg/L	0.000261	0.0176	0.2	0.200	0.199	0.202	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 12:50
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-7

Laboratory ID Number: BD07394

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07399	Lead, Dissolved	mg/L	0.0000076	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BD07400	Lead, Total	mg/L	0.0000103	0.000147	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07399	Lithium, Dissolved	mg/L	0.00129	0.0154	0.200	0.199	0.199	0.196	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BD07400	Lithium, Total	mg/L	0.00111	0.0154	0.200	0.198	0.197	0.196	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07399	Magnesium, Dissolved	mg/L	0.0339	0.0462	5.00	7.53	7.50	4.87	4.25 to 5.75	99.4	70.0 to 130	0.399	20.0
BD07400	Magnesium, Total	mg/L	-0.000437	0.0462	5.00	4.90	4.87	4.93	4.25 to 5.75	98.0	70.0 to 130	0.614	20.0
BD07399	Manganese, Dissolved	mg/L	-0.0000078	0.00033	0.100	0.143	0.142	0.104	0.0850 to 0.115	101	70.0 to 130	0.702	20.0
BD07400	Manganese, Total	mg/L	0.0000232	0.00033	0.100	0.0999	0.101	0.103	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD07399	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00399	0.00273	0.00393	0.00340 to 0.00460	99.8	70.0 to 130	37.5	20.0
BD07399	Molybdenum, Dissolved	mg/L	0.00118	0.0100	0.2	0.195	0.198	0.197	0.170 to 0.230	97.5	70.0 to 130	1.53	20.0
BD07400	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.197	0.198	0.199	0.170 to 0.230	98.5	70.0 to 130	0.506	20.0
BD07399	Potassium, Dissolved	mg/L	0.00344	0.367	10.0	10.8	10.5	9.97	8.50 to 11.5	99.6	70.0 to 130	2.82	20.0
BD07400	Potassium, Total	mg/L	-0.00915	0.367	10.0	9.78	9.86	10.0	8.50 to 11.5	97.8	70.0 to 130	0.815	20.0
BD07399	Selenium, Dissolved	mg/L	0.0000691	0.00100	0.100	0.105	0.103	0.102	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD07400	Selenium, Total	mg/L	0.0000783	0.00100	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07399	Silicon, Dissolved	mg/L	-0.000795	0.0440	1.00	4.63	4.61	1.01	0.850 to 1.15	104	70.0 to 130	0.433	20.0
BD07400	Silicon, Total	mg/L	-0.00143	0.0440	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BD07399	Sodium, Dissolved	mg/L	0.0143	0.0880	5.00	7.10	7.07	4.82	4.25 to 5.75	97.0	70.0 to 130	0.423	20.0
BD07400	Sodium, Total	mg/L	-0.00191	0.0880	5.00	4.89	4.82	4.81	4.25 to 5.75	97.8	70.0 to 130	1.44	20.0
BD07400	Sulfate	mg/L	0.426	2.0	20.0	22.2	22.7	21.3	18.0 to 22.0	107	80.0 to 120	2.23	20.0
BD07399	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD07400	Thallium, Total	mg/L	-0.000109	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07400	Total Organic Carbon	mg/L	0.0844	1.00	10.0	9.63	10.6	25.4		96.3	80.0 to 120	9.59	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 12:50
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-7

Laboratory ID Number: BD07394

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07396	Alkalinity to pH 4.5	mg CaCO3/L					4.84	52.04	45.0 to 55.0			10.9	10.0
BD07400	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.09	-0.095	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD07399	Solids, Dissolved	mg/L	1.00	25.0			33.3	55.0	40.0 to 60.0			2.08	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7 Dup

Location Code: WMWBARG
Collected: 4/11/23 12:50
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07395

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/17/23 11:22	4/19/23 11:49		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	4/17/23 11:22	4/19/23 11:49		1.015	1.83	mg/L	0.070035	0.406	
* Iron, Total	4/17/23 11:22	4/19/23 11:49		1.015	0.145	mg/L	0.008120	0.0406	
* Lithium, Total	4/17/23 11:22	4/19/23 11:49		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/17/23 11:22	4/19/23 11:49		1.015	1.91	mg/L	0.021315	0.406	
* Molybdenum, Total	4/17/23 11:22	4/19/23 11:49		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/17/23 11:22	4/19/23 11:49		1	10.6	mg/L			
* Silicon, Total	4/17/23 11:22	4/19/23 11:49		1.015	4.93	mg/L	0.02030	0.25375	
* Sodium, Total	4/17/23 11:22	4/19/23 11:49		1.015	9.07	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/17/23 09:24	4/19/23 12:40		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	4/17/23 09:24	4/19/23 12:40		1.015	1.87	mg/L	0.070035	0.406	
* Iron, Dissolved	4/17/23 09:24	4/19/23 12:40		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	4/17/23 09:24	4/19/23 12:40		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/17/23 09:24	4/19/23 12:40		1.015	1.99	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/17/23 09:24	4/19/23 12:40		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/17/23 09:24	4/19/23 12:40		1	10.4	mg/L			
* Silicon, Dissolved	4/17/23 09:24	4/19/23 12:40		1.015	4.88	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/17/23 09:24	4/19/23 12:40		1.015	9.39	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/17/23 11:22	4/17/23 12:15		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/17/23 11:22	4/17/23 12:15		1.015	0.155	mg/L	0.009135	0.05075	
* Arsenic, Total	4/17/23 11:22	4/17/23 12:15		1.015	0.000354	mg/L	0.000112	0.000203	
* Barium, Total	4/17/23 11:22	4/17/23 12:15		1.015	0.118	mg/L	0.000508	0.001015	
* Beryllium, Total	4/17/23 11:22	4/17/23 12:15		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/17/23 11:22	4/17/23 12:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/17/23 11:22	4/17/23 12:15		1.015	0.00136	mg/L	0.000203	0.001015	
* Cobalt, Total	4/17/23 11:22	4/17/23 12:15		1.015	0.00215	mg/L	0.000068	0.000203	
* Lead, Total	4/17/23 11:22	4/17/23 12:15		1.015	0.000130	mg/L	0.000068	0.000203	J
* Manganese, Total	4/17/23 11:22	4/17/23 12:15		1.015	0.0229	mg/L	0.000152	0.001015	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7 Dup

Location Code: WMWBARG
Collected: 4/11/23 12:50
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07395

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:22	4/17/23 12:15		1.015	1.30	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:22	4/17/23 12:15		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	4/17/23 11:22	4/17/23 12:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	0.0201	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	0.117	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	0.00105	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	0.00222	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	0.0235	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	1.33	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/17/23 09:24	4/17/23 11:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 00:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:04	4/17/23 15:04		1	0.341	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 09:10	4/25/23 10:48		1	4.74	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	48.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	4.74	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 15:00	4/17/23 15:00		1	Not Detected	mg/L	1.00	2	U

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7 Dup

Location Code: WMWBARG
Collected: 4/11/23 12:50
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07395

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:33	4/19/23 11:33		2	22.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:23	4/19/23 13:23		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:22	4/18/23 09:22		1	3.13	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/11/23 12:45	4/11/23 12:45			91.60	uS/cm			FA
pH	4/11/23 12:45	4/11/23 12:45			4.30	SU			FA
Temperature	4/11/23 12:45	4/11/23 12:45			21.47	C			FA
Turbidity	4/11/23 12:45	4/11/23 12:45			9.41	NTU			FA
Sulfide	4/11/23 12:45	4/11/23 12:45			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 12:50
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: BD07395

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD07399	Aluminum, Dissolved	mg/L	-0.000171	0.0198	0.100	0.289	0.290	0.0986	0.0850 to 0.115	95.0	70.0 to 130	0.345	20.0
BD07400	Aluminum, Total	mg/L	0.000292	0.0198	0.100	0.0977	0.0993	0.100	0.0850 to 0.115	97.7	70.0 to 130	1.62	20.0
BD07399	Antimony, Dissolved	mg/L	0.000258	0.00100	0.100	0.0959	0.0937	0.0902	0.0850 to 0.115	95.9	70.0 to 130	2.32	20.0
BD07400	Antimony, Total	mg/L	0.000465	0.00100	0.100	0.0909	0.0910	0.0928	0.0850 to 0.115	90.9	70.0 to 130	0.110	20.0
BD07399	Arsenic, Dissolved	mg/L	0.0000061	0.000200	0.100	0.101	0.0996	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BD07400	Arsenic, Total	mg/L	0.0000125	0.000200	0.100	0.101	0.0983	0.101	0.0850 to 0.115	101	70.0 to 130	2.71	20.0
BD07399	Barium, Dissolved	mg/L	0.0000142	0.00100	0.100	0.230	0.227	0.105	0.0850 to 0.115	102	70.0 to 130	1.31	20.0
BD07400	Barium, Total	mg/L	0.0000399	0.00100	0.100	0.0977	0.0982	0.0993	0.0850 to 0.115	97.7	70.0 to 130	0.510	20.0
BD07399	Beryllium, Dissolved	mg/L	0.0000254	0.000880	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07400	Beryllium, Total	mg/L	0.0000361	0.000880	0.100	0.101	0.0973	0.100	0.0850 to 0.115	101	70.0 to 130	3.73	20.0
BD07399	Boron, Dissolved	mg/L	-0.000368	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	99.9	70.0 to 130	0.00	20.0
BD07400	Boron, Total	mg/L	-0.000262	0.0650	1.00	1.01	1.00	1.02	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07399	Cadmium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.102	0.0987	0.0978	0.0850 to 0.115	102	70.0 to 130	3.29	20.0
BD07400	Cadmium, Total	mg/L	0.0000049	0.000147	0.100	0.0968	0.0997	0.0990	0.0850 to 0.115	96.8	70.0 to 130	2.95	20.0
BD07399	Calcium, Dissolved	mg/L	0.0230	0.152	5.00	6.06	6.08	4.81	4.25 to 5.75	98.0	70.0 to 130	0.329	20.0
BD07400	Calcium, Total	mg/L	-0.000853	0.152	5.00	4.90	4.83	4.92	4.25 to 5.75	98.0	70.0 to 130	1.44	20.0
BD07400	Chloride	mg/L	0.0673	1.00	10.0	10.6	11.1	10.9	9.00 to 11.0	106	80.0 to 120	4.61	20.0
BD07399	Chromium, Dissolved	mg/L	-0.0000006	0.000440	0.100	0.101	0.0987	0.102	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BD07400	Chromium, Total	mg/L	0.0000180	0.000440	0.100	0.0974	0.0996	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BD07399	Cobalt, Dissolved	mg/L	-0.0000963	0.000147	0.100	0.104	0.103	0.104	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD07400	Cobalt, Total	mg/L	-0.0000969	0.000147	0.100	0.0997	0.102	0.103	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BD07400	Fluoride	mg/L	0.0397	0.125	2.50	2.54	2.58	2.58	2.25 to 2.75	102	80.0 to 120	1.56	20.0
BD07399	Iron, Dissolved	mg/L	-0.000078	0.0176	0.2	0.200	0.203	0.200	0.170 to 0.230	100	70.0 to 130	1.49	20.0
BD07400	Iron, Total	mg/L	0.000261	0.0176	0.2	0.200	0.199	0.202	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 12:50
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: BD07395

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07399	Lead, Dissolved	mg/L	0.0000076	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BD07400	Lead, Total	mg/L	0.0000103	0.000147	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07399	Lithium, Dissolved	mg/L	0.00129	0.0154	0.200	0.199	0.199	0.196	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BD07400	Lithium, Total	mg/L	0.00111	0.0154	0.200	0.198	0.197	0.196	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07399	Magnesium, Dissolved	mg/L	0.0339	0.0462	5.00	7.53	7.50	4.87	4.25 to 5.75	99.4	70.0 to 130	0.399	20.0
BD07400	Magnesium, Total	mg/L	-0.000437	0.0462	5.00	4.90	4.87	4.93	4.25 to 5.75	98.0	70.0 to 130	0.614	20.0
BD07399	Manganese, Dissolved	mg/L	-0.0000078	0.00033	0.100	0.143	0.142	0.104	0.0850 to 0.115	101	70.0 to 130	0.702	20.0
BD07400	Manganese, Total	mg/L	0.0000232	0.00033	0.100	0.0999	0.101	0.103	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD07399	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00399	0.00273	0.00393	0.00340 to 0.00460	99.8	70.0 to 130	37.5	20.0
BD07399	Molybdenum, Dissolved	mg/L	0.00118	0.0100	0.2	0.195	0.198	0.197	0.170 to 0.230	97.5	70.0 to 130	1.53	20.0
BD07400	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.197	0.198	0.199	0.170 to 0.230	98.5	70.0 to 130	0.506	20.0
BD07399	Potassium, Dissolved	mg/L	0.00344	0.367	10.0	10.8	10.5	9.97	8.50 to 11.5	99.6	70.0 to 130	2.82	20.0
BD07400	Potassium, Total	mg/L	-0.00915	0.367	10.0	9.78	9.86	10.0	8.50 to 11.5	97.8	70.0 to 130	0.815	20.0
BD07399	Selenium, Dissolved	mg/L	0.0000691	0.00100	0.100	0.105	0.103	0.102	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD07400	Selenium, Total	mg/L	0.0000783	0.00100	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07399	Silicon, Dissolved	mg/L	-0.000795	0.0440	1.00	4.63	4.61	1.01	0.850 to 1.15	104	70.0 to 130	0.433	20.0
BD07400	Silicon, Total	mg/L	-0.00143	0.0440	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BD07399	Sodium, Dissolved	mg/L	0.0143	0.0880	5.00	7.10	7.07	4.82	4.25 to 5.75	97.0	70.0 to 130	0.423	20.0
BD07400	Sodium, Total	mg/L	-0.00191	0.0880	5.00	4.89	4.82	4.81	4.25 to 5.75	97.8	70.0 to 130	1.44	20.0
BD07400	Sulfate	mg/L	0.426	2.0	20.0	22.2	22.7	21.3	18.0 to 22.0	107	80.0 to 120	2.23	20.0
BD07399	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD07400	Thallium, Total	mg/L	-0.000109	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07400	Total Organic Carbon	mg/L	0.0844	1.00	10.0	9.63	10.6	25.4		96.3	80.0 to 120	9.59	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 12:50
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: BD07395

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07396	Alkalinity to pH 4.5	mg CaCO3/L					4.84	52.04	45.0 to 55.0			10.9	10.0
BD07400	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.09	-0.095	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD07399	Solids, Dissolved	mg/L	1.00	25.0			33.3	55.0	40.0 to 60.0			2.08	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 4/11/23 14:15
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07396

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/17/23 11:22	4/19/23 11:52		1.015	0.0345	mg/L	0.030000	0.1015	J	
* Calcium, Total	4/17/23 11:22	4/19/23 11:52		1.015	0.971	mg/L	0.070035	0.406		
* Iron, Total	4/17/23 11:22	4/19/23 11:52		1.015	0.0199	mg/L	0.008120	0.0406	J	
* Lithium, Total	4/17/23 11:22	4/19/23 11:52		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/17/23 11:22	4/19/23 11:52		1.015	1.07	mg/L	0.021315	0.406		
* Molybdenum, Total	4/17/23 11:22	4/19/23 11:52		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/17/23 11:22	4/19/23 11:52		1	11.2	mg/L				
* Silicon, Total	4/17/23 11:22	4/19/23 11:52		1.015	5.22	mg/L	0.02030	0.25375		
* Sodium, Total	4/17/23 11:22	4/19/23 11:52		1.015	4.61	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/17/23 09:24	4/19/23 12:43		1.015	0.0346	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	4/17/23 09:24	4/19/23 12:43		1.015	0.854	mg/L	0.070035	0.406		
* Iron, Dissolved	4/17/23 09:24	4/19/23 12:43		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	4/17/23 09:24	4/19/23 12:43		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/17/23 09:24	4/19/23 12:43		1.015	0.939	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	4/17/23 09:24	4/19/23 12:43		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/17/23 09:24	4/19/23 12:43		1	11.1	mg/L				
* Silicon, Dissolved	4/17/23 09:24	4/19/23 12:43		1.015	5.20	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/17/23 09:24	4/19/23 12:43		1.015	4.78	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/17/23 11:22	4/17/23 12:19		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/17/23 11:22	4/17/23 12:19		1.015	0.0240	mg/L	0.009135	0.05075	J	
* Arsenic, Total	4/17/23 11:22	4/17/23 12:19		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	4/17/23 11:22	4/17/23 12:19		1.015	0.0481	mg/L	0.000508	0.001015		
* Beryllium, Total	4/17/23 11:22	4/17/23 12:19		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/17/23 11:22	4/17/23 12:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/17/23 11:22	4/17/23 12:19		1.015	0.00201	mg/L	0.000203	0.001015		
* Cobalt, Total	4/17/23 11:22	4/17/23 12:19		1.015	0.000338	mg/L	0.000068	0.000203		
* Lead, Total	4/17/23 11:22	4/17/23 12:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	4/17/23 11:22	4/17/23 12:19		1.015	0.0174	mg/L	0.000152	0.001015		

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 4/11/23 14:15
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07396

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:22	4/17/23 12:19		1.015	0.861	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:22	4/17/23 12:19		1.015	0.000550	mg/L	0.000508	0.001015	J
* Thallium, Total	4/17/23 11:22	4/17/23 12:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	0.0431	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	0.00200	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	0.000321	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	0.000117	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	0.0149	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	0.903	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	4/17/23 09:24	4/17/23 11:26		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 00:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:06	4/17/23 15:06		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 09:10	4/25/23 10:48		1	5.40	mg CaCO3/L		0.10	P
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	32.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	5.40	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 15:13	4/17/23 15:13		1	Not Detected	mg/L	1.00	2	U

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 4/11/23 14:15
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07396

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:24	4/19/23 11:24		1	5.20	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:25	4/19/23 13:25		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:23	4/18/23 09:23		1	5.57	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/11/23 14:12	4/11/23 14:12			47.20	uS/cm			FA
pH	4/11/23 14:12	4/11/23 14:12			4.04	SU			FA
Temperature	4/11/23 14:12	4/11/23 14:12			21.63	C			FA
Turbidity	4/11/23 14:12	4/11/23 14:12			3	NTU			FA
Sulfide	4/11/23 14:12	4/11/23 14:12			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 14:15
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-8

Laboratory ID Number: BD07396

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD07399	Aluminum, Dissolved	mg/L	-0.000171	0.0198	0.100	0.289	0.290	0.0986	0.0850 to 0.115	95.0	70.0 to 130	0.345	20.0
BD07400	Aluminum, Total	mg/L	0.000292	0.0198	0.100	0.0977	0.0993	0.100	0.0850 to 0.115	97.7	70.0 to 130	1.62	20.0
BD07399	Antimony, Dissolved	mg/L	0.000258	0.00100	0.100	0.0959	0.0937	0.0902	0.0850 to 0.115	95.9	70.0 to 130	2.32	20.0
BD07400	Antimony, Total	mg/L	0.000465	0.00100	0.100	0.0909	0.0910	0.0928	0.0850 to 0.115	90.9	70.0 to 130	0.110	20.0
BD07399	Arsenic, Dissolved	mg/L	0.0000061	0.000200	0.100	0.101	0.0996	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BD07400	Arsenic, Total	mg/L	0.0000125	0.000200	0.100	0.101	0.0983	0.101	0.0850 to 0.115	101	70.0 to 130	2.71	20.0
BD07399	Barium, Dissolved	mg/L	0.0000142	0.00100	0.100	0.230	0.227	0.105	0.0850 to 0.115	102	70.0 to 130	1.31	20.0
BD07400	Barium, Total	mg/L	0.0000399	0.00100	0.100	0.0977	0.0982	0.0993	0.0850 to 0.115	97.7	70.0 to 130	0.510	20.0
BD07399	Beryllium, Dissolved	mg/L	0.0000254	0.000880	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07400	Beryllium, Total	mg/L	0.0000361	0.000880	0.100	0.101	0.0973	0.100	0.0850 to 0.115	101	70.0 to 130	3.73	20.0
BD07399	Boron, Dissolved	mg/L	-0.000368	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	99.9	70.0 to 130	0.00	20.0
BD07400	Boron, Total	mg/L	-0.000262	0.0650	1.00	1.01	1.00	1.02	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07399	Cadmium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.102	0.0987	0.0978	0.0850 to 0.115	102	70.0 to 130	3.29	20.0
BD07400	Cadmium, Total	mg/L	0.0000049	0.000147	0.100	0.0968	0.0997	0.0990	0.0850 to 0.115	96.8	70.0 to 130	2.95	20.0
BD07399	Calcium, Dissolved	mg/L	0.0230	0.152	5.00	6.06	6.08	4.81	4.25 to 5.75	98.0	70.0 to 130	0.329	20.0
BD07400	Calcium, Total	mg/L	-0.000853	0.152	5.00	4.90	4.83	4.92	4.25 to 5.75	98.0	70.0 to 130	1.44	20.0
BD07400	Chloride	mg/L	0.0673	1.00	10.0	10.6	11.1	10.9	9.00 to 11.0	106	80.0 to 120	4.61	20.0
BD07399	Chromium, Dissolved	mg/L	-0.0000006	0.000440	0.100	0.101	0.0987	0.102	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BD07400	Chromium, Total	mg/L	0.0000180	0.000440	0.100	0.0974	0.0996	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BD07399	Cobalt, Dissolved	mg/L	-0.0000963	0.000147	0.100	0.104	0.103	0.104	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD07400	Cobalt, Total	mg/L	-0.0000969	0.000147	0.100	0.0997	0.102	0.103	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BD07400	Fluoride	mg/L	0.0397	0.125	2.50	2.54	2.58	2.58	2.25 to 2.75	102	80.0 to 120	1.56	20.0
BD07399	Iron, Dissolved	mg/L	-0.000078	0.0176	0.2	0.200	0.203	0.200	0.170 to 0.230	100	70.0 to 130	1.49	20.0
BD07400	Iron, Total	mg/L	0.000261	0.0176	0.2	0.200	0.199	0.202	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 14:15
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-8

Laboratory ID Number: BD07396

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD07399	Lead, Dissolved	mg/L	0.0000076	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BD07400	Lead, Total	mg/L	0.0000103	0.000147	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07399	Lithium, Dissolved	mg/L	0.00129	0.0154	0.200	0.199	0.199	0.196	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BD07400	Lithium, Total	mg/L	0.00111	0.0154	0.200	0.198	0.197	0.196	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07399	Magnesium, Dissolved	mg/L	0.0339	0.0462	5.00	7.53	7.50	4.87	4.25 to 5.75	99.4	70.0 to 130	0.399	20.0
BD07400	Magnesium, Total	mg/L	-0.000437	0.0462	5.00	4.90	4.87	4.93	4.25 to 5.75	98.0	70.0 to 130	0.614	20.0
BD07399	Manganese, Dissolved	mg/L	-0.0000078	0.00033	0.100	0.143	0.142	0.104	0.0850 to 0.115	101	70.0 to 130	0.702	20.0
BD07400	Manganese, Total	mg/L	0.0000232	0.00033	0.100	0.0999	0.101	0.103	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD07399	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00399	0.00273	0.00393	0.00340 to 0.00460	99.8	70.0 to 130	37.5	20.0
BD07399	Molybdenum, Dissolved	mg/L	0.00118	0.0100	0.2	0.195	0.198	0.197	0.170 to 0.230	97.5	70.0 to 130	1.53	20.0
BD07400	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.197	0.198	0.199	0.170 to 0.230	98.5	70.0 to 130	0.506	20.0
BD07399	Potassium, Dissolved	mg/L	0.00344	0.367	10.0	10.8	10.5	9.97	8.50 to 11.5	99.6	70.0 to 130	2.82	20.0
BD07400	Potassium, Total	mg/L	-0.00915	0.367	10.0	9.78	9.86	10.0	8.50 to 11.5	97.8	70.0 to 130	0.815	20.0
BD07399	Selenium, Dissolved	mg/L	0.0000691	0.00100	0.100	0.105	0.103	0.102	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD07400	Selenium, Total	mg/L	0.0000783	0.00100	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07399	Silicon, Dissolved	mg/L	-0.000795	0.0440	1.00	4.63	4.61	1.01	0.850 to 1.15	104	70.0 to 130	0.433	20.0
BD07400	Silicon, Total	mg/L	-0.00143	0.0440	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BD07399	Sodium, Dissolved	mg/L	0.0143	0.0880	5.00	7.10	7.07	4.82	4.25 to 5.75	97.0	70.0 to 130	0.423	20.0
BD07400	Sodium, Total	mg/L	-0.00191	0.0880	5.00	4.89	4.82	4.81	4.25 to 5.75	97.8	70.0 to 130	1.44	20.0
BD07400	Sulfate	mg/L	0.426	2.0	20.0	22.2	22.7	21.3	18.0 to 22.0	107	80.0 to 120	2.23	20.0
BD07399	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD07400	Thallium, Total	mg/L	-0.000109	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07400	Total Organic Carbon	mg/L	0.0844	1.00	10.0	9.63	10.6	25.4		96.3	80.0 to 120	9.59	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 14:15
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-8

Laboratory ID Number: BD07396

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07396	Alkalinity to pH 4.5	mg CaCO3/L					4.84	52.04	45.0 to 55.0			10.9	10.0
BD07400	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.09	-0.095	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD07399	Solids, Dissolved	mg/L	1.00	25.0			33.3	55.0	40.0 to 60.0			2.08	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 4/11/23 15:20
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07397

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/17/23 11:22	4/19/23 11:55		1.015	0.0664	mg/L	0.030000	0.1015	J	
* Calcium, Total	4/17/23 11:22	4/19/23 11:55		1.015	1.49	mg/L	0.070035	0.406		
* Iron, Total	4/17/23 11:22	4/19/23 11:55		1.015	0.0105	mg/L	0.008120	0.0406	J	
* Lithium, Total	4/17/23 11:22	4/19/23 11:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/17/23 11:22	4/19/23 11:55		1.015	2.23	mg/L	0.021315	0.406		
* Molybdenum, Total	4/17/23 11:22	4/19/23 11:55		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/17/23 11:22	4/19/23 11:55		1	8.28	mg/L				
* Silicon, Total	4/17/23 11:22	4/19/23 11:55		1.015	3.87	mg/L	0.02030	0.25375		
* Sodium, Total	4/17/23 11:22	4/19/23 11:55		1.015	2.42	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	4/17/23 09:24	4/19/23 12:46		1.015	0.0664	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	4/17/23 09:24	4/19/23 12:46		1.015	1.50	mg/L	0.070035	0.406		
* Iron, Dissolved	4/17/23 09:24	4/19/23 12:46		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	4/17/23 09:24	4/19/23 12:46		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	4/17/23 09:24	4/19/23 12:46		1.015	2.22	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	4/17/23 09:24	4/19/23 12:46		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	4/17/23 09:24	4/19/23 12:46		1	8.26	mg/L				
* Silicon, Dissolved	4/17/23 09:24	4/19/23 12:46		1.015	3.86	mg/L	0.02030	0.25375		
* Sodium, Dissolved	4/17/23 09:24	4/19/23 12:46		1.015	2.43	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/17/23 11:22	4/17/23 12:23		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/17/23 11:22	4/17/23 12:23		1.015	0.170	mg/L	0.009135	0.05075		
* Arsenic, Total	4/17/23 11:22	4/17/23 12:23		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	4/17/23 11:22	4/17/23 12:23		1.015	0.123	mg/L	0.000508	0.001015		
* Beryllium, Total	4/17/23 11:22	4/17/23 12:23		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/17/23 11:22	4/17/23 12:23		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/17/23 11:22	4/17/23 12:23		1.015	0.000839	mg/L	0.000203	0.001015	J	
* Cobalt, Total	4/17/23 11:22	4/17/23 12:23		1.015	0.000888	mg/L	0.000068	0.000203		
* Lead, Total	4/17/23 11:22	4/17/23 12:23		1.015	0.000204	mg/L	0.000068	0.000203		
* Manganese, Total	4/17/23 11:22	4/17/23 12:23		1.015	0.0371	mg/L	0.000152	0.001015		

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 4/11/23 15:20
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07397

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:22	4/17/23 12:23		1.015	0.868	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:22	4/17/23 12:23		1.015	0.00123	mg/L	0.000508	0.001015	
* Thallium, Total	4/17/23 11:22	4/17/23 12:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	0.159	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	0.121	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	0.000719	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	0.000886	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	0.000205	mg/L	0.000068	0.000203	
* Manganese, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	0.0373	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	0.899	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	0.00134	mg/L	0.000508	0.001015	
* Thallium, Dissolved	4/17/23 09:24	4/17/23 11:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 00:41		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:08	4/17/23 15:08		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 09:10	4/25/23 10:48		1	1.02	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	32.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	1.02	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 15:25	4/17/23 15:25		1	Not Detected	mg/L	1.00	2	U

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 4/11/23 15:20
Customer ID:
Submittal Date: 4/14/23 10:40

Laboratory ID Number: BD07397

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:25	4/19/23 11:25		1	4.32	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:26	4/19/23 13:26		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:24	4/18/23 09:24		1	10.2	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/11/23 15:17	4/11/23 15:17			61.43	uS/cm			FA
pH	4/11/23 15:17	4/11/23 15:17			4.17	SU			FA
Temperature	4/11/23 15:17	4/11/23 15:17			21.48	C			FA
Turbidity	4/11/23 15:17	4/11/23 15:17			2.05	NTU			FA
Sulfide	4/11/23 15:17	4/11/23 15:17			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 15:20
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-9

Laboratory ID Number: BD07397

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD07399	Aluminum, Dissolved	mg/L	-0.000171	0.0198	0.100	0.289	0.290	0.0986	0.0850 to 0.115	95.0	70.0 to 130	0.345	20.0
BD07400	Aluminum, Total	mg/L	0.000292	0.0198	0.100	0.0977	0.0993	0.100	0.0850 to 0.115	97.7	70.0 to 130	1.62	20.0
BD07399	Antimony, Dissolved	mg/L	0.000258	0.00100	0.100	0.0959	0.0937	0.0902	0.0850 to 0.115	95.9	70.0 to 130	2.32	20.0
BD07400	Antimony, Total	mg/L	0.000465	0.00100	0.100	0.0909	0.0910	0.0928	0.0850 to 0.115	90.9	70.0 to 130	0.110	20.0
BD07399	Arsenic, Dissolved	mg/L	0.0000061	0.000200	0.100	0.101	0.0996	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BD07400	Arsenic, Total	mg/L	0.0000125	0.000200	0.100	0.101	0.0983	0.101	0.0850 to 0.115	101	70.0 to 130	2.71	20.0
BD07399	Barium, Dissolved	mg/L	0.0000142	0.00100	0.100	0.230	0.227	0.105	0.0850 to 0.115	102	70.0 to 130	1.31	20.0
BD07400	Barium, Total	mg/L	0.0000399	0.00100	0.100	0.0977	0.0982	0.0993	0.0850 to 0.115	97.7	70.0 to 130	0.510	20.0
BD07399	Beryllium, Dissolved	mg/L	0.0000254	0.000880	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07400	Beryllium, Total	mg/L	0.0000361	0.000880	0.100	0.101	0.0973	0.100	0.0850 to 0.115	101	70.0 to 130	3.73	20.0
BD07399	Boron, Dissolved	mg/L	-0.000368	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	99.9	70.0 to 130	0.00	20.0
BD07400	Boron, Total	mg/L	-0.000262	0.0650	1.00	1.01	1.00	1.02	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07399	Cadmium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.102	0.0987	0.0978	0.0850 to 0.115	102	70.0 to 130	3.29	20.0
BD07400	Cadmium, Total	mg/L	0.0000049	0.000147	0.100	0.0968	0.0997	0.0990	0.0850 to 0.115	96.8	70.0 to 130	2.95	20.0
BD07399	Calcium, Dissolved	mg/L	0.0230	0.152	5.00	6.06	6.08	4.81	4.25 to 5.75	98.0	70.0 to 130	0.329	20.0
BD07400	Calcium, Total	mg/L	-0.000853	0.152	5.00	4.90	4.83	4.92	4.25 to 5.75	98.0	70.0 to 130	1.44	20.0
BD07400	Chloride	mg/L	0.0673	1.00	10.0	10.6	11.1	10.9	9.00 to 11.0	106	80.0 to 120	4.61	20.0
BD07399	Chromium, Dissolved	mg/L	-0.0000006	0.000440	0.100	0.101	0.0987	0.102	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BD07400	Chromium, Total	mg/L	0.0000180	0.000440	0.100	0.0974	0.0996	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BD07399	Cobalt, Dissolved	mg/L	-0.0000963	0.000147	0.100	0.104	0.103	0.104	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD07400	Cobalt, Total	mg/L	-0.0000969	0.000147	0.100	0.0997	0.102	0.103	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BD07400	Fluoride	mg/L	0.0397	0.125	2.50	2.54	2.58	2.58	2.25 to 2.75	102	80.0 to 120	1.56	20.0
BD07399	Iron, Dissolved	mg/L	-0.000078	0.0176	0.2	0.200	0.203	0.200	0.170 to 0.230	100	70.0 to 130	1.49	20.0
BD07400	Iron, Total	mg/L	0.000261	0.0176	0.2	0.200	0.199	0.202	0.170 to 0.230	100	70.0 to 130	0.501	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 15:20
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-9

Laboratory ID Number: BD07397

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07399	Lead, Dissolved	mg/L	0.0000076	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BD07400	Lead, Total	mg/L	0.0000103	0.000147	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07399	Lithium, Dissolved	mg/L	0.00129	0.0154	0.200	0.199	0.199	0.196	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BD07400	Lithium, Total	mg/L	0.00111	0.0154	0.200	0.198	0.197	0.196	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07399	Magnesium, Dissolved	mg/L	0.0339	0.0462	5.00	7.53	7.50	4.87	4.25 to 5.75	99.4	70.0 to 130	0.399	20.0
BD07400	Magnesium, Total	mg/L	-0.000437	0.0462	5.00	4.90	4.87	4.93	4.25 to 5.75	98.0	70.0 to 130	0.614	20.0
BD07399	Manganese, Dissolved	mg/L	-0.0000078	0.00033	0.100	0.143	0.142	0.104	0.0850 to 0.115	101	70.0 to 130	0.702	20.0
BD07400	Manganese, Total	mg/L	0.0000232	0.00033	0.100	0.0999	0.101	0.103	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD07399	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00399	0.00273	0.00393	0.00340 to 0.00460	99.8	70.0 to 130	37.5	20.0
BD07399	Molybdenum, Dissolved	mg/L	0.00118	0.0100	0.2	0.195	0.198	0.197	0.170 to 0.230	97.5	70.0 to 130	1.53	20.0
BD07400	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.197	0.198	0.199	0.170 to 0.230	98.5	70.0 to 130	0.506	20.0
BD07399	Potassium, Dissolved	mg/L	0.00344	0.367	10.0	10.8	10.5	9.97	8.50 to 11.5	99.6	70.0 to 130	2.82	20.0
BD07400	Potassium, Total	mg/L	-0.00915	0.367	10.0	9.78	9.86	10.0	8.50 to 11.5	97.8	70.0 to 130	0.815	20.0
BD07399	Selenium, Dissolved	mg/L	0.0000691	0.00100	0.100	0.105	0.103	0.102	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD07400	Selenium, Total	mg/L	0.0000783	0.00100	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07399	Silicon, Dissolved	mg/L	-0.000795	0.0440	1.00	4.63	4.61	1.01	0.850 to 1.15	104	70.0 to 130	0.433	20.0
BD07400	Silicon, Total	mg/L	-0.00143	0.0440	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BD07399	Sodium, Dissolved	mg/L	0.0143	0.0880	5.00	7.10	7.07	4.82	4.25 to 5.75	97.0	70.0 to 130	0.423	20.0
BD07400	Sodium, Total	mg/L	-0.00191	0.0880	5.00	4.89	4.82	4.81	4.25 to 5.75	97.8	70.0 to 130	1.44	20.0
BD07400	Sulfate	mg/L	0.426	2.0	20.0	22.2	22.7	21.3	18.0 to 22.0	107	80.0 to 120	2.23	20.0
BD07399	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD07400	Thallium, Total	mg/L	-0.000109	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07400	Total Organic Carbon	mg/L	0.0844	1.00	10.0	9.63	10.6	25.4		96.3	80.0 to 120	9.59	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 15:20
Customer ID:
Delivery Date: 4/14/23 10:40

Description: Barry Gypsum - MW-9

Laboratory ID Number: BD07397

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07396	Alkalinity to pH 4.5	mg CaCO3/L					4.84	52.04	45.0 to 55.0			10.9	10.0
BD07400	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.09	-0.095	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD07399	Solids, Dissolved	mg/L	1.00	25.0			33.3	55.0	40.0 to 60.0			2.08	10.0

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

Certificate Of Analysis

Description: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB
Collected: 4/11/23 15:50
Customer ID:
Submittal Date: 4/14/23 10:42

Laboratory ID Number: BD07398

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/17/23 11:22	4/19/23 11:58		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	4/17/23 11:22	4/19/23 11:58		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	4/17/23 11:22	4/19/23 11:58		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	4/17/23 11:22	4/19/23 11:58		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/17/23 11:22	4/19/23 11:58		1.015	Not Detected	mg/L	0.021315	0.406	U	
* Molybdenum, Total	4/17/23 11:22	4/19/23 11:58		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/17/23 11:22	4/19/23 11:58		1	Not Detected	mg/L				
* Silicon, Total	4/17/23 11:22	4/19/23 11:58		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	4/17/23 11:22	4/19/23 11:58		1.015	Not Detected	mg/L	0.04060	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Potassium, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	4/17/23 11:22	4/17/23 12:26		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: CRB								
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 00:45		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	4/17/23 15:10	4/17/23 15:10		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	Not Detected	mg/L		25	U	

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

Comments:

Certificate Of Analysis

Description: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB

Collected: 4/11/23 15:50

Customer ID:

Submittal Date: 4/14/23 10:42

Laboratory ID Number: BD07398

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 15:42	4/17/23 15:42		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	4/19/23 11:26	4/19/23 11:26		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:27	4/19/23 13:27		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:25	4/18/23 09:25		1	1.24	mg/L	0.6	2	J

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

Comments:

Batch QC Summary

Customer Account: WMWBARGFB

Sample Date: 4/11/23 15:50

Customer ID:

Delivery Date: 4/14/23 10:42

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BD07398

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07400	Aluminum, Total	mg/L	0.000292	0.0198	0.100	0.0977	0.0993	0.100	0.0850 to 0.115	97.7	70.0 to 130	1.62	20.0
BD07400	Antimony, Total	mg/L	0.000465	0.00100	0.100	0.0909	0.0910	0.0928	0.0850 to 0.115	90.9	70.0 to 130	0.110	20.0
BD07400	Arsenic, Total	mg/L	0.0000125	0.000200	0.100	0.101	0.0983	0.101	0.0850 to 0.115	101	70.0 to 130	2.71	20.0
BD07400	Barium, Total	mg/L	0.0000399	0.00100	0.100	0.0977	0.0982	0.0993	0.0850 to 0.115	97.7	70.0 to 130	0.510	20.0
BD07400	Beryllium, Total	mg/L	0.0000361	0.000880	0.100	0.101	0.0973	0.100	0.0850 to 0.115	101	70.0 to 130	3.73	20.0
BD07400	Boron, Total	mg/L	-0.000262	0.0650	1.00	1.01	1.00	1.02	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07400	Cadmium, Total	mg/L	0.0000049	0.000147	0.100	0.0968	0.0997	0.0990	0.0850 to 0.115	96.8	70.0 to 130	2.95	20.0
BD07400	Calcium, Total	mg/L	-0.000853	0.152	5.00	4.90	4.83	4.92	4.25 to 5.75	98.0	70.0 to 130	1.44	20.0
BD07400	Chloride	mg/L	0.0673	1.00	10.0	10.6	11.1	10.9	9.00 to 11.0	106	80.0 to 120	4.61	20.0
BD07400	Chromium, Total	mg/L	0.0000180	0.000440	0.100	0.0974	0.0996	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BD07400	Cobalt, Total	mg/L	-0.0000969	0.000147	0.100	0.0997	0.102	0.103	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BD07400	Fluoride	mg/L	0.0397	0.125	2.50	2.54	2.58	2.58	2.25 to 2.75	102	80.0 to 120	1.56	20.0
BD07400	Iron, Total	mg/L	0.000261	0.0176	0.2	0.200	0.199	0.202	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD07400	Lead, Total	mg/L	0.0000103	0.000147	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07400	Lithium, Total	mg/L	0.00111	0.0154	0.200	0.198	0.197	0.196	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07400	Magnesium, Total	mg/L	-0.000437	0.0462	5.00	4.90	4.87	4.93	4.25 to 5.75	98.0	70.0 to 130	0.614	20.0
BD07400	Manganese, Total	mg/L	0.0000232	0.00033	0.100	0.0999	0.101	0.103	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD07399	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00399	0.00273	0.00393	0.00340 to 0.00460	99.8	70.0 to 130	37.5	20.0
BD07400	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.197	0.198	0.199	0.170 to 0.230	98.5	70.0 to 130	0.506	20.0
BD07400	Potassium, Total	mg/L	-0.00915	0.367	10.0	9.78	9.86	10.0	8.50 to 11.5	97.8	70.0 to 130	0.815	20.0
BD07400	Selenium, Total	mg/L	0.0000783	0.00100	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07400	Silicon, Total	mg/L	-0.00143	0.0440	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BD07400	Sodium, Total	mg/L	-0.00191	0.0880	5.00	4.89	4.82	4.81	4.25 to 5.75	97.8	70.0 to 130	1.44	20.0
BD07400	Sulfate	mg/L	0.426	2.0	20.0	22.2	22.7	21.3	18.0 to 22.0	107	80.0 to 120	2.23	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGFB
Sample Date: 4/11/23 15:50
Customer ID:
Delivery Date: 4/14/23 10:42

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BD07398

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard		Rec		Prec	Limit
				Limit	Spike	MS	Limit			Rec	Limit	Prec			
BD07400	Thallium, Total	mg/L	-0.000109	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115		103	70.0 to 130		1.92	20.0
BD07400	Total Organic Carbon	mg/L	0.0844	1.00	10.0	9.63	10.6	25.4			96.3	80.0 to 120		9.59	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGFB

Sample Date: 4/11/23 15:50

Customer ID:

Delivery Date: 4/14/23 10:42

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BD07398

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD07400	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.09	-0.095	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD07399	Solids, Dissolved	mg/L	1.00	25.0			33.3	55.0	40.0 to 60.0			2.08	10.0

Comments:

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 4/11/23 16:48
Customer ID:
Submittal Date: 4/14/23 10:42

Laboratory ID Number: BD07399

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	4/17/23 11:22	4/19/23 12:02		1.015	0.0503	mg/L	0.030000	0.1015	J
* Calcium, Total	4/17/23 11:22	4/19/23 12:02		1.015	1.16	mg/L	0.070035	0.406	
* Iron, Total	4/17/23 11:22	4/19/23 12:02		1.015	0.0664	mg/L	0.008120	0.0406	
* Lithium, Total	4/17/23 11:22	4/19/23 12:02		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	4/17/23 11:22	4/19/23 12:02		1.015	2.53	mg/L	0.021315	0.406	
* Molybdenum, Total	4/17/23 11:22	4/19/23 12:02		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	4/17/23 11:22	4/19/23 12:02		1	7.77	mg/L			
* Silicon, Total	4/17/23 11:22	4/19/23 12:02		1.015	3.63	mg/L	0.02030	0.25375	
* Sodium, Total	4/17/23 11:22	4/19/23 12:02		1.015	2.23	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	4/17/23 09:24	4/19/23 12:49		1.015	0.0506	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	4/17/23 09:24	4/19/23 12:49		1.015	1.16	mg/L	0.070035	0.406	
* Iron, Dissolved	4/17/23 09:24	4/19/23 12:49		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	4/17/23 09:24	4/19/23 12:49		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	4/17/23 09:24	4/19/23 12:49		1.015	2.56	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	4/17/23 09:24	4/19/23 12:49		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	4/17/23 09:24	4/19/23 12:49		1	7.68	mg/L			
* Silicon, Dissolved	4/17/23 09:24	4/19/23 12:49		1.015	3.59	mg/L	0.02030	0.25375	
* Sodium, Dissolved	4/17/23 09:24	4/19/23 12:49		1.015	2.25	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	4/17/23 11:22	4/17/23 12:29		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	4/17/23 11:22	4/17/23 12:29		1.015	0.316	mg/L	0.009135	0.05075	
* Arsenic, Total	4/17/23 11:22	4/17/23 12:29		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	4/17/23 11:22	4/17/23 12:29		1.015	0.127	mg/L	0.000508	0.001015	
* Beryllium, Total	4/17/23 11:22	4/17/23 12:29		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	4/17/23 11:22	4/17/23 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	4/17/23 11:22	4/17/23 12:29		1.015	0.000659	mg/L	0.000203	0.001015	J
* Cobalt, Total	4/17/23 11:22	4/17/23 12:29		1.015	0.00265	mg/L	0.000068	0.000203	
* Lead, Total	4/17/23 11:22	4/17/23 12:29		1.015	0.000131	mg/L	0.000068	0.000203	J
* Manganese, Total	4/17/23 11:22	4/17/23 12:29		1.015	0.0432	mg/L	0.000152	0.001015	

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Mercury matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
 Mercury precision is out of specification limit.

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 4/11/23 16:48
Customer ID:
Submittal Date: 4/14/23 10:42

Laboratory ID Number: BD07399

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	4/17/23 11:22	4/17/23 12:29		1.015	0.880	mg/L	0.169505	0.5075	
* Selenium, Total	4/17/23 11:22	4/17/23 12:29		1.015	0.00108	mg/L	0.000508	0.001015	
* Thallium, Total	4/17/23 11:22	4/17/23 12:29		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	0.194	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	0.128	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	0.000461	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	0.00259	mg/L	0.000068	0.000203	
* Lead, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	0.0000913	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	0.0422	mg/L	0.000152	0.001015	
* Potassium, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	0.842	mg/L	0.169505	0.5075	
* Selenium, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	0.00121	mg/L	0.000508	0.001015	
* Thallium, Dissolved	4/17/23 09:24	4/17/23 11:33		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: CRB							
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 00:53		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	4/17/23 15:12	4/17/23 15:12		1	0.534	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: ALH							
* Alkalinity to pH 4.5	4/25/23 09:10	4/25/23 10:48		1	0.44	mg CaCO3/L		0.10	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	34.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: ALH							
* Bicarbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	Not Detected	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	4/25/23 09:10	4/25/23 10:48		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 15:57	4/17/23 15:57		1	Not Detected	mg/L	1.00	2	U

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Mercury matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
 Mercury precision is out of specification limit.

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 4/11/23 16:48
Customer ID:
Submittal Date: 4/14/23 10:42

Laboratory ID Number: BD07399

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	4/19/23 11:27	4/19/23 11:27		1	3.17	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:28	4/19/23 13:28		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:27	4/18/23 09:27		1	11.9	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	4/11/23 16:44	4/11/23 16:44			61.58	uS/cm			FA
pH	4/11/23 16:44	4/11/23 16:44			4.43	SU			FA
Temperature	4/11/23 16:44	4/11/23 16:44			20.53	C			FA
Turbidity	4/11/23 16:44	4/11/23 16:44			7.12	NTU			FA
Sulfide	4/11/23 16:44	4/11/23 16:44			0	mg/L			FA

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

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Mercury matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
 Mercury precision is out of specification limit.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 16:48
Customer ID:
Delivery Date: 4/14/23 10:42

Description: Barry Gypsum - MW-10

Laboratory ID Number: BD07399

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD07399	Aluminum, Dissolved	mg/L	-0.000171	0.0198	0.100	0.289	0.290	0.0986	0.0850 to 0.115	95.0	70.0 to 130	0.345	20.0
BD07400	Aluminum, Total	mg/L	0.000292	0.0198	0.100	0.0977	0.0993	0.100	0.0850 to 0.115	97.7	70.0 to 130	1.62	20.0
BD07399	Antimony, Dissolved	mg/L	0.000258	0.00100	0.100	0.0959	0.0937	0.0902	0.0850 to 0.115	95.9	70.0 to 130	2.32	20.0
BD07400	Antimony, Total	mg/L	0.000465	0.00100	0.100	0.0909	0.0910	0.0928	0.0850 to 0.115	90.9	70.0 to 130	0.110	20.0
BD07399	Arsenic, Dissolved	mg/L	0.0000061	0.000200	0.100	0.101	0.0996	0.102	0.0850 to 0.115	101	70.0 to 130	1.40	20.0
BD07400	Arsenic, Total	mg/L	0.0000125	0.000200	0.100	0.101	0.0983	0.101	0.0850 to 0.115	101	70.0 to 130	2.71	20.0
BD07399	Barium, Dissolved	mg/L	0.0000142	0.00100	0.100	0.230	0.227	0.105	0.0850 to 0.115	102	70.0 to 130	1.31	20.0
BD07400	Barium, Total	mg/L	0.0000399	0.00100	0.100	0.0977	0.0982	0.0993	0.0850 to 0.115	97.7	70.0 to 130	0.510	20.0
BD07399	Beryllium, Dissolved	mg/L	0.0000254	0.000880	0.100	0.101	0.101	0.103	0.0850 to 0.115	101	70.0 to 130	0.00	20.0
BD07400	Beryllium, Total	mg/L	0.0000361	0.000880	0.100	0.101	0.0973	0.100	0.0850 to 0.115	101	70.0 to 130	3.73	20.0
BD07399	Boron, Dissolved	mg/L	-0.000368	0.0650	1.00	1.05	1.05	1.00	0.850 to 1.15	99.9	70.0 to 130	0.00	20.0
BD07400	Boron, Total	mg/L	-0.000262	0.0650	1.00	1.01	1.00	1.02	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07399	Cadmium, Dissolved	mg/L	-0.0000004	0.000147	0.100	0.102	0.0987	0.0978	0.0850 to 0.115	102	70.0 to 130	3.29	20.0
BD07400	Cadmium, Total	mg/L	0.0000049	0.000147	0.100	0.0968	0.0997	0.0990	0.0850 to 0.115	96.8	70.0 to 130	2.95	20.0
BD07399	Calcium, Dissolved	mg/L	0.0230	0.152	5.00	6.06	6.08	4.81	4.25 to 5.75	98.0	70.0 to 130	0.329	20.0
BD07400	Calcium, Total	mg/L	-0.000853	0.152	5.00	4.90	4.83	4.92	4.25 to 5.75	98.0	70.0 to 130	1.44	20.0
BD07400	Chloride	mg/L	0.0673	1.00	10.0	10.6	11.1	10.9	9.00 to 11.0	106	80.0 to 120	4.61	20.0
BD07399	Chromium, Dissolved	mg/L	-0.0000006	0.000440	0.100	0.101	0.0987	0.102	0.0850 to 0.115	101	70.0 to 130	2.30	20.0
BD07400	Chromium, Total	mg/L	0.0000180	0.000440	0.100	0.0974	0.0996	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BD07399	Cobalt, Dissolved	mg/L	-0.0000963	0.000147	0.100	0.104	0.103	0.104	0.0850 to 0.115	101	70.0 to 130	0.966	20.0
BD07400	Cobalt, Total	mg/L	-0.0000969	0.000147	0.100	0.0997	0.102	0.103	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BD07400	Fluoride	mg/L	0.0397	0.125	2.50	2.54	2.58	2.58	2.25 to 2.75	102	80.0 to 120	1.56	20.0
BD07399	Iron, Dissolved	mg/L	-0.000078	0.0176	0.2	0.200	0.203	0.200	0.170 to 0.230	100	70.0 to 130	1.49	20.0
BD07400	Iron, Total	mg/L	0.000261	0.0176	0.2	0.200	0.199	0.202	0.170 to 0.230	100	70.0 to 130	0.501	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Mercury matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
 Mercury precision is out of specification limit.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 16:48
Customer ID:
Delivery Date: 4/14/23 10:42

Description: Barry Gypsum - MW-10

Laboratory ID Number: BD07399

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07399	Lead, Dissolved	mg/L	0.0000076	0.000147	0.100	0.105	0.102	0.105	0.0850 to 0.115	105	70.0 to 130	2.90	20.0
BD07400	Lead, Total	mg/L	0.0000103	0.000147	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07399	Lithium, Dissolved	mg/L	0.00129	0.0154	0.200	0.199	0.199	0.196	0.170 to 0.230	99.5	70.0 to 130	0.00	20.0
BD07400	Lithium, Total	mg/L	0.00111	0.0154	0.200	0.198	0.197	0.196	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07399	Magnesium, Dissolved	mg/L	0.0339	0.0462	5.00	7.53	7.50	4.87	4.25 to 5.75	99.4	70.0 to 130	0.399	20.0
BD07400	Magnesium, Total	mg/L	-0.000437	0.0462	5.00	4.90	4.87	4.93	4.25 to 5.75	98.0	70.0 to 130	0.614	20.0
BD07399	Manganese, Dissolved	mg/L	-0.0000078	0.00033	0.100	0.143	0.142	0.104	0.0850 to 0.115	101	70.0 to 130	0.702	20.0
BD07400	Manganese, Total	mg/L	0.0000232	0.00033	0.100	0.0999	0.101	0.103	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD07399	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00399	0.00273	0.00393	0.00340 to 0.00460	99.8	70.0 to 130	37.5	20.0
BD07399	Molybdenum, Dissolved	mg/L	0.00118	0.0100	0.2	0.195	0.198	0.197	0.170 to 0.230	97.5	70.0 to 130	1.53	20.0
BD07400	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.197	0.198	0.199	0.170 to 0.230	98.5	70.0 to 130	0.506	20.0
BD07399	Potassium, Dissolved	mg/L	0.00344	0.367	10.0	10.8	10.5	9.97	8.50 to 11.5	99.6	70.0 to 130	2.82	20.0
BD07400	Potassium, Total	mg/L	-0.00915	0.367	10.0	9.78	9.86	10.0	8.50 to 11.5	97.8	70.0 to 130	0.815	20.0
BD07399	Selenium, Dissolved	mg/L	0.0000691	0.00100	0.100	0.105	0.103	0.102	0.0850 to 0.115	104	70.0 to 130	1.92	20.0
BD07400	Selenium, Total	mg/L	0.0000783	0.00100	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07399	Silicon, Dissolved	mg/L	-0.000795	0.0440	1.00	4.63	4.61	1.01	0.850 to 1.15	104	70.0 to 130	0.433	20.0
BD07400	Silicon, Total	mg/L	-0.00143	0.0440	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BD07399	Sodium, Dissolved	mg/L	0.0143	0.0880	5.00	7.10	7.07	4.82	4.25 to 5.75	97.0	70.0 to 130	0.423	20.0
BD07400	Sodium, Total	mg/L	-0.00191	0.0880	5.00	4.89	4.82	4.81	4.25 to 5.75	97.8	70.0 to 130	1.44	20.0
BD07400	Sulfate	mg/L	0.426	2.0	20.0	22.2	22.7	21.3	18.0 to 22.0	107	80.0 to 120	2.23	20.0
BD07399	Thallium, Dissolved	mg/L	-0.000112	0.000147	0.100	0.103	0.100	0.102	0.0850 to 0.115	103	70.0 to 130	2.96	20.0
BD07400	Thallium, Total	mg/L	-0.000109	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115	103	70.0 to 130	1.92	20.0
BD07400	Total Organic Carbon	mg/L	0.0844	1.00	10.0	9.63	10.6	25.4		96.3	80.0 to 120	9.59	20.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Mercury matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
 Mercury precision is out of specification limit.

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 4/11/23 16:48
Customer ID:
Delivery Date: 4/14/23 10:42

Description: Barry Gypsum - MW-10

Laboratory ID Number: BD07399

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07396	Alkalinity to pH 4.5	mg CaCO3/L					4.84	52.04	45.0 to 55.0			10.9	10.0
BD07400	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.09	-0.095	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD07399	Solids, Dissolved	mg/L	1.00	25.0			33.3	55.0	40.0 to 60.0			2.08	10.0

Comments: Filtered LCS and MB were not submitted or analyzed with Dissolved Metals.
 Mercury matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
 Mercury precision is out of specification limit.

Certificate Of Analysis

Description: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB
Collected: 4/11/23 17:15
Customer ID:
Submittal Date: 4/14/23 10:42

Laboratory ID Number: BD07400

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	4/17/23 11:22	4/19/23 12:05		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	4/17/23 11:22	4/19/23 12:05		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	4/17/23 11:22	4/19/23 12:05		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	4/17/23 11:22	4/19/23 12:05		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	4/17/23 11:22	4/19/23 12:05		1.015	Not Detected	mg/L	0.021315	0.406	U	
* Molybdenum, Total	4/17/23 11:22	4/19/23 12:05		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	4/17/23 11:22	4/19/23 12:05		1	Not Detected	mg/L				
* Silicon, Total	4/17/23 11:22	4/19/23 12:05		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	4/17/23 11:22	4/19/23 12:05		1.015	Not Detected	mg/L	0.04060	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Potassium, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	4/17/23 11:22	4/17/23 12:33		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: CRB								
* Mercury, Total by CVAA	4/20/23 18:26	4/21/23 00:49		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	4/17/23 15:13	4/17/23 15:13		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	4/14/23 13:40	4/17/23 13:45		1	Not Detected	mg/L		25	U	

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

Comments:

Certificate Of Analysis

Description: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB

Collected: 4/11/23 17:15

Customer ID:

Submittal Date: 4/14/23 10:42

Laboratory ID Number: BD07400

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	4/17/23 16:11	4/17/23 16:11		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	4/19/23 11:29	4/19/23 11:29		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	4/19/23 13:29	4/19/23 13:29		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	4/18/23 09:28	4/18/23 09:28		1	0.727	mg/L	0.6	2	J

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

Comments:

Batch QC Summary

Customer Account: WMWBARGE B

Sample Date: 4/11/23 17:15

Customer ID:

Delivery Date: 4/14/23 10:42

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BD07400

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD07400	Aluminum, Total	mg/L	0.000292	0.0198	0.100	0.0977	0.0993	0.100	0.0850 to 0.115	97.7	70.0 to 130	1.62	20.0
BD07400	Antimony, Total	mg/L	0.000465	0.00100	0.100	0.0909	0.0910	0.0928	0.0850 to 0.115	90.9	70.0 to 130	0.110	20.0
BD07400	Arsenic, Total	mg/L	0.0000125	0.000200	0.100	0.101	0.0983	0.101	0.0850 to 0.115	101	70.0 to 130	2.71	20.0
BD07400	Barium, Total	mg/L	0.0000399	0.00100	0.100	0.0977	0.0982	0.0993	0.0850 to 0.115	97.7	70.0 to 130	0.510	20.0
BD07400	Beryllium, Total	mg/L	0.0000361	0.000880	0.100	0.101	0.0973	0.100	0.0850 to 0.115	101	70.0 to 130	3.73	20.0
BD07400	Boron, Total	mg/L	-0.000262	0.0650	1.00	1.01	1.00	1.02	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD07400	Cadmium, Total	mg/L	0.0000049	0.000147	0.100	0.0968	0.0997	0.0990	0.0850 to 0.115	96.8	70.0 to 130	2.95	20.0
BD07400	Calcium, Total	mg/L	-0.000853	0.152	5.00	4.90	4.83	4.92	4.25 to 5.75	98.0	70.0 to 130	1.44	20.0
BD07400	Chloride	mg/L	0.0673	1.00	10.0	10.6	11.1	10.9	9.00 to 11.0	106	80.0 to 120	4.61	20.0
BD07400	Chromium, Total	mg/L	0.0000180	0.000440	0.100	0.0974	0.0996	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.23	20.0
BD07400	Cobalt, Total	mg/L	-0.0000969	0.000147	0.100	0.0997	0.102	0.103	0.0850 to 0.115	99.7	70.0 to 130	2.28	20.0
BD07400	Fluoride	mg/L	0.0397	0.125	2.50	2.54	2.58	2.58	2.25 to 2.75	102	80.0 to 120	1.56	20.0
BD07400	Iron, Total	mg/L	0.000261	0.0176	0.2	0.200	0.199	0.202	0.170 to 0.230	100	70.0 to 130	0.501	20.0
BD07400	Lead, Total	mg/L	0.0000103	0.000147	0.100	0.102	0.103	0.103	0.0850 to 0.115	102	70.0 to 130	0.976	20.0
BD07400	Lithium, Total	mg/L	0.00111	0.0154	0.200	0.198	0.197	0.196	0.170 to 0.230	99.0	70.0 to 130	0.506	20.0
BD07400	Magnesium, Total	mg/L	-0.000437	0.0462	5.00	4.90	4.87	4.93	4.25 to 5.75	98.0	70.0 to 130	0.614	20.0
BD07400	Manganese, Total	mg/L	0.0000232	0.00033	0.100	0.0999	0.101	0.103	0.0850 to 0.115	99.9	70.0 to 130	1.10	20.0
BD07399	Mercury, Total by CVAA	mg/L	0.000	0.000500	0.004	0.00399	0.00273	0.00393	0.00340 to 0.00460	99.8	70.0 to 130	37.5	20.0
BD07400	Molybdenum, Total	mg/L	0.001	0.0100	0.2	0.197	0.198	0.199	0.170 to 0.230	98.5	70.0 to 130	0.506	20.0
BD07400	Potassium, Total	mg/L	-0.00915	0.367	10.0	9.78	9.86	10.0	8.50 to 11.5	97.8	70.0 to 130	0.815	20.0
BD07400	Selenium, Total	mg/L	0.0000783	0.00100	0.100	0.102	0.102	0.101	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD07400	Silicon, Total	mg/L	-0.00143	0.0440	1.00	1.02	1.01	1.02	0.850 to 1.15	102	70.0 to 130	0.985	20.0
BD07400	Sodium, Total	mg/L	-0.00191	0.0880	5.00	4.89	4.82	4.81	4.25 to 5.75	97.8	70.0 to 130	1.44	20.0
BD07400	Sulfate	mg/L	0.426	2.0	20.0	22.2	22.7	21.3	18.0 to 22.0	107	80.0 to 120	2.23	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGEB

Sample Date: 4/11/23 17:15

Customer ID:

Delivery Date: 4/14/23 10:42

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BD07400

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard		Rec		Prec	Limit
				Limit	Spike	MS	Standard			Limit	Rec	Limit	Prec		
BD07400	Thallium, Total	mg/L	-0.000109	0.000147	0.100	0.103	0.105	0.104	0.0850 to 0.115		103	70.0 to 130		1.92	20.0
BD07400	Total Organic Carbon	mg/L	0.0844	1.00	10.0	9.63	10.6	25.4			96.3	80.0 to 120		9.59	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGE8

Sample Date: 4/11/23 17:15

Customer ID:

Delivery Date: 4/14/23 10:42

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BD07400

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD07400	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.06	0.200	2.00	2.09	-0.095	1.94	1.80 to 2.20	104	90.0 to 110	0.00	15.0
BD07399	Solids, Dissolved	mg/L	1.00	25.0			33.3	55.0	40.0 to 60.0			2.08	10.0

Comments:

Definitions

Project Number: WMWBARG_1407

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

Qualifier	Description
FA	Field results were reviewed by the Water Field Group. Refer to APC Field Case Narrative.
J	Reported value is an estimate because concentration is less than reporting limit.
P	Precision is out of specification limit.
U	Compound was analyzed, but not detected.



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

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

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-5	04/11/2023	09:28	6	Groundwater		BD07391	<input checked="" type="checkbox"/>
MW-6	04/11/2023	10:30	6	Groundwater		BD07392	<input checked="" type="checkbox"/>
PZ-11	04/11/2023	11:25	6	Groundwater		BD07393	<input checked="" type="checkbox"/>
MW-7	04/11/2023	12:50	6	Groundwater		BD07394	<input checked="" type="checkbox"/>
MW-7 Dup	04/11/2023	12:50	6	Sample Duplicate		BD07395	<input checked="" type="checkbox"/>
MW-8	04/11/2023	14:15	6	Groundwater		BD07396	<input checked="" type="checkbox"/>
MW-9	04/11/2023	15:20	6	Groundwater		BD07397	<input checked="" type="checkbox"/>
FB-1	04/11/2023	15:50	5	Field Blank		BD07398	<input checked="" type="checkbox"/>
MW-10	04/11/2023	16:48	6	Groundwater		BD07399	<input checked="" type="checkbox"/>
EB-1	04/11/2023	17:15	5	Equipment Blank		BD07400	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
		04/13/2023 13:28

SmarTroll ID	7586-41445-5-4	Cooler Temp	3.1 °C
Turbidity ID	4677-23343-4-2	Thermometer ID	10614-61208-2-1
Sample Event	1407	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

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

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

Comments: Rad MS/MSD @ MW-6

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-5	04/11/2023	09:28	1	Groundwater		BD07401	<input checked="" type="checkbox"/>
MW-6	04/11/2023	10:30	3	Groundwater		BD07402	<input checked="" type="checkbox"/>
PZ-11	04/11/2023	11:25	1	Groundwater		BD07403	<input checked="" type="checkbox"/>
MW-7	04/11/2023	12:50	1	Groundwater		BD07404	<input checked="" type="checkbox"/>
MW-7 Dup	04/11/2023	12:50	1	Sample Duplicate		BD07405	<input checked="" type="checkbox"/>
MW-8	04/11/2023	14:15	1	Groundwater		BD07406	<input checked="" type="checkbox"/>
MW-9	04/11/2023	15:20	1	Groundwater		BD07407	<input checked="" type="checkbox"/>
FB-1	04/11/2023	15:50	1	Field Blank		BD07408	<input checked="" type="checkbox"/>
MW-10	04/11/2023	16:48	1	Groundwater		BD07409	<input checked="" type="checkbox"/>
EB-1	04/11/2023	17:15	1	Equipment Blank		BD07410	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
		04/13/2023 13:28

SmarTroll ID	7586-41445-5-4	Cooler Temp	N/A
Turbidity ID	4677-23343-4-2	Thermometer ID	N/A
Sample Event	1407	pH Strip ID	10429-60252-10-8

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks

May 19, 2023

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWBARG_1407
Pace Project No.: 30580822

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on April 20, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,



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

Enclosures

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



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: WMWBARG_1407
Pace Project No.: 30580822

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601

ANAB DOD-ELAP Rad Accreditation #: L2417

Alabama Certification #: 41590

Arizona Certification #: AZ0734

Arkansas Certification

California Certification #: 04222CA

Colorado Certification #: PA01547

Connecticut Certification #: PH-0694

Delaware Certification

EPA Region 4 DW Rad

Florida/TNI Certification #: E87683

Georgia Certification #: C040

Florida: Cert E871149 SEKS WET

Guam Certification

Hawaii Certification

Idaho Certification

Illinois Certification

Indiana Certification

Iowa Certification #: 391

Kansas/TNI Certification #: E-10358

Kentucky Certification #: KY90133

KY WW Permit #: KY0098221

KY WW Permit #: KY0000221

Louisiana DHH/TNI Certification #: LA180012

Louisiana DEQ/TNI Certification #: 4086

Maine Certification #: 2017020

Maryland Certification #: 308

Massachusetts Certification #: M-PA1457

Michigan/PADEP Certification #: 9991

Missouri Certification #: 235

Montana Certification #: Cert0082

Nebraska Certification #: NE-OS-29-14

Nevada Certification #: PA014572018-1

New Hampshire/TNI Certification #: 297617

New Jersey/TNI Certification #: PA051

New Mexico Certification #: PA01457

New York/TNI Certification #: 10888

North Carolina Certification #: 42706

North Dakota Certification #: R-190

Ohio EPA Rad Approval: #41249

Oregon/TNI Certification #: PA200002-010

Pennsylvania/TNI Certification #: 65-00282

Puerto Rico Certification #: PA01457

Rhode Island Certification #: 65-00282

South Dakota Certification

Tennessee Certification #: 02867

Texas/TNI Certification #: T104704188-17-3

Utah/TNI Certification #: PA014572017-9

USDA Soil Permit #: P330-17-00091

Vermont Dept. of Health: ID# VT-0282

Virgin Island/PADEP Certification

Virginia/VELAP Certification #: 460198

Washington Certification #: C868

West Virginia DEP Certification #: 143

West Virginia DHHR Certification #: 9964C

Wisconsin Approve List for Rad

Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWBARG_1407
Pace Project No.: 30580822

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30580822001	BD07401 MW-5	Water	04/11/23 09:28	04/20/23 10:15
30580822002	BD07402 MW-6	Water	04/11/23 10:30	04/20/23 10:15
30580822003	BD07402 MW-6 MS	Water	04/11/23 10:30	04/20/23 10:15
30580822004	BD07402 MW-6 MSD	Water	04/11/23 10:30	04/20/23 10:15
30580822005	BD07403 PZ-11	Water	04/11/23 11:25	04/20/23 10:15
30580822006	BD07404 MW-7	Water	04/11/23 12:50	04/20/23 10:15
30580822007	BD07405 MW-7 Dup	Water	04/11/23 12:50	04/20/23 10:15
30580822008	BD07406 MW-8	Water	04/11/23 14:15	04/20/23 10:15
30580822009	BD07407 MW-9	Water	04/11/23 15:20	04/20/23 10:15
30580822010	BD07408 FB-1	Water	04/11/23 15:50	04/20/23 10:15
30580822011	BD07409 MW-10	Water	04/11/23 16:48	04/20/23 10:15
30580822012	BD07410 EB-1	Water	04/11/23 17:15	04/20/23 10:15

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SAMPLE ANALYTE COUNT

Project: WMWBARG_1407
Pace Project No.: 30580822

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30580822001	BD07401 MW-5	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580822002	BD07402 MW-6	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580822003	BD07402 MW-6 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30580822004	BD07402 MW-6 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30580822005	BD07403 PZ-11	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580822006	BD07404 MW-7	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580822007	BD07405 MW-7 Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580822008	BD07406 MW-8	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580822009	BD07407 MW-9	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580822010	BD07408 FB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580822011	BD07409 MW-10	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30580822012	BD07410 EB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARG_1407

Pace Project No.: 30580822

Method: EPA 9315

Description: 9315 Total Radium

Client: Alabama Power

Date: May 19, 2023

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARG_1407

Pace Project No.: 30580822

Method: EPA 9320

Description: 9320 Radium 228

Client: Alabama Power

Date: May 19, 2023

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARG_1407

Pace Project No.: 30580822

Method: Total Radium Calculation

Description: Total Radium 228+226

Client: Alabama Power

Date: May 19, 2023

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07401 MW-5 **Lab ID: 30580822001** Collected: 04/11/23 09:28 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.509 ± 0.275 (0.369) C:92% T:NA	pCi/L	05/17/23 12:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.727 ± 0.358 (0.599) C:82% T:78%	pCi/L	05/08/23 11:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.24 ± 0.633 (0.968)	pCi/L	05/18/23 12:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07402 MW-6 **Lab ID: 30580822002** Collected: 04/11/23 10:30 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	1.81 ± 0.524 (0.368) C:93% T:NA	pCi/L	05/17/23 12:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.24 ± 0.431 (0.599) C:83% T:87%	pCi/L	05/08/23 11:33	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	3.05 ± 0.955 (0.967)	pCi/L	05/18/23 12:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07402 MW-6 MS **Lab ID: 30580822003** Collected: 04/11/23 10:30 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	122.30 %REC ± NA (NA) C:NA T:NA	pCi/L	05/17/23 12:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	80.57 %REC ± NA (NA) C:NA T:NA	pCi/L	05/08/23 11:34	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07402 MW-6 MSD **Lab ID: 30580822004** Collected: 04/11/23 10:30 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	115.52 %REC 5.70RPD ± NA (NA) C:NA T:NA	pCi/L	05/17/23 12:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	77.81 %REC 3.48RPD ± NA (NA) C:NA T:NA	pCi/L	05/08/23 11:35	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07403 PZ-11 **Lab ID: 30580822005** Collected: 04/11/23 11:25 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.473 ± 0.278 (0.406) C:94% T:NA	pCi/L	05/17/23 12:16	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.581U ± 0.338 (0.614) C:78% T:89%	pCi/L	05/08/23 11:35	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.05 ± 0.616 (1.02)	pCi/L	05/18/23 12:06	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07404 MW-7 **Lab ID: 30580822006** Collected: 04/11/23 12:50 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	1.25 ± 0.451 (0.508) C:94% T:NA	pCi/L	05/17/23 12:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.710 ± 0.340 (0.562) C:77% T:88%	pCi/L	05/08/23 11:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.96 ± 0.791 (1.07)	pCi/L	05/18/23 12:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07405 MW-7 Dup **Lab ID: 30580822007** Collected: 04/11/23 12:50 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	1.01 ± 0.388 (0.377) C:93% T:NA	pCi/L	05/17/23 12:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.37 ± 0.461 (0.614) C:78% T:86%	pCi/L	05/08/23 11:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.38 ± 0.849 (0.991)	pCi/L	05/18/23 12:06	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07406 MW-8 **Lab ID: 30580822008** Collected: 04/11/23 14:15 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.546 ± 0.297 (0.410) C:92% T:NA	pCi/L	05/17/23 12:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.05 ± 0.401 (0.597) C:83% T:87%	pCi/L	05/08/23 11:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.60 ± 0.698 (1.01)	pCi/L	05/18/23 12:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07407 MW-9 **Lab ID: 30580822009** Collected: 04/11/23 15:20 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	1.20 ± 0.421 (0.377) C:97% T:NA	pCi/L	05/17/23 12:16	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.782 ± 0.359 (0.596) C:80% T:90%	pCi/L	05/08/23 11:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.98 ± 0.780 (0.973)	pCi/L	05/18/23 12:06	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BD07408 FB-1 Lab ID: 30580822010 Collected: 04/11/23 15:50 Received: 04/20/23 10:15 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.241U ± 0.214 (0.377) C:84% T:NA	pCi/L	05/17/23 12:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.410U ± 0.255 (0.458) C:82% T:93%	pCi/L	05/08/23 11:35	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.651U ± 0.469 (0.835)	pCi/L	05/18/23 12:06	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07409 MW-10 **Lab ID: 30580822011** Collected: 04/11/23 16:48 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.871 ± 0.368 (0.443) C:93% T:NA	pCi/L	05/17/23 12:10	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.996 ± 0.394 (0.592) C:82% T:91%	pCi/L	05/08/23 14:42	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.87 ± 0.762 (1.04)	pCi/L	05/18/23 12:06	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

Sample: BD07410 EB-1 **Lab ID: 30580822012** Collected: 04/11/23 17:15 Received: 04/20/23 10:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.438U ± 0.293 (0.465) C:85% T:NA	pCi/L	05/17/23 12:10	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.00769U ± 0.271 (0.637) C:79% T:85%	pCi/L	05/08/23 14:42	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.446U ± 0.564 (1.10)	pCi/L	05/18/23 12:06	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

QC Batch:	583034	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30580822001, 30580822002, 30580822003, 30580822004, 30580822005, 30580822006, 30580822007, 30580822008, 30580822009, 30580822010, 30580822011, 30580822012

METHOD BLANK:	2831529	Matrix:	Water
---------------	---------	---------	-------

Associated Lab Samples: 30580822001, 30580822002, 30580822003, 30580822004, 30580822005, 30580822006, 30580822007, 30580822008, 30580822009, 30580822010, 30580822011, 30580822012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0729 ± 0.0731 (0.135) C:97% T:NA	pCi/L	05/17/23 12:16	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARG_1407

Pace Project No.: 30580822

QC Batch:	583662	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30580822001, 30580822002, 30580822003, 30580822004, 30580822005, 30580822006, 30580822007, 30580822008, 30580822009, 30580822010, 30580822011, 30580822012

METHOD BLANK:	2834520	Matrix:	Water
---------------	---------	---------	-------

Associated Lab Samples: 30580822001, 30580822002, 30580822003, 30580822004, 30580822005, 30580822006, 30580822007, 30580822008, 30580822009, 30580822010, 30580822011, 30580822012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.418 ± 0.291 (0.559) C:84% T:92%	pCi/L	05/08/23 11:33	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: WMWBARG_1407
Pace Project No.: 30580822

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

Act - Activity

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARG_1407

Pace Project No.: 30580822

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30580822001	BD07401 MW-5	EPA 9315	583034		
30580822002	BD07402 MW-6	EPA 9315	583034		
30580822003	BD07402 MW-6 MS	EPA 9315	583034		
30580822004	BD07402 MW-6 MSD	EPA 9315	583034		
30580822005	BD07403 PZ-11	EPA 9315	583034		
30580822006	BD07404 MW-7	EPA 9315	583034		
30580822007	BD07405 MW-7 Dup	EPA 9315	583034		
30580822008	BD07406 MW-8	EPA 9315	583034		
30580822009	BD07407 MW-9	EPA 9315	583034		
30580822010	BD07408 FB-1	EPA 9315	583034		
30580822011	BD07409 MW-10	EPA 9315	583034		
30580822012	BD07410 EB-1	EPA 9315	583034		
30580822001	BD07401 MW-5	EPA 9320	583662		
30580822002	BD07402 MW-6	EPA 9320	583662		
30580822003	BD07402 MW-6 MS	EPA 9320	583662		
30580822004	BD07402 MW-6 MSD	EPA 9320	583662		
30580822005	BD07403 PZ-11	EPA 9320	583662		
30580822006	BD07404 MW-7	EPA 9320	583662		
30580822007	BD07405 MW-7 Dup	EPA 9320	583662		
30580822008	BD07406 MW-8	EPA 9320	583662		
30580822009	BD07407 MW-9	EPA 9320	583662		
30580822010	BD07408 FB-1	EPA 9320	583662		
30580822011	BD07409 MW-10	EPA 9320	583662		
30580822012	BD07410 EB-1	EPA 9320	583662		
30580822001	BD07401 MW-5	Total Radium Calculation	589102		
30580822002	BD07402 MW-6	Total Radium Calculation	589102		
30580822005	BD07403 PZ-11	Total Radium Calculation	589102		
30580822006	BD07404 MW-7	Total Radium Calculation	589102		
30580822007	BD07405 MW-7 Dup	Total Radium Calculation	589102		
30580822008	BD07406 MW-8	Total Radium Calculation	589102		
30580822009	BD07407 MW-9	Total Radium Calculation	589102		
30580822010	BD07408 FB-1	Total Radium Calculation	589102		
30580822011	BD07409 MW-10	Total Radium Calculation	589102		
30580822012	BD07410 EB-1	Total Radium Calculation	589102		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document


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

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company: Alabama Power Company		Report To: Brooke Catton		Attention: Brooke Catton	
Address: 744 Highway 87 GSC Bldg #8		Copy To: Renee Jernigan & Blaine Denton		Company Name: Alabama Power Co.	
Calera, AL 35040		Purchase Order #: APC10755638		Address: 744 Highway 87 GSC Bldg #8	
Email To: rbwill@southernco.com		Project Name: Plant Barry Gypsum		CCR	
Phone: 205-664-6101		Project Number: WMWBARG_1407		Pace Project Manager: Skyler Richmond	
Requested Due Date: 28 days		Pace Profile #: 16788		State / Location: AL	
				Regulatory Agency:	

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives	Analyses Test Y/N	EPA 9315	EPA 9320	Total Radium Sum	Residual Chlorine (Y/N)	Requested Analysis Filtered (Y/N)	Requested Analysis				
									DATE	TIME													
1	BD07401	APCO-BY-GSA-MW-5	APCO_Barry_GypsumStore				GW	G	4/11/2023	9:28	1		X	X									
2	BD07402	APCO-BY-GSA-MW-6	APCO_Barry_GypsumStore		X		GW	G	4/11/2023	10:30	3		X	X									
3	BD07403	APCO-BY-GSA-PZ-11	APCO_Barry_GypsumStore				GW	G	4/11/2023	11:25	1		X	X									
4	BD07404	APCO-BY-GSA-MW-7	APCO_Barry_GypsumStore				GW	G	4/11/2023	12:50	1		X	X									
5	BD07405	APCO-BY-GSA-MW-7	APCO_Barry_GypsumStore	X			GW	G	4/11/2023	12:50	1		X	X									
6	BD07406	APCO-BY-GSA-MW-8	APCO_Barry_GypsumStore				GW	G	4/11/2023	14:15	1		X	X									
7	BD07407	APCO-BY-GSA-MW-9	APCO_Barry_GypsumStore				GW	G	4/11/2023	15:20	1		X	X									
8	BD07408	APCO-BY-GSA-FB-01	APCO_Barry_GypsumStore				GW	G	4/11/2023	16:50	1		X	X									
9	BD07408	APCO-BY-GSA-MW-10	APCO_Barry_GypsumStore				GW	G	4/11/2023	16:46	1		X	X									
10	BD07410	APCO-BY-GSA-EB-01	APCO_Barry_GypsumStore				GW	G	4/11/2023	17:15	1		X	X									
11																							
12																							

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Catton / APC GIL	4/18/2023	9:05	<i>Ruppel</i>	4/20/23	10:15	

WO#: 30580822



SAMPLE NAME AND SIGNATURE
PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:

DATE Signed:

DC#_Title: ENV-FRM-GBUR-0000 v04_Sample Condition Upon Receipt

Pittsburgh

Effective Date: 02/03/2023

WO#: 30580822

PM: SCR

Due Date: 05/18/23

Client Name: Alabama Power

CLIENT: ALABAMA PWR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking Number: 6368 8465 0871

Examined By PS
Labeled By PS
Temped By

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Thermometer Used: _____ Type of Ice: Wet Blue None

Cooler Temperature: Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	pH paper Lot#			D.P.D. Residual Chlorine Lot #
	Yes	No	NA	
Chain of Custody Present	/			1003121
Chain of Custody Filled Out:	/			
-Were client corrections present on COC		/		
Chain of Custody Relinquished	/			
Sampler Name & Signature on COC:	/	/		
Sample Labels match COC:	/			
-Includes date/time/ID				
Matrix:			WT	
Samples Arrived within Hold Time:	/			
Short Hold Time Analysis (<72hr remaining):		/		
Rush Turn Around Time Requested:		/		
Sufficient Volume:	/			
Correct Containers Used:	/			
-Pace Containers Used	/			
Containers Intact:	/			
Orthophosphate field filtered:			/	
Hex Cr Aqueous samples field filtered:			/	
Organic Samples checked for dechlorination			/	
Filtered volume received for dissolved tests:			/	
All containers checked for preservation:	/			
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix				PHC2
All containers meet method preservation requirements:	/			Initial when completed PS Date/Time of Preservation
				Lot# of added Preservative
8260C/D: Headspace in VOA Vials (> 6mm)			/	
624.1: Headspace in VOA Vials (0mm)			/	
Trip Blank Present:			/	Trip blank custody seal present? YES or NO
Rad Samples Screened <0.5 mrem/hr.	/			Initial when completed PS Date: 4/21/23 Survey Meter SN: 1569
Comments:				

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. P/M Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: JUS1
Date: 5/3/2023
Worklist: 72767
Matrix: WT

Method Blank Assessment	MB Sample ID: 2834520
	MB concentration: 0.418
	MB 2 Sigma CSU: 0.291
	MB MDC: 0.559
	MB Numerical Performance Indicator: 2.81
	MB Status vs Numerical Indicator: Warning
	MB Status vs. MDC: Pass

Laboratory Control Sample Assessment		LCS (Y or N)?	N
Count Date:	5/8/2023	LCS D72767	
Spike I.D.:	22-040		
Decay Corrected Spike Concentration (pCi/mL):	32.849		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.803		
Target Conc. (pCi/L, g, F):	4.068		
Uncertainty (Calculated):	0.199		
Result (pCi/L, g, F):	3.044		
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.760		
Numerical Performance Indicator:	-2.55		
Percent Recovery:	74.83%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
	See Below ##

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date:	4/11/2023	
Sample I.D.:	30580822002	
Sample MS I.D.:	30580822003	
Sample MSD I.D.:	30580822004	
Spike I.D.:	22-040	
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	32.941	
Spike Volume Used in MS (mL):	0.20	
MS Aliquot (L, g, F):	0.802	
MS Target Conc. (pCi/L, g, F):	8.218	
MSD Aliquot (L, g, F):	0.800	
MSD Target Conc. (pCi/L, g, F):	8.233	
MS Spike Uncertainty (calculated):	0.403	
MSD Spike Uncertainty (calculated):	0.403	
Sample Result:	1.238	
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.431	
Sample Matrix Spike Result:	7.859	
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.586	
Sample Matrix Spike Duplicate Result:	7.645	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.542	
MS Numerical Performance Indicator:	-1.850	
MSD Numerical Performance Indicator:	-2.169	
MS Percent Recovery:	80.57%	
MSD Percent Recovery:	77.81%	
MS Status vs Numerical Indicator:	Pass	
MSD Status vs Numerical Indicator:	Warning	
MS Status vs Recovery:	Pass	
MSD Status vs Recovery:	Pass	
MS/MSD Upper % Recovery Limits:	135%	
MS/MSD Lower % Recovery Limits:	60%	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	Sample I.D.: 30580822002
	Sample MS I.D.: 30580822003
	Sample MSD I.D.: 30580822004
	Sample Matrix Spike Result: 7.859
	Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): 1.586
	Sample Matrix Spike Duplicate Result: 7.645
	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): 1.542
	Duplicate Numerical Performance Indicator: 0.190
	Duplicate Numerical Performance Indicator: 3.48%
	(Based on the Percent Recoveries) MS/MSD Duplicate RPD: Pass
	MS/MSD Duplicate Status vs Numerical Indicator: Pass
	MS/MSD Duplicate Status vs RPD: Pass
	% RPD Limit: 36%

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

Comments:

Must

JUS1

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 4/24/2023
Worklist: 72708
Matrix: W I

Method Blank Assessment	
MB Sample ID	2831529
MB concentration:	0.073
MB 2 Sigma CSU:	0.073
MB MDC:	0.135
MB Numerical Performance Indicator:	1.95
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	
LCS (Y or N)?	Y
LCS72708	LCS72708
Count Date:	5/17/2023
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.017
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.502
Target Conc. (pCi/L, g, F):	4.780
Uncertainty (Calculated):	0.057
Result (pCi/L, g, F):	5.212
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	0.902
Percent Recovery:	0.94
Numerical Performance Indicator:	109.05%
Status vs Numerical Indicator:	Pass
Status vs Recovery:	N/A
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment	
Sample I.D.:	LCS72708
Duplicate Sample I.D.:	LCS72708
Sample Result (pCi/L, g, F):	5.212
Sample Duplicate Result (pCi/L, g, F):	0.902
Sample Duplicate Result (pCi/L, g, F):	6.012
Sample Duplicate Result (pCi/L, g, F):	1.016
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-1.154
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	14.29%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	N/A
% RPD Limit:	25%

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1 4/11/2023
Sample I.D.:	MS/MSD 2
Sample MS I.D.:	30580822002
Sample MSD I.D.:	30580822003
Spike I.D.:	30580822004
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	19-033
Spike Volume Used in MS (mL):	24.018
MS Aliquot (L, g, F):	0.20
MS Target Conc. (pCi/L, g, F):	0.20
MSD Aliquot (L, g, F):	0.211
MSD Target Conc. (pCi/L, g, F):	22.716
MSD Spike Uncertainty (calculated):	0.214
MSD Spike Uncertainty (calculated):	22.421
MS Numerical Performance Indicator:	0.273
MS Numerical Performance Indicator:	0.269
MS Percent Recovery:	1.811
MS Status vs Numerical Indicator:	0.524
MS Status vs Numerical Indicator:	29.592
MS Status vs Recovery:	4.654
MS/MSD Upper % Recovery Limits:	27.711
MS/MSD Lower % Recovery Limits:	4.355
% RPD Limit:	2.116
	1.552
	122.30%
	115.52%
	Warning
	Pass
	N/A
	N/A
	125%
	75%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30580822002
Sample MS I.D.:	30580822003
Sample MSD I.D.:	30580822004
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	29.592
Sample Matrix Spike Duplicate Result:	4.654
Duplicate Numerical Performance Indicator:	27.711
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	4.355
MS/MSD Duplicate Status vs Numerical Indicator:	0.578
MS/MSD Duplicate Status vs RPD:	5.70%
% RPD Limit:	Pass
	N/A
	25%

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

Comments:

CF
3-18-23

UANS18/23

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

Field Case Narrative



Plant Barry Pooled Upgradient

2023 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 readings for pH were qualified for wells MW-1, MW-2, and MW-3 due to pH readings falling outside of the bracketed calibration range. The below qualifier was used:

- E – Estimated reported value exceeded calibration range

Field quality control procedures were performed as follows:

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

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

Field Case Narrative



Plant Barry Gypsum Pond

2023 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 readings for pH were qualified for wells MW-9 and PZ-11 due to pH readings falling outside of the bracketed calibration range. The below qualifier was used:

- E – Estimated reported value exceeded calibration range

Field quality control procedures were performed as follows:

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

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-5	COND	Conductivity	8/15/2023 12:38	56.23	uS/cm
BY-GSA-MW-5	DO	DO	8/15/2023 12:38	5.32	mg/L
BY-GSA-MW-5	DTW	Depth to Water Detail	8/15/2023 12:38	30.22	ft
BY-GSA-MW-5	ORP	Oxidation Reduction Potention	8/15/2023 12:38	384.54	mv
BY-GSA-MW-5	PH	pH	8/15/2023 12:38	4	SU
BY-GSA-MW-5	TEMP	Temperature	8/15/2023 12:38	23.49	C
BY-GSA-MW-5	TURB	Turbidity	8/15/2023 12:38	2.27	NTU
BY-GSA-MW-5	COND	Conductivity	8/15/2023 12:43	55.64	uS/cm
BY-GSA-MW-5	DO	DO	8/15/2023 12:43	5.34	mg/L
BY-GSA-MW-5	DTW	Depth to Water Detail	8/15/2023 12:43	30.22	ft
BY-GSA-MW-5	ORP	Oxidation Reduction Potention	8/15/2023 12:43	393.57	mv
BY-GSA-MW-5	PH	pH	8/15/2023 12:43	4.01	SU
BY-GSA-MW-5	TEMP	Temperature	8/15/2023 12:43	23.5	C
BY-GSA-MW-5	TURB	Turbidity	8/15/2023 12:43	2.22	NTU
BY-GSA-MW-5	COND	Conductivity	8/15/2023 12:48	55.46	uS/cm
BY-GSA-MW-5	DO	DO	8/15/2023 12:48	5.34	mg/L
BY-GSA-MW-5	DTW	Depth to Water Detail	8/15/2023 12:48	30.22	ft
BY-GSA-MW-5	ORP	Oxidation Reduction Potention	8/15/2023 12:48	397.28	mv
BY-GSA-MW-5	PH	pH	8/15/2023 12:48	4.05	SU
BY-GSA-MW-5	TEMP	Temperature	8/15/2023 12:48	23.37	C
BY-GSA-MW-5	TURB	Turbidity	8/15/2023 12:48	1.97	NTU
BY-GSA-MW-5	COND	Conductivity	8/15/2023 12:53	55.28	uS/cm
BY-GSA-MW-5	DO	DO	8/15/2023 12:53	5.28	mg/L
BY-GSA-MW-5	DTW	Depth to Water Detail	8/15/2023 12:53	30.22	ft
BY-GSA-MW-5	ORP	Oxidation Reduction Potention	8/15/2023 12:53	398.91	mv
BY-GSA-MW-5	PH	pH	8/15/2023 12:53	4.1	SU
BY-GSA-MW-5	SULFIDE	Sulfide	8/15/2023 12:53	0	mg/L
BY-GSA-MW-5	TEMP	Temperature	8/15/2023 12:53	23.43	C
BY-GSA-MW-5	TURB	Turbidity	8/15/2023 12:53	1.65	NTU

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-6	COND	Conductivity	8/15/2023 11:52	120.78	uS/cm
BY-GSA-MW-6	DO	DO	8/15/2023 11:52	5.11	mg/L
BY-GSA-MW-6	DTW	Depth to Water Detail	8/15/2023 11:52	17.86	ft
BY-GSA-MW-6	ORP	Oxidation Reduction Potention	8/15/2023 11:52	378.78	mv
BY-GSA-MW-6	PH	pH	8/15/2023 11:52	4.08	SU
BY-GSA-MW-6	TEMP	Temperature	8/15/2023 11:52	23.91	C
BY-GSA-MW-6	TURB	Turbidity	8/15/2023 11:52	10	NTU
BY-GSA-MW-6	COND	Conductivity	8/15/2023 11:57	121.56	uS/cm
BY-GSA-MW-6	DO	DO	8/15/2023 11:57	5.1	mg/L
BY-GSA-MW-6	DTW	Depth to Water Detail	8/15/2023 11:57	17.86	ft
BY-GSA-MW-6	ORP	Oxidation Reduction Potention	8/15/2023 11:57	385.82	mv
BY-GSA-MW-6	PH	pH	8/15/2023 11:57	4.15	SU
BY-GSA-MW-6	TEMP	Temperature	8/15/2023 11:57	23.78	C
BY-GSA-MW-6	TURB	Turbidity	8/15/2023 11:57	7.13	NTU
BY-GSA-MW-6	COND	Conductivity	8/15/2023 12:02	122.18	uS/cm
BY-GSA-MW-6	DO	DO	8/15/2023 12:02	5.08	mg/L
BY-GSA-MW-6	DTW	Depth to Water Detail	8/15/2023 12:02	17.86	ft
BY-GSA-MW-6	ORP	Oxidation Reduction Potention	8/15/2023 12:02	386.35	mv
BY-GSA-MW-6	PH	pH	8/15/2023 12:02	4.23	SU
BY-GSA-MW-6	TEMP	Temperature	8/15/2023 12:02	23.78	C
BY-GSA-MW-6	TURB	Turbidity	8/15/2023 12:02	7.25	NTU
BY-GSA-MW-6	COND	Conductivity	8/15/2023 12:07	123.07	uS/cm
BY-GSA-MW-6	DO	DO	8/15/2023 12:07	5.06	mg/L
BY-GSA-MW-6	DTW	Depth to Water Detail	8/15/2023 12:07	17.86	ft
BY-GSA-MW-6	ORP	Oxidation Reduction Potention	8/15/2023 12:07	383.81	mv
BY-GSA-MW-6	PH	pH	8/15/2023 12:07	4.33	SU
BY-GSA-MW-6	SULFIDE	Sulfide	8/15/2023 12:07	0	mg/L
BY-GSA-MW-6	TEMP	Temperature	8/15/2023 12:07	23.77	C
BY-GSA-MW-6	TURB	Turbidity	8/15/2023 12:07	7.05	NTU

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-7	COND	Conductivity	8/15/2023 9:31	47.89	uS/cm
BY-GSA-MW-7	DO	DO	8/15/2023 9:31	3.83	mg/L
BY-GSA-MW-7	DTW	Depth to Water Detail	8/15/2023 9:31	16.97	ft
BY-GSA-MW-7	ORP	Oxidation Reduction Potention	8/15/2023 9:31	352.7	mv
BY-GSA-MW-7	PH	pH	8/15/2023 9:31	4.02	SU
BY-GSA-MW-7	TEMP	Temperature	8/15/2023 9:31	21.99	C
BY-GSA-MW-7	TURB	Turbidity	8/15/2023 9:31	10.15	NTU
BY-GSA-MW-7	COND	Conductivity	8/15/2023 9:36	48.49	uS/cm
BY-GSA-MW-7	DO	DO	8/15/2023 9:36	3.91	mg/L
BY-GSA-MW-7	DTW	Depth to Water Detail	8/15/2023 9:36	16.97	ft
BY-GSA-MW-7	ORP	Oxidation Reduction Potention	8/15/2023 9:36	362.74	mv
BY-GSA-MW-7	PH	pH	8/15/2023 9:36	4.2	SU
BY-GSA-MW-7	TEMP	Temperature	8/15/2023 9:36	21.96	C
BY-GSA-MW-7	TURB	Turbidity	8/15/2023 9:36	12.6	NTU
BY-GSA-MW-7	COND	Conductivity	8/15/2023 9:41	49.17	uS/cm
BY-GSA-MW-7	DO	DO	8/15/2023 9:41	3.69	mg/L
BY-GSA-MW-7	DTW	Depth to Water Detail	8/15/2023 9:41	16.97	ft
BY-GSA-MW-7	ORP	Oxidation Reduction Potention	8/15/2023 9:41	365.59	mv
BY-GSA-MW-7	PH	pH	8/15/2023 9:41	4.36	SU
BY-GSA-MW-7	TEMP	Temperature	8/15/2023 9:41	21.96	C
BY-GSA-MW-7	TURB	Turbidity	8/15/2023 9:41	13.3	NTU
BY-GSA-MW-7	COND	Conductivity	8/15/2023 9:46	48.73	uS/cm
BY-GSA-MW-7	DO	DO	8/15/2023 9:46	3.66	mg/L
BY-GSA-MW-7	DTW	Depth to Water Detail	8/15/2023 9:46	16.97	ft
BY-GSA-MW-7	ORP	Oxidation Reduction Potention	8/15/2023 9:46	365.69	mv
BY-GSA-MW-7	PH	pH	8/15/2023 9:46	4.45	SU
BY-GSA-MW-7	TEMP	Temperature	8/15/2023 9:46	21.89	C
BY-GSA-MW-7	TURB	Turbidity	8/15/2023 9:46	13.2	NTU
BY-GSA-MW-7	COND	Conductivity	8/15/2023 9:51	48.95	uS/cm
BY-GSA-MW-7	DO	DO	8/15/2023 9:51	3.65	mg/L
BY-GSA-MW-7	DTW	Depth to Water Detail	8/15/2023 9:51	16.97	ft
BY-GSA-MW-7	ORP	Oxidation Reduction Potention	8/15/2023 9:51	366.99	mv
BY-GSA-MW-7	PH	pH	8/15/2023 9:51	4.52	SU
BY-GSA-MW-7	TEMP	Temperature	8/15/2023 9:51	21.97	C
BY-GSA-MW-7	TURB	Turbidity	8/15/2023 9:51	12.42	NTU
BY-GSA-MW-7	COND	Conductivity	8/15/2023 9:56	49.25	uS/cm
BY-GSA-MW-7	DO	DO	8/15/2023 9:56	3.61	mg/L
BY-GSA-MW-7	DTW	Depth to Water Detail	8/15/2023 9:56	16.97	ft
BY-GSA-MW-7	ORP	Oxidation Reduction Potention	8/15/2023 9:56	369.2	mv
BY-GSA-MW-7	PH	pH	8/15/2023 9:56	4.56	SU
BY-GSA-MW-7	SULFIDE	Sulfide	8/15/2023 9:56	0	mg/L
BY-GSA-MW-7	TEMP	Temperature	8/15/2023 9:56	22.01	C
BY-GSA-MW-7	TURB	Turbidity	8/15/2023 9:56	8.99	NTU

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-8	COND	Conductivity	8/15/2023 13:29	40.58	uS/cm
BY-GSA-MW-8	DO	DO	8/15/2023 13:29	0.73	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	8/15/2023 13:29	30.57	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	8/15/2023 13:29	385.7	mv
BY-GSA-MW-8	PH	pH	8/15/2023 13:29	4.16	SU
BY-GSA-MW-8	TEMP	Temperature	8/15/2023 13:29	23.04	C
BY-GSA-MW-8	TURB	Turbidity	8/15/2023 13:29	30	NTU
BY-GSA-MW-8	COND	Conductivity	8/15/2023 13:34	40.5	uS/cm
BY-GSA-MW-8	DO	DO	8/15/2023 13:34	0.68	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	8/15/2023 13:34	30.57	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	8/15/2023 13:34	391.16	mv
BY-GSA-MW-8	PH	pH	8/15/2023 13:34	4.18	SU
BY-GSA-MW-8	TEMP	Temperature	8/15/2023 13:34	22.79	C
BY-GSA-MW-8	TURB	Turbidity	8/15/2023 13:34	17	NTU
BY-GSA-MW-8	COND	Conductivity	8/15/2023 13:39	40.87	uS/cm
BY-GSA-MW-8	DO	DO	8/15/2023 13:39	0.66	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	8/15/2023 13:39	30.57	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	8/15/2023 13:39	363.92	mv
BY-GSA-MW-8	PH	pH	8/15/2023 13:39	4.24	SU
BY-GSA-MW-8	TEMP	Temperature	8/15/2023 13:39	22.96	C
BY-GSA-MW-8	TURB	Turbidity	8/15/2023 13:39	11	NTU
BY-GSA-MW-8	COND	Conductivity	8/15/2023 13:44	40.94	uS/cm
BY-GSA-MW-8	DO	DO	8/15/2023 13:44	0.65	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	8/15/2023 13:44	30.57	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	8/15/2023 13:44	343.78	mv
BY-GSA-MW-8	PH	pH	8/15/2023 13:44	4.33	SU
BY-GSA-MW-8	TEMP	Temperature	8/15/2023 13:44	22.97	C
BY-GSA-MW-8	TURB	Turbidity	8/15/2023 13:44	7.77	NTU
BY-GSA-MW-8	COND	Conductivity	8/15/2023 13:49	40.99	uS/cm
BY-GSA-MW-8	DO	DO	8/15/2023 13:49	0.64	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	8/15/2023 13:49	30.57	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	8/15/2023 13:49	337.63	mv
BY-GSA-MW-8	PH	pH	8/15/2023 13:49	4.4	SU
BY-GSA-MW-8	TEMP	Temperature	8/15/2023 13:49	22.87	C
BY-GSA-MW-8	TURB	Turbidity	8/15/2023 13:49	5.67	NTU
BY-GSA-MW-8	COND	Conductivity	8/15/2023 13:54	41.02	uS/cm
BY-GSA-MW-8	DO	DO	8/15/2023 13:54	0.65	mg/L
BY-GSA-MW-8	DTW	Depth to Water Detail	8/15/2023 13:54	30.57	ft
BY-GSA-MW-8	ORP	Oxidation Reduction Potention	8/15/2023 13:54	335.1	mv
BY-GSA-MW-8	PH	pH	8/15/2023 13:54	4.45	SU
BY-GSA-MW-8	SULFIDE	Sulfide	8/15/2023 13:54	0	mg/L
BY-GSA-MW-8	TEMP	Temperature	8/15/2023 13:54	22.85	C
BY-GSA-MW-8	TURB	Turbidity	8/15/2023 13:54	4.17	NTU

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-9	COND	Conductivity	8/15/2023 14:41	59.44	uS/cm
BY-GSA-MW-9	DO	DO	8/15/2023 14:41	1.77	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	8/15/2023 14:41	9.53	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	8/15/2023 14:41	410.67	mv
BY-GSA-MW-9	PH	pH	8/15/2023 14:41	3.67	SU
BY-GSA-MW-9	TEMP	Temperature	8/15/2023 14:41	22.58	C
BY-GSA-MW-9	TURB	Turbidity	8/15/2023 14:41	29.3	NTU
BY-GSA-MW-9	COND	Conductivity	8/15/2023 14:46	59.76	uS/cm
BY-GSA-MW-9	DO	DO	8/15/2023 14:46	1.67	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	8/15/2023 14:46	9.53	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	8/15/2023 14:46	421.38	mv
BY-GSA-MW-9	PH	pH	8/15/2023 14:46	3.75	SU
BY-GSA-MW-9	TEMP	Temperature	8/15/2023 14:46	22.48	C
BY-GSA-MW-9	TURB	Turbidity	8/15/2023 14:46	13.2	NTU
BY-GSA-MW-9	COND	Conductivity	8/15/2023 14:51	59.93	uS/cm
BY-GSA-MW-9	DO	DO	8/15/2023 14:51	1.62	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	8/15/2023 14:51	9.53	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	8/15/2023 14:51	427.24	mv
BY-GSA-MW-9	PH	pH	8/15/2023 14:51	3.8	SU
BY-GSA-MW-9	TEMP	Temperature	8/15/2023 14:51	22.42	C
BY-GSA-MW-9	TURB	Turbidity	8/15/2023 14:51	9.04	NTU
BY-GSA-MW-9	COND	Conductivity	8/15/2023 14:56	59.86	uS/cm
BY-GSA-MW-9	DO	DO	8/15/2023 14:56	1.62	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	8/15/2023 14:56	9.53	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	8/15/2023 14:56	430.66	mv
BY-GSA-MW-9	PH	pH	8/15/2023 14:56	3.84	SU
BY-GSA-MW-9	TEMP	Temperature	8/15/2023 14:56	22.43	C
BY-GSA-MW-9	TURB	Turbidity	8/15/2023 14:56	5.88	NTU
BY-GSA-MW-9	COND	Conductivity	8/15/2023 15:01	59.67	uS/cm
BY-GSA-MW-9	DO	DO	8/15/2023 15:01	1.62	mg/L
BY-GSA-MW-9	DTW	Depth to Water Detail	8/15/2023 15:01	9.53	ft
BY-GSA-MW-9	ORP	Oxidation Reduction Potention	8/15/2023 15:01	433.08	mv
BY-GSA-MW-9	PH	pH	8/15/2023 15:01	3.86	SU
BY-GSA-MW-9	SULFIDE	Sulfide	8/15/2023 15:01	0	mg/L
BY-GSA-MW-9	TEMP	Temperature	8/15/2023 15:01	22.39	C
BY-GSA-MW-9	TURB	Turbidity	8/15/2023 15:01	4	NTU

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-MW-10	COND	Conductivity	8/15/2023 15:43	54.77	uS/cm
BY-GSA-MW-10	DO	DO	8/15/2023 15:43	4.74	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	8/15/2023 15:43	13.46	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	8/15/2023 15:43	412.31	mv
BY-GSA-MW-10	PH	pH	8/15/2023 15:43	4.1	SU
BY-GSA-MW-10	TEMP	Temperature	8/15/2023 15:43	21.42	C
BY-GSA-MW-10	TURB	Turbidity	8/15/2023 15:43	23.5	NTU
BY-GSA-MW-10	COND	Conductivity	8/15/2023 15:48	54.33	uS/cm
BY-GSA-MW-10	DO	DO	8/15/2023 15:48	4.76	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	8/15/2023 15:48	13.46	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	8/15/2023 15:48	422.55	mv
BY-GSA-MW-10	PH	pH	8/15/2023 15:48	4.06	SU
BY-GSA-MW-10	TEMP	Temperature	8/15/2023 15:48	21.36	C
BY-GSA-MW-10	TURB	Turbidity	8/15/2023 15:48	19.5	NTU
BY-GSA-MW-10	COND	Conductivity	8/15/2023 15:53	54.21	uS/cm
BY-GSA-MW-10	DO	DO	8/15/2023 15:53	4.75	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	8/15/2023 15:53	13.46	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	8/15/2023 15:53	425.53	mv
BY-GSA-MW-10	PH	pH	8/15/2023 15:53	4.06	SU
BY-GSA-MW-10	TEMP	Temperature	8/15/2023 15:53	21.41	C
BY-GSA-MW-10	TURB	Turbidity	8/15/2023 15:53	15.8	NTU
BY-GSA-MW-10	COND	Conductivity	8/15/2023 15:58	53.84	uS/cm
BY-GSA-MW-10	DO	DO	8/15/2023 15:58	4.75	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	8/15/2023 15:58	13.46	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	8/15/2023 15:58	426.17	mv
BY-GSA-MW-10	PH	pH	8/15/2023 15:58	4.09	SU
BY-GSA-MW-10	TEMP	Temperature	8/15/2023 15:58	21.45	C
BY-GSA-MW-10	TURB	Turbidity	8/15/2023 15:58	11.3	NTU
BY-GSA-MW-10	COND	Conductivity	8/15/2023 16:03	53.74	uS/cm
BY-GSA-MW-10	DO	DO	8/15/2023 16:03	4.75	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	8/15/2023 16:03	13.46	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	8/15/2023 16:03	426.12	mv
BY-GSA-MW-10	PH	pH	8/15/2023 16:03	4.13	SU
BY-GSA-MW-10	TEMP	Temperature	8/15/2023 16:03	21.48	C
BY-GSA-MW-10	TURB	Turbidity	8/15/2023 16:03	12	NTU
BY-GSA-MW-10	COND	Conductivity	8/15/2023 16:08	53.55	uS/cm
BY-GSA-MW-10	DO	DO	8/15/2023 16:08	4.73	mg/L
BY-GSA-MW-10	DTW	Depth to Water Detail	8/15/2023 16:08	13.46	ft
BY-GSA-MW-10	ORP	Oxidation Reduction Potention	8/15/2023 16:08	425.12	mv
BY-GSA-MW-10	PH	pH	8/15/2023 16:08	4.17	SU
BY-GSA-MW-10	SULFIDE	Sulfide	8/15/2023 16:08	0	mg/L
BY-GSA-MW-10	TEMP	Temperature	8/15/2023 16:08	21.51	C
BY-GSA-MW-10	TURB	Turbidity	8/15/2023 16:08	9.83	NTU

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
BY-GSA-PZ-11	COND	Conductivity	8/15/2023 10:42	61.52	uS/cm
BY-GSA-PZ-11	DO	DO	8/15/2023 10:42	4.45	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	8/15/2023 10:42	22.41	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	8/15/2023 10:42	395.96	mv
BY-GSA-PZ-11	PH	pH	8/15/2023 10:42	3.83	SU
BY-GSA-PZ-11	TEMP	Temperature	8/15/2023 10:42	23.04	C
BY-GSA-PZ-11	TURB	Turbidity	8/15/2023 10:42	49.8	NTU
BY-GSA-PZ-11	COND	Conductivity	8/15/2023 10:47	62.17	uS/cm
BY-GSA-PZ-11	DO	DO	8/15/2023 10:47	4.41	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	8/15/2023 10:47	22.41	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	8/15/2023 10:47	403.4	mv
BY-GSA-PZ-11	PH	pH	8/15/2023 10:47	3.96	SU
BY-GSA-PZ-11	TEMP	Temperature	8/15/2023 10:47	23.04	C
BY-GSA-PZ-11	TURB	Turbidity	8/15/2023 10:47	30.6	NTU
BY-GSA-PZ-11	COND	Conductivity	8/15/2023 10:52	62.35	uS/cm
BY-GSA-PZ-11	DO	DO	8/15/2023 10:52	4.39	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	8/15/2023 10:52	22.41	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	8/15/2023 10:52	404.78	mv
BY-GSA-PZ-11	PH	pH	8/15/2023 10:52	4.06	SU
BY-GSA-PZ-11	TEMP	Temperature	8/15/2023 10:52	23.07	C
BY-GSA-PZ-11	TURB	Turbidity	8/15/2023 10:52	21.2	NTU
BY-GSA-PZ-11	COND	Conductivity	8/15/2023 10:57	62.2	uS/cm
BY-GSA-PZ-11	DO	DO	8/15/2023 10:57	4.4	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	8/15/2023 10:57	22.41	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	8/15/2023 10:57	404.2	mv
BY-GSA-PZ-11	PH	pH	8/15/2023 10:57	4.15	SU
BY-GSA-PZ-11	TEMP	Temperature	8/15/2023 10:57	23	C
BY-GSA-PZ-11	TURB	Turbidity	8/15/2023 10:57	13.6	NTU
BY-GSA-PZ-11	COND	Conductivity	8/15/2023 11:02	62.22	uS/cm
BY-GSA-PZ-11	DO	DO	8/15/2023 11:02	4.39	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	8/15/2023 11:02	22.41	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	8/15/2023 11:02	398.87	mv
BY-GSA-PZ-11	PH	pH	8/15/2023 11:02	4.29	SU
BY-GSA-PZ-11	TEMP	Temperature	8/15/2023 11:02	22.96	C
BY-GSA-PZ-11	TURB	Turbidity	8/15/2023 11:02	12	NTU
BY-GSA-PZ-11	COND	Conductivity	8/15/2023 11:07	62.33	uS/cm
BY-GSA-PZ-11	DO	DO	8/15/2023 11:07	4.38	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	8/15/2023 11:07	22.41	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	8/15/2023 11:07	396.32	mv
BY-GSA-PZ-11	PH	pH	8/15/2023 11:07	4.39	SU
BY-GSA-PZ-11	TEMP	Temperature	8/15/2023 11:07	23.04	C
BY-GSA-PZ-11	TURB	Turbidity	8/15/2023 11:07	10.54	NTU
BY-GSA-PZ-11	COND	Conductivity	8/15/2023 11:12	62.32	uS/cm

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	IME OF READIN	VALUE	UNIT
BY-GSA-PZ-11	DO	DO	8/15/2023 11:12	4.39	mg/L
BY-GSA-PZ-11	DTW	Depth to Water Detail	8/15/2023 11:12	22.41	ft
BY-GSA-PZ-11	ORP	Oxidation Reduction Potention	8/15/2023 11:12	394.82	mv
BY-GSA-PZ-11	PH	pH	8/15/2023 11:12	4.45	SU
BY-GSA-PZ-11	SULFIDE	Sulfide	8/15/2023 11:12	0	mg/L
BY-GSA-PZ-11	TEMP	Temperature	8/15/2023 11:12	22.99	C
BY-GSA-PZ-11	TURB	Turbidity	8/15/2023 11:12	8.46	NTU

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
MW-1	COND	Conductivity	8/16/2023 9:32	45.88	uS/cm
MW-1	DO	DO	8/16/2023 9:32	0.24	mg/L
MW-1	DTW	Depth to Water Detail	8/16/2023 9:32	15.96	ft
MW-1	ORP	Oxidation Reduction Potention	8/16/2023 9:32	264.45	mv
MW-1	PH	pH	8/16/2023 9:32	3.75	SU
MW-1	TEMP	Temperature	8/16/2023 9:32	20.92	C
MW-1	TURB	Turbidity	8/16/2023 9:32	2.03	NTU
MW-1	COND	Conductivity	8/16/2023 9:37	45.22	uS/cm
MW-1	DO	DO	8/16/2023 9:37	0.24	mg/L
MW-1	DTW	Depth to Water Detail	8/16/2023 9:37	15.96	ft
MW-1	ORP	Oxidation Reduction Potention	8/16/2023 9:37	258.76	mv
MW-1	PH	pH	8/16/2023 9:37	4.06	SU
MW-1	TEMP	Temperature	8/16/2023 9:37	20.9	C
MW-1	TURB	Turbidity	8/16/2023 9:37	1.38	NTU
MW-1	COND	Conductivity	8/16/2023 9:42	45.19	uS/cm
MW-1	DO	DO	8/16/2023 9:42	0.25	mg/L
MW-1	DTW	Depth to Water Detail	8/16/2023 9:42	15.96	ft
MW-1	ORP	Oxidation Reduction Potention	8/16/2023 9:42	258.64	mv
MW-1	PH	pH	8/16/2023 9:42	4.23	SU
MW-1	TEMP	Temperature	8/16/2023 9:42	20.87	C
MW-1	TURB	Turbidity	8/16/2023 9:42	1.15	NTU
MW-1	COND	Conductivity	8/16/2023 9:47	44.96	uS/cm
MW-1	DO	DO	8/16/2023 9:47	0.25	mg/L
MW-1	DTW	Depth to Water Detail	8/16/2023 9:47	15.96	ft
MW-1	ORP	Oxidation Reduction Potention	8/16/2023 9:47	257.62	mv
MW-1	PH	pH	8/16/2023 9:47	4.33	SU
MW-1	TEMP	Temperature	8/16/2023 9:47	20.88	C
MW-1	TURB	Turbidity	8/16/2023 9:47	1.05	NTU
MW-1	COND	Conductivity	8/16/2023 9:52	44.74	uS/cm
MW-1	DO	DO	8/16/2023 9:52	0.25	mg/L
MW-1	DTW	Depth to Water Detail	8/16/2023 9:52	15.96	ft
MW-1	ORP	Oxidation Reduction Potention	8/16/2023 9:52	257.87	mv
MW-1	PH	pH	8/16/2023 9:52	4.4	SU
MW-1	TEMP	Temperature	8/16/2023 9:52	20.83	C
MW-1	TURB	Turbidity	8/16/2023 9:52	0.8	NTU
MW-1	COND	Conductivity	8/16/2023 9:57	44.7	uS/cm
MW-1	DO	DO	8/16/2023 9:57	0.25	mg/L
MW-1	DTW	Depth to Water Detail	8/16/2023 9:57	15.96	ft
MW-1	ORP	Oxidation Reduction Potention	8/16/2023 9:57	258.81	mv
MW-1	PH	pH	8/16/2023 9:57	4.45	SU
MW-1	SULFIDE	Sulfide	8/16/2023 9:57	0	mg/L
MW-1	TEMP	Temperature	8/16/2023 9:57	20.83	C
MW-1	TURB	Turbidity	8/16/2023 9:57	0.87	NTU

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
MW-2	COND	Conductivity	8/16/2023 10:42	44.4	uS/cm
MW-2	DO	DO	8/16/2023 10:42	6.74	mg/L
MW-2	DTW	Depth to Water Detail	8/16/2023 10:42	15.33	ft
MW-2	ORP	Oxidation Reduction Potention	8/16/2023 10:42	377.57	mv
MW-2	PH	pH	8/16/2023 10:42	3.71	SU
MW-2	TEMP	Temperature	8/16/2023 10:42	20.59	C
MW-2	TURB	Turbidity	8/16/2023 10:42	37.3	NTU
MW-2	COND	Conductivity	8/16/2023 10:47	44.29	uS/cm
MW-2	DO	DO	8/16/2023 10:47	6.71	mg/L
MW-2	DTW	Depth to Water Detail	8/16/2023 10:47	15.33	ft
MW-2	ORP	Oxidation Reduction Potention	8/16/2023 10:47	383.96	mv
MW-2	PH	pH	8/16/2023 10:47	3.86	SU
MW-2	TEMP	Temperature	8/16/2023 10:47	20.59	C
MW-2	TURB	Turbidity	8/16/2023 10:47	36.3	NTU
MW-2	COND	Conductivity	8/16/2023 10:52	44.12	uS/cm
MW-2	DO	DO	8/16/2023 10:52	6.61	mg/L
MW-2	DTW	Depth to Water Detail	8/16/2023 10:52	15.33	ft
MW-2	ORP	Oxidation Reduction Potention	8/16/2023 10:52	383.98	mv
MW-2	PH	pH	8/16/2023 10:52	4.02	SU
MW-2	TEMP	Temperature	8/16/2023 10:52	20.54	C
MW-2	TURB	Turbidity	8/16/2023 10:52	30.9	NTU
MW-2	COND	Conductivity	8/16/2023 10:57	44.12	uS/cm
MW-2	DO	DO	8/16/2023 10:57	6.59	mg/L
MW-2	DTW	Depth to Water Detail	8/16/2023 10:57	15.33	ft
MW-2	ORP	Oxidation Reduction Potention	8/16/2023 10:57	382.39	mv
MW-2	PH	pH	8/16/2023 10:57	4.2	SU
MW-2	TEMP	Temperature	8/16/2023 10:57	20.55	C
MW-2	TURB	Turbidity	8/16/2023 10:57	23.1	NTU
MW-2	COND	Conductivity	8/16/2023 11:02	44.05	uS/cm
MW-2	DO	DO	8/16/2023 11:02	6.56	mg/L
MW-2	DTW	Depth to Water Detail	8/16/2023 11:02	15.33	ft
MW-2	ORP	Oxidation Reduction Potention	8/16/2023 11:02	383.45	mv
MW-2	PH	pH	8/16/2023 11:02	4.31	SU
MW-2	TEMP	Temperature	8/16/2023 11:02	20.6	C
MW-2	TURB	Turbidity	8/16/2023 11:02	18.1	NTU
MW-2	COND	Conductivity	8/16/2023 11:07	43.96	uS/cm
MW-2	DO	DO	8/16/2023 11:07	6.53	mg/L
MW-2	DTW	Depth to Water Detail	8/16/2023 11:07	15.33	ft
MW-2	ORP	Oxidation Reduction Potention	8/16/2023 11:07	385.86	mv
MW-2	PH	pH	8/16/2023 11:07	4.37	SU
MW-2	TEMP	Temperature	8/16/2023 11:07	20.48	C
MW-2	TURB	Turbidity	8/16/2023 11:07	14.6	NTU
MW-2	COND	Conductivity	8/16/2023 11:12	43.95	uS/cm

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
MW-2	DO	DO	8/16/2023 11:12	6.52	mg/L
MW-2	DTW	Depth to Water Detail	8/16/2023 11:12	15.33	ft
MW-2	ORP	Oxidation Reduction Potention	8/16/2023 11:12	387.84	mv
MW-2	PH	pH	8/16/2023 11:12	4.42	SU
MW-2	TEMP	Temperature	8/16/2023 11:12	20.57	C
MW-2	TURB	Turbidity	8/16/2023 11:12	12	NTU
MW-2	COND	Conductivity	8/16/2023 11:17	43.84	uS/cm
MW-2	DO	DO	8/16/2023 11:17	6.48	mg/L
MW-2	DTW	Depth to Water Detail	8/16/2023 11:17	15.33	ft
MW-2	ORP	Oxidation Reduction Potention	8/16/2023 11:17	389.77	mv
MW-2	PH	pH	8/16/2023 11:17	4.46	SU
MW-2	TEMP	Temperature	8/16/2023 11:17	20.55	C
MW-2	TURB	Turbidity	8/16/2023 11:17	11.08	NTU
MW-2	COND	Conductivity	8/16/2023 11:22	43.82	uS/cm
MW-2	DO	DO	8/16/2023 11:22	6.47	mg/L
MW-2	DTW	Depth to Water Detail	8/16/2023 11:22	15.33	ft
MW-2	ORP	Oxidation Reduction Potention	8/16/2023 11:22	392.98	mv
MW-2	PH	pH	8/16/2023 11:22	4.47	SU
MW-2	TEMP	Temperature	8/16/2023 11:22	20.53	C
MW-2	TURB	Turbidity	8/16/2023 11:22	5.65	NTU
MW-2	COND	Conductivity	8/16/2023 11:27	43.84	uS/cm
MW-2	DO	DO	8/16/2023 11:27	6.46	mg/L
MW-2	DTW	Depth to Water Detail	8/16/2023 11:27	15.33	ft
MW-2	ORP	Oxidation Reduction Potention	8/16/2023 11:27	394.68	mv
MW-2	PH	pH	8/16/2023 11:27	4.49	SU
MW-2	SULFIDE	Sulfide	8/16/2023 11:27	0	mg/L
MW-2	TEMP	Temperature	8/16/2023 11:27	20.48	C
MW-2	TURB	Turbidity	8/16/2023 11:27	4.64	NTU
MW-3	COND	Conductivity	8/16/2023 12:14	47.01	uS/cm
MW-3	DO	DO	8/16/2023 12:14	6.03	mg/L
MW-3	DTW	Depth to Water Detail	8/16/2023 12:14	17.96	ft
MW-3	ORP	Oxidation Reduction Potention	8/16/2023 12:14	425.24	mv
MW-3	PH	pH	8/16/2023 12:14	3.65	SU
MW-3	TEMP	Temperature	8/16/2023 12:14	20.26	C
MW-3	TURB	Turbidity	8/16/2023 12:14	10.14	NTU
MW-3	COND	Conductivity	8/16/2023 12:19	46.79	uS/cm
MW-3	DO	DO	8/16/2023 12:19	6	mg/L
MW-3	DTW	Depth to Water Detail	8/16/2023 12:19	17.96	ft
MW-3	ORP	Oxidation Reduction Potention	8/16/2023 12:19	432.33	mv
MW-3	PH	pH	8/16/2023 12:19	3.67	SU
MW-3	TEMP	Temperature	8/16/2023 12:19	20.3	C
MW-3	TURB	Turbidity	8/16/2023 12:19	7.85	NTU
MW-3	COND	Conductivity	8/16/2023 12:24	46.81	uS/cm

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
MW-3	DO	DO	8/16/2023 12:24	5.94	mg/L
MW-3	DTW	Depth to Water Detail	8/16/2023 12:24	17.96	ft
MW-3	ORP	Oxidation Reduction Potention	8/16/2023 12:24	433.88	mv
MW-3	PH	pH	8/16/2023 12:24	3.73	SU
MW-3	TEMP	Temperature	8/16/2023 12:24	20.36	C
MW-3	TURB	Turbidity	8/16/2023 12:24	7.38	NTU
MW-3	COND	Conductivity	8/16/2023 12:29	46.87	uS/cm
MW-3	DO	DO	8/16/2023 12:29	5.89	mg/L
MW-3	DTW	Depth to Water Detail	8/16/2023 12:29	17.96	ft
MW-3	ORP	Oxidation Reduction Potention	8/16/2023 12:29	433.99	mv
MW-3	PH	pH	8/16/2023 12:29	3.79	SU
MW-3	TEMP	Temperature	8/16/2023 12:29	20.43	C
MW-3	TURB	Turbidity	8/16/2023 12:29	3.16	NTU
MW-3	COND	Conductivity	8/16/2023 12:34	47.08	uS/cm
MW-3	DO	DO	8/16/2023 12:34	5.89	mg/L
MW-3	DTW	Depth to Water Detail	8/16/2023 12:34	17.96	ft
MW-3	ORP	Oxidation Reduction Potention	8/16/2023 12:34	432.75	mv
MW-3	PH	pH	8/16/2023 12:34	3.85	SU
MW-3	TEMP	Temperature	8/16/2023 12:34	20.49	C
MW-3	TURB	Turbidity	8/16/2023 12:34	3.01	NTU
MW-3	COND	Conductivity	8/16/2023 12:39	47.16	uS/cm
MW-3	DO	DO	8/16/2023 12:39	5.9	mg/L
MW-3	DTW	Depth to Water Detail	8/16/2023 12:39	17.96	ft
MW-3	ORP	Oxidation Reduction Potention	8/16/2023 12:39	431.24	mv
MW-3	PH	pH	8/16/2023 12:39	3.91	SU
MW-3	TEMP	Temperature	8/16/2023 12:39	20.36	C
MW-3	TURB	Turbidity	8/16/2023 12:39	2.63	NTU
MW-3	COND	Conductivity	8/16/2023 12:44	47.05	uS/cm
MW-3	DO	DO	8/16/2023 12:44	5.93	mg/L
MW-3	DTW	Depth to Water Detail	8/16/2023 12:44	17.96	ft
MW-3	ORP	Oxidation Reduction Potention	8/16/2023 12:44	429.47	mv
MW-3	PH	pH	8/16/2023 12:44	3.97	SU
MW-3	TEMP	Temperature	8/16/2023 12:44	20.33	C
MW-3	TURB	Turbidity	8/16/2023 12:44	2.55	NTU
MW-3	COND	Conductivity	8/16/2023 12:49	47.03	uS/cm
MW-3	DO	DO	8/16/2023 12:49	5.94	mg/L
MW-3	DTW	Depth to Water Detail	8/16/2023 12:49	17.96	ft
MW-3	ORP	Oxidation Reduction Potention	8/16/2023 12:49	427.07	mv
MW-3	PH	pH	8/16/2023 12:49	4.03	SU
MW-3	SULFIDE	Sulfide	8/16/2023 12:49	0	mg/L
MW-3	TEMP	Temperature	8/16/2023 12:49	20.38	C
MW-3	TURB	Turbidity	8/16/2023 12:49	2.41	NTU

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
MW-4	COND	Conductivity	8/16/2023 13:25	46.15	uS/cm
MW-4	DO	DO	8/16/2023 13:25	6.26	mg/L
MW-4	DTW	Depth to Water Detail	8/16/2023 13:25	24.01	ft
MW-4	ORP	Oxidation Reduction Potention	8/16/2023 13:25	421.23	mv
MW-4	PH	pH	8/16/2023 13:25	4.01	SU
MW-4	TEMP	Temperature	8/16/2023 13:25	22.24	C
MW-4	TURB	Turbidity	8/16/2023 13:25	41	NTU
MW-4	COND	Conductivity	8/16/2023 13:30	45.49	uS/cm
MW-4	DO	DO	8/16/2023 13:30	6.18	mg/L
MW-4	DTW	Depth to Water Detail	8/16/2023 13:30	24.01	ft
MW-4	ORP	Oxidation Reduction Potention	8/16/2023 13:30	423.28	mv
MW-4	PH	pH	8/16/2023 13:30	4.12	SU
MW-4	TEMP	Temperature	8/16/2023 13:30	22.1	C
MW-4	TURB	Turbidity	8/16/2023 13:30	39.8	NTU
MW-4	COND	Conductivity	8/16/2023 13:35	45.18	uS/cm
MW-4	DO	DO	8/16/2023 13:35	6.11	mg/L
MW-4	DTW	Depth to Water Detail	8/16/2023 13:35	24.01	ft
MW-4	ORP	Oxidation Reduction Potention	8/16/2023 13:35	422.92	mv
MW-4	PH	pH	8/16/2023 13:35	4.22	SU
MW-4	TEMP	Temperature	8/16/2023 13:35	22.2	C
MW-4	TURB	Turbidity	8/16/2023 13:35	30.4	NTU
MW-4	COND	Conductivity	8/16/2023 13:40	44.55	uS/cm
MW-4	DO	DO	8/16/2023 13:40	5.97	mg/L
MW-4	DTW	Depth to Water Detail	8/16/2023 13:40	24.01	ft
MW-4	ORP	Oxidation Reduction Potention	8/16/2023 13:40	419.49	mv
MW-4	PH	pH	8/16/2023 13:40	4.33	SU
MW-4	TEMP	Temperature	8/16/2023 13:40	22.24	C
MW-4	TURB	Turbidity	8/16/2023 13:40	23.4	NTU
MW-4	COND	Conductivity	8/16/2023 13:45	44.1	uS/cm
MW-4	DO	DO	8/16/2023 13:45	5.95	mg/L
MW-4	DTW	Depth to Water Detail	8/16/2023 13:45	24.01	ft
MW-4	ORP	Oxidation Reduction Potention	8/16/2023 13:45	417.37	mv
MW-4	PH	pH	8/16/2023 13:45	4.4	SU
MW-4	TEMP	Temperature	8/16/2023 13:45	22.17	C
MW-4	TURB	Turbidity	8/16/2023 13:45	17.6	NTU
MW-4	COND	Conductivity	8/16/2023 13:50	43.64	uS/cm
MW-4	DO	DO	8/16/2023 13:50	5.93	mg/L
MW-4	DTW	Depth to Water Detail	8/16/2023 13:50	24.01	ft
MW-4	ORP	Oxidation Reduction Potention	8/16/2023 13:50	415.21	mv
MW-4	PH	pH	8/16/2023 13:50	4.47	SU
MW-4	TEMP	Temperature	8/16/2023 13:50	22.18	C
MW-4	TURB	Turbidity	8/16/2023 13:50	15.6	NTU
MW-4	COND	Conductivity	8/16/2023 13:55	43.36	uS/cm

**Field Parameters Summary
Plant Barry Gypsum Pond**

WELL ID	PARAMETER	DESCRIPTION	TIME OF READING	VALUE	UNIT
MW-4	DO	DO	8/16/2023 13:55	5.89	mg/L
MW-4	DTW	Depth to Water Detail	8/16/2023 13:55	24.01	ft
MW-4	ORP	Oxidation Reduction Potention	8/16/2023 13:55	413.29	mv
MW-4	PH	pH	8/16/2023 13:55	4.52	SU
MW-4	TEMP	Temperature	8/16/2023 13:55	22.2	C
MW-4	TURB	Turbidity	8/16/2023 13:55	11.4	NTU
MW-4	COND	Conductivity	8/16/2023 14:00	42.81	uS/cm
MW-4	DO	DO	8/16/2023 14:00	5.81	mg/L
MW-4	DTW	Depth to Water Detail	8/16/2023 14:00	24.01	ft
MW-4	ORP	Oxidation Reduction Potention	8/16/2023 14:00	411.8	mv
MW-4	PH	pH	8/16/2023 14:00	4.57	SU
MW-4	TEMP	Temperature	8/16/2023 14:00	22.25	C
MW-4	TURB	Turbidity	8/16/2023 14:00	10.54	NTU
MW-4	COND	Conductivity	8/16/2023 14:05	42.26	uS/cm
MW-4	DO	DO	8/16/2023 14:05	5.8	mg/L
MW-4	DTW	Depth to Water Detail	8/16/2023 14:05	24.01	ft
MW-4	ORP	Oxidation Reduction Potention	8/16/2023 14:05	412.07	mv
MW-4	PH	pH	8/16/2023 14:05	4.58	SU
MW-4	SULFIDE	Sulfide	8/16/2023 14:05	0	mg/L
MW-4	TEMP	Temperature	8/16/2023 14:05	22.17	C
MW-4	TURB	Turbidity	8/16/2023 14:05	9.48	NTU

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

Analytical Report



Sample Group : WMWBARPU_1418

Project/Site : Barry Pooled Upgradient
Bucks, AL 36512

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

Attention : Dustin Brooks & Greg Budd

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

September 11, 2023

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on August 17, 2023. 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, 2024

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

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2023.09.11
09:40:37 -05'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, o=T Durant Maske c=US
United States, u=US United States
e=tmaske@southernco.com
Reason: I am the author of this document
Location:
Date: 2023-09-11 14:03:05:00



REPORT OF LABORATORY ANALYSIS

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



Total Metals ICP

Barry Pooled Upgradient

WMWBARPU_1418

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15875	763794	WMWBARPU_1418
BD15876	763794	WMWBARPU_1418
BD15877	763794	WMWBARPU_1418
BD15878	763794	WMWBARPU_1418
BD15879	763794	WMWBARPU_1418
BD15880	763794	WMWBARPU_1418
BD15881	763794	WMWBARPU_1418

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICP

Barry Pooled Upgradient

WMWBARPU_1418

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15875	763831	WMWBARPU_1418
BD15876	763831	WMWBARPU_1418
BD15878	763831	WMWBARPU_1418
BD15879	763831	WMWBARPU_1418
BD15880	763831	WMWBARPU_1418

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Barry Pooled Upgradient

WMWBARPU_1418

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15875	764699	WMWBARPU_1418
BD15876	764699	WMWBARPU_1418
BD15877	764699	WMWBARPU_1418
BD15878	764699	WMWBARPU_1418
BD15879	764699	WMWBARPU_1418
BD15880	764699	WMWBARPU_1418
BD15881	764699	WMWBARPU_1418

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICPMS

Barry Pooled Upgradient

WMWBARPU_1418

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15875	764658	WMWBARPU_1418
BD15876	764658	WMWBARPU_1418
BD15878	764658	WMWBARPU_1418
BD15879	764658	WMWBARPU_1418
BD15880	764658	WMWBARPU_1418

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Mercury

Barry Pooled Upgradient

WMWBARPU_1418

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15875	763731	WMWBARPU_1418
BD15876	763731	WMWBARPU_1418
BD15877	763731	WMWBARPU_1418
BD15878	763731	WMWBARPU_1418
BD15879	763731	WMWBARPU_1418
BD15880	763731	WMWBARPU_1418
BD15881	763731	WMWBARPU_1418

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution.

Total Dissolved Solids

Barry Pooled Upgradient

WMWBARPU_1418

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15875	763875	WMWBARPU_1418
BD15876	763875	WMWBARPU_1418
BD15877	763875	WMWBARPU_1418
BD15878	763875	WMWBARPU_1418
BD15879	763875	WMWBARPU_1418
BD15880	764185	WMWBARPU_1418
BD15881	764185	WMWBARPU_1418

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch, and RPD was $\leq 10\%$.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue $< 2.5\text{mg}$ had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BD15877
 - BD15881

Alkalinity

Barry Pooled Upgradient

WMWBARPU_1418

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15875	764937, 764938, 764939, 764940	WMWBARPU_1418
BD15876	764937, 764938, 764939, 764940	WMWBARPU_1418
BD15878	764937, 764938, 764939, 764940	WMWBARPU_1418
BD15879	764937, 764938, 764939, 764940	WMWBARPU_1418
BD15880	764937, 764938, 764939, 764940	WMWBARPU_1418

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

General Quality Control Procedures:

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

Anions

Barry Pooled Upgradient

WMWBARPU_1418

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15875	763914, 763896, 764203	WMWBARPU_1418
BD15876	763914, 763896, 764203	WMWBARPU_1418
BD15877	763914, 763896, 764203	WMWBARPU_1418
BD15878	763914, 763896, 764203	WMWBARPU_1418
BD15879	763914, 763896, 764203	WMWBARPU_1418
BD15880	763914, 763896, 764203	WMWBARPU_1418
BD15881	763914, 763896, 764203	WMWBARPU_1418

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Nitrate-Nitrite

Barry Pooled Upgradient

WMWBARPU_1418

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15875	763892	WMWBARPU_1418
BD15876	763892	WMWBARPU_1418
BD15877	763892	WMWBARPU_1418
BD15878	763892	WMWBARPU_1418
BD15879	763892	WMWBARPU_1418
BD15880	763892	WMWBARPU_1418
BD15881	763892	WMWBARPU_1418

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

General Quality Control Procedures:

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

EPA 353.2 Specific QC:

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

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

Total Organic Carbon

Barry Pooled Upgradient

WMWBARPU_1418

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15875	763856	WMWBARPU_1418
BD15876	763856	WMWBARPU_1418
BD15877	763856	WMWBARPU_1418
BD15878	763856	WMWBARPU_1418
BD15879	763856	WMWBARPU_1418
BD15880	763856	WMWBARPU_1418
BD15881	763856	WMWBARPU_1418

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 8/16/23 10:00
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15875

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 12:20	8/21/23 12:52		1.015	0.0364	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/18/23 12:20	8/21/23 12:52		1.015	0.816	mg/L	0.070035	0.406		
* Iron, Total	8/18/23 12:20	8/21/23 12:52		1.015	2.52	mg/L	0.008120	0.0406		
* Lithium, Total	8/18/23 12:20	8/21/23 12:52		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 12:20	8/21/23 12:52		1.015	1.51	mg/L	0.021315	0.406		
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:52		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:52		1	7.06	mg/L				
* Silicon, Total	8/18/23 12:20	8/21/23 12:52		1.015	3.30	mg/L	0.02030	0.25375		
* Sodium, Total	8/18/23 12:20	8/21/23 12:52		1.015	2.43	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/18/23 15:20	8/21/23 11:26		1.015	0.0362	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	8/18/23 15:20	8/21/23 11:26		1.015	0.835	mg/L	0.070035	0.406		
* Iron, Dissolved	8/18/23 15:20	8/21/23 11:26		1.015	2.44	mg/L	0.008120	0.0406		
* Lithium, Dissolved	8/18/23 15:20	8/21/23 11:26		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/18/23 15:20	8/21/23 11:26		1.015	1.48	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/18/23 15:20	8/21/23 11:26		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/18/23 15:20	8/21/23 11:26		1	7.10	mg/L				
* Silicon, Dissolved	8/18/23 15:20	8/21/23 11:26		1.015	3.32	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/18/23 15:20	8/21/23 11:26		1.015	2.44	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.0498	mg/L	0.009135	0.05075	J	
* Arsenic, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.000134	mg/L	0.000112	0.000203	J	
* Barium, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.0689	mg/L	0.000508	0.001015		
* Beryllium, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.000205	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.00340	mg/L	0.000068	0.000203		
* Lead, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.109	mg/L	0.000152	0.001015		

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

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU
Collected: 8/16/23 10:00
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15875

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.457	mg/L	0.169505	0.5075	J
* Selenium, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	0.0519	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	0.0667	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	0.000221	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	0.00326	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	0.108	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	0.442	mg/L	0.169505	0.5075	J
* Selenium, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 15:20	8/21/23 10:06		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:56		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:55	8/18/23 11:55		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/29/23 08:43	8/29/23 11:29		1	3.92	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	29.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/29/23 08:43	8/29/23 11:29		1	3.92	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/29/23 08:43	8/29/23 11:29		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/29/23 08:43	8/29/23 11:29		1	4.19	SU		2	

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

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-1

Location Code: WMWBARPU

Collected: 8/16/23 10:00

Customer ID:

Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15875

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 13:16	8/18/23 13:16		1	1.29	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:43	8/18/23 10:43		1	2.61	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:42	8/18/23 14:42		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:19	8/23/23 13:19		1	9.38	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/16/23 09:57	8/16/23 09:57			44.70	uS/cm			FA
pH	8/16/23 09:57	8/16/23 09:57			4.45	SU			FA
Temperature	8/16/23 09:57	8/16/23 09:57			20.83	C			FA
Turbidity	8/16/23 09:57	8/16/23 09:57			0.87	NTU			FA
Sulfide	8/16/23 09:57	8/16/23 09:57			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 8/16/23 10:00
Customer ID:
Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BD15875

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD15880	Aluminum, Dissolved	mg/L	-0.0000043	0.0198	0.100	0.134	0.136	0.104	0.0850 to 0.115	104	70.0 to 130	1.48	20.0
BD15881	Aluminum, Total	mg/L	0.000370	0.0198	0.100	0.0954	0.0934	0.0930	0.0850 to 0.115	95.4	70.0 to 130	2.12	20.0
BD15880	Antimony, Dissolved	mg/L	0.000277	0.00100	0.100	0.0909	0.0911	0.0869	0.0850 to 0.115	90.9	70.0 to 130	0.220	20.0
BD15881	Antimony, Total	mg/L	0.000310	0.00100	0.100	0.0982	0.0972	0.100	0.0850 to 0.115	98.2	70.0 to 130	1.02	20.0
BD15880	Arsenic, Dissolved	mg/L	0.0000011	0.000200	0.100	0.0974	0.0994	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.03	20.0
BD15881	Arsenic, Total	mg/L	0.0000236	0.000200	0.100	0.107	0.107	0.107	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BD15880	Barium, Dissolved	mg/L	-0.0000013	0.00100	0.100	0.208	0.212	0.0941	0.0850 to 0.115	95.0	70.0 to 130	1.90	20.0
BD15881	Barium, Total	mg/L	-0.0000294	0.00100	0.100	0.0989	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	3.09	20.0
BD15880	Beryllium, Dissolved	mg/L	0.0000250	0.000880	0.100	0.0881	0.0936	0.0959	0.0850 to 0.115	88.1	70.0 to 130	6.05	20.0
BD15881	Beryllium, Total	mg/L	-0.0000486	0.000880	0.100	0.109	0.105	0.107	0.0850 to 0.115	109	70.0 to 130	3.74	20.0
BD15880	Boron, Dissolved	mg/L	-0.000139	0.0650	1.00	1.01	1.00	0.998	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15881	Boron, Total	mg/L	-0.000263	0.0650	1.00	0.994	0.989	0.982	0.850 to 1.15	99.4	70.0 to 130	0.504	20.0
BD15880	Cadmium, Dissolved	mg/L	0.0000022	0.000147	0.100	0.0960	0.0981	0.101	0.0850 to 0.115	96.0	70.0 to 130	2.16	20.0
BD15881	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15880	Calcium, Dissolved	mg/L	-0.0237	0.152	5.00	6.61	6.35	4.76	4.25 to 5.75	97.8	70.0 to 130	4.01	20.0
BD15881	Calcium, Total	mg/L	-0.0183	0.152	5.00	4.88	4.93	4.88	4.25 to 5.75	97.6	70.0 to 130	1.02	20.0
BD15881	Chloride	mg/L	0.895	1.00	10.0	10.0	10.1	9.89	9.00 to 11.0	100	80.0 to 120	0.995	20.0
BD15880	Chromium, Dissolved	mg/L	-0.0000266	0.000440	0.100	0.0976	0.100	0.0971	0.0850 to 0.115	96.6	70.0 to 130	2.43	20.0
BD15881	Chromium, Total	mg/L	-0.0000709	0.000440	0.100	0.0988	0.0959	0.0985	0.0850 to 0.115	98.6	70.0 to 130	2.98	20.0
BD15880	Cobalt, Dissolved	mg/L	-0.0000449	0.000147	0.100	0.100	0.102	0.0981	0.0850 to 0.115	98.5	70.0 to 130	1.98	20.0
BD15881	Cobalt, Total	mg/L	-0.0000039	0.000147	0.100	0.102	0.100	0.103	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Fluoride	mg/L	0.0335	0.125	2.50	2.56	2.57	2.56	2.25 to 2.75	102	80.0 to 120	0.390	20.0
BD15880	Iron, Dissolved	mg/L	0.000989	0.0176	0.2	0.197	0.192	0.195	0.170 to 0.230	98.5	70.0 to 130	2.57	20.0
BD15881	Iron, Total	mg/L	0.000317	0.0176	0.2	0.197	0.197	0.196	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0

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

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 8/16/23 10:00

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BD15875

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15880	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Lead, Total	mg/L	0.0000023	0.000147	0.100	0.0979	0.0975	0.0982	0.0850 to 0.115	97.9	70.0 to 130	0.409	20.0
BD15880	Lithium, Dissolved	mg/L	-0.000184	0.0154	0.200	0.196	0.197	0.192	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15881	Lithium, Total	mg/L	0.000213	0.0154	0.200	0.198	0.195	0.195	0.170 to 0.230	99.0	70.0 to 130	1.53	20.0
BD15880	Magnesium, Dissolved	mg/L	-0.0343	0.0462	5.00	6.98	6.89	4.91	4.25 to 5.75	100	70.0 to 130	1.30	20.0
BD15881	Magnesium, Total	mg/L	-0.0373	0.0462	5.00	5.06	5.02	4.96	4.25 to 5.75	101	70.0 to 130	0.794	20.0
BD15880	Manganese, Dissolved	mg/L	0.0000059	0.00033	0.100	0.117	0.119	0.101	0.0850 to 0.115	100	70.0 to 130	1.69	20.0
BD15881	Manganese, Total	mg/L	0.0000962	0.00033	0.100	0.101	0.0992	0.102	0.0850 to 0.115	101	70.0 to 130	1.80	20.0
BD15881	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00402	0.00403	0.00378	0.00340 to 0.00460	100	70.0 to 130	0.248	20.0
BD15880	Molybdenum, Dissolved	mg/L	-0.000054	0.0100	0.2	0.195	0.194	0.197	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BD15881	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.199	0.197	0.170 to 0.230	99.0	70.0 to 130	0.504	20.0
BD15880	Potassium, Dissolved	mg/L	0.00654	0.367	10.0	10.8	11.1	9.77	8.50 to 11.5	98.2	70.0 to 130	2.74	20.0
BD15881	Potassium, Total	mg/L	-0.0196	0.367	10.0	10.1	9.76	10.1	8.50 to 11.5	101	70.0 to 130	3.42	20.0
BD15880	Selenium, Dissolved	mg/L	0.0000426	0.00100	0.100	0.0990	0.0985	0.102	0.0850 to 0.115	99.0	70.0 to 130	0.506	20.0
BD15881	Selenium, Total	mg/L	-0.0000339	0.00100	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15880	Silicon, Dissolved	mg/L	0.000549	0.0440	1.00	5.14	5.17	1.00	0.850 to 1.15	103	70.0 to 130	0.582	20.0
BD15881	Silicon, Total	mg/L	0.000655	0.0440	1.00	1.01	1.00	0.995	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15880	Sodium, Dissolved	mg/L	0.0551	0.0880	5.00	7.59	7.69	4.90	4.25 to 5.75	97.6	70.0 to 130	1.31	20.0
BD15881	Sodium, Total	mg/L	0.00284	0.0880	5.00	5.04	4.97	4.94	4.25 to 5.75	101	70.0 to 130	1.40	20.0
BD15881	Sulfate	mg/L	0.476	2.0	20.0	20.7	20.7	20.5	18.0 to 22.0	104	80.0 to 120	0.00	20.0
BD15880	Thallium, Dissolved	mg/L	-0.0000306	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15881	Thallium, Total	mg/L	0.0000012	0.000147	0.100	0.0978	0.0960	0.0963	0.0850 to 0.115	97.8	70.0 to 130	1.86	20.0
BD15881	Total Organic Carbon	mg/L	0.132	1.00	10.0	9.55	9.47	24.4		95.5	80.0 to 120	0.841	20.0

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

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 8/16/23 10:00
Customer ID:
Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-1

Laboratory ID Number: BD15875

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15880	Alkalinity	mg CaCO3/L					2.14	51.4	45.0 to 55.0			1.89	10.0
BD15881	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	1.97	-0.034	1.93	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD15879	Solids, Dissolved	mg/L	1.00	25.0			36.7	49.0	40.0 to 60.0			3.89	10.0

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 8/16/23 11:30
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15876

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 12:20	8/21/23 12:55		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/18/23 12:20	8/21/23 12:55		1.015	1.03	mg/L	0.070035	0.406		
* Iron, Total	8/18/23 12:20	8/21/23 12:55		1.015	0.0763	mg/L	0.008120	0.0406		
* Lithium, Total	8/18/23 12:20	8/21/23 12:55		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 12:20	8/21/23 12:55		1.015	2.07	mg/L	0.021315	0.406		
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:55		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:55		1	8.35	mg/L				
* Silicon, Total	8/18/23 12:20	8/21/23 12:55		1.015	3.90	mg/L	0.02030	0.25375		
* Sodium, Total	8/18/23 12:20	8/21/23 12:55		1.015	2.17	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/18/23 15:20	8/21/23 11:30		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	8/18/23 15:20	8/21/23 11:30		1.015	1.07	mg/L	0.070035	0.406		
* Iron, Dissolved	8/18/23 15:20	8/21/23 11:30		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	8/18/23 15:20	8/21/23 11:30		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/18/23 15:20	8/21/23 11:30		1.015	2.05	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/18/23 15:20	8/21/23 11:30		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/18/23 15:20	8/21/23 11:30		1	8.28	mg/L				
* Silicon, Dissolved	8/18/23 15:20	8/21/23 11:30		1.015	3.87	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/18/23 15:20	8/21/23 11:30		1.015	2.14	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 12:20	8/18/23 15:16		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 12:20	8/18/23 15:16		1.015	0.125	mg/L	0.009135	0.05075		
* Arsenic, Total	8/18/23 12:20	8/18/23 15:16		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/18/23 12:20	8/18/23 15:16		1.015	0.130	mg/L	0.000508	0.001015		
* Beryllium, Total	8/18/23 12:20	8/18/23 15:16		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 12:20	8/18/23 15:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 12:20	8/18/23 15:16		1.015	0.00111	mg/L	0.000203	0.001015		
* Cobalt, Total	8/18/23 12:20	8/18/23 15:16		1.015	0.00157	mg/L	0.000068	0.000203		
* Lead, Total	8/18/23 12:20	8/18/23 15:16		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/18/23 12:20	8/18/23 15:16		1.015	0.0203	mg/L	0.000152	0.001015		

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

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 8/16/23 11:30
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15876

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:16		1.015	0.839	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 15:16		1.015	0.000614	mg/L	0.000508	0.001015	J
* Thallium, Total	8/18/23 12:20	8/18/23 15:16		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	0.0688	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	0.123	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	0.000953	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	0.00145	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	0.0196	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	0.838	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	0.000645	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	8/18/23 15:20	8/21/23 10:10		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/25/23 00:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:57	8/18/23 11:57		1	1.11	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/29/23 08:43	8/29/23 11:29		1	0.694	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	30.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/29/23 08:43	8/29/23 11:29		1	Not Detected	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/29/23 08:43	8/29/23 11:29		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/29/23 08:43	8/29/23 11:29		1	4.16	SU		2	

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

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-2

Location Code: WMWBARPU
Collected: 8/16/23 11:30
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15876

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 13:30	8/18/23 13:30		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:44	8/18/23 10:44		1	2.01	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:43	8/18/23 14:43		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:20	8/23/23 13:20		1	8.28	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/16/23 11:27	8/16/23 11:27			43.84	uS/cm			FA
pH	8/16/23 11:27	8/16/23 11:27			4.49	SU			FA
Temperature	8/16/23 11:27	8/16/23 11:27			20.48	C			FA
Turbidity	8/16/23 11:27	8/16/23 11:27			4.64	NTU			FA
Sulfide	8/16/23 11:27	8/16/23 11:27			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 8/16/23 11:30

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BD15876

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD15880	Aluminum, Dissolved	mg/L	-0.0000043	0.0198	0.100	0.134	0.136	0.104	0.0850 to 0.115	104	70.0 to 130	1.48	20.0
BD15881	Aluminum, Total	mg/L	0.000370	0.0198	0.100	0.0954	0.0934	0.0930	0.0850 to 0.115	95.4	70.0 to 130	2.12	20.0
BD15880	Antimony, Dissolved	mg/L	0.000277	0.00100	0.100	0.0909	0.0911	0.0869	0.0850 to 0.115	90.9	70.0 to 130	0.220	20.0
BD15881	Antimony, Total	mg/L	0.000310	0.00100	0.100	0.0982	0.0972	0.100	0.0850 to 0.115	98.2	70.0 to 130	1.02	20.0
BD15880	Arsenic, Dissolved	mg/L	0.0000011	0.000200	0.100	0.0974	0.0994	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.03	20.0
BD15881	Arsenic, Total	mg/L	0.0000236	0.000200	0.100	0.107	0.107	0.107	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BD15880	Barium, Dissolved	mg/L	-0.0000013	0.00100	0.100	0.208	0.212	0.0941	0.0850 to 0.115	95.0	70.0 to 130	1.90	20.0
BD15881	Barium, Total	mg/L	-0.0000294	0.00100	0.100	0.0989	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	3.09	20.0
BD15880	Beryllium, Dissolved	mg/L	0.0000250	0.000880	0.100	0.0881	0.0936	0.0959	0.0850 to 0.115	88.1	70.0 to 130	6.05	20.0
BD15881	Beryllium, Total	mg/L	-0.0000486	0.000880	0.100	0.109	0.105	0.107	0.0850 to 0.115	109	70.0 to 130	3.74	20.0
BD15880	Boron, Dissolved	mg/L	-0.000139	0.0650	1.00	1.01	1.00	0.998	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15881	Boron, Total	mg/L	-0.000263	0.0650	1.00	0.994	0.989	0.982	0.850 to 1.15	99.4	70.0 to 130	0.504	20.0
BD15880	Cadmium, Dissolved	mg/L	0.0000022	0.000147	0.100	0.0960	0.0981	0.101	0.0850 to 0.115	96.0	70.0 to 130	2.16	20.0
BD15881	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15880	Calcium, Dissolved	mg/L	-0.0237	0.152	5.00	6.61	6.35	4.76	4.25 to 5.75	97.8	70.0 to 130	4.01	20.0
BD15881	Calcium, Total	mg/L	-0.0183	0.152	5.00	4.88	4.93	4.88	4.25 to 5.75	97.6	70.0 to 130	1.02	20.0
BD15881	Chloride	mg/L	0.895	1.00	10.0	10.0	10.1	9.89	9.00 to 11.0	100	80.0 to 120	0.995	20.0
BD15880	Chromium, Dissolved	mg/L	-0.0000266	0.000440	0.100	0.0976	0.100	0.0971	0.0850 to 0.115	96.6	70.0 to 130	2.43	20.0
BD15881	Chromium, Total	mg/L	-0.0000709	0.000440	0.100	0.0988	0.0959	0.0985	0.0850 to 0.115	98.6	70.0 to 130	2.98	20.0
BD15880	Cobalt, Dissolved	mg/L	-0.0000449	0.000147	0.100	0.100	0.102	0.0981	0.0850 to 0.115	98.5	70.0 to 130	1.98	20.0
BD15881	Cobalt, Total	mg/L	-0.0000039	0.000147	0.100	0.102	0.100	0.103	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Fluoride	mg/L	0.0335	0.125	2.50	2.56	2.57	2.56	2.25 to 2.75	102	80.0 to 120	0.390	20.0
BD15880	Iron, Dissolved	mg/L	0.000989	0.0176	0.2	0.197	0.192	0.195	0.170 to 0.230	98.5	70.0 to 130	2.57	20.0
BD15881	Iron, Total	mg/L	0.000317	0.0176	0.2	0.197	0.197	0.196	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0

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

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 8/16/23 11:30
Customer ID:
Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BD15876

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	Standard		Rec		Prec
				Limit					Standard	Limit	Rec	Limit	
BD15880	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Lead, Total	mg/L	0.0000023	0.000147	0.100	0.0979	0.0975	0.0982	0.0850 to 0.115	97.9	70.0 to 130	0.409	20.0
BD15880	Lithium, Dissolved	mg/L	-0.000184	0.0154	0.200	0.196	0.197	0.192	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15881	Lithium, Total	mg/L	0.000213	0.0154	0.200	0.198	0.195	0.195	0.170 to 0.230	99.0	70.0 to 130	1.53	20.0
BD15880	Magnesium, Dissolved	mg/L	-0.0343	0.0462	5.00	6.98	6.89	4.91	4.25 to 5.75	100	70.0 to 130	1.30	20.0
BD15881	Magnesium, Total	mg/L	-0.0373	0.0462	5.00	5.06	5.02	4.96	4.25 to 5.75	101	70.0 to 130	0.794	20.0
BD15880	Manganese, Dissolved	mg/L	0.0000059	0.00033	0.100	0.117	0.119	0.101	0.0850 to 0.115	100	70.0 to 130	1.69	20.0
BD15881	Manganese, Total	mg/L	0.0000962	0.00033	0.100	0.101	0.0992	0.102	0.0850 to 0.115	101	70.0 to 130	1.80	20.0
BD15881	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00402	0.00403	0.00378	0.00340 to 0.00460	100	70.0 to 130	0.248	20.0
BD15880	Molybdenum, Dissolved	mg/L	-0.000054	0.0100	0.2	0.195	0.194	0.197	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BD15881	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.199	0.197	0.170 to 0.230	99.0	70.0 to 130	0.504	20.0
BD15880	Potassium, Dissolved	mg/L	0.00654	0.367	10.0	10.8	11.1	9.77	8.50 to 11.5	98.2	70.0 to 130	2.74	20.0
BD15881	Potassium, Total	mg/L	-0.0196	0.367	10.0	10.1	9.76	10.1	8.50 to 11.5	101	70.0 to 130	3.42	20.0
BD15880	Selenium, Dissolved	mg/L	0.0000426	0.00100	0.100	0.0990	0.0985	0.102	0.0850 to 0.115	99.0	70.0 to 130	0.506	20.0
BD15881	Selenium, Total	mg/L	-0.0000339	0.00100	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15880	Silicon, Dissolved	mg/L	0.000549	0.0440	1.00	5.14	5.17	1.00	0.850 to 1.15	103	70.0 to 130	0.582	20.0
BD15881	Silicon, Total	mg/L	0.000655	0.0440	1.00	1.01	1.00	0.995	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15880	Sodium, Dissolved	mg/L	0.0551	0.0880	5.00	7.59	7.69	4.90	4.25 to 5.75	97.6	70.0 to 130	1.31	20.0
BD15881	Sodium, Total	mg/L	0.00284	0.0880	5.00	5.04	4.97	4.94	4.25 to 5.75	101	70.0 to 130	1.40	20.0
BD15881	Sulfate	mg/L	0.476	2.0	20.0	20.7	20.7	20.5	18.0 to 22.0	104	80.0 to 120	0.00	20.0
BD15880	Thallium, Dissolved	mg/L	-0.0000306	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15881	Thallium, Total	mg/L	0.0000012	0.000147	0.100	0.0978	0.0960	0.0963	0.0850 to 0.115	97.8	70.0 to 130	1.86	20.0
BD15881	Total Organic Carbon	mg/L	0.132	1.00	10.0	9.55	9.47	24.4		95.5	80.0 to 120	0.841	20.0

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

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 8/16/23 11:30
Customer ID:
Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-2

Laboratory ID Number: BD15876

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15880	Alkalinity	mg CaCO3/L					2.14	51.4	45.0 to 55.0			1.89	10.0
BD15881	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	1.97	-0.034	1.93	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD15879	Solids, Dissolved	mg/L	1.00	25.0			36.7	49.0	40.0 to 60.0			3.89	10.0

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

Certificate Of Analysis

Description: Barry Pooled Upgradient Field Blank-1

Location Code: WMWBARPUFB
Collected: 8/16/23 11:50
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15877

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 12:20	8/21/23 12:58		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/18/23 12:20	8/21/23 12:58		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	8/18/23 12:20	8/21/23 12:58		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	8/18/23 12:20	8/21/23 12:58		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 12:20	8/21/23 12:58		1.015	Not Detected	mg/L	0.021315	0.406	U	
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:58		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:58		1	Not Detected	mg/L				
* Silicon, Total	8/18/23 12:20	8/21/23 12:58		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	8/18/23 12:20	8/21/23 12:58		1.015	Not Detected	mg/L	0.04060	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Arsenic, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Aluminum, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Barium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Potassium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: ABB								
* Mercury, Total by CVAA	8/24/23 18:45	8/25/23 00:04		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	8/18/23 11:59	8/18/23 11:59		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	Not Detected	mg/L		25	U	

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

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient Field Blank-1

Location Code: WMWBARPUFB

Collected: 8/16/23 11:50

Customer ID:

Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15877

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 13:43	8/18/23 13:43		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:46	8/18/23 10:46		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:44	8/18/23 14:44		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:21	8/23/23 13:21		1	0.624	mg/L	0.6	2	J

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

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 8/16/23 11:50

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BD15877

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BD15881	Aluminum, Total	mg/L	0.000370	0.0198	0.100	0.0954	0.0934	0.0930	0.0850 to 0.115	95.4	70.0 to 130	2.12	20.0
BD15881	Antimony, Total	mg/L	0.000310	0.00100	0.100	0.0982	0.0972	0.100	0.0850 to 0.115	98.2	70.0 to 130	1.02	20.0
BD15881	Arsenic, Total	mg/L	0.0000236	0.000200	0.100	0.107	0.107	0.107	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BD15881	Barium, Total	mg/L	-0.0000294	0.00100	0.100	0.0989	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	3.09	20.0
BD15881	Beryllium, Total	mg/L	-0.0000486	0.000880	0.100	0.109	0.105	0.107	0.0850 to 0.115	109	70.0 to 130	3.74	20.0
BD15881	Boron, Total	mg/L	-0.000263	0.0650	1.00	0.994	0.989	0.982	0.850 to 1.15	99.4	70.0 to 130	0.504	20.0
BD15881	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15881	Calcium, Total	mg/L	-0.0183	0.152	5.00	4.88	4.93	4.88	4.25 to 5.75	97.6	70.0 to 130	1.02	20.0
BD15881	Chloride	mg/L	0.895	1.00	10.0	10.0	10.1	9.89	9.00 to 11.0	100	80.0 to 120	0.995	20.0
BD15881	Chromium, Total	mg/L	-0.0000709	0.000440	0.100	0.0988	0.0959	0.0985	0.0850 to 0.115	98.6	70.0 to 130	2.98	20.0
BD15881	Cobalt, Total	mg/L	-0.0000039	0.000147	0.100	0.102	0.100	0.103	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Fluoride	mg/L	0.0335	0.125	2.50	2.56	2.57	2.56	2.25 to 2.75	102	80.0 to 120	0.390	20.0
BD15881	Iron, Total	mg/L	0.000317	0.0176	0.2	0.197	0.197	0.196	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15881	Lead, Total	mg/L	0.0000023	0.000147	0.100	0.0979	0.0975	0.0982	0.0850 to 0.115	97.9	70.0 to 130	0.409	20.0
BD15881	Lithium, Total	mg/L	0.000213	0.0154	0.200	0.198	0.195	0.195	0.170 to 0.230	99.0	70.0 to 130	1.53	20.0
BD15881	Magnesium, Total	mg/L	-0.0373	0.0462	5.00	5.06	5.02	4.96	4.25 to 5.75	101	70.0 to 130	0.794	20.0
BD15881	Manganese, Total	mg/L	0.0000962	0.00033	0.100	0.101	0.0992	0.102	0.0850 to 0.115	101	70.0 to 130	1.80	20.0
BD15881	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00402	0.00403	0.00378	0.00340 to 0.00460	100	70.0 to 130	0.248	20.0
BD15881	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.199	0.197	0.170 to 0.230	99.0	70.0 to 130	0.504	20.0
BD15881	Potassium, Total	mg/L	-0.0196	0.367	10.0	10.1	9.76	10.1	8.50 to 11.5	101	70.0 to 130	3.42	20.0
BD15881	Selenium, Total	mg/L	-0.0000339	0.00100	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15881	Silicon, Total	mg/L	0.000655	0.0440	1.00	1.01	1.00	0.995	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15881	Sodium, Total	mg/L	0.00284	0.0880	5.00	5.04	4.97	4.94	4.25 to 5.75	101	70.0 to 130	1.40	20.0
BD15881	Sulfate	mg/L	0.476	2.0	20.0	20.7	20.7	20.5	18.0 to 22.0	104	80.0 to 120	0.00	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 8/16/23 11:50

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BD15877

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD15881	Thallium, Total	mg/L	0.0000012	0.000147	0.100	0.0978	0.0960	0.0963	0.0850 to 0.115	97.8	70.0 to 130	1.86	20.0
BD15881	Total Organic Carbon	mg/L	0.132	1.00	10.0	9.55	9.47	24.4		95.5	80.0 to 120	0.841	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUFB

Sample Date: 8/16/23 11:50

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient Field Blank-1

Laboratory ID Number: BD15877

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15881	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	1.97	-0.034	1.93	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD15879	Solids, Dissolved	mg/L	1.00	25.0			36.7	49.0	40.0 to 60.0			3.89	10.0

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 8/16/23 12:50
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15878

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/18/23 12:20	8/21/23 13:01		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/18/23 12:20	8/21/23 13:01		1.015	1.77	mg/L	0.070035	0.406	
* Iron, Total	8/18/23 12:20	8/21/23 13:01		1.015	0.0142	mg/L	0.008120	0.0406	J
* Lithium, Total	8/18/23 12:20	8/21/23 13:01		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/18/23 12:20	8/21/23 13:01		1.015	1.83	mg/L	0.021315	0.406	
* Molybdenum, Total	8/18/23 12:20	8/21/23 13:01		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 13:01		1	8.35	mg/L			
* Silicon, Total	8/18/23 12:20	8/21/23 13:01		1.015	3.90	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 12:20	8/21/23 13:01		1.015	2.87	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 15:20	8/21/23 11:33		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	8/18/23 15:20	8/21/23 11:33		1.015	1.72	mg/L	0.070035	0.406	
* Iron, Dissolved	8/18/23 15:20	8/21/23 11:33		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/18/23 15:20	8/21/23 11:33		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/18/23 15:20	8/21/23 11:33		1.015	1.81	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/18/23 15:20	8/21/23 11:33		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 15:20	8/21/23 11:33		1	8.35	mg/L			
* Silicon, Dissolved	8/18/23 15:20	8/21/23 11:33		1.015	3.90	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 15:20	8/21/23 11:33		1.015	2.96	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 12:20	8/18/23 15:23		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 12:20	8/18/23 15:23		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Aluminum, Total	8/18/23 12:20	8/18/23 15:23		1.015	0.0342	mg/L	0.009135	0.05075	J
* Barium, Total	8/18/23 12:20	8/18/23 15:23		1.015	0.0912	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 12:20	8/18/23 15:23		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 12:20	8/18/23 15:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 12:20	8/18/23 15:23		1.015	0.00126	mg/L	0.000203	0.001015	
* Cobalt, Total	8/18/23 12:20	8/18/23 15:23		1.015	0.00133	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 12:20	8/18/23 15:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 12:20	8/18/23 15:23		1.015	0.0174	mg/L	0.000152	0.001015	

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

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 8/16/23 12:50
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15878

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:23		1.015	0.908	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 15:23		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 12:20	8/18/23 15:23		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	0.0214	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	0.0863	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	0.00120	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	0.00126	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	0.0175	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	0.937	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 15:20	8/21/23 10:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/25/23 00:08		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 12:00	8/18/23 12:00		1	1.45	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/29/23 08:43	8/29/23 11:29		1	0.979	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	32.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/29/23 08:43	8/29/23 11:29		1	Not Detected	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/29/23 08:43	8/29/23 11:29		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/29/23 08:43	8/29/23 11:29		1	4.15	SU		2	

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

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-3

Location Code: WMWBARPU
Collected: 8/16/23 12:50
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15878

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 13:55	8/18/23 13:55		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:47	8/18/23 10:47		1	2.94	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:45	8/18/23 14:45		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:22	8/23/23 13:22		1	7.26	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/16/23 12:49	8/16/23 12:49			47.03	uS/cm			FA
pH	8/16/23 12:49	8/16/23 12:49			4.03	SU			FA
Temperature	8/16/23 12:49	8/16/23 12:49			20.38	C			FA
Turbidity	8/16/23 12:49	8/16/23 12:49			2.41	NTU			FA
Sulfide	8/16/23 12:49	8/16/23 12:49			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 8/16/23 12:50
Customer ID:
Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BD15878

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD15880	Aluminum, Dissolved	mg/L	-0.0000043	0.0198	0.100	0.134	0.136	0.104	0.0850 to 0.115	104	70.0 to 130	1.48	20.0
BD15881	Aluminum, Total	mg/L	0.000370	0.0198	0.100	0.0954	0.0934	0.0930	0.0850 to 0.115	95.4	70.0 to 130	2.12	20.0
BD15880	Antimony, Dissolved	mg/L	0.000277	0.00100	0.100	0.0909	0.0911	0.0869	0.0850 to 0.115	90.9	70.0 to 130	0.220	20.0
BD15881	Antimony, Total	mg/L	0.000310	0.00100	0.100	0.0982	0.0972	0.100	0.0850 to 0.115	98.2	70.0 to 130	1.02	20.0
BD15880	Arsenic, Dissolved	mg/L	0.0000011	0.000200	0.100	0.0974	0.0994	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.03	20.0
BD15881	Arsenic, Total	mg/L	0.0000236	0.000200	0.100	0.107	0.107	0.107	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BD15880	Barium, Dissolved	mg/L	-0.0000013	0.00100	0.100	0.208	0.212	0.0941	0.0850 to 0.115	95.0	70.0 to 130	1.90	20.0
BD15881	Barium, Total	mg/L	-0.0000294	0.00100	0.100	0.0989	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	3.09	20.0
BD15880	Beryllium, Dissolved	mg/L	0.0000250	0.000880	0.100	0.0881	0.0936	0.0959	0.0850 to 0.115	88.1	70.0 to 130	6.05	20.0
BD15881	Beryllium, Total	mg/L	-0.0000486	0.000880	0.100	0.109	0.105	0.107	0.0850 to 0.115	109	70.0 to 130	3.74	20.0
BD15880	Boron, Dissolved	mg/L	-0.000139	0.0650	1.00	1.01	1.00	0.998	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15881	Boron, Total	mg/L	-0.000263	0.0650	1.00	0.994	0.989	0.982	0.850 to 1.15	99.4	70.0 to 130	0.504	20.0
BD15880	Cadmium, Dissolved	mg/L	0.0000022	0.000147	0.100	0.0960	0.0981	0.101	0.0850 to 0.115	96.0	70.0 to 130	2.16	20.0
BD15881	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15880	Calcium, Dissolved	mg/L	-0.0237	0.152	5.00	6.61	6.35	4.76	4.25 to 5.75	97.8	70.0 to 130	4.01	20.0
BD15881	Calcium, Total	mg/L	-0.0183	0.152	5.00	4.88	4.93	4.88	4.25 to 5.75	97.6	70.0 to 130	1.02	20.0
BD15881	Chloride	mg/L	0.895	1.00	10.0	10.0	10.1	9.89	9.00 to 11.0	100	80.0 to 120	0.995	20.0
BD15880	Chromium, Dissolved	mg/L	-0.0000266	0.000440	0.100	0.0976	0.100	0.0971	0.0850 to 0.115	96.6	70.0 to 130	2.43	20.0
BD15881	Chromium, Total	mg/L	-0.0000709	0.000440	0.100	0.0988	0.0959	0.0985	0.0850 to 0.115	98.6	70.0 to 130	2.98	20.0
BD15880	Cobalt, Dissolved	mg/L	-0.0000449	0.000147	0.100	0.100	0.102	0.0981	0.0850 to 0.115	98.5	70.0 to 130	1.98	20.0
BD15881	Cobalt, Total	mg/L	-0.0000039	0.000147	0.100	0.102	0.100	0.103	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Fluoride	mg/L	0.0335	0.125	2.50	2.56	2.57	2.56	2.25 to 2.75	102	80.0 to 120	0.390	20.0
BD15880	Iron, Dissolved	mg/L	0.000989	0.0176	0.2	0.197	0.192	0.195	0.170 to 0.230	98.5	70.0 to 130	2.57	20.0
BD15881	Iron, Total	mg/L	0.000317	0.0176	0.2	0.197	0.197	0.196	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0

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

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 8/16/23 12:50

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BD15878

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15880	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Lead, Total	mg/L	0.0000023	0.000147	0.100	0.0979	0.0975	0.0982	0.0850 to 0.115	97.9	70.0 to 130	0.409	20.0
BD15880	Lithium, Dissolved	mg/L	-0.000184	0.0154	0.200	0.196	0.197	0.192	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15881	Lithium, Total	mg/L	0.000213	0.0154	0.200	0.198	0.195	0.195	0.170 to 0.230	99.0	70.0 to 130	1.53	20.0
BD15880	Magnesium, Dissolved	mg/L	-0.0343	0.0462	5.00	6.98	6.89	4.91	4.25 to 5.75	100	70.0 to 130	1.30	20.0
BD15881	Magnesium, Total	mg/L	-0.0373	0.0462	5.00	5.06	5.02	4.96	4.25 to 5.75	101	70.0 to 130	0.794	20.0
BD15880	Manganese, Dissolved	mg/L	0.0000059	0.00033	0.100	0.117	0.119	0.101	0.0850 to 0.115	100	70.0 to 130	1.69	20.0
BD15881	Manganese, Total	mg/L	0.0000962	0.00033	0.100	0.101	0.0992	0.102	0.0850 to 0.115	101	70.0 to 130	1.80	20.0
BD15881	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00402	0.00403	0.00378	0.00340 to 0.00460	100	70.0 to 130	0.248	20.0
BD15880	Molybdenum, Dissolved	mg/L	-0.000054	0.0100	0.2	0.195	0.194	0.197	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BD15881	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.199	0.197	0.170 to 0.230	99.0	70.0 to 130	0.504	20.0
BD15880	Potassium, Dissolved	mg/L	0.00654	0.367	10.0	10.8	11.1	9.77	8.50 to 11.5	98.2	70.0 to 130	2.74	20.0
BD15881	Potassium, Total	mg/L	-0.0196	0.367	10.0	10.1	9.76	10.1	8.50 to 11.5	101	70.0 to 130	3.42	20.0
BD15880	Selenium, Dissolved	mg/L	0.0000426	0.00100	0.100	0.0990	0.0985	0.102	0.0850 to 0.115	99.0	70.0 to 130	0.506	20.0
BD15881	Selenium, Total	mg/L	-0.0000339	0.00100	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15880	Silicon, Dissolved	mg/L	0.000549	0.0440	1.00	5.14	5.17	1.00	0.850 to 1.15	103	70.0 to 130	0.582	20.0
BD15881	Silicon, Total	mg/L	0.000655	0.0440	1.00	1.01	1.00	0.995	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15880	Sodium, Dissolved	mg/L	0.0551	0.0880	5.00	7.59	7.69	4.90	4.25 to 5.75	97.6	70.0 to 130	1.31	20.0
BD15881	Sodium, Total	mg/L	0.00284	0.0880	5.00	5.04	4.97	4.94	4.25 to 5.75	101	70.0 to 130	1.40	20.0
BD15881	Sulfate	mg/L	0.476	2.0	20.0	20.7	20.7	20.5	18.0 to 22.0	104	80.0 to 120	0.00	20.0
BD15880	Thallium, Dissolved	mg/L	-0.0000306	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15881	Thallium, Total	mg/L	0.0000012	0.000147	0.100	0.0978	0.0960	0.0963	0.0850 to 0.115	97.8	70.0 to 130	1.86	20.0
BD15881	Total Organic Carbon	mg/L	0.132	1.00	10.0	9.55	9.47	24.4		95.5	80.0 to 120	0.841	20.0

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

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 8/16/23 12:50
Customer ID:
Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-3

Laboratory ID Number: BD15878

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15880	Alkalinity	mg CaCO3/L					2.14	51.4	45.0 to 55.0			1.89	10.0
BD15881	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	1.97	-0.034	1.93	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD15879	Solids, Dissolved	mg/L	1.00	25.0			36.7	49.0	40.0 to 60.0			3.89	10.0

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 8/16/23 14:10
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15879

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 12:20	8/21/23 13:04		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/18/23 12:20	8/21/23 13:04		1.015	1.71	mg/L	0.070035	0.406		
* Iron, Total	8/18/23 12:20	8/21/23 13:04		1.015	0.195	mg/L	0.008120	0.0406		
* Lithium, Total	8/18/23 12:20	8/21/23 13:04		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 12:20	8/21/23 13:04		1.015	1.96	mg/L	0.021315	0.406		
* Molybdenum, Total	8/18/23 12:20	8/21/23 13:04		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 13:04		1	9.01	mg/L				
* Silicon, Total	8/18/23 12:20	8/21/23 13:04		1.015	4.21	mg/L	0.02030	0.25375		
* Sodium, Total	8/18/23 12:20	8/21/23 13:04		1.015	2.65	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/18/23 15:20	8/21/23 11:36		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	8/18/23 15:20	8/21/23 11:36		1.015	1.69	mg/L	0.070035	0.406		
* Iron, Dissolved	8/18/23 15:20	8/21/23 11:36		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	8/18/23 15:20	8/21/23 11:36		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/18/23 15:20	8/21/23 11:36		1.015	1.95	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/18/23 15:20	8/21/23 11:36		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/18/23 15:20	8/21/23 11:36		1	8.73	mg/L				
* Silicon, Dissolved	8/18/23 15:20	8/21/23 11:36		1.015	4.08	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/18/23 15:20	8/21/23 11:36		1.015	2.67	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 12:20	8/18/23 15:27		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 12:20	8/18/23 15:27		1.015	0.322	mg/L	0.009135	0.05075		
* Arsenic, Total	8/18/23 12:20	8/18/23 15:27		1.015	0.000209	mg/L	0.000112	0.000203		
* Barium, Total	8/18/23 12:20	8/18/23 15:27		1.015	0.121	mg/L	0.000508	0.001015		
* Beryllium, Total	8/18/23 12:20	8/18/23 15:27		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 12:20	8/18/23 15:27		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 12:20	8/18/23 15:27		1.015	0.00158	mg/L	0.000203	0.001015		
* Cobalt, Total	8/18/23 12:20	8/18/23 15:27		1.015	0.00161	mg/L	0.000068	0.000203		
* Lead, Total	8/18/23 12:20	8/18/23 15:27		1.015	0.000177	mg/L	0.000068	0.000203	J	
* Manganese, Total	8/18/23 12:20	8/18/23 15:27		1.015	0.0174	mg/L	0.000152	0.001015		

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

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 8/16/23 14:10
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15879

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:27		1.015	0.987	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 15:27		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 12:20	8/18/23 15:27		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	0.0302	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	0.114	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	0.00103	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	0.00151	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	0.0166	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	0.987	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 15:20	8/21/23 10:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/25/23 00:12		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 12:01	8/18/23 12:01		1	2.05	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/29/23 08:43	8/29/23 11:29		1	0.898	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	35.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/29/23 08:43	8/29/23 11:29		1	Not Detected	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/29/23 08:43	8/29/23 11:29		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/29/23 08:43	8/29/23 11:29		1	4.14	SU		2	

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

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4

Location Code: WMWBARPU
Collected: 8/16/23 14:10
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15879

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 14:09	8/18/23 14:09		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:48	8/18/23 10:48		1	3.12	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:46	8/18/23 14:46		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:24	8/23/23 13:24		1	7.05	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/16/23 14:05	8/16/23 14:05			42.26	uS/cm			FA
pH	8/16/23 14:05	8/16/23 14:05			4.58	SU			FA
Temperature	8/16/23 14:05	8/16/23 14:05			22.17	C			FA
Turbidity	8/16/23 14:05	8/16/23 14:05			9.48	NTU			FA
Sulfide	8/16/23 14:05	8/16/23 14:05			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 8/16/23 14:10
Customer ID:
Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BD15879

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD15880	Aluminum, Dissolved	mg/L	-0.0000043	0.0198	0.100	0.134	0.136	0.104	0.0850 to 0.115	104	70.0 to 130	1.48	20.0
BD15881	Aluminum, Total	mg/L	0.000370	0.0198	0.100	0.0954	0.0934	0.0930	0.0850 to 0.115	95.4	70.0 to 130	2.12	20.0
BD15880	Antimony, Dissolved	mg/L	0.000277	0.00100	0.100	0.0909	0.0911	0.0869	0.0850 to 0.115	90.9	70.0 to 130	0.220	20.0
BD15881	Antimony, Total	mg/L	0.000310	0.00100	0.100	0.0982	0.0972	0.100	0.0850 to 0.115	98.2	70.0 to 130	1.02	20.0
BD15880	Arsenic, Dissolved	mg/L	0.0000011	0.000200	0.100	0.0974	0.0994	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.03	20.0
BD15881	Arsenic, Total	mg/L	0.0000236	0.000200	0.100	0.107	0.107	0.107	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BD15880	Barium, Dissolved	mg/L	-0.0000013	0.00100	0.100	0.208	0.212	0.0941	0.0850 to 0.115	95.0	70.0 to 130	1.90	20.0
BD15881	Barium, Total	mg/L	-0.0000294	0.00100	0.100	0.0989	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	3.09	20.0
BD15880	Beryllium, Dissolved	mg/L	0.0000250	0.000880	0.100	0.0881	0.0936	0.0959	0.0850 to 0.115	88.1	70.0 to 130	6.05	20.0
BD15881	Beryllium, Total	mg/L	-0.0000486	0.000880	0.100	0.109	0.105	0.107	0.0850 to 0.115	109	70.0 to 130	3.74	20.0
BD15880	Boron, Dissolved	mg/L	-0.000139	0.0650	1.00	1.01	1.00	0.998	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15881	Boron, Total	mg/L	-0.000263	0.0650	1.00	0.994	0.989	0.982	0.850 to 1.15	99.4	70.0 to 130	0.504	20.0
BD15880	Cadmium, Dissolved	mg/L	0.0000022	0.000147	0.100	0.0960	0.0981	0.101	0.0850 to 0.115	96.0	70.0 to 130	2.16	20.0
BD15881	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15880	Calcium, Dissolved	mg/L	-0.0237	0.152	5.00	6.61	6.35	4.76	4.25 to 5.75	97.8	70.0 to 130	4.01	20.0
BD15881	Calcium, Total	mg/L	-0.0183	0.152	5.00	4.88	4.93	4.88	4.25 to 5.75	97.6	70.0 to 130	1.02	20.0
BD15881	Chloride	mg/L	0.895	1.00	10.0	10.0	10.1	9.89	9.00 to 11.0	100	80.0 to 120	0.995	20.0
BD15880	Chromium, Dissolved	mg/L	-0.0000266	0.000440	0.100	0.0976	0.100	0.0971	0.0850 to 0.115	96.6	70.0 to 130	2.43	20.0
BD15881	Chromium, Total	mg/L	-0.0000709	0.000440	0.100	0.0988	0.0959	0.0985	0.0850 to 0.115	98.6	70.0 to 130	2.98	20.0
BD15880	Cobalt, Dissolved	mg/L	-0.0000449	0.000147	0.100	0.100	0.102	0.0981	0.0850 to 0.115	98.5	70.0 to 130	1.98	20.0
BD15881	Cobalt, Total	mg/L	-0.0000039	0.000147	0.100	0.102	0.100	0.103	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Fluoride	mg/L	0.0335	0.125	2.50	2.56	2.57	2.56	2.25 to 2.75	102	80.0 to 120	0.390	20.0
BD15880	Iron, Dissolved	mg/L	0.000989	0.0176	0.2	0.197	0.192	0.195	0.170 to 0.230	98.5	70.0 to 130	2.57	20.0
BD15881	Iron, Total	mg/L	0.000317	0.0176	0.2	0.197	0.197	0.196	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0

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

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 8/16/23 14:10

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BD15879

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15880	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Lead, Total	mg/L	0.0000023	0.000147	0.100	0.0979	0.0975	0.0982	0.0850 to 0.115	97.9	70.0 to 130	0.409	20.0
BD15880	Lithium, Dissolved	mg/L	-0.000184	0.0154	0.200	0.196	0.197	0.192	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15881	Lithium, Total	mg/L	0.000213	0.0154	0.200	0.198	0.195	0.195	0.170 to 0.230	99.0	70.0 to 130	1.53	20.0
BD15880	Magnesium, Dissolved	mg/L	-0.0343	0.0462	5.00	6.98	6.89	4.91	4.25 to 5.75	100	70.0 to 130	1.30	20.0
BD15881	Magnesium, Total	mg/L	-0.0373	0.0462	5.00	5.06	5.02	4.96	4.25 to 5.75	101	70.0 to 130	0.794	20.0
BD15880	Manganese, Dissolved	mg/L	0.0000059	0.00033	0.100	0.117	0.119	0.101	0.0850 to 0.115	100	70.0 to 130	1.69	20.0
BD15881	Manganese, Total	mg/L	0.0000962	0.00033	0.100	0.101	0.0992	0.102	0.0850 to 0.115	101	70.0 to 130	1.80	20.0
BD15881	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00402	0.00403	0.00378	0.00340 to 0.00460	100	70.0 to 130	0.248	20.0
BD15880	Molybdenum, Dissolved	mg/L	-0.000054	0.0100	0.2	0.195	0.194	0.197	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BD15881	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.199	0.197	0.170 to 0.230	99.0	70.0 to 130	0.504	20.0
BD15880	Potassium, Dissolved	mg/L	0.00654	0.367	10.0	10.8	11.1	9.77	8.50 to 11.5	98.2	70.0 to 130	2.74	20.0
BD15881	Potassium, Total	mg/L	-0.0196	0.367	10.0	10.1	9.76	10.1	8.50 to 11.5	101	70.0 to 130	3.42	20.0
BD15880	Selenium, Dissolved	mg/L	0.0000426	0.00100	0.100	0.0990	0.0985	0.102	0.0850 to 0.115	99.0	70.0 to 130	0.506	20.0
BD15881	Selenium, Total	mg/L	-0.0000339	0.00100	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15880	Silicon, Dissolved	mg/L	0.000549	0.0440	1.00	5.14	5.17	1.00	0.850 to 1.15	103	70.0 to 130	0.582	20.0
BD15881	Silicon, Total	mg/L	0.000655	0.0440	1.00	1.01	1.00	0.995	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15880	Sodium, Dissolved	mg/L	0.0551	0.0880	5.00	7.59	7.69	4.90	4.25 to 5.75	97.6	70.0 to 130	1.31	20.0
BD15881	Sodium, Total	mg/L	0.00284	0.0880	5.00	5.04	4.97	4.94	4.25 to 5.75	101	70.0 to 130	1.40	20.0
BD15881	Sulfate	mg/L	0.476	2.0	20.0	20.7	20.7	20.5	18.0 to 22.0	104	80.0 to 120	0.00	20.0
BD15880	Thallium, Dissolved	mg/L	-0.0000306	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15881	Thallium, Total	mg/L	0.0000012	0.000147	0.100	0.0978	0.0960	0.0963	0.0850 to 0.115	97.8	70.0 to 130	1.86	20.0
BD15881	Total Organic Carbon	mg/L	0.132	1.00	10.0	9.55	9.47	24.4		95.5	80.0 to 120	0.841	20.0

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

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 8/16/23 14:10
Customer ID:
Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-4

Laboratory ID Number: BD15879

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15880	Alkalinity	mg CaCO3/L					2.14	51.4	45.0 to 55.0			1.89	10.0
BD15881	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	1.97	-0.034	1.93	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD15879	Solids, Dissolved	mg/L	1.00	25.0			36.7	49.0	40.0 to 60.0			3.89	10.0

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4 Dup

Location Code: WMWBARPU
Collected: 8/16/23 14:10
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15880

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/18/23 12:20	8/21/23 13:08		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/18/23 12:20	8/21/23 13:08		1.015	1.76	mg/L	0.070035	0.406	
* Iron, Total	8/18/23 12:20	8/21/23 13:08		1.015	0.229	mg/L	0.008120	0.0406	
* Lithium, Total	8/18/23 12:20	8/21/23 13:08		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/18/23 12:20	8/21/23 13:08		1.015	1.98	mg/L	0.021315	0.406	
* Molybdenum, Total	8/18/23 12:20	8/21/23 13:08		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 13:08		1	9.01	mg/L			
* Silicon, Total	8/18/23 12:20	8/21/23 13:08		1.015	4.21	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 12:20	8/21/23 13:08		1.015	2.72	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/18/23 15:20	8/21/23 11:39		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Dissolved	8/18/23 15:20	8/21/23 11:39		1.015	1.72	mg/L	0.070035	0.406	
* Iron, Dissolved	8/18/23 15:20	8/21/23 11:39		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/18/23 15:20	8/21/23 11:39		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/18/23 15:20	8/21/23 11:39		1.015	1.97	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/18/23 15:20	8/21/23 11:39		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 15:20	8/21/23 11:39		1	8.80	mg/L			
* Silicon, Dissolved	8/18/23 15:20	8/21/23 11:39		1.015	4.11	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 15:20	8/21/23 11:39		1.015	2.71	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 12:20	8/18/23 15:30		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 12:20	8/18/23 15:30		1.015	0.367	mg/L	0.009135	0.05075	
* Arsenic, Total	8/18/23 12:20	8/18/23 15:30		1.015	0.000226	mg/L	0.000112	0.000203	
* Barium, Total	8/18/23 12:20	8/18/23 15:30		1.015	0.122	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 12:20	8/18/23 15:30		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 12:20	8/18/23 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 12:20	8/18/23 15:30		1.015	0.00164	mg/L	0.000203	0.001015	
* Cobalt, Total	8/18/23 12:20	8/18/23 15:30		1.015	0.00153	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 12:20	8/18/23 15:30		1.015	0.000205	mg/L	0.000068	0.000203	
* Manganese, Total	8/18/23 12:20	8/18/23 15:30		1.015	0.0171	mg/L	0.000152	0.001015	

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

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4 Dup

Location Code: WMWBARPU

Collected: 8/16/23 14:10

Customer ID:

Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15880

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:30		1.015	1.00	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 15:30		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 12:20	8/18/23 15:30		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	0.0299	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	0.113	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	0.00103	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	0.00146	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	0.0166	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	0.979	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 15:20	8/21/23 10:20		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/25/23 00:16		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 12:01	8/18/23 12:01		1	1.98	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/29/23 08:43	8/29/23 11:29		1	2.10	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/23/23 11:20	8/24/23 13:00		1	43.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/29/23 08:43	8/29/23 11:29		1	2.10	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/29/23 08:43	8/29/23 11:29		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/29/23 08:43	8/29/23 11:29		1	4.20	SU		2	

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

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

Certificate Of Analysis

Description: Barry Pooled Upgradient - MW-4 Dup

Location Code: WMWBARPU
Collected: 8/16/23 14:10
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15880

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 14:21	8/18/23 14:21		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:49	8/18/23 10:49		1	3.22	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:48	8/18/23 14:48		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:25	8/23/23 13:25		1	6.51	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/16/23 14:05	8/16/23 14:05			42.26	uS/cm			FA
pH	8/16/23 14:05	8/16/23 14:05			4.58	SU			FA
Temperature	8/16/23 14:05	8/16/23 14:05			22.17	C			FA
Turbidity	8/16/23 14:05	8/16/23 14:05			9.48	NTU			FA
Sulfide	8/16/23 14:05	8/16/23 14:05			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 8/16/23 14:10

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-4 Dup

Laboratory ID Number: BD15880

Sample	Analysis	Units	MB	MB		MS	MSD	Standard		Rec		Prec	Limit
				Limit	Spike			Standard	Limit	Rec	Limit		
BD15880	Aluminum, Dissolved	mg/L	-0.0000043	0.0198	0.100	0.134	0.136	0.104	0.0850 to 0.115	104	70.0 to 130	1.48	20.0
BD15881	Aluminum, Total	mg/L	0.000370	0.0198	0.100	0.0954	0.0934	0.0930	0.0850 to 0.115	95.4	70.0 to 130	2.12	20.0
BD15880	Antimony, Dissolved	mg/L	0.000277	0.00100	0.100	0.0909	0.0911	0.0869	0.0850 to 0.115	90.9	70.0 to 130	0.220	20.0
BD15881	Antimony, Total	mg/L	0.000310	0.00100	0.100	0.0982	0.0972	0.100	0.0850 to 0.115	98.2	70.0 to 130	1.02	20.0
BD15880	Arsenic, Dissolved	mg/L	0.0000011	0.000200	0.100	0.0974	0.0994	0.101	0.0850 to 0.115	97.4	70.0 to 130	2.03	20.0
BD15881	Arsenic, Total	mg/L	0.0000236	0.000200	0.100	0.107	0.107	0.107	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BD15880	Barium, Dissolved	mg/L	-0.0000013	0.00100	0.100	0.208	0.212	0.0941	0.0850 to 0.115	95.0	70.0 to 130	1.90	20.0
BD15881	Barium, Total	mg/L	-0.0000294	0.00100	0.100	0.0989	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	3.09	20.0
BD15880	Beryllium, Dissolved	mg/L	0.0000250	0.000880	0.100	0.0881	0.0936	0.0959	0.0850 to 0.115	88.1	70.0 to 130	6.05	20.0
BD15881	Beryllium, Total	mg/L	-0.0000486	0.000880	0.100	0.109	0.105	0.107	0.0850 to 0.115	109	70.0 to 130	3.74	20.0
BD15880	Boron, Dissolved	mg/L	-0.000139	0.0650	1.00	1.01	1.00	0.998	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15881	Boron, Total	mg/L	-0.000263	0.0650	1.00	0.994	0.989	0.982	0.850 to 1.15	99.4	70.0 to 130	0.504	20.0
BD15880	Cadmium, Dissolved	mg/L	0.0000022	0.000147	0.100	0.0960	0.0981	0.101	0.0850 to 0.115	96.0	70.0 to 130	2.16	20.0
BD15881	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15880	Calcium, Dissolved	mg/L	-0.0237	0.152	5.00	6.61	6.35	4.76	4.25 to 5.75	97.8	70.0 to 130	4.01	20.0
BD15881	Calcium, Total	mg/L	-0.0183	0.152	5.00	4.88	4.93	4.88	4.25 to 5.75	97.6	70.0 to 130	1.02	20.0
BD15881	Chloride	mg/L	0.895	1.00	10.0	10.0	10.1	9.89	9.00 to 11.0	100	80.0 to 120	0.995	20.0
BD15880	Chromium, Dissolved	mg/L	-0.0000266	0.000440	0.100	0.0976	0.100	0.0971	0.0850 to 0.115	96.6	70.0 to 130	2.43	20.0
BD15881	Chromium, Total	mg/L	-0.0000709	0.000440	0.100	0.0988	0.0959	0.0985	0.0850 to 0.115	98.6	70.0 to 130	2.98	20.0
BD15880	Cobalt, Dissolved	mg/L	-0.0000449	0.000147	0.100	0.100	0.102	0.0981	0.0850 to 0.115	98.5	70.0 to 130	1.98	20.0
BD15881	Cobalt, Total	mg/L	-0.0000039	0.000147	0.100	0.102	0.100	0.103	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Fluoride	mg/L	0.0335	0.125	2.50	2.56	2.57	2.56	2.25 to 2.75	102	80.0 to 120	0.390	20.0
BD15880	Iron, Dissolved	mg/L	0.000989	0.0176	0.2	0.197	0.192	0.195	0.170 to 0.230	98.5	70.0 to 130	2.57	20.0
BD15881	Iron, Total	mg/L	0.000317	0.0176	0.2	0.197	0.197	0.196	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0

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

Batch QC Summary

Customer Account: WMWBARPU

Sample Date: 8/16/23 14:10

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-4 Dup

Laboratory ID Number: BD15880

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15880	Lead, Dissolved	mg/L	0.0000074	0.000147	0.100	0.102	0.100	0.101	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Lead, Total	mg/L	0.0000023	0.000147	0.100	0.0979	0.0975	0.0982	0.0850 to 0.115	97.9	70.0 to 130	0.409	20.0
BD15880	Lithium, Dissolved	mg/L	-0.000184	0.0154	0.200	0.196	0.197	0.192	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15881	Lithium, Total	mg/L	0.000213	0.0154	0.200	0.198	0.195	0.195	0.170 to 0.230	99.0	70.0 to 130	1.53	20.0
BD15880	Magnesium, Dissolved	mg/L	-0.0343	0.0462	5.00	6.98	6.89	4.91	4.25 to 5.75	100	70.0 to 130	1.30	20.0
BD15881	Magnesium, Total	mg/L	-0.0373	0.0462	5.00	5.06	5.02	4.96	4.25 to 5.75	101	70.0 to 130	0.794	20.0
BD15880	Manganese, Dissolved	mg/L	0.0000059	0.00033	0.100	0.117	0.119	0.101	0.0850 to 0.115	100	70.0 to 130	1.69	20.0
BD15881	Manganese, Total	mg/L	0.0000962	0.00033	0.100	0.101	0.0992	0.102	0.0850 to 0.115	101	70.0 to 130	1.80	20.0
BD15881	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00402	0.00403	0.00378	0.00340 to 0.00460	100	70.0 to 130	0.248	20.0
BD15880	Molybdenum, Dissolved	mg/L	-0.000054	0.0100	0.2	0.195	0.194	0.197	0.170 to 0.230	97.5	70.0 to 130	0.514	20.0
BD15881	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.199	0.197	0.170 to 0.230	99.0	70.0 to 130	0.504	20.0
BD15880	Potassium, Dissolved	mg/L	0.00654	0.367	10.0	10.8	11.1	9.77	8.50 to 11.5	98.2	70.0 to 130	2.74	20.0
BD15881	Potassium, Total	mg/L	-0.0196	0.367	10.0	10.1	9.76	10.1	8.50 to 11.5	101	70.0 to 130	3.42	20.0
BD15880	Selenium, Dissolved	mg/L	0.0000426	0.00100	0.100	0.0990	0.0985	0.102	0.0850 to 0.115	99.0	70.0 to 130	0.506	20.0
BD15881	Selenium, Total	mg/L	-0.0000339	0.00100	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15880	Silicon, Dissolved	mg/L	0.000549	0.0440	1.00	5.14	5.17	1.00	0.850 to 1.15	103	70.0 to 130	0.582	20.0
BD15881	Silicon, Total	mg/L	0.000655	0.0440	1.00	1.01	1.00	0.995	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15880	Sodium, Dissolved	mg/L	0.0551	0.0880	5.00	7.59	7.69	4.90	4.25 to 5.75	97.6	70.0 to 130	1.31	20.0
BD15881	Sodium, Total	mg/L	0.00284	0.0880	5.00	5.04	4.97	4.94	4.25 to 5.75	101	70.0 to 130	1.40	20.0
BD15881	Sulfate	mg/L	0.476	2.0	20.0	20.7	20.7	20.5	18.0 to 22.0	104	80.0 to 120	0.00	20.0
BD15880	Thallium, Dissolved	mg/L	-0.0000306	0.000147	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15881	Thallium, Total	mg/L	0.0000012	0.000147	0.100	0.0978	0.0960	0.0963	0.0850 to 0.115	97.8	70.0 to 130	1.86	20.0
BD15881	Total Organic Carbon	mg/L	0.132	1.00	10.0	9.55	9.47	24.4		95.5	80.0 to 120	0.841	20.0

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

Batch QC Summary

Customer Account: WMWBARPU
Sample Date: 8/16/23 14:10
Customer ID:
Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient - MW-4 Dup

Laboratory ID Number: BD15880

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15880	Alkalinity	mg CaCO3/L					2.14	51.4	45.0 to 55.0			1.89	10.0
BD15881	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	1.97	-0.034	1.93	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD16122	Solids, Dissolved	mg/L	2.00	25.0			4850	53.0	40.0 to 60.0			0.620	10.0

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

Certificate Of Analysis

Description: Barry Pooled Upgradient Equipment Blank-1

Location Code: WMWBARPUEB
Collected: 8/16/23 14:40
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15881

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 12:20	8/21/23 13:11		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/18/23 12:20	8/21/23 13:11		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	8/18/23 12:20	8/21/23 13:11		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	8/18/23 12:20	8/21/23 13:11		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/18/23 12:20	8/21/23 13:11		1.015	Not Detected	mg/L	0.021315	0.406	U
* Molybdenum, Total	8/18/23 12:20	8/21/23 13:11		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 13:11		1	Not Detected	mg/L			
* Silicon, Total	8/18/23 12:20	8/21/23 13:11		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	8/18/23 12:20	8/21/23 13:11		1.015	Not Detected	mg/L	0.04060	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Aluminum, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Barium, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 12:20	8/18/23 15:34		1.015	0.000218	mg/L	0.000203	0.001015	J
* Cobalt, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Potassium, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 12:20	8/18/23 15:34		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/25/23 00:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 12:02	8/18/23 12:02		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/23/23 11:20	8/24/23 13:00		1	Not Detected	mg/L		25	U

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

Comments:

Certificate Of Analysis

Description: Barry Pooled Upgradient Equipment Blank-1

Location Code: WMWBARPUEB
Collected: 8/16/23 14:40
Customer ID:
Submittal Date: 8/17/23 14:35

Laboratory ID Number: BD15881

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 14:36	8/18/23 14:36		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:50	8/18/23 10:50		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:49	8/18/23 14:49		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:26	8/23/23 13:26		1	Not Detected	mg/L	0.6	2	U

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

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 8/16/23 14:40

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BD15881

Sample	Analysis	Units	MB				Standard		Rec		Prec	Limit	
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec			Limit
BD15881	Aluminum, Total	mg/L	0.000370	0.0198	0.100	0.0954	0.0934	0.0930	0.0850 to 0.115	95.4	70.0 to 130	2.12	20.0
BD15881	Antimony, Total	mg/L	0.000310	0.00100	0.100	0.0982	0.0972	0.100	0.0850 to 0.115	98.2	70.0 to 130	1.02	20.0
BD15881	Arsenic, Total	mg/L	0.0000236	0.000200	0.100	0.107	0.107	0.107	0.0850 to 0.115	107	70.0 to 130	0.00	20.0
BD15881	Barium, Total	mg/L	-0.0000294	0.00100	0.100	0.0989	0.102	0.0994	0.0850 to 0.115	98.9	70.0 to 130	3.09	20.0
BD15881	Beryllium, Total	mg/L	-0.0000486	0.000880	0.100	0.109	0.105	0.107	0.0850 to 0.115	109	70.0 to 130	3.74	20.0
BD15881	Boron, Total	mg/L	-0.000263	0.0650	1.00	0.994	0.989	0.982	0.850 to 1.15	99.4	70.0 to 130	0.504	20.0
BD15881	Cadmium, Total	mg/L	0.0000000	0.000147	0.100	0.102	0.101	0.105	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15881	Calcium, Total	mg/L	-0.0183	0.152	5.00	4.88	4.93	4.88	4.25 to 5.75	97.6	70.0 to 130	1.02	20.0
BD15881	Chloride	mg/L	0.895	1.00	10.0	10.0	10.1	9.89	9.00 to 11.0	100	80.0 to 120	0.995	20.0
BD15881	Chromium, Total	mg/L	-0.0000709	0.000440	0.100	0.0988	0.0959	0.0985	0.0850 to 0.115	98.6	70.0 to 130	2.98	20.0
BD15881	Cobalt, Total	mg/L	-0.0000039	0.000147	0.100	0.102	0.100	0.103	0.0850 to 0.115	102	70.0 to 130	1.98	20.0
BD15881	Fluoride	mg/L	0.0335	0.125	2.50	2.56	2.57	2.56	2.25 to 2.75	102	80.0 to 120	0.390	20.0
BD15881	Iron, Total	mg/L	0.000317	0.0176	0.2	0.197	0.197	0.196	0.170 to 0.230	98.5	70.0 to 130	0.00	20.0
BD15881	Lead, Total	mg/L	0.0000023	0.000147	0.100	0.0979	0.0975	0.0982	0.0850 to 0.115	97.9	70.0 to 130	0.409	20.0
BD15881	Lithium, Total	mg/L	0.000213	0.0154	0.200	0.198	0.195	0.195	0.170 to 0.230	99.0	70.0 to 130	1.53	20.0
BD15881	Magnesium, Total	mg/L	-0.0373	0.0462	5.00	5.06	5.02	4.96	4.25 to 5.75	101	70.0 to 130	0.794	20.0
BD15881	Manganese, Total	mg/L	0.0000962	0.00033	0.100	0.101	0.0992	0.102	0.0850 to 0.115	101	70.0 to 130	1.80	20.0
BD15881	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00402	0.00403	0.00378	0.00340 to 0.00460	100	70.0 to 130	0.248	20.0
BD15881	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.198	0.199	0.197	0.170 to 0.230	99.0	70.0 to 130	0.504	20.0
BD15881	Potassium, Total	mg/L	-0.0196	0.367	10.0	10.1	9.76	10.1	8.50 to 11.5	101	70.0 to 130	3.42	20.0
BD15881	Selenium, Total	mg/L	-0.0000339	0.00100	0.100	0.105	0.107	0.104	0.0850 to 0.115	105	70.0 to 130	1.89	20.0
BD15881	Silicon, Total	mg/L	0.000655	0.0440	1.00	1.01	1.00	0.995	0.850 to 1.15	101	70.0 to 130	0.995	20.0
BD15881	Sodium, Total	mg/L	0.00284	0.0880	5.00	5.04	4.97	4.94	4.25 to 5.75	101	70.0 to 130	1.40	20.0
BD15881	Sulfate	mg/L	0.476	2.0	20.0	20.7	20.7	20.5	18.0 to 22.0	104	80.0 to 120	0.00	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 8/16/23 14:40

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BD15881

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	Limit
BD15881	Thallium, Total	mg/L	0.0000012	0.000147	0.100	0.0978	0.0960	0.0963	0.0850 to 0.115	97.8	70.0 to 130	1.86	20.0
BD15881	Total Organic Carbon	mg/L	0.132	1.00	10.0	9.55	9.47	24.4		95.5	80.0 to 120	0.841	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARPUEB

Sample Date: 8/16/23 14:40

Customer ID:

Delivery Date: 8/17/23 14:35

Description: Barry Pooled Upgradient Equipment Blank-1

Laboratory ID Number: BD15881

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15881	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	1.97	-0.034	1.93	1.80 to 2.20	98.5	90.0 to 110	0.00	15.0
BD16122	Solids, Dissolved	mg/L	2.00	25.0			4850	53.0	40.0 to 60.0			0.620	10.0

Comments:

Definitions

Project Number: WMWBARPU_1418

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

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



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab


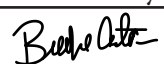
Lab ETA

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

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-1	08/16/2023	10:00	6	Groundwater		BD15875	<input checked="" type="checkbox"/>
MW-2	08/16/2023	11:30	6	Groundwater		BD15876	<input checked="" type="checkbox"/>
FB-1	08/16/2023	11:50	5	Field Blank		BD15877	<input checked="" type="checkbox"/>
MW-3	08/16/2023	12:50	6	Groundwater		BD15878	<input checked="" type="checkbox"/>
MW-4	08/16/2023	14:10	6	Groundwater		BD15879	<input checked="" type="checkbox"/>
MW-4 Dup	08/16/2023	14:10	6	Sample Duplicate		BD15880	<input checked="" type="checkbox"/>
EB-1	08/16/2023	14:40	5	Equipment Blank		BD15881	<input checked="" type="checkbox"/>
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Relinquished By	Received By	Date/Time
		08/17/2023 14:02

SmarTroll ID	7586-41445-5-4	Cooler Temp	2.4 °C
Turbidity ID	4677-23343-4-2	Thermometer ID	10614-61208-2-1
Sample Event	1418	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

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

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

Comments: Rad MS/MSD @ MW-1

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-1	08/16/2023	10:00	3	Groundwater		BD15882	<input checked="" type="checkbox"/>
MW-2	08/16/2023	11:30	1	Groundwater		BD15883	<input checked="" type="checkbox"/>
FB-1	08/16/2023	11:50	1	Field Blank		BD15884	<input checked="" type="checkbox"/>
MW-3	08/16/2023	12:50	1	Groundwater		BD15885	<input checked="" type="checkbox"/>
MW-4	08/16/2023	14:10	1	Groundwater		BD15886	<input checked="" type="checkbox"/>
MW-4 Dup	08/16/2023	14:10	1	Sample Duplicate		BD15887	<input checked="" type="checkbox"/>
EB-1	08/16/2023	14:40	1	Equipment Blank		BD15888	<input checked="" type="checkbox"/>
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Relinquished By	Received By	Date/Time
		08/17/2023 14:02

SmarTroll ID	7586-41445-5-4	Cooler Temp	N/A
Turbidity ID	4677-23343-4-2	Thermometer ID	N/A
Sample Event	1418	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks

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

Analytical Report



Sample Group : WMWBARG_1419

Project/Site : Barry Gypsum
Bucks, AL 36512

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

Attention : Dustin Brooks & Greg Budd

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

September 11, 2023

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on August 17, 2023. 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, 2024

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

Sincerely,

Quality Control: **Brooke
Caton**

Digitally signed by Brooke
Caton
Date: 2023.09.11
10:09:03 -05'00'

Supervision: **T Durant
Maske**

Digitally signed by T Durant Maske
DN: cn=T Durant Maske, gn=T Durant Maske, c=US
United States, o=US United States
e=t.durmaske@alstenergy.com
Reason: I am the author of this document
Location:
Date: 2023-09-12 07:15:06:00



REPORT OF LABORATORY ANALYSIS

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



Total Metals ICP

Barry Gypsum

WMWBARG_1419

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15855	763784	WMWBARG_1419
BD15856	763784	WMWBARG_1419
BD15857	763784	WMWBARG_1419
BD15858	763784	WMWBARG_1419
BD15859	763784	WMWBARG_1419
BD15860	763784	WMWBARG_1419
BD15861	763784	WMWBARG_1419
BD15862	763784	WMWBARG_1419
BD15863	763784	WMWBARG_1419
BD15864	763784	WMWBARG_1419

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

General Quality Control Procedures:

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

qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICP

Barry Gypsum

WMWBARG_1419

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15855	763820	WMWBARG_1419
BD15856	763820	WMWBARG_1419
BD15857	763820	WMWBARG_1419
BD15858	763820	WMWBARG_1419
BD15859	763820	WMWBARG_1419
BD15860	763820	WMWBARG_1419
BD15861	763820	WMWBARG_1419
BD15863	763820	WMWBARG_1419

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Total Metals ICPMS

Barry Gypsum

WMWBARG_1419

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15855	764713	WMWBARG_1419
BD15856	764713	WMWBARG_1419
BD15857	764713	WMWBARG_1419
BD15858	764713	WMWBARG_1419
BD15859	764713	WMWBARG_1419
BD15860	764713	WMWBARG_1419
BD15861	764713	WMWBARG_1419
BD15862	764713	WMWBARG_1419
BD15863	764713	WMWBARG_1419
BD15864	764713	WMWBARG_1419

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

General Quality Control Procedures:

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

qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Dissolved Metals ICPMS

Barry Gypsum

WMWBARG_1419

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15855	764672	WMWBARG_1419
BD15856	764672	WMWBARG_1419
BD15857	764672	WMWBARG_1419
BD15858	764672	WMWBARG_1419
BD15859	764672	WMWBARG_1419
BD15860	764672	WMWBARG_1419
BD15861	764672	WMWBARG_1419
BD15863	764672	WMWBARG_1419

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Mercury

Barry Gypsum

WMWBARG_1419

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15855	763730	WMWBARG_1419
BD15856	763730	WMWBARG_1419
BD15857	763730	WMWBARG_1419
BD15858	763730	WMWBARG_1419
BD15859	763730	WMWBARG_1419
BD15860	763730	WMWBARG_1419
BD15861	763730	WMWBARG_1419
BD15862	763730	WMWBARG_1419
BD15863	763730	WMWBARG_1419
BD15864	763730	WMWBARG_1419

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any

sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were digested and analyzed with each analytical batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution.

Total Dissolved Solids

Barry Gypsum

WMWBARG_1419

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15855	763874	WMWBARG_1419
BD15856	763874	WMWBARG_1419
BD15857	763874	WMWBARG_1419
BD15858	763874	WMWBARG_1419
BD15859	763874	WMWBARG_1419
BD15860	763875	WMWBARG_1419
BD15861	763875	WMWBARG_1419
BD15862	763875	WMWBARG_1419
BD15863	763875	WMWBARG_1419
BD15864	763875	WMWBARG_1419

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch, and RPD was $\leq 10\%$.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue $< 2.5\text{mg}$ had the maximum volume of 150mL filtered. Affected samples are as follows:
 - BD15862
 - BD15864

Alkalinity

Barry Gypsum

WMWBARG_1419

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15855	764496, 764497, 764498, 764499	WMWBARG_1419
BD15856	764496, 764497, 764498, 764499	WMWBARG_1419
BD15857	764496, 764497, 764498, 764499	WMWBARG_1419
BD15858	764496, 764497, 764498, 764499	WMWBARG_1419
BD15859	764496, 764497, 764498, 764499	WMWBARG_1419
BD15860	764496, 764497, 764498, 764499	WMWBARG_1419
BD15861	764496, 764497, 764498, 764499	WMWBARG_1419
BD15863	764496, 764497, 764498, 764499	WMWBARG_1419

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

General Quality Control Procedures:

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

Anions

Barry Gypsum

WMWBARG_1419

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15855	763913, 763895, 764202	WMWBARG_1419
BD15856	763913, 763895, 764202	WMWBARG_1419
BD15857	763913, 763895, 764202	WMWBARG_1419
BD15858	763913, 763895, 764202	WMWBARG_1419
BD15859	763913, 763895, 764202	WMWBARG_1419
BD15860	763913, 763895, 764202	WMWBARG_1419
BD15861	763913, 763895, 764202	WMWBARG_1419
BD15862	763913, 763895, 764202	WMWBARG_1419
BD15863	763913, 763895, 764202	WMWBARG_1419
BD15864	763913, 763895, 764202	WMWBARG_1419

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 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:

Revision 5

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

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Nitrate-Nitrite

Barry Gypsum

WMWBARG_1419

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15855	763891	WMWBARG_1419
BD15856	763891	WMWBARG_1419
BD15857	763891	WMWBARG_1419
BD15858	763891	WMWBARG_1419
BD15859	763891	WMWBARG_1419
BD15860	763891	WMWBARG_1419
BD15861	763891	WMWBARG_1419
BD15862	763891	WMWBARG_1419
BD15863	763891	WMWBARG_1419
BD15864	763891	WMWBARG_1419

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

General Quality Control Procedures:

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

EPA 353.2 Specific QC:

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

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

Total Organic Carbon

Barry Gypsum

WMWBARG_1419

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
BD15855	763855	WMWBARG_1419
BD15856	763855	WMWBARG_1419
BD15857	763855	WMWBARG_1419
BD15858	763855	WMWBARG_1419
BD15859	763855	WMWBARG_1419
BD15860	763855	WMWBARG_1419
BD15861	763855	WMWBARG_1419
BD15862	763855	WMWBARG_1419
BD15863	763855	WMWBARG_1419
BD15864	763855	WMWBARG_1419

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

- A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for accuracy were met.
 - A matrix spike and matrix spike duplicate were analyzed with each batch. All acceptance criteria for precision were met.
7. All samples were analyzed without a dilution factor.
 8. The raw data results are shown with dilution factors included.

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 8/15/23 10:00
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15855

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 12:20	8/21/23 12:01		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/18/23 12:20	8/21/23 12:01		1.015	0.941	mg/L	0.070035	0.406		
* Iron, Total	8/18/23 12:20	8/21/23 12:01		1.015	0.112	mg/L	0.008120	0.0406		
* Lithium, Total	8/18/23 12:20	8/21/23 12:01		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 12:20	8/21/23 12:01		1.015	1.02	mg/L	0.021315	0.406		
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:01		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:01		1	10.2	mg/L				
* Silicon, Total	8/18/23 12:20	8/21/23 12:01		1.015	4.75	mg/L	0.02030	0.25375		
* Sodium, Total	8/18/23 12:20	8/21/23 12:01		1.015	6.20	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/18/23 15:00	8/21/23 10:16		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	8/18/23 15:00	8/21/23 10:16		1.015	1.01	mg/L	0.070035	0.406		
* Iron, Dissolved	8/18/23 15:00	8/21/23 10:16		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	8/18/23 15:00	8/21/23 10:16		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/18/23 15:00	8/21/23 10:16		1.015	1.01	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/18/23 15:00	8/21/23 10:16		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/18/23 15:00	8/21/23 10:16		1	10.1	mg/L				
* Silicon, Dissolved	8/18/23 15:00	8/21/23 10:16		1.015	4.74	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/18/23 15:00	8/21/23 10:16		1.015	6.08	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 12:20	8/18/23 14:54		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 12:20	8/18/23 14:54		1.015	0.115	mg/L	0.009135	0.05075		
* Arsenic, Total	8/18/23 12:20	8/18/23 14:54		1.015	0.000288	mg/L	0.000112	0.000203		
* Barium, Total	8/18/23 12:20	8/18/23 14:54		1.015	0.0687	mg/L	0.000508	0.001015		
* Beryllium, Total	8/18/23 12:20	8/18/23 14:54		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 12:20	8/18/23 14:54		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 12:20	8/18/23 14:54		1.015	0.00173	mg/L	0.000203	0.001015		
* Cobalt, Total	8/18/23 12:20	8/18/23 14:54		1.015	0.00115	mg/L	0.000068	0.000203		
* Lead, Total	8/18/23 12:20	8/18/23 14:54		1.015	0.000107	mg/L	0.000068	0.000203	J	
* Manganese, Total	8/18/23 12:20	8/18/23 14:54		1.015	0.0121	mg/L	0.000152	0.001015		

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 8/15/23 10:00
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15855

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 14:54		1.015	0.911	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 14:54		1.015	0.000571	mg/L	0.000508	0.001015	J
* Thallium, Total	8/18/23 12:20	8/18/23 14:54		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	0.0117	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	0.0663	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	0.00134	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	0.00107	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	0.0114	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	0.932	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 15:00	8/21/23 10:13		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:01		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:29	8/18/23 11:29		1	0.803	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/25/23 09:15	8/25/23 12:03		1	2.02	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	38.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	2.02	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/25/23 09:15	8/25/23 12:03		1	4.15	SU		2	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 8/15/23 10:00
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15855

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 09:50	8/18/23 09:50		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:19	8/18/23 10:19		1	7.69	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:18	8/18/23 14:18		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:53	8/23/23 12:53		1	3.85	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/15/23 09:56	8/15/23 09:56			49.25	uS/cm			FA
pH	8/15/23 09:56	8/15/23 09:56			4.56	SU			FA
Temperature	8/15/23 09:56	8/15/23 09:56			22.01	C			FA
Turbidity	8/15/23 09:56	8/15/23 09:56			8.99	NTU			FA
Sulfide	8/15/23 09:56	8/15/23 09:56			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 10:00
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-7

Laboratory ID Number: BD15855

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD15863	Aluminum, Dissolved	mg/L	0.000280	0.0198	0.100	0.287	0.291	0.100	0.0850 to 0.115	95.0	70.0 to 130	1.38	20.0
BD15864	Aluminum, Total	mg/L	0.000751	0.0198	0.100	0.101	0.102	0.0997	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15863	Antimony, Dissolved	mg/L	0.000326	0.00100	0.100	0.0969	0.0942	0.0944	0.0850 to 0.115	96.9	70.0 to 130	2.83	20.0
BD15864	Antimony, Total	mg/L	0.000348	0.00100	0.100	0.0915	0.0942	0.0935	0.0850 to 0.115	91.5	70.0 to 130	2.91	20.0
BD15863	Arsenic, Dissolved	mg/L	0.0000213	0.000200	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15864	Arsenic, Total	mg/L	0.0000271	0.000200	0.100	0.0977	0.0983	0.100	0.0850 to 0.115	97.7	70.0 to 130	0.612	20.0
BD15863	Barium, Dissolved	mg/L	-0.0000082	0.00100	0.100	0.210	0.208	0.0965	0.0850 to 0.115	92.0	70.0 to 130	0.957	20.0
BD15864	Barium, Total	mg/L	0.0000114	0.00100	0.100	0.0978	0.100	0.0950	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BD15863	Beryllium, Dissolved	mg/L	0.0000399	0.000880	0.100	0.0941	0.0915	0.0934	0.0850 to 0.115	94.1	70.0 to 130	2.80	20.0
BD15864	Beryllium, Total	mg/L	0.0000287	0.000880	0.100	0.0977	0.0991	0.102	0.0850 to 0.115	97.7	70.0 to 130	1.42	20.0
BD15863	Boron, Dissolved	mg/L	-0.000227	0.0650	1.00	1.03	1.05	0.996	0.850 to 1.15	98.2	70.0 to 130	1.92	20.0
BD15864	Boron, Total	mg/L	-0.000105	0.0650	1.00	0.972	0.993	0.993	0.850 to 1.15	97.2	70.0 to 130	2.14	20.0
BD15863	Cadmium, Dissolved	mg/L	-0.0000002	0.000147	0.100	0.101	0.103	0.100	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15864	Cadmium, Total	mg/L	0.0000045	0.000147	0.100	0.0980	0.0943	0.0976	0.0850 to 0.115	98.0	70.0 to 130	3.85	20.0
BD15863	Calcium, Dissolved	mg/L	-0.0253	0.152	5.00	5.81	5.91	4.82	4.25 to 5.75	93.2	70.0 to 130	1.71	20.0
BD15864	Calcium, Total	mg/L	-0.0300	0.152	5.00	4.52	4.73	4.80	4.25 to 5.75	90.4	70.0 to 130	4.54	20.0
BD15864	Chloride	mg/L	0.0409	1.00	10.0	9.68	9.97	9.84	9.00 to 11.0	96.8	80.0 to 120	2.95	20.0
BD15863	Chromium, Dissolved	mg/L	-0.000114	0.000440	0.100	0.0993	0.101	0.101	0.0850 to 0.115	98.9	70.0 to 130	1.70	20.0
BD15864	Chromium, Total	mg/L	-0.0000369	0.000440	0.100	0.101	0.0994	0.0995	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15863	Cobalt, Dissolved	mg/L	-0.0000302	0.000147	0.100	0.103	0.105	0.103	0.0850 to 0.115	101	70.0 to 130	1.92	20.0
BD15864	Cobalt, Total	mg/L	0.0000056	0.000147	0.100	0.102	0.102	0.0998	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15864	Fluoride	mg/L	0.0413	0.125	2.50	2.48	2.56	2.56	2.25 to 2.75	99.2	80.0 to 120	3.17	20.0
BD15863	Iron, Dissolved	mg/L	0.000282	0.0176	0.2	0.196	0.197	0.197	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15864	Iron, Total	mg/L	0.000088	0.0176	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 10:00
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-7

Laboratory ID Number: BD15855

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15863	Lead, Dissolved	mg/L	0.0000041	0.000147	0.100	0.0948	0.0928	0.0949	0.0850 to 0.115	94.7	70.0 to 130	2.13	20.0
BD15864	Lead, Total	mg/L	0.0000056	0.000147	0.100	0.101	0.103	0.102	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15863	Lithium, Dissolved	mg/L	-0.000061	0.0154	0.200	0.196	0.201	0.194	0.170 to 0.230	98.0	70.0 to 130	2.52	20.0
BD15864	Lithium, Total	mg/L	0.000197	0.0154	0.200	0.197	0.200	0.198	0.170 to 0.230	98.5	70.0 to 130	1.51	20.0
BD15863	Magnesium, Dissolved	mg/L	-0.0445	0.0462	5.00	7.39	7.54	4.96	4.25 to 5.75	97.6	70.0 to 130	2.01	20.0
BD15864	Magnesium, Total	mg/L	-0.0339	0.0462	5.00	4.86	5.03	5.00	4.25 to 5.75	97.2	70.0 to 130	3.44	20.0
BD15863	Manganese, Dissolved	mg/L	-0.000208	0.00033	0.100	0.140	0.144	0.104	0.0850 to 0.115	99.7	70.0 to 130	2.82	20.0
BD15864	Manganese, Total	mg/L	-0.0000105	0.00033	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15863	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00406	0.00407	0.00378	0.00340 to 0.00460	102	70.0 to 130	0.246	20.0
BD15863	Molybdenum, Dissolved	mg/L	0.000170	0.0100	0.2	0.194	0.195	0.199	0.170 to 0.230	97.0	70.0 to 130	0.514	20.0
BD15864	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15863	Potassium, Dissolved	mg/L	-0.0187	0.367	10.0	10.8	11.0	10.3	8.50 to 11.5	99.5	70.0 to 130	1.83	20.0
BD15864	Potassium, Total	mg/L	0.00252	0.367	10.0	10.0	10.0	10.0	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BD15863	Selenium, Dissolved	mg/L	0.0000134	0.00100	0.100	0.102	0.100	0.100	0.0850 to 0.115	101	70.0 to 130	1.98	20.0
BD15864	Selenium, Total	mg/L	0.0000349	0.00100	0.100	0.0983	0.100	0.103	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BD15863	Silicon, Dissolved	mg/L	0.000660	0.0440	1.00	4.54	4.54	1.01	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15864	Silicon, Total	mg/L	0.000902	0.0440	1.00	0.983	1.00	1.01	0.850 to 1.15	98.3	70.0 to 130	1.71	20.0
BD15863	Sodium, Dissolved	mg/L	0.00161	0.0880	5.00	7.35	7.49	5.01	4.25 to 5.75	99.6	70.0 to 130	1.89	20.0
BD15864	Sodium, Total	mg/L	-0.000165	0.0880	5.00	5.02	5.08	5.06	4.25 to 5.75	100	70.0 to 130	1.19	20.0
BD15864	Sulfate	mg/L	0.366	2.0	20.0	20.4	20.0	20.6	18.0 to 22.0	98.8	80.0 to 120	1.98	20.0
BD15863	Thallium, Dissolved	mg/L	-0.0000019	0.000147	0.100	0.0956	0.0940	0.0971	0.0850 to 0.115	95.6	70.0 to 130	1.69	20.0
BD15864	Thallium, Total	mg/L	0.0000091	0.000147	0.100	0.0972	0.0974	0.0930	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BD15864	Total Organic Carbon	mg/L	0.168	1.00	10.0	9.31	10.3	24.8		93.1	80.0 to 120	10.1	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 10:00
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-7

Laboratory ID Number: BD15855

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15863	Alkalinity	mg CaCO3/L					0.775	51.2	45.0 to 55.0			0.643	10.0
BD15864	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.03	-0.083	1.96	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15859	Solids, Dissolved	mg/L	1.00	25.0			40.0	49.0	40.0 to 60.0			3.20	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7 Dup

Location Code: WMWBARG
Collected: 8/15/23 10:00
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15856

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 12:20	8/21/23 12:04		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/18/23 12:20	8/21/23 12:04		1.015	0.945	mg/L	0.070035	0.406		
* Iron, Total	8/18/23 12:20	8/21/23 12:04		1.015	0.0558	mg/L	0.008120	0.0406		
* Lithium, Total	8/18/23 12:20	8/21/23 12:04		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 12:20	8/21/23 12:04		1.015	0.981	mg/L	0.021315	0.406		
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:04		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:04		1	10.3	mg/L				
* Silicon, Total	8/18/23 12:20	8/21/23 12:04		1.015	4.82	mg/L	0.02030	0.25375		
* Sodium, Total	8/18/23 12:20	8/21/23 12:04		1.015	6.13	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/18/23 15:00	8/21/23 10:19		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Dissolved	8/18/23 15:00	8/21/23 10:19		1.015	0.960	mg/L	0.070035	0.406		
* Iron, Dissolved	8/18/23 15:00	8/21/23 10:19		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	8/18/23 15:00	8/21/23 10:19		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/18/23 15:00	8/21/23 10:19		1.015	1.01	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/18/23 15:00	8/21/23 10:19		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/18/23 15:00	8/21/23 10:19		1	10.2	mg/L				
* Silicon, Dissolved	8/18/23 15:00	8/21/23 10:19		1.015	4.76	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/18/23 15:00	8/21/23 10:19		1.015	6.12	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 12:20	8/18/23 14:58		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Arsenic, Total	8/18/23 12:20	8/18/23 14:58		1.015	0.000180	mg/L	0.000112	0.000203	J	
* Aluminum, Total	8/18/23 12:20	8/18/23 14:58		1.015	0.0733	mg/L	0.009135	0.05075		
* Barium, Total	8/18/23 12:20	8/18/23 14:58		1.015	0.0654	mg/L	0.000508	0.001015		
* Beryllium, Total	8/18/23 12:20	8/18/23 14:58		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 12:20	8/18/23 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 12:20	8/18/23 14:58		1.015	0.00163	mg/L	0.000203	0.001015		
* Cobalt, Total	8/18/23 12:20	8/18/23 14:58		1.015	0.00119	mg/L	0.000068	0.000203		
* Lead, Total	8/18/23 12:20	8/18/23 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/18/23 12:20	8/18/23 14:58		1.015	0.0119	mg/L	0.000152	0.001015		

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7 Dup

Location Code: WMWBARG
Collected: 8/15/23 10:00
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15856

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 14:58		1.015	0.923	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 14:58		1.015	0.000558	mg/L	0.000508	0.001015	J
* Thallium, Total	8/18/23 12:20	8/18/23 14:58		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	0.0112	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	0.0647	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	0.00128	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	0.00108	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	0.0115	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	0.874	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 15:00	8/21/23 10:17		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:05		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:31	8/18/23 11:31		1	0.843	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/25/23 09:15	8/25/23 12:03		1	3.24	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	33.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	3.24	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/25/23 09:15	8/25/23 12:03		1	4.17	SU		2	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-7 Dup

Location Code: WMWBARG
Collected: 8/15/23 10:00
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15856

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 10:04	8/18/23 10:04		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:20	8/18/23 10:20		1	7.73	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:19	8/18/23 14:19		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:54	8/23/23 12:54		1	3.79	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/15/23 09:56	8/15/23 09:56			49.25	uS/cm			FA
pH	8/15/23 09:56	8/15/23 09:56			4.56	SU			FA
Temperature	8/15/23 09:56	8/15/23 09:56			22.01	C			FA
Turbidity	8/15/23 09:56	8/15/23 09:56			8.99	NTU			FA
Sulfide	8/15/23 09:56	8/15/23 09:56			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 10:00
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: BD15856

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15863	Aluminum, Dissolved	mg/L	0.000280	0.0198	0.100	0.287	0.291	0.100	0.0850 to 0.115	95.0	70.0 to 130	1.38	20.0
BD15864	Aluminum, Total	mg/L	0.000751	0.0198	0.100	0.101	0.102	0.0997	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15863	Antimony, Dissolved	mg/L	0.000326	0.00100	0.100	0.0969	0.0942	0.0944	0.0850 to 0.115	96.9	70.0 to 130	2.83	20.0
BD15864	Antimony, Total	mg/L	0.000348	0.00100	0.100	0.0915	0.0942	0.0935	0.0850 to 0.115	91.5	70.0 to 130	2.91	20.0
BD15863	Arsenic, Dissolved	mg/L	0.0000213	0.000200	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15864	Arsenic, Total	mg/L	0.0000271	0.000200	0.100	0.0977	0.0983	0.100	0.0850 to 0.115	97.7	70.0 to 130	0.612	20.0
BD15863	Barium, Dissolved	mg/L	-0.0000082	0.00100	0.100	0.210	0.208	0.0965	0.0850 to 0.115	92.0	70.0 to 130	0.957	20.0
BD15864	Barium, Total	mg/L	0.0000114	0.00100	0.100	0.0978	0.100	0.0950	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BD15863	Beryllium, Dissolved	mg/L	0.0000399	0.000880	0.100	0.0941	0.0915	0.0934	0.0850 to 0.115	94.1	70.0 to 130	2.80	20.0
BD15864	Beryllium, Total	mg/L	0.0000287	0.000880	0.100	0.0977	0.0991	0.102	0.0850 to 0.115	97.7	70.0 to 130	1.42	20.0
BD15863	Boron, Dissolved	mg/L	-0.000227	0.0650	1.00	1.03	1.05	0.996	0.850 to 1.15	98.2	70.0 to 130	1.92	20.0
BD15864	Boron, Total	mg/L	-0.000105	0.0650	1.00	0.972	0.993	0.993	0.850 to 1.15	97.2	70.0 to 130	2.14	20.0
BD15863	Cadmium, Dissolved	mg/L	-0.0000002	0.000147	0.100	0.101	0.103	0.100	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15864	Cadmium, Total	mg/L	0.0000045	0.000147	0.100	0.0980	0.0943	0.0976	0.0850 to 0.115	98.0	70.0 to 130	3.85	20.0
BD15863	Calcium, Dissolved	mg/L	-0.0253	0.152	5.00	5.81	5.91	4.82	4.25 to 5.75	93.2	70.0 to 130	1.71	20.0
BD15864	Calcium, Total	mg/L	-0.0300	0.152	5.00	4.52	4.73	4.80	4.25 to 5.75	90.4	70.0 to 130	4.54	20.0
BD15864	Chloride	mg/L	0.0409	1.00	10.0	9.68	9.97	9.84	9.00 to 11.0	96.8	80.0 to 120	2.95	20.0
BD15863	Chromium, Dissolved	mg/L	-0.000114	0.000440	0.100	0.0993	0.101	0.101	0.0850 to 0.115	98.9	70.0 to 130	1.70	20.0
BD15864	Chromium, Total	mg/L	-0.0000369	0.000440	0.100	0.101	0.0994	0.0995	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15863	Cobalt, Dissolved	mg/L	-0.0000302	0.000147	0.100	0.103	0.105	0.103	0.0850 to 0.115	101	70.0 to 130	1.92	20.0
BD15864	Cobalt, Total	mg/L	0.0000056	0.000147	0.100	0.102	0.102	0.0998	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15864	Fluoride	mg/L	0.0413	0.125	2.50	2.48	2.56	2.56	2.25 to 2.75	99.2	80.0 to 120	3.17	20.0
BD15863	Iron, Dissolved	mg/L	0.000282	0.0176	0.2	0.196	0.197	0.197	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15864	Iron, Total	mg/L	0.000088	0.0176	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 10:00
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: BD15856

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15863	Lead, Dissolved	mg/L	0.0000041	0.000147	0.100	0.0948	0.0928	0.0949	0.0850 to 0.115	94.7	70.0 to 130	2.13	20.0
BD15864	Lead, Total	mg/L	0.0000056	0.000147	0.100	0.101	0.103	0.102	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15863	Lithium, Dissolved	mg/L	-0.000061	0.0154	0.200	0.196	0.201	0.194	0.170 to 0.230	98.0	70.0 to 130	2.52	20.0
BD15864	Lithium, Total	mg/L	0.000197	0.0154	0.200	0.197	0.200	0.198	0.170 to 0.230	98.5	70.0 to 130	1.51	20.0
BD15863	Magnesium, Dissolved	mg/L	-0.0445	0.0462	5.00	7.39	7.54	4.96	4.25 to 5.75	97.6	70.0 to 130	2.01	20.0
BD15864	Magnesium, Total	mg/L	-0.0339	0.0462	5.00	4.86	5.03	5.00	4.25 to 5.75	97.2	70.0 to 130	3.44	20.0
BD15863	Manganese, Dissolved	mg/L	-0.000208	0.00033	0.100	0.140	0.144	0.104	0.0850 to 0.115	99.7	70.0 to 130	2.82	20.0
BD15864	Manganese, Total	mg/L	-0.0000105	0.00033	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15863	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00406	0.00407	0.00378	0.00340 to 0.00460	102	70.0 to 130	0.246	20.0
BD15863	Molybdenum, Dissolved	mg/L	0.000170	0.0100	0.2	0.194	0.195	0.199	0.170 to 0.230	97.0	70.0 to 130	0.514	20.0
BD15864	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15863	Potassium, Dissolved	mg/L	-0.0187	0.367	10.0	10.8	11.0	10.3	8.50 to 11.5	99.5	70.0 to 130	1.83	20.0
BD15864	Potassium, Total	mg/L	0.00252	0.367	10.0	10.0	10.0	10.0	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BD15863	Selenium, Dissolved	mg/L	0.0000134	0.00100	0.100	0.102	0.100	0.100	0.0850 to 0.115	101	70.0 to 130	1.98	20.0
BD15864	Selenium, Total	mg/L	0.0000349	0.00100	0.100	0.0983	0.100	0.103	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BD15863	Silicon, Dissolved	mg/L	0.000660	0.0440	1.00	4.54	4.54	1.01	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15864	Silicon, Total	mg/L	0.000902	0.0440	1.00	0.983	1.00	1.01	0.850 to 1.15	98.3	70.0 to 130	1.71	20.0
BD15863	Sodium, Dissolved	mg/L	0.00161	0.0880	5.00	7.35	7.49	5.01	4.25 to 5.75	99.6	70.0 to 130	1.89	20.0
BD15864	Sodium, Total	mg/L	-0.000165	0.0880	5.00	5.02	5.08	5.06	4.25 to 5.75	100	70.0 to 130	1.19	20.0
BD15864	Sulfate	mg/L	0.366	2.0	20.0	20.4	20.0	20.6	18.0 to 22.0	98.8	80.0 to 120	1.98	20.0
BD15863	Thallium, Dissolved	mg/L	-0.0000019	0.000147	0.100	0.0956	0.0940	0.0971	0.0850 to 0.115	95.6	70.0 to 130	1.69	20.0
BD15864	Thallium, Total	mg/L	0.0000091	0.000147	0.100	0.0972	0.0974	0.0930	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BD15864	Total Organic Carbon	mg/L	0.168	1.00	10.0	9.31	10.3	24.8		93.1	80.0 to 120	10.1	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 10:00
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-7 Dup

Laboratory ID Number: BD15856

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15863	Alkalinity	mg CaCO3/L					0.775	51.2	45.0 to 55.0			0.643	10.0
BD15864	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.03	-0.083	1.96	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15859	Solids, Dissolved	mg/L	1.00	25.0			40.0	49.0	40.0 to 60.0			3.20	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 8/15/23 11:15
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15857

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: ABB		Preparation Method: EPA 1638				
* Boron, Total	8/18/23 12:20	8/21/23 12:08		1.015	0.0341	mg/L	0.030000	0.1015	J
* Calcium, Total	8/18/23 12:20	8/21/23 12:08		1.015	1.54	mg/L	0.070035	0.406	
* Iron, Total	8/18/23 12:20	8/21/23 12:08		1.015	0.0910	mg/L	0.008120	0.0406	
* Lithium, Total	8/18/23 12:20	8/21/23 12:08		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/18/23 12:20	8/21/23 12:08		1.015	1.78	mg/L	0.021315	0.406	
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:08		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:08		1	10.1	mg/L			
* Silicon, Total	8/18/23 12:20	8/21/23 12:08		1.015	4.74	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 12:20	8/21/23 12:08		1.015	5.52	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7			Analyst: ABB						
* Boron, Dissolved	8/18/23 15:00	8/21/23 10:22		1.015	0.0336	mg/L	0.030000	0.1015	J
* Calcium, Dissolved	8/18/23 15:00	8/21/23 10:22		1.015	1.60	mg/L	0.070035	0.406	
* Iron, Dissolved	8/18/23 15:00	8/21/23 10:22		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/18/23 15:00	8/21/23 10:22		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/18/23 15:00	8/21/23 10:22		1.015	1.83	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/18/23 15:00	8/21/23 10:22		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 15:00	8/21/23 10:22		1	9.91	mg/L			
* Silicon, Dissolved	8/18/23 15:00	8/21/23 10:22		1.015	4.63	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 15:00	8/21/23 10:22		1.015	5.54	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 12:20	8/18/23 15:01		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 12:20	8/18/23 15:01		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Aluminum, Total	8/18/23 12:20	8/18/23 15:01		1.015	0.365	mg/L	0.009135	0.05075	
* Barium, Total	8/18/23 12:20	8/18/23 15:01		1.015	0.109	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 12:20	8/18/23 15:01		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 12:20	8/18/23 15:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 12:20	8/18/23 15:01		1.015	0.00323	mg/L	0.000203	0.001015	
* Cobalt, Total	8/18/23 12:20	8/18/23 15:01		1.015	0.00184	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 12:20	8/18/23 15:01		1.015	0.000171	mg/L	0.000068	0.000203	J
* Manganese, Total	8/18/23 12:20	8/18/23 15:01		1.015	0.0169	mg/L	0.000152	0.001015	

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

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

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 8/15/23 11:15
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15857

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:01		1.015	1.43	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 15:01		1.015	0.00154	mg/L	0.000508	0.001015	
* Thallium, Total	8/18/23 12:20	8/18/23 15:01		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	0.0352	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	0.102	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	0.00244	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	0.00179	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	0.0170	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	1.41	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	0.00144	mg/L	0.000508	0.001015	
* Thallium, Dissolved	8/18/23 15:00	8/21/23 10:21		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:33	8/18/23 11:33		1	0.499	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/25/23 09:15	8/25/23 12:03		1	1.43	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	45.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	1.43	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/25/23 09:15	8/25/23 12:03		1	4.20	SU		2	

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

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

Certificate Of Analysis

Description: Barry Gypsum - PZ-11

Location Code: WMWBARG
Collected: 8/15/23 11:15
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15857

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 10:20	8/18/23 10:20		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:21	8/18/23 10:21		1	11.5	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:20	8/18/23 14:20		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:55	8/23/23 12:55		1	5.65	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/15/23 11:12	8/15/23 11:12			62.32	uS/cm			FA
pH	8/15/23 11:12	8/15/23 11:12			4.45	SU			FA
Temperature	8/15/23 11:12	8/15/23 11:12			22.99	C			FA
Turbidity	8/15/23 11:12	8/15/23 11:12			8.46	NTU			FA
Sulfide	8/15/23 11:12	8/15/23 11:12			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 11:15
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BD15857

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15863	Aluminum, Dissolved	mg/L	0.000280	0.0198	0.100	0.287	0.291	0.100	0.0850 to 0.115	95.0	70.0 to 130	1.38	20.0
BD15864	Aluminum, Total	mg/L	0.000751	0.0198	0.100	0.101	0.102	0.0997	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15863	Antimony, Dissolved	mg/L	0.000326	0.00100	0.100	0.0969	0.0942	0.0944	0.0850 to 0.115	96.9	70.0 to 130	2.83	20.0
BD15864	Antimony, Total	mg/L	0.000348	0.00100	0.100	0.0915	0.0942	0.0935	0.0850 to 0.115	91.5	70.0 to 130	2.91	20.0
BD15863	Arsenic, Dissolved	mg/L	0.0000213	0.000200	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15864	Arsenic, Total	mg/L	0.0000271	0.000200	0.100	0.0977	0.0983	0.100	0.0850 to 0.115	97.7	70.0 to 130	0.612	20.0
BD15863	Barium, Dissolved	mg/L	-0.0000082	0.00100	0.100	0.210	0.208	0.0965	0.0850 to 0.115	92.0	70.0 to 130	0.957	20.0
BD15864	Barium, Total	mg/L	0.0000114	0.00100	0.100	0.0978	0.100	0.0950	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BD15863	Beryllium, Dissolved	mg/L	0.0000399	0.000880	0.100	0.0941	0.0915	0.0934	0.0850 to 0.115	94.1	70.0 to 130	2.80	20.0
BD15864	Beryllium, Total	mg/L	0.0000287	0.000880	0.100	0.0977	0.0991	0.102	0.0850 to 0.115	97.7	70.0 to 130	1.42	20.0
BD15863	Boron, Dissolved	mg/L	-0.000227	0.0650	1.00	1.03	1.05	0.996	0.850 to 1.15	98.2	70.0 to 130	1.92	20.0
BD15864	Boron, Total	mg/L	-0.000105	0.0650	1.00	0.972	0.993	0.993	0.850 to 1.15	97.2	70.0 to 130	2.14	20.0
BD15863	Cadmium, Dissolved	mg/L	-0.0000002	0.000147	0.100	0.101	0.103	0.100	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15864	Cadmium, Total	mg/L	0.0000045	0.000147	0.100	0.0980	0.0943	0.0976	0.0850 to 0.115	98.0	70.0 to 130	3.85	20.0
BD15863	Calcium, Dissolved	mg/L	-0.0253	0.152	5.00	5.81	5.91	4.82	4.25 to 5.75	93.2	70.0 to 130	1.71	20.0
BD15864	Calcium, Total	mg/L	-0.0300	0.152	5.00	4.52	4.73	4.80	4.25 to 5.75	90.4	70.0 to 130	4.54	20.0
BD15864	Chloride	mg/L	0.0409	1.00	10.0	9.68	9.97	9.84	9.00 to 11.0	96.8	80.0 to 120	2.95	20.0
BD15863	Chromium, Dissolved	mg/L	-0.000114	0.000440	0.100	0.0993	0.101	0.101	0.0850 to 0.115	98.9	70.0 to 130	1.70	20.0
BD15864	Chromium, Total	mg/L	-0.0000369	0.000440	0.100	0.101	0.0994	0.0995	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15863	Cobalt, Dissolved	mg/L	-0.0000302	0.000147	0.100	0.103	0.105	0.103	0.0850 to 0.115	101	70.0 to 130	1.92	20.0
BD15864	Cobalt, Total	mg/L	0.0000056	0.000147	0.100	0.102	0.102	0.0998	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15864	Fluoride	mg/L	0.0413	0.125	2.50	2.48	2.56	2.56	2.25 to 2.75	99.2	80.0 to 120	3.17	20.0
BD15863	Iron, Dissolved	mg/L	0.000282	0.0176	0.2	0.196	0.197	0.197	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15864	Iron, Total	mg/L	0.000088	0.0176	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 11:15
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BD15857

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15863	Lead, Dissolved	mg/L	0.0000041	0.000147	0.100	0.0948	0.0928	0.0949	0.0850 to 0.115	94.7	70.0 to 130	2.13	20.0
BD15864	Lead, Total	mg/L	0.0000056	0.000147	0.100	0.101	0.103	0.102	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15863	Lithium, Dissolved	mg/L	-0.000061	0.0154	0.200	0.196	0.201	0.194	0.170 to 0.230	98.0	70.0 to 130	2.52	20.0
BD15864	Lithium, Total	mg/L	0.000197	0.0154	0.200	0.197	0.200	0.198	0.170 to 0.230	98.5	70.0 to 130	1.51	20.0
BD15863	Magnesium, Dissolved	mg/L	-0.0445	0.0462	5.00	7.39	7.54	4.96	4.25 to 5.75	97.6	70.0 to 130	2.01	20.0
BD15864	Magnesium, Total	mg/L	-0.0339	0.0462	5.00	4.86	5.03	5.00	4.25 to 5.75	97.2	70.0 to 130	3.44	20.0
BD15863	Manganese, Dissolved	mg/L	-0.000208	0.00033	0.100	0.140	0.144	0.104	0.0850 to 0.115	99.7	70.0 to 130	2.82	20.0
BD15864	Manganese, Total	mg/L	-0.0000105	0.00033	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15863	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00406	0.00407	0.00378	0.00340 to 0.00460	102	70.0 to 130	0.246	20.0
BD15863	Molybdenum, Dissolved	mg/L	0.000170	0.0100	0.2	0.194	0.195	0.199	0.170 to 0.230	97.0	70.0 to 130	0.514	20.0
BD15864	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15863	Potassium, Dissolved	mg/L	-0.0187	0.367	10.0	10.8	11.0	10.3	8.50 to 11.5	99.5	70.0 to 130	1.83	20.0
BD15864	Potassium, Total	mg/L	0.00252	0.367	10.0	10.0	10.0	10.0	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BD15863	Selenium, Dissolved	mg/L	0.0000134	0.00100	0.100	0.102	0.100	0.100	0.0850 to 0.115	101	70.0 to 130	1.98	20.0
BD15864	Selenium, Total	mg/L	0.0000349	0.00100	0.100	0.0983	0.100	0.103	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BD15863	Silicon, Dissolved	mg/L	0.000660	0.0440	1.00	4.54	4.54	1.01	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15864	Silicon, Total	mg/L	0.000902	0.0440	1.00	0.983	1.00	1.01	0.850 to 1.15	98.3	70.0 to 130	1.71	20.0
BD15863	Sodium, Dissolved	mg/L	0.00161	0.0880	5.00	7.35	7.49	5.01	4.25 to 5.75	99.6	70.0 to 130	1.89	20.0
BD15864	Sodium, Total	mg/L	-0.000165	0.0880	5.00	5.02	5.08	5.06	4.25 to 5.75	100	70.0 to 130	1.19	20.0
BD15864	Sulfate	mg/L	0.366	2.0	20.0	20.4	20.0	20.6	18.0 to 22.0	98.8	80.0 to 120	1.98	20.0
BD15863	Thallium, Dissolved	mg/L	-0.0000019	0.000147	0.100	0.0956	0.0940	0.0971	0.0850 to 0.115	95.6	70.0 to 130	1.69	20.0
BD15864	Thallium, Total	mg/L	0.0000091	0.000147	0.100	0.0972	0.0974	0.0930	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BD15864	Total Organic Carbon	mg/L	0.168	1.00	10.0	9.31	10.3	24.8		93.1	80.0 to 120	10.1	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 11:15
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - PZ-11

Laboratory ID Number: BD15857

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15863	Alkalinity	mg CaCO3/L					0.775	51.2	45.0 to 55.0			0.643	10.0
BD15864	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.03	-0.083	1.96	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15859	Solids, Dissolved	mg/L	1.00	25.0			40.0	49.0	40.0 to 60.0			3.20	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 8/15/23 12:10
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15858

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 12:20	8/21/23 12:11		1.015	0.600	mg/L	0.030000	0.1015	
* Calcium, Total	8/18/23 12:20	8/21/23 12:11		1.015	7.55	mg/L	0.070035	0.406	
* Iron, Total	8/18/23 12:20	8/21/23 12:11		1.015	0.384	mg/L	0.008120	0.0406	
* Lithium, Total	8/18/23 12:20	8/21/23 12:11		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/18/23 12:20	8/21/23 12:11		1.015	6.52	mg/L	0.021315	0.406	
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:11		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:11		1	10.3	mg/L			
* Silicon, Total	8/18/23 12:20	8/21/23 12:11		1.015	4.83	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 12:20	8/21/23 12:11		1.015	3.53	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 15:00	8/21/23 10:26		1.015	0.597	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/18/23 15:00	8/21/23 10:26		1.015	7.81	mg/L	0.070035	0.406	
* Iron, Dissolved	8/18/23 15:00	8/21/23 10:26		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/18/23 15:00	8/21/23 10:26		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/18/23 15:00	8/21/23 10:26		1.015	6.63	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/18/23 15:00	8/21/23 10:26		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 15:00	8/21/23 10:26		1	9.69	mg/L			
* Silicon, Dissolved	8/18/23 15:00	8/21/23 10:26		1.015	4.53	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 15:00	8/21/23 10:26		1.015	3.57	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 12:20	8/18/23 15:05		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 12:20	8/18/23 15:05		1.015	0.939	mg/L	0.009135	0.05075	
* Arsenic, Total	8/18/23 12:20	8/18/23 15:05		1.015	0.000632	mg/L	0.000112	0.000203	
* Barium, Total	8/18/23 12:20	8/18/23 15:05		1.015	0.195	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 12:20	8/18/23 15:05		1.015	0.000592	mg/L	0.000406	0.001015	J
* Cadmium, Total	8/18/23 12:20	8/18/23 15:05		1.015	0.000125	mg/L	0.000068	0.000203	J
* Chromium, Total	8/18/23 12:20	8/18/23 15:05		1.015	0.00467	mg/L	0.000203	0.001015	
* Cobalt, Total	8/18/23 12:20	8/18/23 15:05		1.015	0.00804	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 12:20	8/18/23 15:05		1.015	0.000377	mg/L	0.000068	0.000203	
* Manganese, Total	8/18/23 12:20	8/18/23 15:05		1.015	0.0922	mg/L	0.000152	0.001015	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 8/15/23 12:10
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15858

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:05		1.015	1.29	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 15:05		1.015	0.0162	mg/L	0.000508	0.001015	
* Thallium, Total	8/18/23 12:20	8/18/23 15:05		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	0.158	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	0.000351	mg/L	0.000112	0.000203	
* Barium, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	0.186	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	0.000478	mg/L	0.000406	0.001015	J
* Cadmium, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	0.000126	mg/L	0.000068	0.000203	J
* Chromium, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	0.00339	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	0.00492	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	0.0666	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	1.24	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	0.0166	mg/L	0.000508	0.001015	
* Thallium, Dissolved	8/18/23 15:00	8/21/23 10:24		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:35	8/18/23 11:35		1	1.00	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/25/23 09:15	8/25/23 12:03		1	2.69	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	84.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	2.69	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/25/23 09:15	8/25/23 12:03		1	4.21	SU		2	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 8/15/23 12:10
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15858

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 10:33	8/18/23 10:33		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:22	8/18/23 10:22		1	5.49	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:22	8/18/23 14:22		1	0.0957	mg/L	0.06	0.125	J
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:56	8/23/23 12:56		1	38.2	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/15/23 12:07	8/15/23 12:07			123.07	uS/cm			FA
pH	8/15/23 12:07	8/15/23 12:07			4.33	SU			FA
Temperature	8/15/23 12:07	8/15/23 12:07			23.77	C			FA
Turbidity	8/15/23 12:07	8/15/23 12:07			7.05	NTU			FA
Sulfide	8/15/23 12:07	8/15/23 12:07			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 12:10
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-6

Laboratory ID Number: BD15858

Sample	Analysis	Units	MB	MB				Standard		Rec			Prec Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit	Prec	
BD15863	Aluminum, Dissolved	mg/L	0.000280	0.0198	0.100	0.287	0.291	0.100	0.0850 to 0.115	95.0	70.0 to 130	1.38	20.0
BD15864	Aluminum, Total	mg/L	0.000751	0.0198	0.100	0.101	0.102	0.0997	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15863	Antimony, Dissolved	mg/L	0.000326	0.00100	0.100	0.0969	0.0942	0.0944	0.0850 to 0.115	96.9	70.0 to 130	2.83	20.0
BD15864	Antimony, Total	mg/L	0.000348	0.00100	0.100	0.0915	0.0942	0.0935	0.0850 to 0.115	91.5	70.0 to 130	2.91	20.0
BD15863	Arsenic, Dissolved	mg/L	0.0000213	0.000200	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15864	Arsenic, Total	mg/L	0.0000271	0.000200	0.100	0.0977	0.0983	0.100	0.0850 to 0.115	97.7	70.0 to 130	0.612	20.0
BD15863	Barium, Dissolved	mg/L	-0.0000082	0.00100	0.100	0.210	0.208	0.0965	0.0850 to 0.115	92.0	70.0 to 130	0.957	20.0
BD15864	Barium, Total	mg/L	0.0000114	0.00100	0.100	0.0978	0.100	0.0950	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BD15863	Beryllium, Dissolved	mg/L	0.0000399	0.000880	0.100	0.0941	0.0915	0.0934	0.0850 to 0.115	94.1	70.0 to 130	2.80	20.0
BD15864	Beryllium, Total	mg/L	0.0000287	0.000880	0.100	0.0977	0.0991	0.102	0.0850 to 0.115	97.7	70.0 to 130	1.42	20.0
BD15863	Boron, Dissolved	mg/L	-0.000227	0.0650	1.00	1.03	1.05	0.996	0.850 to 1.15	98.2	70.0 to 130	1.92	20.0
BD15864	Boron, Total	mg/L	-0.000105	0.0650	1.00	0.972	0.993	0.993	0.850 to 1.15	97.2	70.0 to 130	2.14	20.0
BD15863	Cadmium, Dissolved	mg/L	-0.0000002	0.000147	0.100	0.101	0.103	0.100	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15864	Cadmium, Total	mg/L	0.0000045	0.000147	0.100	0.0980	0.0943	0.0976	0.0850 to 0.115	98.0	70.0 to 130	3.85	20.0
BD15863	Calcium, Dissolved	mg/L	-0.0253	0.152	5.00	5.81	5.91	4.82	4.25 to 5.75	93.2	70.0 to 130	1.71	20.0
BD15864	Calcium, Total	mg/L	-0.0300	0.152	5.00	4.52	4.73	4.80	4.25 to 5.75	90.4	70.0 to 130	4.54	20.0
BD15864	Chloride	mg/L	0.0409	1.00	10.0	9.68	9.97	9.84	9.00 to 11.0	96.8	80.0 to 120	2.95	20.0
BD15863	Chromium, Dissolved	mg/L	-0.000114	0.000440	0.100	0.0993	0.101	0.101	0.0850 to 0.115	98.9	70.0 to 130	1.70	20.0
BD15864	Chromium, Total	mg/L	-0.0000369	0.000440	0.100	0.101	0.0994	0.0995	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15863	Cobalt, Dissolved	mg/L	-0.0000302	0.000147	0.100	0.103	0.105	0.103	0.0850 to 0.115	101	70.0 to 130	1.92	20.0
BD15864	Cobalt, Total	mg/L	0.0000056	0.000147	0.100	0.102	0.102	0.0998	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15864	Fluoride	mg/L	0.0413	0.125	2.50	2.48	2.56	2.56	2.25 to 2.75	99.2	80.0 to 120	3.17	20.0
BD15863	Iron, Dissolved	mg/L	0.000282	0.0176	0.2	0.196	0.197	0.197	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15864	Iron, Total	mg/L	0.000088	0.0176	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 12:10
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-6

Laboratory ID Number: BD15858

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15863	Lead, Dissolved	mg/L	0.0000041	0.000147	0.100	0.0948	0.0928	0.0949	0.0850 to 0.115	94.7	70.0 to 130	2.13	20.0
BD15864	Lead, Total	mg/L	0.0000056	0.000147	0.100	0.101	0.103	0.102	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15863	Lithium, Dissolved	mg/L	-0.000061	0.0154	0.200	0.196	0.201	0.194	0.170 to 0.230	98.0	70.0 to 130	2.52	20.0
BD15864	Lithium, Total	mg/L	0.000197	0.0154	0.200	0.197	0.200	0.198	0.170 to 0.230	98.5	70.0 to 130	1.51	20.0
BD15863	Magnesium, Dissolved	mg/L	-0.0445	0.0462	5.00	7.39	7.54	4.96	4.25 to 5.75	97.6	70.0 to 130	2.01	20.0
BD15864	Magnesium, Total	mg/L	-0.0339	0.0462	5.00	4.86	5.03	5.00	4.25 to 5.75	97.2	70.0 to 130	3.44	20.0
BD15863	Manganese, Dissolved	mg/L	-0.000208	0.00033	0.100	0.140	0.144	0.104	0.0850 to 0.115	99.7	70.0 to 130	2.82	20.0
BD15864	Manganese, Total	mg/L	-0.0000105	0.00033	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15863	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00406	0.00407	0.00378	0.00340 to 0.00460	102	70.0 to 130	0.246	20.0
BD15863	Molybdenum, Dissolved	mg/L	0.000170	0.0100	0.2	0.194	0.195	0.199	0.170 to 0.230	97.0	70.0 to 130	0.514	20.0
BD15864	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15863	Potassium, Dissolved	mg/L	-0.0187	0.367	10.0	10.8	11.0	10.3	8.50 to 11.5	99.5	70.0 to 130	1.83	20.0
BD15864	Potassium, Total	mg/L	0.00252	0.367	10.0	10.0	10.0	10.0	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BD15863	Selenium, Dissolved	mg/L	0.0000134	0.00100	0.100	0.102	0.100	0.100	0.0850 to 0.115	101	70.0 to 130	1.98	20.0
BD15864	Selenium, Total	mg/L	0.0000349	0.00100	0.100	0.0983	0.100	0.103	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BD15863	Silicon, Dissolved	mg/L	0.000660	0.0440	1.00	4.54	4.54	1.01	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15864	Silicon, Total	mg/L	0.000902	0.0440	1.00	0.983	1.00	1.01	0.850 to 1.15	98.3	70.0 to 130	1.71	20.0
BD15863	Sodium, Dissolved	mg/L	0.00161	0.0880	5.00	7.35	7.49	5.01	4.25 to 5.75	99.6	70.0 to 130	1.89	20.0
BD15864	Sodium, Total	mg/L	-0.000165	0.0880	5.00	5.02	5.08	5.06	4.25 to 5.75	100	70.0 to 130	1.19	20.0
BD15864	Sulfate	mg/L	0.366	2.0	20.0	20.4	20.0	20.6	18.0 to 22.0	98.8	80.0 to 120	1.98	20.0
BD15863	Thallium, Dissolved	mg/L	-0.0000019	0.000147	0.100	0.0956	0.0940	0.0971	0.0850 to 0.115	95.6	70.0 to 130	1.69	20.0
BD15864	Thallium, Total	mg/L	0.0000091	0.000147	0.100	0.0972	0.0974	0.0930	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BD15864	Total Organic Carbon	mg/L	0.168	1.00	10.0	9.31	10.3	24.8		93.1	80.0 to 120	10.1	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 12:10
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-6

Laboratory ID Number: BD15858

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15863	Alkalinity	mg CaCO3/L					0.775	51.2	45.0 to 55.0			0.643	10.0
BD15864	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.03	-0.083	1.96	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15859	Solids, Dissolved	mg/L	1.00	25.0			40.0	49.0	40.0 to 60.0			3.20	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 8/15/23 12:55
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15859

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 12:20	8/21/23 12:14		1.015	0.143	mg/L	0.030000	0.1015	
* Calcium, Total	8/18/23 12:20	8/21/23 12:14		1.015	2.46	mg/L	0.070035	0.406	
* Iron, Total	8/18/23 12:20	8/21/23 12:14		1.015	0.00901	mg/L	0.008120	0.0406	J
* Lithium, Total	8/18/23 12:20	8/21/23 12:14		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/18/23 12:20	8/21/23 12:14		1.015	2.14	mg/L	0.021315	0.406	
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:14		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:14		1	9.05	mg/L			
* Silicon, Total	8/18/23 12:20	8/21/23 12:14		1.015	4.23	mg/L	0.02030	0.25375	
* Sodium, Total	8/18/23 12:20	8/21/23 12:14		1.015	2.96	mg/L	0.04060	0.406	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Dissolved	8/18/23 15:00	8/21/23 10:29		1.015	0.148	mg/L	0.030000	0.1015	
* Calcium, Dissolved	8/18/23 15:00	8/21/23 10:29		1.015	2.56	mg/L	0.070035	0.406	
* Iron, Dissolved	8/18/23 15:00	8/21/23 10:29		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Dissolved	8/18/23 15:00	8/21/23 10:29		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Dissolved	8/18/23 15:00	8/21/23 10:29		1.015	2.13	mg/L	0.021315	0.406	
* Molybdenum, Dissolved	8/18/23 15:00	8/21/23 10:29		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Dissolved (calc.)	8/18/23 15:00	8/21/23 10:29		1	9.16	mg/L			
* Silicon, Dissolved	8/18/23 15:00	8/21/23 10:29		1.015	4.28	mg/L	0.02030	0.25375	
* Sodium, Dissolved	8/18/23 15:00	8/21/23 10:29		1.015	2.88	mg/L	0.04060	0.406	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 12:20	8/18/23 15:08		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Arsenic, Total	8/18/23 12:20	8/18/23 15:08		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Aluminum, Total	8/18/23 12:20	8/18/23 15:08		1.015	0.0516	mg/L	0.009135	0.05075	
* Barium, Total	8/18/23 12:20	8/18/23 15:08		1.015	0.0930	mg/L	0.000508	0.001015	
* Beryllium, Total	8/18/23 12:20	8/18/23 15:08		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 12:20	8/18/23 15:08		1.015	0.0000795	mg/L	0.000068	0.000203	J
* Chromium, Total	8/18/23 12:20	8/18/23 15:08		1.015	0.00155	mg/L	0.000203	0.001015	
* Cobalt, Total	8/18/23 12:20	8/18/23 15:08		1.015	0.00170	mg/L	0.000068	0.000203	
* Lead, Total	8/18/23 12:20	8/18/23 15:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 12:20	8/18/23 15:08		1.015	0.0180	mg/L	0.000152	0.001015	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 8/15/23 12:55
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15859

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:08		1.015	1.06	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 15:08		1.015	0.00465	mg/L	0.000508	0.001015	
* Thallium, Total	8/18/23 12:20	8/18/23 15:08		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	0.0436	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	0.0890	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	0.00137	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	0.00168	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	0.0182	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	1.07	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	0.00480	mg/L	0.000508	0.001015	
* Thallium, Dissolved	8/18/23 15:00	8/21/23 10:28		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:17		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:37	8/18/23 11:37		1	0.710	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/25/23 09:15	8/25/23 12:03		1	0.55	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	41.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	Not Detected	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/25/23 09:15	8/25/23 12:03		1	4.20	SU		2	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 8/15/23 12:55
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15859

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 10:45	8/18/23 10:45		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:24	8/18/23 10:24		1	3.72	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:23	8/18/23 14:23		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:57	8/23/23 12:57		1	11.9	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/15/23 12:53	8/15/23 12:53			55.28	uS/cm			FA
pH	8/15/23 12:53	8/15/23 12:53			4.10	SU			FA
Temperature	8/15/23 12:53	8/15/23 12:53			23.43	C			FA
Turbidity	8/15/23 12:53	8/15/23 12:53			1.65	NTU			FA
Sulfide	8/15/23 12:53	8/15/23 12:53			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 12:55
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-5

Laboratory ID Number: BD15859

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15863	Aluminum, Dissolved	mg/L	0.000280	0.0198	0.100	0.287	0.291	0.100	0.0850 to 0.115	95.0	70.0 to 130	1.38	20.0
BD15864	Aluminum, Total	mg/L	0.000751	0.0198	0.100	0.101	0.102	0.0997	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15863	Antimony, Dissolved	mg/L	0.000326	0.00100	0.100	0.0969	0.0942	0.0944	0.0850 to 0.115	96.9	70.0 to 130	2.83	20.0
BD15864	Antimony, Total	mg/L	0.000348	0.00100	0.100	0.0915	0.0942	0.0935	0.0850 to 0.115	91.5	70.0 to 130	2.91	20.0
BD15863	Arsenic, Dissolved	mg/L	0.0000213	0.000200	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15864	Arsenic, Total	mg/L	0.0000271	0.000200	0.100	0.0977	0.0983	0.100	0.0850 to 0.115	97.7	70.0 to 130	0.612	20.0
BD15863	Barium, Dissolved	mg/L	-0.0000082	0.00100	0.100	0.210	0.208	0.0965	0.0850 to 0.115	92.0	70.0 to 130	0.957	20.0
BD15864	Barium, Total	mg/L	0.0000114	0.00100	0.100	0.0978	0.100	0.0950	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BD15863	Beryllium, Dissolved	mg/L	0.0000399	0.000880	0.100	0.0941	0.0915	0.0934	0.0850 to 0.115	94.1	70.0 to 130	2.80	20.0
BD15864	Beryllium, Total	mg/L	0.0000287	0.000880	0.100	0.0977	0.0991	0.102	0.0850 to 0.115	97.7	70.0 to 130	1.42	20.0
BD15863	Boron, Dissolved	mg/L	-0.000227	0.0650	1.00	1.03	1.05	0.996	0.850 to 1.15	98.2	70.0 to 130	1.92	20.0
BD15864	Boron, Total	mg/L	-0.000105	0.0650	1.00	0.972	0.993	0.993	0.850 to 1.15	97.2	70.0 to 130	2.14	20.0
BD15863	Cadmium, Dissolved	mg/L	-0.0000002	0.000147	0.100	0.101	0.103	0.100	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15864	Cadmium, Total	mg/L	0.0000045	0.000147	0.100	0.0980	0.0943	0.0976	0.0850 to 0.115	98.0	70.0 to 130	3.85	20.0
BD15863	Calcium, Dissolved	mg/L	-0.0253	0.152	5.00	5.81	5.91	4.82	4.25 to 5.75	93.2	70.0 to 130	1.71	20.0
BD15864	Calcium, Total	mg/L	-0.0300	0.152	5.00	4.52	4.73	4.80	4.25 to 5.75	90.4	70.0 to 130	4.54	20.0
BD15864	Chloride	mg/L	0.0409	1.00	10.0	9.68	9.97	9.84	9.00 to 11.0	96.8	80.0 to 120	2.95	20.0
BD15863	Chromium, Dissolved	mg/L	-0.000114	0.000440	0.100	0.0993	0.101	0.101	0.0850 to 0.115	98.9	70.0 to 130	1.70	20.0
BD15864	Chromium, Total	mg/L	-0.0000369	0.000440	0.100	0.101	0.0994	0.0995	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15863	Cobalt, Dissolved	mg/L	-0.0000302	0.000147	0.100	0.103	0.105	0.103	0.0850 to 0.115	101	70.0 to 130	1.92	20.0
BD15864	Cobalt, Total	mg/L	0.0000056	0.000147	0.100	0.102	0.102	0.0998	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15864	Fluoride	mg/L	0.0413	0.125	2.50	2.48	2.56	2.56	2.25 to 2.75	99.2	80.0 to 120	3.17	20.0
BD15863	Iron, Dissolved	mg/L	0.000282	0.0176	0.2	0.196	0.197	0.197	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15864	Iron, Total	mg/L	0.000088	0.0176	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 12:55
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-5

Laboratory ID Number: BD15859

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15863	Lead, Dissolved	mg/L	0.0000041	0.000147	0.100	0.0948	0.0928	0.0949	0.0850 to 0.115	94.7	70.0 to 130	2.13	20.0
BD15864	Lead, Total	mg/L	0.0000056	0.000147	0.100	0.101	0.103	0.102	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15863	Lithium, Dissolved	mg/L	-0.000061	0.0154	0.200	0.196	0.201	0.194	0.170 to 0.230	98.0	70.0 to 130	2.52	20.0
BD15864	Lithium, Total	mg/L	0.000197	0.0154	0.200	0.197	0.200	0.198	0.170 to 0.230	98.5	70.0 to 130	1.51	20.0
BD15863	Magnesium, Dissolved	mg/L	-0.0445	0.0462	5.00	7.39	7.54	4.96	4.25 to 5.75	97.6	70.0 to 130	2.01	20.0
BD15864	Magnesium, Total	mg/L	-0.0339	0.0462	5.00	4.86	5.03	5.00	4.25 to 5.75	97.2	70.0 to 130	3.44	20.0
BD15863	Manganese, Dissolved	mg/L	-0.000208	0.00033	0.100	0.140	0.144	0.104	0.0850 to 0.115	99.7	70.0 to 130	2.82	20.0
BD15864	Manganese, Total	mg/L	-0.0000105	0.00033	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15863	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00406	0.00407	0.00378	0.00340 to 0.00460	102	70.0 to 130	0.246	20.0
BD15863	Molybdenum, Dissolved	mg/L	0.000170	0.0100	0.2	0.194	0.195	0.199	0.170 to 0.230	97.0	70.0 to 130	0.514	20.0
BD15864	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15863	Potassium, Dissolved	mg/L	-0.0187	0.367	10.0	10.8	11.0	10.3	8.50 to 11.5	99.5	70.0 to 130	1.83	20.0
BD15864	Potassium, Total	mg/L	0.00252	0.367	10.0	10.0	10.0	10.0	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BD15863	Selenium, Dissolved	mg/L	0.0000134	0.00100	0.100	0.102	0.100	0.100	0.0850 to 0.115	101	70.0 to 130	1.98	20.0
BD15864	Selenium, Total	mg/L	0.0000349	0.00100	0.100	0.0983	0.100	0.103	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BD15863	Silicon, Dissolved	mg/L	0.000660	0.0440	1.00	4.54	4.54	1.01	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15864	Silicon, Total	mg/L	0.000902	0.0440	1.00	0.983	1.00	1.01	0.850 to 1.15	98.3	70.0 to 130	1.71	20.0
BD15863	Sodium, Dissolved	mg/L	0.00161	0.0880	5.00	7.35	7.49	5.01	4.25 to 5.75	99.6	70.0 to 130	1.89	20.0
BD15864	Sodium, Total	mg/L	-0.000165	0.0880	5.00	5.02	5.08	5.06	4.25 to 5.75	100	70.0 to 130	1.19	20.0
BD15864	Sulfate	mg/L	0.366	2.0	20.0	20.4	20.0	20.6	18.0 to 22.0	98.8	80.0 to 120	1.98	20.0
BD15863	Thallium, Dissolved	mg/L	-0.0000019	0.000147	0.100	0.0956	0.0940	0.0971	0.0850 to 0.115	95.6	70.0 to 130	1.69	20.0
BD15864	Thallium, Total	mg/L	0.0000091	0.000147	0.100	0.0972	0.0974	0.0930	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BD15864	Total Organic Carbon	mg/L	0.168	1.00	10.0	9.31	10.3	24.8		93.1	80.0 to 120	10.1	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 12:55
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-5

Laboratory ID Number: BD15859

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15863	Alkalinity	mg CaCO3/L					0.775	51.2	45.0 to 55.0			0.643	10.0
BD15864	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.03	-0.083	1.96	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15859	Solids, Dissolved	mg/L	1.00	25.0			40.0	49.0	40.0 to 60.0			3.20	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 8/15/23 13:57
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15860

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 12:20	8/21/23 12:17		1.015	0.0400	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/18/23 12:20	8/21/23 12:17		1.015	0.903	mg/L	0.070035	0.406		
* Iron, Total	8/18/23 12:20	8/21/23 12:17		1.015	0.0687	mg/L	0.008120	0.0406		
* Lithium, Total	8/18/23 12:20	8/21/23 12:17		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 12:20	8/21/23 12:17		1.015	1.06	mg/L	0.021315	0.406		
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:17		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:17		1	11.1	mg/L				
* Silicon, Total	8/18/23 12:20	8/21/23 12:17		1.015	5.20	mg/L	0.02030	0.25375		
* Sodium, Total	8/18/23 12:20	8/21/23 12:17		1.015	4.65	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/18/23 15:00	8/21/23 10:32		1.015	0.0369	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	8/18/23 15:00	8/21/23 10:32		1.015	0.940	mg/L	0.070035	0.406		
* Iron, Dissolved	8/18/23 15:00	8/21/23 10:32		1.015	0.0458	mg/L	0.008120	0.0406		
* Lithium, Dissolved	8/18/23 15:00	8/21/23 10:32		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/18/23 15:00	8/21/23 10:32		1.015	1.06	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/18/23 15:00	8/21/23 10:32		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/18/23 15:00	8/21/23 10:32		1	11.1	mg/L				
* Silicon, Dissolved	8/18/23 15:00	8/21/23 10:32		1.015	5.17	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/18/23 15:00	8/21/23 10:32		1.015	4.69	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.0464	mg/L	0.009135	0.05075	J	
* Arsenic, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.0486	mg/L	0.000508	0.001015		
* Beryllium, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.00228	mg/L	0.000203	0.001015		
* Cobalt, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.000504	mg/L	0.000068	0.000203		
* Lead, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.000109	mg/L	0.000068	0.000203	J	
* Manganese, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.0203	mg/L	0.000152	0.001015		

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 8/15/23 13:57
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15860

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:12		1.015	0.907	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 12:20	8/18/23 15:12		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	0.0119	mg/L	0.009135	0.05075	J
* Arsenic, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	0.0467	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	0.00190	mg/L	0.000203	0.001015	
* Cobalt, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	0.000410	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	0.0173	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	0.912	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Dissolved	8/18/23 15:00	8/21/23 10:31		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:21		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:39	8/18/23 11:39		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/25/23 09:15	8/25/23 12:03		1	4.79	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	34.0	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	4.79	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/25/23 09:15	8/25/23 12:03		1	4.16	SU		2	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 8/15/23 13:57
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15860

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 10:59	8/18/23 10:59		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:25	8/18/23 10:25		1	4.57	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:24	8/18/23 14:24		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 12:59	8/23/23 12:59		1	5.94	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/15/23 13:54	8/15/23 13:54			41.02	uS/cm			FA
pH	8/15/23 13:54	8/15/23 13:54			4.45	SU			FA
Temperature	8/15/23 13:54	8/15/23 13:54			22.85	C			FA
Turbidity	8/15/23 13:54	8/15/23 13:54			4.17	NTU			FA
Sulfide	8/15/23 13:54	8/15/23 13:54			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 13:57
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-8

Laboratory ID Number: BD15860

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15863	Aluminum, Dissolved	mg/L	0.000280	0.0198	0.100	0.287	0.291	0.100	0.0850 to 0.115	95.0	70.0 to 130	1.38	20.0
BD15864	Aluminum, Total	mg/L	0.000751	0.0198	0.100	0.101	0.102	0.0997	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15863	Antimony, Dissolved	mg/L	0.000326	0.00100	0.100	0.0969	0.0942	0.0944	0.0850 to 0.115	96.9	70.0 to 130	2.83	20.0
BD15864	Antimony, Total	mg/L	0.000348	0.00100	0.100	0.0915	0.0942	0.0935	0.0850 to 0.115	91.5	70.0 to 130	2.91	20.0
BD15863	Arsenic, Dissolved	mg/L	0.0000213	0.000200	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15864	Arsenic, Total	mg/L	0.0000271	0.000200	0.100	0.0977	0.0983	0.100	0.0850 to 0.115	97.7	70.0 to 130	0.612	20.0
BD15863	Barium, Dissolved	mg/L	-0.0000082	0.00100	0.100	0.210	0.208	0.0965	0.0850 to 0.115	92.0	70.0 to 130	0.957	20.0
BD15864	Barium, Total	mg/L	0.0000114	0.00100	0.100	0.0978	0.100	0.0950	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BD15863	Beryllium, Dissolved	mg/L	0.0000399	0.000880	0.100	0.0941	0.0915	0.0934	0.0850 to 0.115	94.1	70.0 to 130	2.80	20.0
BD15864	Beryllium, Total	mg/L	0.0000287	0.000880	0.100	0.0977	0.0991	0.102	0.0850 to 0.115	97.7	70.0 to 130	1.42	20.0
BD15863	Boron, Dissolved	mg/L	-0.000227	0.0650	1.00	1.03	1.05	0.996	0.850 to 1.15	98.2	70.0 to 130	1.92	20.0
BD15864	Boron, Total	mg/L	-0.000105	0.0650	1.00	0.972	0.993	0.993	0.850 to 1.15	97.2	70.0 to 130	2.14	20.0
BD15863	Cadmium, Dissolved	mg/L	-0.0000002	0.000147	0.100	0.101	0.103	0.100	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15864	Cadmium, Total	mg/L	0.0000045	0.000147	0.100	0.0980	0.0943	0.0976	0.0850 to 0.115	98.0	70.0 to 130	3.85	20.0
BD15863	Calcium, Dissolved	mg/L	-0.0253	0.152	5.00	5.81	5.91	4.82	4.25 to 5.75	93.2	70.0 to 130	1.71	20.0
BD15864	Calcium, Total	mg/L	-0.0300	0.152	5.00	4.52	4.73	4.80	4.25 to 5.75	90.4	70.0 to 130	4.54	20.0
BD15864	Chloride	mg/L	0.0409	1.00	10.0	9.68	9.97	9.84	9.00 to 11.0	96.8	80.0 to 120	2.95	20.0
BD15863	Chromium, Dissolved	mg/L	-0.000114	0.000440	0.100	0.0993	0.101	0.101	0.0850 to 0.115	98.9	70.0 to 130	1.70	20.0
BD15864	Chromium, Total	mg/L	-0.0000369	0.000440	0.100	0.101	0.0994	0.0995	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15863	Cobalt, Dissolved	mg/L	-0.0000302	0.000147	0.100	0.103	0.105	0.103	0.0850 to 0.115	101	70.0 to 130	1.92	20.0
BD15864	Cobalt, Total	mg/L	0.0000056	0.000147	0.100	0.102	0.102	0.0998	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15864	Fluoride	mg/L	0.0413	0.125	2.50	2.48	2.56	2.56	2.25 to 2.75	99.2	80.0 to 120	3.17	20.0
BD15863	Iron, Dissolved	mg/L	0.000282	0.0176	0.2	0.196	0.197	0.197	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15864	Iron, Total	mg/L	0.000088	0.0176	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 13:57
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-8

Laboratory ID Number: BD15860

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15863	Lead, Dissolved	mg/L	0.0000041	0.000147	0.100	0.0948	0.0928	0.0949	0.0850 to 0.115	94.7	70.0 to 130	2.13	20.0
BD15864	Lead, Total	mg/L	0.0000056	0.000147	0.100	0.101	0.103	0.102	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15863	Lithium, Dissolved	mg/L	-0.000061	0.0154	0.200	0.196	0.201	0.194	0.170 to 0.230	98.0	70.0 to 130	2.52	20.0
BD15864	Lithium, Total	mg/L	0.000197	0.0154	0.200	0.197	0.200	0.198	0.170 to 0.230	98.5	70.0 to 130	1.51	20.0
BD15863	Magnesium, Dissolved	mg/L	-0.0445	0.0462	5.00	7.39	7.54	4.96	4.25 to 5.75	97.6	70.0 to 130	2.01	20.0
BD15864	Magnesium, Total	mg/L	-0.0339	0.0462	5.00	4.86	5.03	5.00	4.25 to 5.75	97.2	70.0 to 130	3.44	20.0
BD15863	Manganese, Dissolved	mg/L	-0.000208	0.00033	0.100	0.140	0.144	0.104	0.0850 to 0.115	99.7	70.0 to 130	2.82	20.0
BD15864	Manganese, Total	mg/L	-0.0000105	0.00033	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15863	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00406	0.00407	0.00378	0.00340 to 0.00460	102	70.0 to 130	0.246	20.0
BD15863	Molybdenum, Dissolved	mg/L	0.000170	0.0100	0.2	0.194	0.195	0.199	0.170 to 0.230	97.0	70.0 to 130	0.514	20.0
BD15864	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15863	Potassium, Dissolved	mg/L	-0.0187	0.367	10.0	10.8	11.0	10.3	8.50 to 11.5	99.5	70.0 to 130	1.83	20.0
BD15864	Potassium, Total	mg/L	0.00252	0.367	10.0	10.0	10.0	10.0	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BD15863	Selenium, Dissolved	mg/L	0.0000134	0.00100	0.100	0.102	0.100	0.100	0.0850 to 0.115	101	70.0 to 130	1.98	20.0
BD15864	Selenium, Total	mg/L	0.0000349	0.00100	0.100	0.0983	0.100	0.103	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BD15863	Silicon, Dissolved	mg/L	0.000660	0.0440	1.00	4.54	4.54	1.01	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15864	Silicon, Total	mg/L	0.000902	0.0440	1.00	0.983	1.00	1.01	0.850 to 1.15	98.3	70.0 to 130	1.71	20.0
BD15863	Sodium, Dissolved	mg/L	0.00161	0.0880	5.00	7.35	7.49	5.01	4.25 to 5.75	99.6	70.0 to 130	1.89	20.0
BD15864	Sodium, Total	mg/L	-0.000165	0.0880	5.00	5.02	5.08	5.06	4.25 to 5.75	100	70.0 to 130	1.19	20.0
BD15864	Sulfate	mg/L	0.366	2.0	20.0	20.4	20.0	20.6	18.0 to 22.0	98.8	80.0 to 120	1.98	20.0
BD15863	Thallium, Dissolved	mg/L	-0.0000019	0.000147	0.100	0.0956	0.0940	0.0971	0.0850 to 0.115	95.6	70.0 to 130	1.69	20.0
BD15864	Thallium, Total	mg/L	0.0000091	0.000147	0.100	0.0972	0.0974	0.0930	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BD15864	Total Organic Carbon	mg/L	0.168	1.00	10.0	9.31	10.3	24.8		93.1	80.0 to 120	10.1	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 13:57
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-8

Laboratory ID Number: BD15860

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15863	Alkalinity	mg CaCO3/L					0.775	51.2	45.0 to 55.0			0.643	10.0
BD15864	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.03	-0.083	1.96	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15879	Solids, Dissolved	mg/L	1.00	25.0			36.7	49.0	40.0 to 60.0			3.89	10.0

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

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 8/15/23 15:05
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15861

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 12:20	8/21/23 12:20		1.015	0.0622	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/18/23 12:20	8/21/23 12:20		1.015	1.58	mg/L	0.070035	0.406		
* Iron, Total	8/18/23 12:20	8/21/23 12:20		1.015	0.0425	mg/L	0.008120	0.0406		
* Lithium, Total	8/18/23 12:20	8/21/23 12:20		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 12:20	8/21/23 12:20		1.015	2.52	mg/L	0.021315	0.406		
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:20		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:20		1	8.17	mg/L				
* Silicon, Total	8/18/23 12:20	8/21/23 12:20		1.015	3.82	mg/L	0.02030	0.25375		
* Sodium, Total	8/18/23 12:20	8/21/23 12:20		1.015	2.89	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	0.0624	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	1.60	mg/L	0.070035	0.406		
* Iron, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	2.46	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/18/23 15:00	8/21/23 10:35		1	8.20	mg/L				
* Silicon, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	3.83	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	2.89	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 12:20	8/18/23 15:15		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 12:20	8/18/23 15:15		1.015	0.237	mg/L	0.009135	0.05075		
* Arsenic, Total	8/18/23 12:20	8/18/23 15:15		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/18/23 12:20	8/18/23 15:15		1.015	0.134	mg/L	0.000508	0.001015		
* Beryllium, Total	8/18/23 12:20	8/18/23 15:15		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 12:20	8/18/23 15:15		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 12:20	8/18/23 15:15		1.015	0.000870	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/18/23 12:20	8/18/23 15:15		1.015	0.00117	mg/L	0.000068	0.000203		
* Lead, Total	8/18/23 12:20	8/18/23 15:15		1.015	0.000253	mg/L	0.000068	0.000203		
* Manganese, Total	8/18/23 12:20	8/18/23 15:15		1.015	0.0420	mg/L	0.000152	0.001015		

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 8/15/23 15:05
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15861

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:15		1.015	0.967	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 15:15		1.015	0.00137	mg/L	0.000508	0.001015	
* Thallium, Total	8/18/23 12:20	8/18/23 15:15		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	0.182	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	0.000112	mg/L	0.000112	0.000203	J
* Barium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	0.131	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	0.000695	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	0.00115	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	0.000200	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	0.0417	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	0.968	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	0.00140	mg/L	0.000508	0.001015	
* Thallium, Dissolved	8/18/23 15:00	8/21/23 10:35		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:40	8/18/23 11:40		1	0.231	mg/L as N	0.20	0.3	J
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/25/23 09:15	8/25/23 12:03		1	1.51	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	39.3	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	1.51	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/25/23 09:15	8/25/23 12:03		1	4.15	SU		2	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 8/15/23 15:05
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15861

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 11:16	8/18/23 11:16		1	1.16	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:26	8/18/23 10:26		1	5.16	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:25	8/18/23 14:25		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:00	8/23/23 13:00		1	10.4	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/15/23 15:01	8/15/23 15:01			59.67	uS/cm			FA
pH	8/15/23 15:01	8/15/23 15:01			3.86	SU			FA
Temperature	8/15/23 15:01	8/15/23 15:01			22.39	C			FA
Turbidity	8/15/23 15:01	8/15/23 15:01			4	NTU			FA
Sulfide	8/15/23 15:01	8/15/23 15:01			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 15:05
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-9

Laboratory ID Number: BD15861

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15863	Aluminum, Dissolved	mg/L	0.000280	0.0198	0.100	0.287	0.291	0.100	0.0850 to 0.115	95.0	70.0 to 130	1.38	20.0
BD15864	Aluminum, Total	mg/L	0.000751	0.0198	0.100	0.101	0.102	0.0997	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15863	Antimony, Dissolved	mg/L	0.000326	0.00100	0.100	0.0969	0.0942	0.0944	0.0850 to 0.115	96.9	70.0 to 130	2.83	20.0
BD15864	Antimony, Total	mg/L	0.000348	0.00100	0.100	0.0915	0.0942	0.0935	0.0850 to 0.115	91.5	70.0 to 130	2.91	20.0
BD15863	Arsenic, Dissolved	mg/L	0.0000213	0.000200	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15864	Arsenic, Total	mg/L	0.0000271	0.000200	0.100	0.0977	0.0983	0.100	0.0850 to 0.115	97.7	70.0 to 130	0.612	20.0
BD15863	Barium, Dissolved	mg/L	-0.0000082	0.00100	0.100	0.210	0.208	0.0965	0.0850 to 0.115	92.0	70.0 to 130	0.957	20.0
BD15864	Barium, Total	mg/L	0.0000114	0.00100	0.100	0.0978	0.100	0.0950	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BD15863	Beryllium, Dissolved	mg/L	0.0000399	0.000880	0.100	0.0941	0.0915	0.0934	0.0850 to 0.115	94.1	70.0 to 130	2.80	20.0
BD15864	Beryllium, Total	mg/L	0.0000287	0.000880	0.100	0.0977	0.0991	0.102	0.0850 to 0.115	97.7	70.0 to 130	1.42	20.0
BD15863	Boron, Dissolved	mg/L	-0.000227	0.0650	1.00	1.03	1.05	0.996	0.850 to 1.15	98.2	70.0 to 130	1.92	20.0
BD15864	Boron, Total	mg/L	-0.000105	0.0650	1.00	0.972	0.993	0.993	0.850 to 1.15	97.2	70.0 to 130	2.14	20.0
BD15863	Cadmium, Dissolved	mg/L	-0.0000002	0.000147	0.100	0.101	0.103	0.100	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15864	Cadmium, Total	mg/L	0.0000045	0.000147	0.100	0.0980	0.0943	0.0976	0.0850 to 0.115	98.0	70.0 to 130	3.85	20.0
BD15863	Calcium, Dissolved	mg/L	-0.0253	0.152	5.00	5.81	5.91	4.82	4.25 to 5.75	93.2	70.0 to 130	1.71	20.0
BD15864	Calcium, Total	mg/L	-0.0300	0.152	5.00	4.52	4.73	4.80	4.25 to 5.75	90.4	70.0 to 130	4.54	20.0
BD15864	Chloride	mg/L	0.0409	1.00	10.0	9.68	9.97	9.84	9.00 to 11.0	96.8	80.0 to 120	2.95	20.0
BD15863	Chromium, Dissolved	mg/L	-0.000114	0.000440	0.100	0.0993	0.101	0.101	0.0850 to 0.115	98.9	70.0 to 130	1.70	20.0
BD15864	Chromium, Total	mg/L	-0.0000369	0.000440	0.100	0.101	0.0994	0.0995	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15863	Cobalt, Dissolved	mg/L	-0.0000302	0.000147	0.100	0.103	0.105	0.103	0.0850 to 0.115	101	70.0 to 130	1.92	20.0
BD15864	Cobalt, Total	mg/L	0.0000056	0.000147	0.100	0.102	0.102	0.0998	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15864	Fluoride	mg/L	0.0413	0.125	2.50	2.48	2.56	2.56	2.25 to 2.75	99.2	80.0 to 120	3.17	20.0
BD15863	Iron, Dissolved	mg/L	0.000282	0.0176	0.2	0.196	0.197	0.197	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15864	Iron, Total	mg/L	0.000088	0.0176	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 15:05
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-9

Laboratory ID Number: BD15861

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15863	Lead, Dissolved	mg/L	0.0000041	0.000147	0.100	0.0948	0.0928	0.0949	0.0850 to 0.115	94.7	70.0 to 130	2.13	20.0
BD15864	Lead, Total	mg/L	0.0000056	0.000147	0.100	0.101	0.103	0.102	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15863	Lithium, Dissolved	mg/L	-0.000061	0.0154	0.200	0.196	0.201	0.194	0.170 to 0.230	98.0	70.0 to 130	2.52	20.0
BD15864	Lithium, Total	mg/L	0.000197	0.0154	0.200	0.197	0.200	0.198	0.170 to 0.230	98.5	70.0 to 130	1.51	20.0
BD15863	Magnesium, Dissolved	mg/L	-0.0445	0.0462	5.00	7.39	7.54	4.96	4.25 to 5.75	97.6	70.0 to 130	2.01	20.0
BD15864	Magnesium, Total	mg/L	-0.0339	0.0462	5.00	4.86	5.03	5.00	4.25 to 5.75	97.2	70.0 to 130	3.44	20.0
BD15863	Manganese, Dissolved	mg/L	-0.000208	0.00033	0.100	0.140	0.144	0.104	0.0850 to 0.115	99.7	70.0 to 130	2.82	20.0
BD15864	Manganese, Total	mg/L	-0.0000105	0.00033	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15863	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00406	0.00407	0.00378	0.00340 to 0.00460	102	70.0 to 130	0.246	20.0
BD15863	Molybdenum, Dissolved	mg/L	0.000170	0.0100	0.2	0.194	0.195	0.199	0.170 to 0.230	97.0	70.0 to 130	0.514	20.0
BD15864	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15863	Potassium, Dissolved	mg/L	-0.0187	0.367	10.0	10.8	11.0	10.3	8.50 to 11.5	99.5	70.0 to 130	1.83	20.0
BD15864	Potassium, Total	mg/L	0.00252	0.367	10.0	10.0	10.0	10.0	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BD15863	Selenium, Dissolved	mg/L	0.0000134	0.00100	0.100	0.102	0.100	0.100	0.0850 to 0.115	101	70.0 to 130	1.98	20.0
BD15864	Selenium, Total	mg/L	0.0000349	0.00100	0.100	0.0983	0.100	0.103	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BD15863	Silicon, Dissolved	mg/L	0.000660	0.0440	1.00	4.54	4.54	1.01	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15864	Silicon, Total	mg/L	0.000902	0.0440	1.00	0.983	1.00	1.01	0.850 to 1.15	98.3	70.0 to 130	1.71	20.0
BD15863	Sodium, Dissolved	mg/L	0.00161	0.0880	5.00	7.35	7.49	5.01	4.25 to 5.75	99.6	70.0 to 130	1.89	20.0
BD15864	Sodium, Total	mg/L	-0.000165	0.0880	5.00	5.02	5.08	5.06	4.25 to 5.75	100	70.0 to 130	1.19	20.0
BD15864	Sulfate	mg/L	0.366	2.0	20.0	20.4	20.0	20.6	18.0 to 22.0	98.8	80.0 to 120	1.98	20.0
BD15863	Thallium, Dissolved	mg/L	-0.0000019	0.000147	0.100	0.0956	0.0940	0.0971	0.0850 to 0.115	95.6	70.0 to 130	1.69	20.0
BD15864	Thallium, Total	mg/L	0.0000091	0.000147	0.100	0.0972	0.0974	0.0930	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BD15864	Total Organic Carbon	mg/L	0.168	1.00	10.0	9.31	10.3	24.8		93.1	80.0 to 120	10.1	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 15:05
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-9

Laboratory ID Number: BD15861

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15863	Alkalinity	mg CaCO3/L					0.775	51.2	45.0 to 55.0			0.643	10.0
BD15864	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.03	-0.083	1.96	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15879	Solids, Dissolved	mg/L	1.00	25.0			36.7	49.0	40.0 to 60.0			3.89	10.0

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

Certificate Of Analysis

Description: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB
Collected: 8/15/23 15:30
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15862

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638				
* Boron, Total	8/18/23 12:20	8/21/23 12:23		1.015	Not Detected	mg/L	0.030000	0.1015	U
* Calcium, Total	8/18/23 12:20	8/21/23 12:23		1.015	Not Detected	mg/L	0.070035	0.406	U
* Iron, Total	8/18/23 12:20	8/21/23 12:23		1.015	Not Detected	mg/L	0.008120	0.0406	U
* Lithium, Total	8/18/23 12:20	8/21/23 12:23		1.015	Not Detected	mg/L	0.007105	0.01999956	U
* Magnesium, Total	8/18/23 12:20	8/21/23 12:23		1.015	Not Detected	mg/L	0.021315	0.406	U
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:23		1.015	Not Detected	mg/L	0.005075	0.01015	U
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:23		1	Not Detected	mg/L			
* Silicon, Total	8/18/23 12:20	8/21/23 12:23		1.015	Not Detected	mg/L	0.02030	0.25375	U
* Sodium, Total	8/18/23 12:20	8/21/23 12:23		1.015	Not Detected	mg/L	0.04060	0.406	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.009135	0.05075	U
* Arsenic, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Beryllium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000203	0.001015	U
* Cobalt, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Lead, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Manganese, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000152	0.001015	U
* Potassium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.169505	0.5075	U
* Selenium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000508	0.001015	U
* Thallium, Total	8/18/23 12:20	8/18/23 15:19		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:29		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:42	8/18/23 11:42		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	Not Detected	mg/L		25	U

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

Comments:

Certificate Of Analysis

Description: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB

Collected: 8/15/23 15:30

Customer ID:

Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15862

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 11:32	8/18/23 11:32		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:27	8/18/23 10:27		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:26	8/18/23 14:26		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:01	8/23/23 13:01		1	Not Detected	mg/L	0.6	2	U

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

Comments:

Batch QC Summary

Customer Account: WMWBARGFB

Sample Date: 8/15/23 15:30

Customer ID:

Delivery Date: 8/17/23 14:25

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BD15862

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15864	Aluminum, Total	mg/L	0.000751	0.0198	0.100	0.101	0.102	0.0997	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15864	Antimony, Total	mg/L	0.000348	0.00100	0.100	0.0915	0.0942	0.0935	0.0850 to 0.115	91.5	70.0 to 130	2.91	20.0
BD15864	Arsenic, Total	mg/L	0.0000271	0.000200	0.100	0.0977	0.0983	0.100	0.0850 to 0.115	97.7	70.0 to 130	0.612	20.0
BD15864	Barium, Total	mg/L	0.0000114	0.00100	0.100	0.0978	0.100	0.0950	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BD15864	Beryllium, Total	mg/L	0.0000287	0.000880	0.100	0.0977	0.0991	0.102	0.0850 to 0.115	97.7	70.0 to 130	1.42	20.0
BD15864	Boron, Total	mg/L	-0.000105	0.0650	1.00	0.972	0.993	0.993	0.850 to 1.15	97.2	70.0 to 130	2.14	20.0
BD15864	Cadmium, Total	mg/L	0.0000045	0.000147	0.100	0.0980	0.0943	0.0976	0.0850 to 0.115	98.0	70.0 to 130	3.85	20.0
BD15864	Calcium, Total	mg/L	-0.0300	0.152	5.00	4.52	4.73	4.80	4.25 to 5.75	90.4	70.0 to 130	4.54	20.0
BD15864	Chloride	mg/L	0.0409	1.00	10.0	9.68	9.97	9.84	9.00 to 11.0	96.8	80.0 to 120	2.95	20.0
BD15864	Chromium, Total	mg/L	-0.0000369	0.000440	0.100	0.101	0.0994	0.0995	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15864	Cobalt, Total	mg/L	0.0000056	0.000147	0.100	0.102	0.102	0.0998	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15864	Fluoride	mg/L	0.0413	0.125	2.50	2.48	2.56	2.56	2.25 to 2.75	99.2	80.0 to 120	3.17	20.0
BD15864	Iron, Total	mg/L	0.000088	0.0176	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15864	Lead, Total	mg/L	0.0000056	0.000147	0.100	0.101	0.103	0.102	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15864	Lithium, Total	mg/L	0.000197	0.0154	0.200	0.197	0.200	0.198	0.170 to 0.230	98.5	70.0 to 130	1.51	20.0
BD15864	Magnesium, Total	mg/L	-0.0339	0.0462	5.00	4.86	5.03	5.00	4.25 to 5.75	97.2	70.0 to 130	3.44	20.0
BD15864	Manganese, Total	mg/L	-0.0000105	0.00033	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15863	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00406	0.00407	0.00378	0.00340 to 0.00460	102	70.0 to 130	0.246	20.0
BD15864	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15864	Potassium, Total	mg/L	0.00252	0.367	10.0	10.0	10.0	10.0	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BD15864	Selenium, Total	mg/L	0.0000349	0.00100	0.100	0.0983	0.100	0.103	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BD15864	Silicon, Total	mg/L	0.000902	0.0440	1.00	0.983	1.00	1.01	0.850 to 1.15	98.3	70.0 to 130	1.71	20.0
BD15864	Sodium, Total	mg/L	-0.000165	0.0880	5.00	5.02	5.08	5.06	4.25 to 5.75	100	70.0 to 130	1.19	20.0
BD15864	Sulfate	mg/L	0.366	2.0	20.0	20.4	20.0	20.6	18.0 to 22.0	98.8	80.0 to 120	1.98	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGFB
Sample Date: 8/15/23 15:30
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BD15862

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard Limit	Rec		Prec Limit
				Limit	Spike	MS	Rec				Limit	Prec	
BD15864	Thallium, Total	mg/L	0.0000091	0.000147	0.100	0.0972	0.0974	0.0930	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BD15864	Total Organic Carbon	mg/L	0.168	1.00	10.0	9.31	10.3	24.8		93.1	80.0 to 120	10.1	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGFB

Sample Date: 8/15/23 15:30

Customer ID:

Delivery Date: 8/17/23 14:25

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BD15862

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec Rec	Rec Limit	Prec	Prec Limit
BD15864	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.03	-0.083	1.96	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15879	Solids, Dissolved	mg/L	1.00	25.0			36.7	49.0	40.0 to 60.0			3.89	10.0

Comments:

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 8/15/23 16:10
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15863

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 12:20	8/21/23 12:27		1.015	0.0492	mg/L	0.030000	0.1015	J	
* Calcium, Total	8/18/23 12:20	8/21/23 12:27		1.015	1.08	mg/L	0.070035	0.406		
* Iron, Total	8/18/23 12:20	8/21/23 12:27		1.015	0.140	mg/L	0.008120	0.0406		
* Lithium, Total	8/18/23 12:20	8/21/23 12:27		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 12:20	8/21/23 12:27		1.015	2.50	mg/L	0.021315	0.406		
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:27		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:27		1	7.66	mg/L				
* Silicon, Total	8/18/23 12:20	8/21/23 12:27		1.015	3.58	mg/L	0.02030	0.25375		
* Sodium, Total	8/18/23 12:20	8/21/23 12:27		1.015	2.40	mg/L	0.04060	0.406		
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Dissolved	8/18/23 15:00	8/21/23 10:38		1.015	0.0481	mg/L	0.030000	0.1015	J	
* Calcium, Dissolved	8/18/23 15:00	8/21/23 10:38		1.015	1.15	mg/L	0.070035	0.406		
* Iron, Dissolved	8/18/23 15:00	8/21/23 10:38		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Dissolved	8/18/23 15:00	8/21/23 10:38		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Dissolved	8/18/23 15:00	8/21/23 10:38		1.015	2.51	mg/L	0.021315	0.406		
* Molybdenum, Dissolved	8/18/23 15:00	8/21/23 10:38		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Dissolved (calc.)	8/18/23 15:00	8/21/23 10:38		1	7.55	mg/L				
* Silicon, Dissolved	8/18/23 15:00	8/21/23 10:38		1.015	3.53	mg/L	0.02030	0.25375		
* Sodium, Dissolved	8/18/23 15:00	8/21/23 10:38		1.015	2.37	mg/L	0.04060	0.406		
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 12:20	8/18/23 15:22		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Arsenic, Total	8/18/23 12:20	8/18/23 15:22		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Aluminum, Total	8/18/23 12:20	8/18/23 15:22		1.015	0.383	mg/L	0.009135	0.05075		
* Barium, Total	8/18/23 12:20	8/18/23 15:22		1.015	0.120	mg/L	0.000508	0.001015		
* Beryllium, Total	8/18/23 12:20	8/18/23 15:22		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 12:20	8/18/23 15:22		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 12:20	8/18/23 15:22		1.015	0.000926	mg/L	0.000203	0.001015	J	
* Cobalt, Total	8/18/23 12:20	8/18/23 15:22		1.015	0.00251	mg/L	0.000068	0.000203		
* Lead, Total	8/18/23 12:20	8/18/23 15:22		1.015	0.000153	mg/L	0.000068	0.000203	J	
* Manganese, Total	8/18/23 12:20	8/18/23 15:22		1.015	0.0417	mg/L	0.000152	0.001015		

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 8/15/23 16:10
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15863

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Potassium, Total	8/18/23 12:20	8/18/23 15:22		1.015	0.891	mg/L	0.169505	0.5075	
* Selenium, Total	8/18/23 12:20	8/18/23 15:22		1.015	0.00110	mg/L	0.000508	0.001015	
* Thallium, Total	8/18/23 12:20	8/18/23 15:22		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 200.8		Analyst: DLJ							
* Antimony, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	Not Detected	mg/L	0.000710	0.001015	U
* Aluminum, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	0.192	mg/L	0.009135	0.05075	
* Arsenic, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	Not Detected	mg/L	0.000112	0.000203	U
* Barium, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	0.118	mg/L	0.000508	0.001015	
* Beryllium, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	Not Detected	mg/L	0.000406	0.001015	U
* Cadmium, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
* Chromium, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	0.000419	mg/L	0.000203	0.001015	J
* Cobalt, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	0.00244	mg/L	0.000068	0.000203	
* Lead, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	0.0000845	mg/L	0.000068	0.000203	J
* Manganese, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	0.0403	mg/L	0.000152	0.001015	
* Potassium, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	0.853	mg/L	0.169505	0.5075	
* Selenium, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	0.000998	mg/L	0.000508	0.001015	J
* Thallium, Dissolved	8/18/23 15:00	8/21/23 10:39		1.015	Not Detected	mg/L	0.000068	0.000203	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: EPA 353.2		Analyst: SC							
* Nitrogen, Nitrate/Nitrite	8/18/23 11:44	8/18/23 11:44		1	0.436	mg/L as N	0.20	0.3	
Analytical Method: SM 2320 B		Analyst: DHC							
* Alkalinity	8/25/23 09:15	8/25/23 12:03		1	0.78	mg CaCO3/L		0.1	
Analytical Method: SM 2540C		Analyst: CNJ							
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	36.7	mg/L		25	
Analytical Method: SM 4500CO2 D		Analyst: DHC							
* Bicarbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	0.780	mg CaCO3/L		1	
* Carbonate Alkalinity, (calc.)	8/25/23 09:15	8/25/23 12:03		1	Not Detected	mg CaCO3/L		0.5	
Analytical Method: SM 4500H+ B		Analyst: DHC							
Alkalinity pH Endpoint	8/25/23 09:15	8/25/23 12:03		1	4.21	SU		2	

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

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

Certificate Of Analysis

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 8/15/23 16:10
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15863

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 11:47	8/18/23 11:47		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/18/23 10:28	8/18/23 10:28		1	2.98	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:28	8/18/23 14:28		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:02	8/23/23 13:02		1	11.7	mg/L	0.6	2	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/15/23 16:08	8/15/23 16:08			53.55	uS/cm			FA
pH	8/15/23 16:08	8/15/23 16:08			4.17	SU			FA
Temperature	8/15/23 16:08	8/15/23 16:08			21.51	C			FA
Turbidity	8/15/23 16:08	8/15/23 16:08			9.83	NTU			FA
Sulfide	8/15/23 16:08	8/15/23 16:08			0	mg/L			FA

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

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 16:10
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-10

Laboratory ID Number: BD15863

Sample	Analysis	Units	MB	MB				Standard		Rec		Prec	Limit
				Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
BD15863	Aluminum, Dissolved	mg/L	0.000280	0.0198	0.100	0.287	0.291	0.100	0.0850 to 0.115	95.0	70.0 to 130	1.38	20.0
BD15864	Aluminum, Total	mg/L	0.000751	0.0198	0.100	0.101	0.102	0.0997	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15863	Antimony, Dissolved	mg/L	0.000326	0.00100	0.100	0.0969	0.0942	0.0944	0.0850 to 0.115	96.9	70.0 to 130	2.83	20.0
BD15864	Antimony, Total	mg/L	0.000348	0.00100	0.100	0.0915	0.0942	0.0935	0.0850 to 0.115	91.5	70.0 to 130	2.91	20.0
BD15863	Arsenic, Dissolved	mg/L	0.0000213	0.000200	0.100	0.102	0.101	0.100	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15864	Arsenic, Total	mg/L	0.0000271	0.000200	0.100	0.0977	0.0983	0.100	0.0850 to 0.115	97.7	70.0 to 130	0.612	20.0
BD15863	Barium, Dissolved	mg/L	-0.0000082	0.00100	0.100	0.210	0.208	0.0965	0.0850 to 0.115	92.0	70.0 to 130	0.957	20.0
BD15864	Barium, Total	mg/L	0.0000114	0.00100	0.100	0.0978	0.100	0.0950	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BD15863	Beryllium, Dissolved	mg/L	0.0000399	0.000880	0.100	0.0941	0.0915	0.0934	0.0850 to 0.115	94.1	70.0 to 130	2.80	20.0
BD15864	Beryllium, Total	mg/L	0.0000287	0.000880	0.100	0.0977	0.0991	0.102	0.0850 to 0.115	97.7	70.0 to 130	1.42	20.0
BD15863	Boron, Dissolved	mg/L	-0.000227	0.0650	1.00	1.03	1.05	0.996	0.850 to 1.15	98.2	70.0 to 130	1.92	20.0
BD15864	Boron, Total	mg/L	-0.000105	0.0650	1.00	0.972	0.993	0.993	0.850 to 1.15	97.2	70.0 to 130	2.14	20.0
BD15863	Cadmium, Dissolved	mg/L	-0.0000002	0.000147	0.100	0.101	0.103	0.100	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15864	Cadmium, Total	mg/L	0.0000045	0.000147	0.100	0.0980	0.0943	0.0976	0.0850 to 0.115	98.0	70.0 to 130	3.85	20.0
BD15863	Calcium, Dissolved	mg/L	-0.0253	0.152	5.00	5.81	5.91	4.82	4.25 to 5.75	93.2	70.0 to 130	1.71	20.0
BD15864	Calcium, Total	mg/L	-0.0300	0.152	5.00	4.52	4.73	4.80	4.25 to 5.75	90.4	70.0 to 130	4.54	20.0
BD15864	Chloride	mg/L	0.0409	1.00	10.0	9.68	9.97	9.84	9.00 to 11.0	96.8	80.0 to 120	2.95	20.0
BD15863	Chromium, Dissolved	mg/L	-0.000114	0.000440	0.100	0.0993	0.101	0.101	0.0850 to 0.115	98.9	70.0 to 130	1.70	20.0
BD15864	Chromium, Total	mg/L	-0.0000369	0.000440	0.100	0.101	0.0994	0.0995	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15863	Cobalt, Dissolved	mg/L	-0.0000302	0.000147	0.100	0.103	0.105	0.103	0.0850 to 0.115	101	70.0 to 130	1.92	20.0
BD15864	Cobalt, Total	mg/L	0.0000056	0.000147	0.100	0.102	0.102	0.0998	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15864	Fluoride	mg/L	0.0413	0.125	2.50	2.48	2.56	2.56	2.25 to 2.75	99.2	80.0 to 120	3.17	20.0
BD15863	Iron, Dissolved	mg/L	0.000282	0.0176	0.2	0.196	0.197	0.197	0.170 to 0.230	98.0	70.0 to 130	0.509	20.0
BD15864	Iron, Total	mg/L	0.000088	0.0176	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 16:10
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-10

Laboratory ID Number: BD15863

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15863	Lead, Dissolved	mg/L	0.0000041	0.000147	0.100	0.0948	0.0928	0.0949	0.0850 to 0.115	94.7	70.0 to 130	2.13	20.0
BD15864	Lead, Total	mg/L	0.0000056	0.000147	0.100	0.101	0.103	0.102	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15863	Lithium, Dissolved	mg/L	-0.000061	0.0154	0.200	0.196	0.201	0.194	0.170 to 0.230	98.0	70.0 to 130	2.52	20.0
BD15864	Lithium, Total	mg/L	0.000197	0.0154	0.200	0.197	0.200	0.198	0.170 to 0.230	98.5	70.0 to 130	1.51	20.0
BD15863	Magnesium, Dissolved	mg/L	-0.0445	0.0462	5.00	7.39	7.54	4.96	4.25 to 5.75	97.6	70.0 to 130	2.01	20.0
BD15864	Magnesium, Total	mg/L	-0.0339	0.0462	5.00	4.86	5.03	5.00	4.25 to 5.75	97.2	70.0 to 130	3.44	20.0
BD15863	Manganese, Dissolved	mg/L	-0.000208	0.00033	0.100	0.140	0.144	0.104	0.0850 to 0.115	99.7	70.0 to 130	2.82	20.0
BD15864	Manganese, Total	mg/L	-0.0000105	0.00033	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15863	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00406	0.00407	0.00378	0.00340 to 0.00460	102	70.0 to 130	0.246	20.0
BD15863	Molybdenum, Dissolved	mg/L	0.000170	0.0100	0.2	0.194	0.195	0.199	0.170 to 0.230	97.0	70.0 to 130	0.514	20.0
BD15864	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15863	Potassium, Dissolved	mg/L	-0.0187	0.367	10.0	10.8	11.0	10.3	8.50 to 11.5	99.5	70.0 to 130	1.83	20.0
BD15864	Potassium, Total	mg/L	0.00252	0.367	10.0	10.0	10.0	10.0	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BD15863	Selenium, Dissolved	mg/L	0.0000134	0.00100	0.100	0.102	0.100	0.100	0.0850 to 0.115	101	70.0 to 130	1.98	20.0
BD15864	Selenium, Total	mg/L	0.0000349	0.00100	0.100	0.0983	0.100	0.103	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BD15863	Silicon, Dissolved	mg/L	0.000660	0.0440	1.00	4.54	4.54	1.01	0.850 to 1.15	101	70.0 to 130	0.00	20.0
BD15864	Silicon, Total	mg/L	0.000902	0.0440	1.00	0.983	1.00	1.01	0.850 to 1.15	98.3	70.0 to 130	1.71	20.0
BD15863	Sodium, Dissolved	mg/L	0.00161	0.0880	5.00	7.35	7.49	5.01	4.25 to 5.75	99.6	70.0 to 130	1.89	20.0
BD15864	Sodium, Total	mg/L	-0.000165	0.0880	5.00	5.02	5.08	5.06	4.25 to 5.75	100	70.0 to 130	1.19	20.0
BD15864	Sulfate	mg/L	0.366	2.0	20.0	20.4	20.0	20.6	18.0 to 22.0	98.8	80.0 to 120	1.98	20.0
BD15863	Thallium, Dissolved	mg/L	-0.0000019	0.000147	0.100	0.0956	0.0940	0.0971	0.0850 to 0.115	95.6	70.0 to 130	1.69	20.0
BD15864	Thallium, Total	mg/L	0.0000091	0.000147	0.100	0.0972	0.0974	0.0930	0.0850 to 0.115	97.2	70.0 to 130	0.206	20.0
BD15864	Total Organic Carbon	mg/L	0.168	1.00	10.0	9.31	10.3	24.8		93.1	80.0 to 120	10.1	20.0

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

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 8/15/23 16:10
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum - MW-10

Laboratory ID Number: BD15863

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15863	Alkalinity	mg CaCO3/L					0.775	51.2	45.0 to 55.0			0.643	10.0
BD15864	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.03	-0.083	1.96	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15879	Solids, Dissolved	mg/L	1.00	25.0			36.7	49.0	40.0 to 60.0			3.89	10.0

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

Certificate Of Analysis

Description: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB
Collected: 8/15/23 16:35
Customer ID:
Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15864

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q	
Analytical Method: EPA 200.7		Analyst: ABB			Preparation Method: EPA 1638					
* Boron, Total	8/18/23 12:20	8/21/23 12:30		1.015	Not Detected	mg/L	0.030000	0.1015	U	
* Calcium, Total	8/18/23 12:20	8/21/23 12:30		1.015	Not Detected	mg/L	0.070035	0.406	U	
* Iron, Total	8/18/23 12:20	8/21/23 12:30		1.015	Not Detected	mg/L	0.008120	0.0406	U	
* Lithium, Total	8/18/23 12:20	8/21/23 12:30		1.015	Not Detected	mg/L	0.007105	0.01999956	U	
* Magnesium, Total	8/18/23 12:20	8/21/23 12:30		1.015	Not Detected	mg/L	0.021315	0.406	U	
* Molybdenum, Total	8/18/23 12:20	8/21/23 12:30		1.015	Not Detected	mg/L	0.005075	0.01015	U	
* Silica, Total (calc.)	8/18/23 12:20	8/21/23 12:30		1	Not Detected	mg/L				
* Silicon, Total	8/18/23 12:20	8/21/23 12:30		1.015	Not Detected	mg/L	0.02030	0.25375	U	
* Sodium, Total	8/18/23 12:20	8/21/23 12:30		1.015	Not Detected	mg/L	0.04060	0.406	U	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638					
* Antimony, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000710	0.001015	U	
* Aluminum, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.009135	0.05075	U	
* Arsenic, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000112	0.000203	U	
* Barium, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Beryllium, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000406	0.001015	U	
* Cadmium, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Chromium, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000203	0.001015	U	
* Cobalt, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Lead, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000068	0.000203	U	
* Manganese, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000152	0.001015	U	
* Potassium, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.169505	0.5075	U	
* Selenium, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000508	0.001015	U	
* Thallium, Total	8/18/23 12:20	8/18/23 15:26		1.015	Not Detected	mg/L	0.000068	0.000203	U	
Analytical Method: EPA 245.1		Analyst: ABB								
* Mercury, Total by CVAA	8/24/23 18:45	8/24/23 23:33		1	Not Detected	mg/L	0.0003	0.0005	U	
Analytical Method: EPA 353.2		Analyst: SC								
* Nitrogen, Nitrate/Nitrite	8/18/23 11:46	8/18/23 11:46		1	Not Detected	mg/L as N	0.20	0.3	U	
Analytical Method: SM 2540C		Analyst: CNJ								
* Solids, Dissolved	8/18/23 10:50	8/21/23 13:15		1	Not Detected	mg/L		25	U	

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

Comments:

Certificate Of Analysis

Description: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB

Collected: 8/15/23 16:35

Customer ID:

Submittal Date: 8/17/23 14:25

Laboratory ID Number: BD15864

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		Analyst: SC							
* Total Organic Carbon	8/18/23 11:59	8/18/23 11:59		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/18/23 10:30	8/18/23 10:30		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/18/23 14:29	8/18/23 14:29		1	Not Detected	mg/L	0.06	0.125	U
Analytical Method: SM4500SO4 E 2011		Analyst: JCC							
* Sulfate	8/23/23 13:03	8/23/23 13:03		1	0.648	mg/L	0.6	2	J

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

Comments:

Batch QC Summary

Customer Account: WMWBARGEB

Sample Date: 8/15/23 16:35

Customer ID:

Delivery Date: 8/17/23 14:25

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BD15864

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
BD15864	Aluminum, Total	mg/L	0.000751	0.0198	0.100	0.101	0.102	0.0997	0.0850 to 0.115	101	70.0 to 130	0.985	20.0
BD15864	Antimony, Total	mg/L	0.000348	0.00100	0.100	0.0915	0.0942	0.0935	0.0850 to 0.115	91.5	70.0 to 130	2.91	20.0
BD15864	Arsenic, Total	mg/L	0.0000271	0.000200	0.100	0.0977	0.0983	0.100	0.0850 to 0.115	97.7	70.0 to 130	0.612	20.0
BD15864	Barium, Total	mg/L	0.0000114	0.00100	0.100	0.0978	0.100	0.0950	0.0850 to 0.115	97.8	70.0 to 130	2.22	20.0
BD15864	Beryllium, Total	mg/L	0.0000287	0.000880	0.100	0.0977	0.0991	0.102	0.0850 to 0.115	97.7	70.0 to 130	1.42	20.0
BD15864	Boron, Total	mg/L	-0.000105	0.0650	1.00	0.972	0.993	0.993	0.850 to 1.15	97.2	70.0 to 130	2.14	20.0
BD15864	Cadmium, Total	mg/L	0.0000045	0.000147	0.100	0.0980	0.0943	0.0976	0.0850 to 0.115	98.0	70.0 to 130	3.85	20.0
BD15864	Calcium, Total	mg/L	-0.0300	0.152	5.00	4.52	4.73	4.80	4.25 to 5.75	90.4	70.0 to 130	4.54	20.0
BD15864	Chloride	mg/L	0.0409	1.00	10.0	9.68	9.97	9.84	9.00 to 11.0	96.8	80.0 to 120	2.95	20.0
BD15864	Chromium, Total	mg/L	-0.0000369	0.000440	0.100	0.101	0.0994	0.0995	0.0850 to 0.115	101	70.0 to 130	1.60	20.0
BD15864	Cobalt, Total	mg/L	0.0000056	0.000147	0.100	0.102	0.102	0.0998	0.0850 to 0.115	102	70.0 to 130	0.00	20.0
BD15864	Fluoride	mg/L	0.0413	0.125	2.50	2.48	2.56	2.56	2.25 to 2.75	99.2	80.0 to 120	3.17	20.0
BD15864	Iron, Total	mg/L	0.000088	0.0176	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15864	Lead, Total	mg/L	0.0000056	0.000147	0.100	0.101	0.103	0.102	0.0850 to 0.115	101	70.0 to 130	1.96	20.0
BD15864	Lithium, Total	mg/L	0.000197	0.0154	0.200	0.197	0.200	0.198	0.170 to 0.230	98.5	70.0 to 130	1.51	20.0
BD15864	Magnesium, Total	mg/L	-0.0339	0.0462	5.00	4.86	5.03	5.00	4.25 to 5.75	97.2	70.0 to 130	3.44	20.0
BD15864	Manganese, Total	mg/L	-0.0000105	0.00033	0.100	0.102	0.101	0.101	0.0850 to 0.115	102	70.0 to 130	0.985	20.0
BD15863	Mercury, Total by CVAA	mg/L	5.000E-05	0.000500	0.004	0.00406	0.00407	0.00378	0.00340 to 0.00460	102	70.0 to 130	0.246	20.0
BD15864	Molybdenum, Total	mg/L	0.000	0.0100	0.2	0.194	0.198	0.198	0.170 to 0.230	97.0	70.0 to 130	2.04	20.0
BD15864	Potassium, Total	mg/L	0.00252	0.367	10.0	10.0	10.0	10.0	8.50 to 11.5	100	70.0 to 130	0.00	20.0
BD15864	Selenium, Total	mg/L	0.0000349	0.00100	0.100	0.0983	0.100	0.103	0.0850 to 0.115	98.3	70.0 to 130	1.71	20.0
BD15864	Silicon, Total	mg/L	0.000902	0.0440	1.00	0.983	1.00	1.01	0.850 to 1.15	98.3	70.0 to 130	1.71	20.0
BD15864	Sodium, Total	mg/L	-0.000165	0.0880	5.00	5.02	5.08	5.06	4.25 to 5.75	100	70.0 to 130	1.19	20.0
BD15864	Sulfate	mg/L	0.366	2.0	20.0	20.4	20.0	20.6	18.0 to 22.0	98.8	80.0 to 120	1.98	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGEB
Sample Date: 8/15/23 16:35
Customer ID:
Delivery Date: 8/17/23 14:25

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BD15864

Sample	Analysis	Units	MB	MB				MSD	Standard	Standard		Rec		Prec	Limit
				Limit	Spike	MS	Standard			Limit	Rec	Limit	Prec		
BD15864	Thallium, Total	mg/L	0.0000091	0.000147	0.100	0.0972	0.0974	0.0930	0.0850 to 0.115		97.2	70.0 to 130		0.206	20.0
BD15864	Total Organic Carbon	mg/L	0.168	1.00	10.0	9.31	10.3	24.8			93.1	80.0 to 120		10.1	20.0

Comments:

Batch QC Summary

Customer Account: WMWBARGEB

Sample Date: 8/15/23 16:35

Customer ID:

Delivery Date: 8/17/23 14:25

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BD15864

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BD15864	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.08	0.200	2.00	2.03	-0.083	1.96	1.80 to 2.20	102	90.0 to 110	0.00	15.0
BD15879	Solids, Dissolved	mg/L	1.00	25.0			36.7	49.0	40.0 to 60.0			3.89	10.0

Comments:

Definitions

Project Number: WMWBARG_1419

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

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



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

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

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-7	08/15/2023	10:00	6	Groundwater		BD15855	<input checked="" type="checkbox"/>
MW-7 Dup	08/15/2023	10:00	6	Sample Duplicate		BD15856	<input checked="" type="checkbox"/>
PZ-11	08/15/2023	11:15	6	Groundwater		BD15857	<input checked="" type="checkbox"/>
MW-6	08/15/2023	12:10	6	Groundwater		BD15858	<input checked="" type="checkbox"/>
MW-5	08/15/2023	12:55	6	Groundwater		BD15859	<input checked="" type="checkbox"/>
MW-8	08/15/2023	13:57	6	Groundwater		BD15860	<input checked="" type="checkbox"/>
MW-9	08/15/2023	15:05	6	Groundwater		BD15861	<input checked="" type="checkbox"/>
FB-1	08/15/2023	15:30	5	Field Blank		BD15862	<input checked="" type="checkbox"/>
MW-10	08/15/2023	16:10	6	Groundwater		BD15863	<input checked="" type="checkbox"/>
EB-1	08/15/2023	16:35	5	Equipment Blank		BD15864	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
		08/17/2023 14:02

SmarTroll ID	7586-41445-5-4	Cooler Temp	2.4 °C
Turbidity ID	4677-23343-4-2	Thermometer ID	10614-61208-2-1
Sample Event	1419	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA

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

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

Comments: Rad MS/MSD @ PZ-11

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id	pH Check
MW-7	08/15/2023	10:00	1	Groundwater		BD15865	<input checked="" type="checkbox"/>
MW-7 Dup	08/15/2023	10:00	1	Sample Duplicate		BD15866	<input checked="" type="checkbox"/>
PZ-11	08/15/2023	11:15	3	Groundwater		BD15867	<input checked="" type="checkbox"/>
MW-6	08/15/2023	12:10	1	Groundwater		BD15868	<input checked="" type="checkbox"/>
MW-5	08/15/2023	12:55	1	Groundwater		BD15869	<input checked="" type="checkbox"/>
MW-8	08/15/2023	13:57	1	Groundwater		BD15870	<input checked="" type="checkbox"/>
MW-9	08/15/2023	15:05	1	Groundwater		BD15871	<input checked="" type="checkbox"/>
FB-1	08/15/2023	15:30	1	Field Blank		BD15872	<input checked="" type="checkbox"/>
MW-10	08/15/2023	16:10	1	Groundwater		BD15873	<input checked="" type="checkbox"/>
EB-1	08/15/2023	16:35	1	Equipment Blank		BD15874	<input checked="" type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>
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							<input type="checkbox"/>
							<input type="checkbox"/>
							<input type="checkbox"/>

Relinquished By	Received By	Date/Time
		08/17/2023 14:02

SmarTroll ID	7586-41445-5-4	Cooler Temp	N/A
Turbidity ID	4677-23343-4-2	Thermometer ID	N/A
Sample Event	1419	pH Strip ID	10853-62410-10-9

Bottles/Pre-Preserved Bottles are provided by the GTL.
 Total Metals and Alkalinity are not performed on Dissolved Sets
 Dissolved Metals and Alkalinity are not performed on blanks i.e. Field Blanks or Equipment Blanks



September 22, 2023

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWBARPU_1418
Pace Project No.: 30616394

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on August 24, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,

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

Enclosures

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



REPORT OF LABORATORY ANALYSIS

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without the written consent of Pace Analytical Services, LLC.



CERTIFICATIONS

Project: WMWBARPU_1418
Pace Project No.: 30616394

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWBARPU_1418
Pace Project No.: 30616394

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30616394001	BD15882 MW-1	Water	08/16/23 10:00	08/24/23 13:53
30616394002	BD15882 MW-1 MS	Water	08/16/23 10:00	08/24/23 13:53
30616394003	BD15882 MW-1 MSD	Water	08/16/23 10:00	08/24/23 13:53
30616394004	BD15883 MW-2	Water	08/16/23 11:30	08/24/23 13:53
30616394005	BD15884 FB-1	Water	08/16/23 11:50	08/24/23 13:53
30616394006	BD15885 MW-3	Water	08/16/23 12:50	08/24/23 13:53
30616394007	BD15886 MW-4	Water	08/16/23 14:10	08/24/23 13:53
30616394008	BD15887 MW-4 Dup	Water	08/16/23 14:10	08/24/23 13:53
30616394009	BD15888 EB-1	Water	08/16/23 14:40	08/24/23 13:53

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30616394001	BD15882 MW-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616394002	BD15882 MW-1 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30616394003	BD15882 MW-1 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
30616394004	BD15883 MW-2	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616394005	BD15884 FB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616394006	BD15885 MW-3	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616394007	BD15886 MW-4	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616394008	BD15887 MW-4 Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616394009	BD15888 EB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARPU_1418
Pace Project No.: 30616394

Method: EPA 9315
Description: 9315 Total Radium
Client: Alabama Power
Date: September 22, 2023

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARPU_1418
Pace Project No.: 30616394

Method: EPA 9320
Description: 9320 Radium 228
Client: Alabama Power
Date: September 22, 2023

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARPU_1418
Pace Project No.: 30616394

Method: Total Radium Calculation
Description: Total Radium 228+226
Client: Alabama Power
Date: September 22, 2023

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.420U ± 0.320 (0.569) C:80% T:NA	pCi/L	09/21/23 12:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.0963U ± 0.291 (0.657) C:80% T:91%	pCi/L	09/19/23 11:18	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.516U ± 0.611 (1.23)	pCi/L	09/22/23 09:11	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Sample: BD15882 MW-1 MS **Lab ID: 30616394002** Collected: 08/16/23 10:00 Received: 08/24/23 13:53 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	102.77 %REC ± NA (NA) C:NA T:NA	pCi/L	09/21/23 11:46	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	85.88 %REC ± NA (NA) C:NA T:NA	pCi/L	09/19/23 11:19	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Sample: BD15882 MW-1 MSD **Lab ID: 30616394003** Collected: 08/16/23 10:00 Received: 08/24/23 13:53 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	107.20 %REC 4.22RPD ± NA (NA) C:NA T:NA	pCi/L	09/21/23 11:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	90.56 %REC 5.31RPD ± NA (NA) C:NA T:NA	pCi/L	09/19/23 11:19	15262-20-1	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.273U ± 0.284 (0.573) C:80% T:NA	pCi/L	09/21/23 11:36	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.116U ± 0.288 (0.644) C:81% T:90%	pCi/L	09/19/23 11:19	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.389U ± 0.572 (1.22)	pCi/L	09/22/23 09:11	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.143U ± 0.212 (0.459) C:93% T:NA	pCi/L	09/21/23 11:45	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.504U ± 0.338 (0.643) C:82% T:92%	pCi/L	09/19/23 11:19	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.647U ± 0.550 (1.10)	pCi/L	09/22/23 09:11	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.284U ± 0.273 (0.540) C:93% T:NA	pCi/L	09/21/23 11:44	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.819 ± 0.386 (0.630) C:84% T:86%	pCi/L	09/19/23 11:34	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.10U ± 0.659 (1.17)	pCi/L	09/22/23 09:11	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.650 ± 0.339 (0.450) C:81% T:NA	pCi/L	09/21/23 18:39	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.906 ± 0.398 (0.606) C:80% T:88%	pCi/L	09/19/23 11:19	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.56 ± 0.737 (1.06)	pCi/L	09/22/23 09:11	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.669 ± 0.346 (0.494) C:93% T:NA	pCi/L	09/21/23 11:45	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.864 ± 0.434 (0.768) C:82% T:87%	pCi/L	09/19/23 11:19	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.53 ± 0.780 (1.26)	pCi/L	09/22/23 09:11	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BD15888 EB-1 Lab ID: 30616394009 Collected: 08/16/23 14:40 Received: 08/24/23 13:53 Matrix: Water PWS: Site ID: Sample Type:						
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.355U ± 0.255 (0.419) C:96% T:NA	pCi/L	09/21/23 11:35	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.559U ± 0.349 (0.654) C:85% T:89%	pCi/L	09/19/23 11:19	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.914U ± 0.604 (1.07)	pCi/L	09/22/23 09:11	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

QC Batch:	614498	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30616394001, 30616394002, 30616394003, 30616394004, 30616394005, 30616394006, 30616394007, 30616394008, 30616394009

METHOD BLANK: 2991831 Matrix: Water

Associated Lab Samples: 30616394001, 30616394002, 30616394003, 30616394004, 30616394005, 30616394006, 30616394007, 30616394008, 30616394009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.0233 ± 0.262 (0.618) C:83% T:92%	pCi/L	09/19/23 11:18	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARPU_1418
 Pace Project No.: 30616394

QC Batch:	612800	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30616394001, 30616394002, 30616394003, 30616394004, 30616394005, 30616394006, 30616394007, 30616394008, 30616394009

METHOD BLANK: 2982883 Matrix: Water

Associated Lab Samples: 30616394001, 30616394002, 30616394003, 30616394004, 30616394005, 30616394006, 30616394007, 30616394008, 30616394009

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.236 ± 0.142 (0.223) C:84% T:NA	pCi/L	09/21/23 11:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: WMWBARPU_1418
Pace Project No.: 30616394

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

Act - Activity

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARPU_1418
 Pace Project No.: 30616394

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30616394001	BD15882 MW-1	EPA 9315	612800		
30616394002	BD15882 MW-1 MS	EPA 9315	612800		
30616394003	BD15882 MW-1 MSD	EPA 9315	612800		
30616394004	BD15883 MW-2	EPA 9315	612800		
30616394005	BD15884 FB-1	EPA 9315	612800		
30616394006	BD15885 MW-3	EPA 9315	612800		
30616394007	BD15886 MW-4	EPA 9315	612800		
30616394008	BD15887 MW-4 Dup	EPA 9315	612800		
30616394009	BD15888 EB-1	EPA 9315	612800		
30616394001	BD15882 MW-1	EPA 9320	614498		
30616394002	BD15882 MW-1 MS	EPA 9320	614498		
30616394003	BD15882 MW-1 MSD	EPA 9320	614498		
30616394004	BD15883 MW-2	EPA 9320	614498		
30616394005	BD15884 FB-1	EPA 9320	614498		
30616394006	BD15885 MW-3	EPA 9320	614498		
30616394007	BD15886 MW-4	EPA 9320	614498		
30616394008	BD15887 MW-4 Dup	EPA 9320	614498		
30616394009	BD15888 EB-1	EPA 9320	614498		
30616394001	BD15882 MW-1	Total Radium Calculation	617381		
30616394004	BD15883 MW-2	Total Radium Calculation	617381		
30616394005	BD15884 FB-1	Total Radium Calculation	617381		
30616394006	BD15885 MW-3	Total Radium Calculation	617381		
30616394007	BD15886 MW-4	Total Radium Calculation	617381		
30616394008	BD15887 MW-4 Dup	Total Radium Calculation	617381		
30616394009	BD15888 EB-1	Total Radium Calculation	617381		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information: Company: Alabama Power Company Address: 744 Highway 87 GSC Bldg #8 Calera, AL 35040 Email To: tbwill@alabamapower.com Phone: 205-664-6101 Fax: Requested Due Date: 28 days	Section B Required Project Information: Report To: Brooke Caton Copy To: Renee Jernigan & Blaine Darton Purchase Order #: APC87119-0001 Project Name: Plant Barry Pooled Upgradient Project Number: WMWBARPU_1418
Section C Invoice Information: Attention: Brooke Caton Company Name: Alabama Power Co. Address: 744 Highway 87 GSC Bldg #8 Pace Quote: CCR Pace Project Manager: Skyler Richmond Pace Profile #: 16788	
Regulatory Agency: _____ State / Location: AL	


ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives		Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Residual Chlorine (Y/N)
									DATE	TIME		H2SO4	HNO3					
1	BD15882	APCO-BY-UP-MW-1	APCO_Barry_Pooled_Upgradient	x			GW	G	8/16/2023	10:00	3			X	X	X		
2	BD15883	APCO-BY-UP-MW-2	APCO_Barry_Pooled_Upgradient				GW	G	8/16/2023	11:30	1			X	X	X		
3	BD15884	APCO-BY-UP-FB-01	APCO_Barry_Pooled_Upgradient				GW	G	8/16/2023	11:50	1			X	X	X		
4	BD15885	APCO-BY-UP-MW-3	APCO_Barry_Pooled_Upgradient				GW	G	8/16/2023	12:50	1			X	X	X		
5	BD15886	APCO-BY-UP-MW-4	APCO_Barry_Pooled_Upgradient				GW	G	8/16/2023	14:10	1			X	X	X		
6	BD15887	APCO-BY-UP-MW-4	APCO_Barry_Pooled_Upgradient	x			GW	G	8/16/2023	14:10	1			X	X	X		
7	BD15888	APCO-BY-UP-EB-01	APCO_Barry_Pooled_Upgradient				GW	G	8/16/2023	14:40	1			X	X	X		
8																		
9																		
10																		
11																		
12																		

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS			
				SIGNATURE	DATE			Y/N	Y/N	Y/N	
	Brooke Caton/ APC GTL	8/18/2023	15:46	<i>Brooke Caton</i>		8/23/23	9:50	N/A	N	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER:
SIGNATURE of SAMPLER:

WO#: 30616394



30616394

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



DC#_Title: ENV-FRM-GBUR-0088 v05_Sample Condition Upon Receipt-
Pittsburgh

WO#: 30616394

Effective Date: 07/06/2023

PM: SCR

Due Date: 09/22/23

Client Name: Alabama Power Corp.

CLIENT: ALABAMA PWR

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Initial / Date

Tracking Number: 7012 3696 8584

Examined By: PS 8/24/23

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Labeled By: PS 8/24/23

Thermometer Used: _____ Type of Ice: Wet Blue None

Temped By: _____

Cooler Temperature: Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C

Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot# 1003121	D.P.D. Residual Chlorine Lot # _____
Chain of Custody Present	/			1.	
Chain of Custody Filled Out: -Were client corrections present on COC	/			2.	
Chain of Custody Relinquished		/	/	3.	
Sampler Name & Signature on COC:		/	/	4.	
Sample Labels match COC: -Includes date/time/ID Matrix:	/			5.	
Samples Arrived within Hold Time:			WT	6.	
Short Hold Time Analysis (<72hr remaining):		/	/	7.	
Rush Turn Around Time Requested:		/	/	8.	
Sufficient Volume:	/			9.	
Correct Containers Used: -Pace Containers Used	/			10.	
Containers Intact:	/			11.	
Orthophosphate field filtered:			/	12.	
Hex Cr Aqueous samples field filtered:			/	13.	
Organic Samples checked for dechlorination			/	14.	
Filtered volume received for dissolved tests:			/	15.	
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	/			16.	
All containers meet method preservation requirements:	/			Initial when completed PS	Date/Time of Preservation
8260C/D: Headspace in VOA Vials (> 6mm)			/	Lot# of added Preservative	
624.1: Headspace in VOA Vials (0mm)			/	17.	
Trip Blank Present:			/	18.	
Rad Samples Screened <0.5 mrem/hr.	X			Trip blank custody seal present? YES or NO	
Comments:				Initial when completed LA	Date: 8-23-23 Survey Meter SN: 1563

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office. PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Client

Site

Plant being Packed Up gradient

Page 1 of 1

Profile Number

16788

Notes

Sample Line Item	Matrix	Amber Glass						Plastic						Vials						Other								
		AG1H	AG3S	AG3U	AG5U	AG5T	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	VG9H	VG9T	VG9U	VOAK	WGFU	WGKU	ZPLC	GCUB	GJN	12GN	GN	BG1U	
001	WT						1																					
002							1																					
003							1																					
004							1																					
005							1																					
006							1																					
007							1																					
008							1																					
009							1																					

Container Codes

Glass	
GJN	1 Gallon Jug with HNO3
AG5U	100mL amber glass unpreserved
AG5T	100mL amber glass Na Thiosulfate
GJN	1 Gallon Jug
AG1S	1L amber glass H2SO4
AG1H	1L amber glass HCl
AG1T	1L amber glass NA Thiosulfate
BG1U	1L clear glass unpreserved
AG3S	250mL amber glass H
AG3U	250mL amber glass ur

WO# : 30616394

PM: SCR Due Date: 09/22/23
 CLIENT: ALABAMA PWR

Plastic/Misc.	
GCUB	1 gallon cubitainer
12GN	1/2 gallon cubitainer
SP5T	120mL coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250mL plastic NAOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved

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

WT	Water
SL	Solid
OL	Non-Aq Liquid
WP	Wipe



Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 9/18/2023
Worklist: 751122
Matrix: WT

Method Blank Assessment	
MB Sample ID	2982883
MB concentration:	0.236
MB 2 Sigma CSU:	0.142
MB MDC:	0.223
MB Numerical Performance Indicator:	3.26
MB Status vs Numerical Indicator:	Fail*
MB Status vs MDC:	N/A

Laboratory Control Sample Assessment		
Count Date:	LCSD (Y or N)?	LCSD751122
9/21/2023	LC5751122	N
Decay Corrected Spike Concentration (pCi/mL):	23.014	
Volume Used (mL):	25.030	
Aliquot Volume (L, g, F):	0.10	
Target Conc. (pCi/L, g, F):	4.891	
Uncertainty (Calculated):	0.230	
Result (pCi/L, g, F):	5.505	
LCSD/CSU 2 Sigma CSU (pCi/L, g, F):	0.954	
Numerical Performance Indicator:	1.23	
Percent Recovery:	112.55%	
Status vs Numerical Indicator:	Pass	
Status vs Recovery:	N/A	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Duplicate Sample Assessment		
Sample ID:	Duplicate Sample ID:	
Sample Result (pCi/L, g, F):	Sample Result (pCi/L, g, F):	
Sample Result 2 Sigma CSU (pCi/L, g, F):	Sample Matrix Spike Result:	
Sample Duplicate Result (pCi/L, g, F):	Sample Matrix Spike Duplicate Result:	
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	
Are sample and/or duplicate results below RL?	Duplicate Numerical Performance Indicator:	
Duplicate Numerical Performance Indicator:	Duplicate RPD:	
Duplicate Status vs Numerical Indicator:	Duplicate Status vs RPD:	
Duplicate Status vs RPD:	% RPD Limit:	

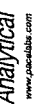
Sample Matrix Spike Control Assessment			
Sample Collection Date:	MS/MSD 1	MS/MSD 2	
8/15/2023	30616384003	30616394001	
30616384004	30616394002	30616394002	
30616384005	30616394003	30616394003	
Spike I.D.:	23-014	23-014	
MSMSD Decay Corrected Spike Concentration (pCi/mL):	25.032	25.032	
Spike Volume Used in MS (mL):	0.20	0.20	
Spike Volume Used in MSD (mL):	0.206	0.206	
MS Aliquot (L, g, F):	24.282	24.300	
MS Target Conc. (pCi/L, g, F):	0.205	0.206	
MSD Aliquot (L, g, F):	24.475	24.327	
MSD Target Conc. (pCi/L, g, F):	1.140	1.142	
MS Spike Uncertainty (calculated):	1.150	1.143	
MSD Spike Uncertainty (calculated):	0.816	0.420	
Sample Result:	0.406	0.320	
Sample Result 2 Sigma CSU (pCi/L, g, F):	25.994	25.392	
Sample Matrix Spike Result:	4.149	4.086	
Matrix Spike Duplicate Result:	25.860	26.499	
Sample Matrix Spike Duplicate Result:	4.162	4.245	
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.416	0.310	
MS Numerical Performance Indicator:	0.257	0.779	
MSD Numerical Performance Indicator:	103.78%	102.77%	
MS Percent Recovery:	102.33%	107.20%	
MSD Percent Recovery:	Pass	Pass	
MS Status vs Numerical Indicator:	Pass	Pass	
MSD Status vs Numerical Indicator:	N/A	N/A	
MS Status vs Recovery:	N/A	N/A	
MSD Status vs Recovery:	125%	125%	
MS/MSD Upper % Recovery Limits:	75%	75%	
MS/MSD Lower % Recovery Limits:			

Matrix Spike/Matrix Spike Duplicate Sample Assessment			
Sample I.D.	Sample MS I.D.	Sample MSD I.D.	Sample MS/MSD I.D.
30616384003	30616384004	30616384005	30616394001
30616384004	30616384005	30616384000	30616394002
30616384005	30616384000	30616384003	30616394003
Sample Matrix Spike Result:	Sample Matrix Spike Duplicate Result:	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Duplicate Numerical Performance Indicator:
4.149	25.994	4.162	1.41%
Sample Matrix Spike Duplicate Result:	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Duplicate Numerical Performance Indicator:	Duplicate Status vs Numerical Indicator:
25.860	4.149	4.245	Pass
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Duplicate Numerical Performance Indicator:	Duplicate Status vs RPD:	Duplicate Status vs RPD:
4.086	4.22%	N/A	N/A
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	MS/MSD Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs RPD:	% RPD Limit:
1.41%	Pass	N/A	25%

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

Comments: ~~When lowest activity sample in this batch is greater than background, the blank is acceptable because the blank must be prepared.~~ N/A MB below RL
 WAM 9/22/23 WAM 9/22/23

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 9/13/2023
Worklist: 75265
Matrix: WT

Method Blank Assessment	
MB Sample ID	2991831
MB concentration:	-0.023
MB 2 Sigma CSU:	0.262
MB MDC:	0.618
MB Numerical Performance Indicator:	-0.17
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	N
LCSD75265	LCSD75265
Count Date:	9/19/2023
Spike I.D.:	23-043
Decay Corrected Spike Concentration (pCi/mL):	39.760
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.817
Target Conc. (pCi/L, g, F):	4.869
Uncertainty (Calculated):	0.239
Result (pCi/L, g, F):	4.388
LCSD/LCSD 2 Sigma CSU (pCi/L, g, F):	0.994
Numerical Performance Indicator:	-0.92
Percent Recovery:	90.14%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

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

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

Comments:

Handwritten notes:
VAL
9/20/23
Analyst

Sample Matrix Spike Control Assessment	
Sample Collection Date:	MS/MSD 1 8/22/2023
Sample I.D.:	30617128003
Sample MS I.D.:	30617128004
Sample MSD I.D.:	30617128005
Spike I.D.:	23-043
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	40.130
Spike Volume Used in MS (mL):	0.20
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.807
MS Target Conc. (pCi/L, g, F):	10.012
MSD Aliquot (L, g, F):	0.803
MSD Target Conc. (pCi/L, g, F):	9.995
MS Spike Uncertainty (calculated):	0.491
MSD Spike Uncertainty (calculated):	0.490
Sample Result:	0.536
Sample Matrix Spike Result:	0.358
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	8.412
Sample Matrix Spike Duplicate Result:	1.708
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	9.853
MS Numerical Performance Indicator:	1.980
MSD Numerical Performance Indicator:	-2.309
MS Percent Recovery:	78.67%
MSD Percent Recovery:	-0.641
MS Status vs Numerical Indicator:	-0.978
MSD Status vs Numerical Indicator:	85.88%
MS Status vs Recovery:	90.56%
MSD Status vs Recovery:	Pass
MS/MSD Upper % Recovery Limits:	135%
MS/MSD Lower % Recovery Limits:	60%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	30617128003
Sample MS I.D.:	30617128004
Sample MSD I.D.:	30617128005
Sample Matrix Spike Result:	8.412
Sample Matrix Spike Duplicate Result:	1.708
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	9.853
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.980
Duplicate Numerical Performance Indicator:	-1.080
Duplicate Numerical Performance Indicator:	16.93%
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	Pass
MS/MSD Duplicate Status vs Numerical Indicator:	Pass
MS/MSD Duplicate Status vs RPD:	Pass
% RPD Limit:	36%



September 22, 2023

Brooke Caton
Alabama Power
744 Highway 87
Calera, AL 35040

RE: Project: WMWBARG_1419
Pace Project No.: 30616384

Dear Brooke Caton:

Enclosed are the analytical results for sample(s) received by the laboratory on August 23, 2023. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

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

Sincerely,

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

Enclosures

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



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: WMWBARG_1419
Pace Project No.: 30616384

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
ANABISO/IEC 17025:2017 Rad Cert#: L24170
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 2950
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA010
Louisiana DEQ/TNI Certification #: 04086
Maine Certification #: 2023021
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572023-03
New Hampshire/TNI Certification #: 297622
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-015
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: TN02867
Texas/TNI Certification #: T104704188-22-18
Utah/TNI Certification #: PA014572223-14
USDA Soil Permit #: 525-23-67-77263
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 460198
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: WMWBARG_1419
Pace Project No.: 30616384

Lab ID	Sample ID	Matrix	Date Collected	Date Received
30616384001	BD15865 MW-7	Water	08/15/23 10:00	08/23/23 09:50
30616384002	BD15866 MW-7 Dup	Water	08/15/23 10:00	08/23/23 09:50
30616384003	BD15867 PZ-11	Water	08/15/23 11:15	08/23/23 09:50
30616384004	BD15867 PZ-11 MS	Water	08/15/23 11:15	08/23/23 09:50
30616384005	BD15867 PZ-11 MSD	Water	08/15/23 11:15	08/23/23 09:50
30616384006	BD15868 MW-6	Water	08/15/23 12:10	08/23/23 09:50
30616384007	BD15869 MW-5	Water	08/15/23 12:55	08/23/23 09:50
30616384008	BD15870 MW-8	Water	08/15/23 13:57	08/23/23 09:50
30616384009	BD15871 MW-9	Water	08/15/23 15:05	08/23/23 09:50
30616384010	BD15872 FB-1	Water	08/15/23 15:30	08/23/23 09:50
30616384011	BD15873 MW-10	Water	08/15/23 16:10	08/23/23 09:50
30616384012	BD15874 EB-1	Water	08/15/23 16:35	08/23/23 09:50

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SAMPLE ANALYTE COUNT

Project: WMWBARG_1419
 Pace Project No.: 30616384

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
30616384001	BD15865 MW-7	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616384002	BD15866 MW-7 Dup	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616384003	BD15867 PZ-11	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616384004	BD15867 PZ-11 MS	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30616384005	BD15867 PZ-11 MSD	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
30616384006	BD15868 MW-6	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616384007	BD15869 MW-5	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616384008	BD15870 MW-8	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616384009	BD15871 MW-9	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616384010	BD15872 FB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616384011	BD15873 MW-10	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA
30616384012	BD15874 EB-1	EPA 9315	SLC	1	PASI-PA
		EPA 9320	JJS1	1	PASI-PA
		Total Radium Calculation	LAL	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARG_1419
Pace Project No.: 30616384

Method: EPA 9315
Description: 9315 Total Radium
Client: Alabama Power
Date: September 22, 2023

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARG_1419
Pace Project No.: 30616384

Method: EPA 9320
Description: 9320 Radium 228
Client: Alabama Power
Date: September 22, 2023

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: WMWBARG_1419
Pace Project No.: 30616384

Method: Total Radium Calculation
Description: Total Radium 228+226
Client: Alabama Power
Date: September 22, 2023

General Information:

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

Hold Time:

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

Method Blank:

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

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

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

Additional Comments:

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

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.718 ± 0.375 (0.584) C:97% T:NA	pCi/L	09/21/23 11:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.459U ± 0.422 (0.844) C:66% T:84%	pCi/L	09/18/23 15:01	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.18U ± 0.797 (1.43)	pCi/L	09/21/23 14:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.775 ± 0.411 (0.624) C:80% T:NA	pCi/L	09/21/23 11:42	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.578U ± 0.408 (0.781) C:68% T:88%	pCi/L	09/18/23 15:01	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.35U ± 0.819 (1.41)	pCi/L	09/21/23 14:56	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.816 ± 0.406 (0.578) C:84% T:NA	pCi/L	09/21/23 11:43	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.447U ± 0.377 (0.743) C:66% T:91%	pCi/L	09/18/23 15:01	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.26U ± 0.783 (1.32)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Sample: BD15867 PZ-11 MS Lab ID: 30616384004 Collected: 08/15/23 11:15 Received: 08/23/23 09:50 Matrix: Water PWS: Site ID: Sample Type:						
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	103.78 %REC ± NA (NA) C:NA T:NA	pCi/L	09/21/23 10:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	74.83 %REC ± NA (NA) C:NA T:NA	pCi/L	09/18/23 15:01	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Sample: BD15867 PZ-11 MSD **Lab ID: 30616384005** Collected: 08/15/23 11:15 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	102.33 %REC 1.41RPD ± NA (NA) C:NA T:NA	pCi/L	09/21/23 11:43	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	87.69 %REC 15.82RPD ± NA (NA) C:NA T:NA	pCi/L	09/18/23 15:02	15262-20-1	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	1.35 ± 0.504 (0.570) C:91% T:NA	pCi/L	09/21/23 11:43	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.359U ± 0.378 (0.768) C:61% T:86%	pCi/L	09/18/23 15:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.71 ± 0.882 (1.34)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Sample: BD15869 MW-5 **Lab ID: 30616384007** Collected: 08/15/23 12:55 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.675 ± 0.335 (0.462) C:92% T:NA	pCi/L	09/21/23 11:43	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.614U ± 0.438 (0.826) C:61% T:82%	pCi/L	09/18/23 15:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.29 ± 0.773 (1.29)	pCi/L	09/21/23 14:56	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Sample: BD15870 MW-8 **Lab ID: 30616384008** Collected: 08/15/23 13:57 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.477U ± 0.307 (0.502) C:89% T:NA	pCi/L	09/21/23 10:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.323U ± 0.366 (0.749) C:61% T:85%	pCi/L	09/18/23 15:02	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.800U ± 0.673 (1.25)	pCi/L	09/21/23 15:01	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.839 ± 0.381 (0.491) C:90% T:NA	pCi/L	09/21/23 10:56	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.155U ± 0.381 (0.827) C:63% T:85%	pCi/L	09/18/23 15:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.994U ± 0.762 (1.32)	pCi/L	09/21/23 15:01	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Sample: BD15872 FB-1 **Lab ID: 30616384010** Collected: 08/15/23 15:30 Received: 08/23/23 09:50 Matrix: Water
 PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.327U ± 0.272 (0.505) C:95% T:NA	pCi/L	09/21/23 11:46	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.123U ± 0.352 (0.772) C:60% T:89%	pCi/L	09/18/23 15:01	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.450U ± 0.624 (1.28)	pCi/L	09/21/23 15:01	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.925 ± 0.440 (0.638) C:79% T:NA	pCi/L	09/21/23 11:46	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.271U ± 0.355 (0.740) C:61% T:88%	pCi/L	09/18/23 15:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.20U ± 0.795 (1.38)	pCi/L	09/21/23 15:01	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.210U ± 0.255 (0.531) C:82% T:NA	pCi/L	09/21/23 11:46	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.331U ± 0.371 (0.760) C:66% T:88%	pCi/L	09/18/23 15:02	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.541U ± 0.626 (1.29)	pCi/L	09/21/23 15:01	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

QC Batch:	612800	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30616384002, 30616384003, 30616384004, 30616384005, 30616384006, 30616384007, 30616384008, 30616384009, 30616384010, 30616384011, 30616384012

METHOD BLANK: 2982883 Matrix: Water

Associated Lab Samples: 30616384002, 30616384003, 30616384004, 30616384005, 30616384006, 30616384007, 30616384008, 30616384009, 30616384010, 30616384011, 30616384012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.236 ± 0.142 (0.223) C:84% T:NA	pCi/L	09/21/23 11:47	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

QC Batch:	614497	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 30616384001, 30616384002, 30616384003, 30616384004, 30616384005, 30616384006, 30616384007, 30616384008, 30616384009, 30616384010, 30616384011, 30616384012

METHOD BLANK: 2991829 Matrix: Water

Associated Lab Samples: 30616384001, 30616384002, 30616384003, 30616384004, 30616384005, 30616384006, 30616384007, 30616384008, 30616384009, 30616384010, 30616384011, 30616384012

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.345 ± 0.359 (0.727) C:66% T:82%	pCi/L	09/18/23 15:00	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALITY CONTROL - RADIOCHEMISTRY

Project: WMWBARG_1419
 Pace Project No.: 30616384

QC Batch: 612798	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 30616384001

METHOD BLANK: 2982881 Matrix: Water

Associated Lab Samples: 30616384001

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0767 ± 0.0962 (0.203) C:95% T:NA	pCi/L	09/21/23 08:36	

Results presented on this page are in the units indicated by the "Units" column except where an alternate unit is presented to the right of the result.

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QUALIFIERS

Project: WMWBARG_1419
Pace Project No.: 30616384

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

Act - Activity

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: WMWBARG_1419
 Pace Project No.: 30616384

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
30616384001	BD15865 MW-7	EPA 9315	612798		
30616384002	BD15866 MW-7 Dup	EPA 9315	612800		
30616384003	BD15867 PZ-11	EPA 9315	612800		
30616384004	BD15867 PZ-11 MS	EPA 9315	612800		
30616384005	BD15867 PZ-11 MSD	EPA 9315	612800		
30616384006	BD15868 MW-6	EPA 9315	612800		
30616384007	BD15869 MW-5	EPA 9315	612800		
30616384008	BD15870 MW-8	EPA 9315	612800		
30616384009	BD15871 MW-9	EPA 9315	612800		
30616384010	BD15872 FB-1	EPA 9315	612800		
30616384011	BD15873 MW-10	EPA 9315	612800		
30616384012	BD15874 EB-1	EPA 9315	612800		
30616384001	BD15865 MW-7	EPA 9320	614497		
30616384002	BD15866 MW-7 Dup	EPA 9320	614497		
30616384003	BD15867 PZ-11	EPA 9320	614497		
30616384004	BD15867 PZ-11 MS	EPA 9320	614497		
30616384005	BD15867 PZ-11 MSD	EPA 9320	614497		
30616384006	BD15868 MW-6	EPA 9320	614497		
30616384007	BD15869 MW-5	EPA 9320	614497		
30616384008	BD15870 MW-8	EPA 9320	614497		
30616384009	BD15871 MW-9	EPA 9320	614497		
30616384010	BD15872 FB-1	EPA 9320	614497		
30616384011	BD15873 MW-10	EPA 9320	614497		
30616384012	BD15874 EB-1	EPA 9320	614497		
30616384001	BD15865 MW-7	Total Radium Calculation	617206		
30616384002	BD15866 MW-7 Dup	Total Radium Calculation	617206		
30616384003	BD15867 PZ-11	Total Radium Calculation	617206		
30616384006	BD15868 MW-6	Total Radium Calculation	617206		
30616384007	BD15869 MW-5	Total Radium Calculation	617206		
30616384008	BD15870 MW-8	Total Radium Calculation	617209		
30616384009	BD15871 MW-9	Total Radium Calculation	617209		
30616384010	BD15872 FB-1	Total Radium Calculation	617209		
30616384011	BD15873 MW-10	Total Radium Calculation	617209		
30616384012	BD15874 EB-1	Total Radium Calculation	617209		

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CHAIN-OF-CUSTODY / Analytical Request Document

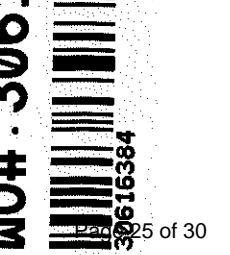
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Alabama Power Company	Report To:	Brooke Caton	Attention:	Brooke Caton
Address:	744 Highway 87 GSC Bldg #8 Calera, AL 35040	Copy To:	Renee Jernigan & Blaine Denton	Company Name:	Alabama Power Co.
Email To:	ibwill@southemco.com	Purchase Order #:	APC87119-0001	Address:	744 Highway 87 GSC Bldg #8
Phone:	205-864-6101	Project Name:	Plant Barry Gypsum	Pace Quote:	CCR
Requested Due Date:	28 days	Project Number:	VWMBARG_1419	Pace Project Manager:	Skyler Richmond
				Pace Profile #:	16788
				Regulatory Agency:	AL
				State / Location:	AL

ITEM #	Description	Station Name Location_ID	Site Name Facility_ID	Sample Duplicate	Matrix Spike/Matrix Spike Duplicate	Field Filtered	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		# OF CONTAINERS	Preservatives			Analyses Test	EPA 9315	EPA 9320	Total Radium Sum	Residual Chlorine (Y/N)
									START DATE	TIME		Unpreserved	H2SO4	HNO3					
1	BD15865	MW-7	APCO-BY-GSA-MW-7	APCO_Barry_GypsumStore			GW	G	8/15/2023	10:00	1				X	X			001
2	BD15866	MW-7 Dup	APCO-BY-GSA-MW-7	APCO_Barry_GypsumStore	x		GW	G	8/15/2023	10:00	1				X	X			002
3	BD15867	PZ-11	APCO-BY-GSA-PZ-11	APCO_Barry_GypsumStore		x	GW	G	8/15/2023	11:15	3				X	X			003,004,005
4	BD15868	MW-6	APCO-BY-GSA-MW-6	APCO_Barry_GypsumStore			GW	G	8/15/2023	12:10	1				X	X			006
5	BD15869	MW-5	APCO-BY-GSA-MW-5	APCO_Barry_GypsumStore			GW	G	8/15/2023	12:55	1				X	X			007
6	BD15870	MW-8	APCO-BY-GSA-MW-8	APCO_Barry_GypsumStore			GW	G	8/15/2023	13:57	1				X	X			008
7	BD15871	MW-9	APCO-BY-GSA-MW-9	APCO_Barry_GypsumStore			GW	G	8/15/2023	15:05	1				X	X			009
8	BD15872	FB-1	APCO-BY-GSA-FB-01	APCO_Barry_GypsumStore			GW	G	8/15/2023	15:30	1				X	X			010
9	BD15873	MW-10	APCO-BY-GSA-MW-10	APCO_Barry_GypsumStore			GW	G	8/15/2023	16:10	1				X	X			011
10	BD15874	EB-1	APCO-BY-GSA-EB-01	APCO_Barry_GypsumStore			GW	G	8/15/2023	16:35	1				X	X			012
11																			
12																			

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Brooke Caton / APC-GTL	8/18/2023	15:44	<i>Brooke Caton</i>	8/22/23	9:50	TEMP in C N/A Ice (Y/N) N Sealed (Y/N) Y Cooler (Y/N) Y Samples (Y/N) Y

WO#: 30616384



30616384

5 of 30



DC#_Title: ENV-FRM-GBUR-0088 v05_Sample Condition Upon Receipt-
Pittsburgh

Effective Date: 07/06/2023

WO#: 30616384

PM: SCR

Due Date: 09/21/23

CLIENT: ALABAMA PWR

Client Name: Alabama Power Corp.

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking Number: 7012 3696 8584

Examined By: PS 8/24/23
Labeled By: PS 8/24/23
Temped By:

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Thermometer Used: _____ Type of Ice: Wet Blue (None)

Cooler Temperature: Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C
Temp should be above freezing to 6°C

Comments:	Yes	No	NA	pH paper Lot#	D.P.D. Residual Chlorine Lot #
				1003121	_____
Chain of Custody Present	/			1.	
Chain of Custody Filled Out: -Were client corrections present on COC	/			2.	
Chain of Custody Relinquished		/		3.	
Sampler Name & Signature on COC:		/		4.	
Sample Labels match COC: -Includes date/time/ID Matrix:	/			5.	
Samples Arrived within Hold Time:		WT		6.	
Short Hold Time Analysis (<72hr remaining):		/		7.	
Rush Turn Around Time Requested:		/		8.	
Sufficient Volume:	/			9.	
Correct Containers Used: -Pace Containers Used	/			10.	
Containers Intact:	/			11.	
Orthophosphate field filtered:			/	12.	
Hex Cr Aqueous samples field filtered:			/	13.	
Organic Samples checked for dechlorination			/	14.	
Filtered volume received for dissolved tests:			/	15.	
All containers checked for preservation: exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, non-aqueous matrix	/			16.	
All containers meet method preservation requirements:	/			Initial when completed PS	Date/Time of Preservation
8260C/D: Headspace in VOA Vials (> 6mm)			/	Lot# of added Preservative	
624.1: Headspace in VOA Vials (0mm)			/	17.	
Trip Blank Present:			/	18.	
Rad Samples Screened <0.5 mrem/hr.	X			Trip blank custody seal present? YES or NO	
Comments:				Initial when completed LA	Date: 8-23-23 Survey Meter SN: 1563

Note: For NC compliance samples with discrepancies, a copy of this form must be sent to the DEHNR Certification office.
PM Review is documented electronically in LIMS through the SRF Review schedule in the Workorder Edit Screen.

Client

Site Plant Berry Gypsum

Page 1 of 1

Profile Number

16788

Notes

Sample Line Item	Amber Glass					Plastic					Vials					Other												
	AG1H	AG3S	AG3U	AG5U	AG5T	BP1N	BP1U	BP2S	BP2U	BP3C	BP3N	BP3S	BP3U	DG9S	VG9H	VG9T	VG9U	VOAK	WG9U	WG9V	WG9W	ZPLC	GCUB	GJN	12GN	GN	BG1U	
001						1																						
002						1																						
003						1																						
004						1																						
005						1																						
006						1																						
007						1																						
008						1																						
009						1																						
010						1																						
011						1																						
012						1																						

Container Codes

Glass	
GJN	1 Gallon Jug with HNO3
AG5U	100mL amber glass unpreserved
AG5T	100mL amber glass Na Thiosulfate
GJN	1 Gallon Jug
AG1S	1L amber glass H2SO4
AG1H	1L amber glass HCl
AG1T	1L amber glass NA Thiosulfate
BG1U	1L clear glass unpreserved
AG3S	250mL amber glass H2SO
AG3U	250mL amber glass unpreserved

WO# : 30616384

PM: SCR
 CLIENT: ALABAMA PWR
 Due Date: 09/21/23

Qualtrax ID: 55678

Plastic/Misc.	
GCUB	1 gallon cubitainer
12GN	1/2 gallon cubitainer
SP5T	120mL coliform Na Thiosulfate
BP1N	1L plastic HNO3
BP1U	1L plastic unpreserved
BP3S	250mL plastic H2SO4
BP3N	250mL plastic HNO3
BP3U	250mL plastic unpreserved
BP3C	250mL plastic NAOH
BP2S	500mL plastic H2SO4
BP2U	500mL plastic unpreserved

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

WT	Water
SL	Solid
OL	Non-Aq Liquid
WP	Wipe

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: JJS1
Date: 9/14/2023
Worklist: 75264
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2991829
MB concentration:	0.345
M/B 2 Sigma CSU:	0.359
MB MDC:	0.727
MB Numerical Performance Indicator:	1.88
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS/D (Y or N)?	N
Count Date:	9/18/2023	LCS/75264	LCS/D75264
Spike I.D.:	23-043		
Decay Corrected Spike Concentration (pCi/ml):	39.773		
Volume Used (ml):	0.10		
Aliquot Volume (L, g, F):	0.816		
Target Conc. (pCi/L, g, F):	4.874		
Uncertainty (Calculated):	0.239		
Result (pCi/L, g, F):	4.803		
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.136		
Numerical Performance Indicator:	-0.12		
Percent Recovery:	98.55%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	135%		
Lower % Recovery Limits:	60%		

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

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	8/15/2023		
Sample I.D.:	306163984003		
Sample MS I.D.:	306163984004		
Sample MSD I.D.:	306163984005		
Spike I.D.:	23-043		
MS/MSD Decay Corrected Spike Concentration (pCi/ml):	40.224		
Spike Volume Used in MS (ml):	0.20		
Spike Volume Used in MSD (ml):	0.20		
MS Aliquot (L, g, F):	0.803		
MS Target Conc. (pCi/L, g, F):	10.024		
MSD Aliquot (L, g, F):	0.802		
MSD Target Conc. (pCi/L, g, F):	10.025		
MS Spike Uncertainty (calculated):	0.491		
MSD Spike Uncertainty (calculated):	0.491		
Sample Result:	0.447		
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.377		
Sample Matrix Spike Result:	7.948		
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	1.633		
Sample Matrix Spike Duplicate Result:	9.239		
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.871		
MS Numerical Performance Indicator:	-1.227		
MSD Numerical Performance Indicator:	74.83%		
MS Percent Recovery:	87.69%		
MSD Percent Recovery:	Warning		
MS Status vs Numerical Indicator:	Pass		
MSD Status vs Numerical Indicator:	Pass		
MS Status vs Recovery:	Pass		
MSD Status vs Recovery:	Pass		
MS/MSD Upper % Recovery Limits:	135%		
MS/MSD Lower % Recovery Limits:	60%		

Matrix Spike/Matrix Spike Duplicate Sample Assessment		MS/MSD Duplicate Status vs RPD:	MS/MSD Duplicate Status vs RPD:
Sample I.D.:	306163984003	Pass	Pass
Sample MS I.D.:	306163984004	Pass	Pass
Sample MSD I.D.:	306163984005	Pass	Pass
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	7.948	Pass	Pass
Sample Matrix Spike Result:	1.633	Pass	Pass
Matrix Spike Duplicate Result:	9.239	Pass	Pass
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.871	Pass	Pass
Duplicate Numerical Performance Indicator:	-1.018	Pass	Pass
(Based on the Percent Recovery) MS/MSD Duplicate RPD:	15.82%	Pass	Pass
MS/MSD Duplicate Status vs Numerical Indicator:	Pass	Pass	Pass
MS/MSD Duplicate Status vs RPD:	36%	Pass	Pass
% RPD Limit:			

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

Comments:

Handwritten initials/signature

WAL

9/20/23

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: SLC
Date: 9/7/2023
Worklist: 75121
Matrix: WT

Method Blank Assessment	
MB Sample ID	2982881
MB concentration:	0.077
MB 2 Sigma CSU:	0.096
MB MDC:	0.203
MB Numerical Performance Indicator:	1.56
MB Status vs. Numerical Indicator:	Pass
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment	
LCS(Y or N)?	N
LCS75121	LCS075121
Count Date:	9/21/2023
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.013
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.501
Target Conc. (pCi/L, g, F):	4.791
Uncertainty (Calculated):	0.057
Result (pCi/L, g, F):	6.226
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.060
Numerical Performance Indicator:	2.65
Percent Recovery:	129.94%
Status vs Numerical Indicator:	Warning
Status vs Recovery:	N/A
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Sample Matrix Spike Control Assessment	
Sample I.D.	Sample Collection Date:
30616376005	8/15/2023
30616376006	Sample MS I.D.:
30616376007	Sample MSD I.D.:
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	19-033
Spike Volume Used in MS (mL):	24.014
Spike Volume Used in MSD (mL):	0.20
MS Aliquot (L, g, F):	0.20
MS Target Conc. (pCi/L, g, F):	0.212
MSD Aliquot (L, g, F):	22.678
MSD Target Conc. (pCi/L, g, F):	0.213
MSD Numerical Performance Indicator:	22.517
MS Spike Uncertainty (calculated):	0.272
MS Spike Uncertainty (calculated):	0.270
Sample Result 2 Sigma CSU (pCi/L, g, F):	0.080
Sample Matrix Spike Result:	0.215
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	25.708
Sample Matrix Spike Duplicate Result:	4.089
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	25.070
MS Numerical Performance Indicator:	4.010
MS Percent Recovery:	1.409
MS Status vs Numerical Indicator:	113.01%
MS Status vs Recovery:	110.96%
MSD Status vs Numerical Indicator:	Pass
MSD Status vs Recovery:	Pass
MS/MSD Upper % Recovery Limits:	N/A
MS/MSD Lower % Recovery Limits:	N/A
MS/MSD Duplicate Status vs RPD:	125%
% RPD Limit:	75%

Duplicate Sample Assessment	
Sample I.D.:	Sample I.D.:
Duplicate Sample I.D.:	Duplicate Sample I.D.:
Sample Result (pCi/L, g, F):	Sample Result (pCi/L, g, F):
Sample Duplicate Result (pCi/L, g, F):	Sample Duplicate Result (pCi/L, g, F):
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Are sample and/or duplicate results below RL?	Are sample and/or duplicate results below RL?
Duplicate Numerical Performance Indicator:	Duplicate Numerical Performance Indicator:
Duplicate RPD:	Duplicate RPD:
Duplicate Status vs Numerical Indicator:	Duplicate Status vs Numerical Indicator:
Duplicate Status vs RPD:	Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit:

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.	Sample I.D.
30616376005	30616376011
30616376006	30616376012
30616376007	30616376013
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Sample Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Duplicate Numerical Performance Indicator:	Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:	MS/MSD Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit:

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

Comments:

UAM 9/21/23

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: SLC
Date: 9/8/2023
Worklist: 75122
Matrix: WT

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	2982883
MB concentration:	0.236
MB 2 Sigma CSU:	0.142
MB MDC:	0.223
MB Numerical Performance Indicator:	3.26
MB Status vs Numerical Indicator:	Fail*
MB Status vs. MDC:	N/A

Laboratory Control Sample Assessment		LCSD (Y or N)?	LCSD75122	N
Count Date:	9/21/2023	LCSD75122		
Spike ID:	23-014			
Decay Corrected Spike Concentration (pCi/mL):	25.030			
Volume Used (mL):	0.10			
Alliquot Volume (L, g, F):	4.891			
Target Conc. (pCi/L, g, F):	0.230			
Uncertainty (Calculated):	5.505			
Result (pCi/L, g, F):	0.954			
LCSD/CSU 2 Sigma CSU (pCi/L, g, F):	1.23			
Numerical Performance Indicator:	112.55%			
Percent Recovery:	Pass			
Status vs Numerical Indicator:	Pass			
Status vs Recovery:	N/A			
Upper % Recovery Limits:	125%			
Lower % Recovery Limits:	75%			

Duplicate Sample Assessment	
Sample ID:	Duplicate Sample ID:
Sample Result (pCi/L, g, F):	Sample Result (pCi/L, g, F):
Sample Result 2 Sigma CSU (pCi/L, g, F):	Sample Matrix Spike Result:
Sample Duplicate Result (pCi/L, g, F):	Sample Matrix Spike Duplicate Result:
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):
Are sample and/or duplicate results below RL?	Duplicate Numerical Performance Indicator:
Duplicate Numerical Performance Indicator:	Duplicate RPD:
Duplicate Status vs Numerical Indicator:	Duplicate Status vs Numerical Indicator:
Duplicate Status vs RPD:	Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit:

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	8/15/2023	8/15/2023	8/16/2023
Sample ID:	30616384003	30616384003	30616394001
Sample MS ID:	30616384004	30616384004	30616394002
Sample MSD ID:	30616384005	30616384005	30616394003
Spike ID:	23-014	23-014	23-014
MSMSD Decay Corrected Spike Concentration (pCi/mL):	25.032	25.032	25.032
Spike Volume Used in MS (mL):	0.20	0.20	0.20
Spike Volume Used in MSD (mL):	0.206	0.206	0.206
MS Aliquot (L, g, F):	24.282	24.300	24.300
MS Target Conc. (pCi/L, g, F):	0.205	0.205	0.206
MSD Aliquot (L, g, F):	24.475	24.327	24.327
MSD Target Conc. (pCi/L, g, F):	1.140	1.142	1.142
MS Spike Uncertainty (calculated):	1.150	1.143	1.143
MSD Spike Uncertainty (calculated):	0.816	0.816	0.420
Sample Result:	0.406	0.320	0.320
Sample Matrix Spike Result:	25.994	25.994	25.392
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	4.149	4.149	4.086
Sample Matrix Spike Duplicate Result:	25.860	26.499	26.499
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.162	4.245	4.245
MS Numerical Performance Indicator:	0.416	0.310	0.310
MSD Numerical Performance Indicator:	0.257	0.779	0.779
MS Percent Recovery:	103.78%	102.77%	102.77%
MSD Percent Recovery:	102.33%	107.20%	107.20%
MS Status vs Numerical Indicator:	Pass	Pass	Pass
MSD Status vs Numerical Indicator:	Pass	Pass	Pass
MS Status vs Recovery:	N/A	N/A	N/A
MSD Status vs Recovery:	N/A	N/A	N/A
MS/MSD Upper % Recovery Limits:	125%	125%	125%
MS/MSD Lower % Recovery Limits:	75%	75%	75%

Matrix Spike/Matrix Spike Duplicate Sample Assessment		
Sample ID:	30616384003	30616394001
Sample MS ID:	30616384004	30616394002
Sample MSD ID:	30616384005	30616394003
Sample Matrix Spike Result:	25.994	25.392
Sample Matrix Spike Duplicate Result:	4.149	4.086
Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):	25.860	26.499
Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):	4.162	4.245
Duplicate Numerical Performance Indicator:	0.045	-0.368
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	1.41%	4.22%
Duplicate Status vs Numerical Indicator:	Pass	Pass
MS/MSD Duplicate Status vs RPD:	N/A	N/A
MS/MSD Duplicate Status vs RPD:	N/A	N/A
% RPD Limit:	25%	25%

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

Comments: ~~When lowest activity sample in this batch is greater than background, the blank is acceptable because the blank must be prepared.~~ N/A MB below RL
 WAM 9/22/23 WAM 9/22/23

Appendix D



Appendix D. Horizontal Groundwater Flow Velocity Calculations Plant Barry Gypsum Pond

2023 First Semi-Annual Monitoring Event								
Date of Measurement	MW-2	MW-7	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h_1 (ft)	h_2 (ft)	Δl (ft)	$\Delta h/\Delta l$ (ft/ft)	K (ft/d)	n	(ft/d)	(ft/yr)
6/11/2023	5.35	3.98	1138.82	0.00120	9.40	0.25	0.045	16.5

2023 Second Semi-Annual Monitoring Event								
Date of Measurement	MW-2	MW-7	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity	Calculated Groundwater Flow Velocity
	h_1 (ft)	h_2 (ft)	Δl (ft)	$\Delta h/\Delta l$ (ft/ft)	K (ft/d)	n	(ft/d)	(ft/yr)
8/7/2023	4.80	3.64	1138.82	0.00102	9.40	0.25	0.038	14.0

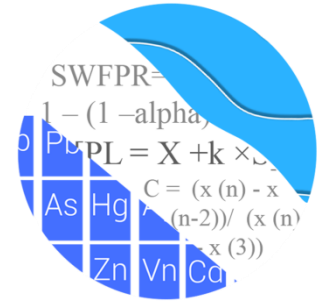
Notes:

The hydraulic conductivity value utilized in this calculation was derived from an aquifer pumping test previously conducted

ft = feet; ft/d = feet per day; ft/ft = feet per foot; ft/yr = feet per year

Appendix E

GROUNDWATER STATS CONSULTING



July 14, 2023

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Barry Gypsum Pond
1st Semi-Annual Analysis – April 2023

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 April 2023 1st semi-annual sample event for Alabama Power Company's Plant Barry Gypsum Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals (CCR) from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BY-UP-MW-1, BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4
- **Downgradient wells:** BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-MW-10, and BY-GSA-PZ-11

Note that BY-GSA-PZ-11 was converted from a piezometer to a downgradient monitoring well. Since this well has the required minimum of 4 samples, data from this well are evaluated with confidence intervals for Appendix IV constituents. Prediction limits will be used to evaluate Appendix III constituents when a minimum of 8 samples are available.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to Groundwater Stats Consulting. The analysis was reviewed by Kristina Rayner, Founder and Senior Statistician of Groundwater Stats Consulting.

The CCR program consists of the following constituents:

Appendix III (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Appendix IV (Assessment Monitoring) - antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of Appendix IV downgradient well/constituent pairs with 100% non-detects follows this letter. For all constituents, a substitution of the most recent reporting limit is used for non-detect data. This generally gives the most conservative limit in each case. Due to historic varying detection limits, the following reporting limits were substituted across all wells:

- Arsenic: 0.000203 mg/L
- Cadmium: 0.000203 mg/L
- Chromium: 0.00102 mg/L
- Cobalt: 0.005 mg/L
- Lead: 0.000203 mg/L
- Selenium: 0.001015 mg/L

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). A substitution of the most recent reporting limit is used for non-detect data. Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Any 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. Summary tables of all flagged values follow this report (Figure C).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on analysis of

the spatial variability of groundwater quality data among wells upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves are provided in this report to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves are based on the following statistical methods and site/data characteristics:

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan
- Interwell Prediction Limits with 1-of-2 resample plan
- # Background Samples (Intrawell): 15
- # Background Samples (Interwell): 80
- # Constituents: 7
- # Downgradient wells: 6

Summary of Statistical Methods – Appendix III Parameters

Based on the earlier evaluation described above, the following statistical methods were selected:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for chloride and sulfate
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, fluoride, pH, and TDS

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the annual false positive rate associated with parametric limits is fixed at 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with nonparametric limits is not fixed and depends upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (USEPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).

- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In the interwell case, prediction limits are updated with upgradient well data following each sampling event after careful screening for any new outliers. While not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Background Update – Conducted in Fall 2021

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, were updated during the Fall 2021 by testing for the appropriateness of consolidating new sampling observations with the screened background data. This process is described below and requires a minimum of four new data points. Historical data were evaluated for updating with newer data through May 2021 through the use of time series graphs to identify potential outliers, when necessary, as well as the Mann Whitney test for equality of medians. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate chloride and sulfate at all wells due to spatial variation for these parameters.

Interwell prediction limits, which compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data, are updated during each sample event. Data from upgradient wells are periodically

re-screened for newly developing trends, which may require adjustment of the background period to eliminate the trend, as well as for outliers over the entire record. Interwell prediction limits are used to evaluate boron, calcium, fluoride, pH and TDS.

Outlier Analysis

Proposed background data through May 2021 were reviewed to identify any newly suspected outliers at all wells for chloride and sulfate, and through October 2021 at upgradient wells for boron, calcium, fluoride, pH, and TDS. No new outliers were noted. When values are identified as outliers, these measurements are flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative (i.e., lower) from a regulatory perspective. Also, outliers that are not identified as significant by Tukey's test may be identified visually. Typically, the most recent value is not flagged as an outlier in the event that it precedes future trends. As mentioned above, all flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages.

Mann-Whitney

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2019 to compliance data through May 2021. When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with newer compliance data. Statistically significant differences (either an increase or decrease in median concentrations) were found between the two groups for the following well/constituent pairs:

Increase

- Sulfate: BY-GSA-MW-8 and BY-GSA-MW-9

Decrease

- Chloride: BY-UP-MW-4 (upgradient)

Typically, when the test concludes that the medians of the two groups are statistically significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data unless it can be reasonably justified that the change in concentrations reflects a naturally occurring shift unrelated to practices at the site. In studies such as the current one, in which at least one of the segments being compared is

of short duration, the comparison is complicated by the fact that normal short-term variation may be mistaken for long-term change in medians.

The record for chloride at upgradient well BY-GSA-MW-4 was updated since data at upgradient wells represent groundwater quality unimpacted by the facility. Additionally, the decreasing shift between historical and compliance data was small and signifies lower concentrations, which subsequently results in a more conservative (i.e., lower) statistical limit.

Regarding the statistically significant increases in medians for sulfate at wells BY-GSA-MW-8 and BY-GSA-MW-9, the group of new measurements were similar to those observed historically for both wells, and similar to reported concentrations of sulfate in at least one upgradient well which typically indicates variation in groundwater quality rather than a result of practices from the facility. Therefore, these records were updated with more recent data.

Trend Tests – Upgradient Wells

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for parameters utilizing interwell prediction limits. When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data may require deselection prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. The following upgradient well/constituent pairs were found to have statistically significant trends:

Increasing

- Calcium: BY-UP-MW-3 and BY-UP-MW-4
- Fluoride: BY-UP-MW-2
- TDS: BY-UP-MW-1, BY-UP-MW-2, and BY-UP-MW-4

Decreasing

- pH: BY-UP-MW-2, BY-UP-MW-3 and BY-UP-MW-4

The median slopes for calcium, pH and TDS at the above wells were small relative to average concentrations at these wells and reported measurements were similar across all upgradient wells. In the case of fluoride, the increasing trend is a result of non-detects in the more recent portion of the record compared to trace values reported in the historical portion of the record. Therefore, no adjustments were required to any of the records.

Evaluation of Appendix III Parameters – April 2023

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 spatial variation for a release from the facility. Background data are re-evaluated when a minimum of 4 compliance samples are available.

Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

Prediction Limits – April 2023

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed for chloride and sulfate using screened background data through May 2021 at each well (Figure D). The April 2023 sample at each well was compared to its respective intrawell prediction limit. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs, and a summary of all flagged outliers follows this report (Figure C).

Interwell prediction limits combined with a 1-of-2 resample plan were constructed for boron, calcium, fluoride, pH, and TDS using pooled upgradient well data through April 2023 (Figure E).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When the resample confirms the initial exceedance, a statistically significant increase (SSI) is identified, and further research is required to identify the cause of the exceedance (i.e., impact from the site, natural variation, or an off-site source). If a resample falls within the statistical limit, the initial exceedance is considered to be a false positive result; therefore, no further action is necessary. A summary of the prediction limits results may be found in the Prediction Limit Summary tables following this letter (pages 14-17). The following exceedances were noted for the interwell and intrawell prediction limits:

Intrawell:

- Chloride: BY-GSA-MW-6 and BY-GSA-MW-7
- Sulfate: BY-GSA-MW-5 and BY-GSA-MW-6

Interwell:

- Boron: BY-GSA-MW-5 and BY-GSA-MW-6
- Calcium: BY-GSA-MW-5 and BY-GSA-MW-6
- Fluoride: BY-GSA-MW-6
- pH: BY-GSA-MW-6
- TDS: BY-GSA-MW-5 and BY-GSA-MW-6

Trend Tests

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 99% confidence level (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 variability in groundwater that is unrelated to practices at the site. A summary of the trend test results follows this letter (pages 18-19). Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Calcium: BY-UP-MW-3 and BY-UP-MW-4 (both upgradient)
- Chloride: BY-GSA-MW-7
- Fluoride: BY-UP-MW-1 and BY-UP-MW-2 (both upgradient)
- TDS: BY-UP-MW-4 (upgradient)

Decreasing:

- Chloride: BY-UP-MW-2, BY-UP-MW-3, BY-UP-MW-4 (all upgradient)
- pH: BY-UP-MW-2, BY-UP-MW-3, BY-UP-MW-4 (all upgradient), and BY-UP-MW-6

Evaluation of Appendix IV Parameters – April 2023

Data from upgradient wells for Appendix IV parameters were reassessed for outliers during previous analyses. A summary of previously flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management (ADEM), the Groundwater Protections Standards (GWPS) were updated during the 2021 2nd semi-annual statistical analysis. The GWPS will be updated again during the 2023 2nd semi-annual statistical analysis. The methodology used to create these GWPS is described below.

Interwell Upper Tolerance Limits

First, background limits were determined using tolerance limits constructed from pooled upgradient well data through October 2021 (Figure G). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As requested by ADEM to eliminate variation among upgradient well data, nonparametric tolerance limits, which use the highest value in background as the statistical limit, were constructed. A summary table of the upper tolerance limits (page 20).

Groundwater Protection Standards

These background limits were then compared to the Maximum Contaminant Levels (MCLs) for each parameter, and the higher of the two was used as the GWPS (Figure J, page 21) in the confidence interval comparisons described below.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through April 2023 for each of the Appendix IV parameters (Figure I). These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. When data followed a normal or transformed-normal distribution, parametric confidence intervals were used for Appendix IV parameters. Nonparametric confidence intervals were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

As mentioned above, well/constituent pairs containing 100% non-detects for the most recent 8 samples did not require statistics; therefore, they were deselected prior to construction of confidence intervals. A list of deselected well/constituent pairs follows this

report. Each confidence interval was compared with the corresponding GWPS. Only when the entire confidence interval is above the GWPS is the well/constituent pair considered to exceed its respective standard. Both a tabular summary and graphical presentation of the confidence interval results follow this letter (page 22). 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,

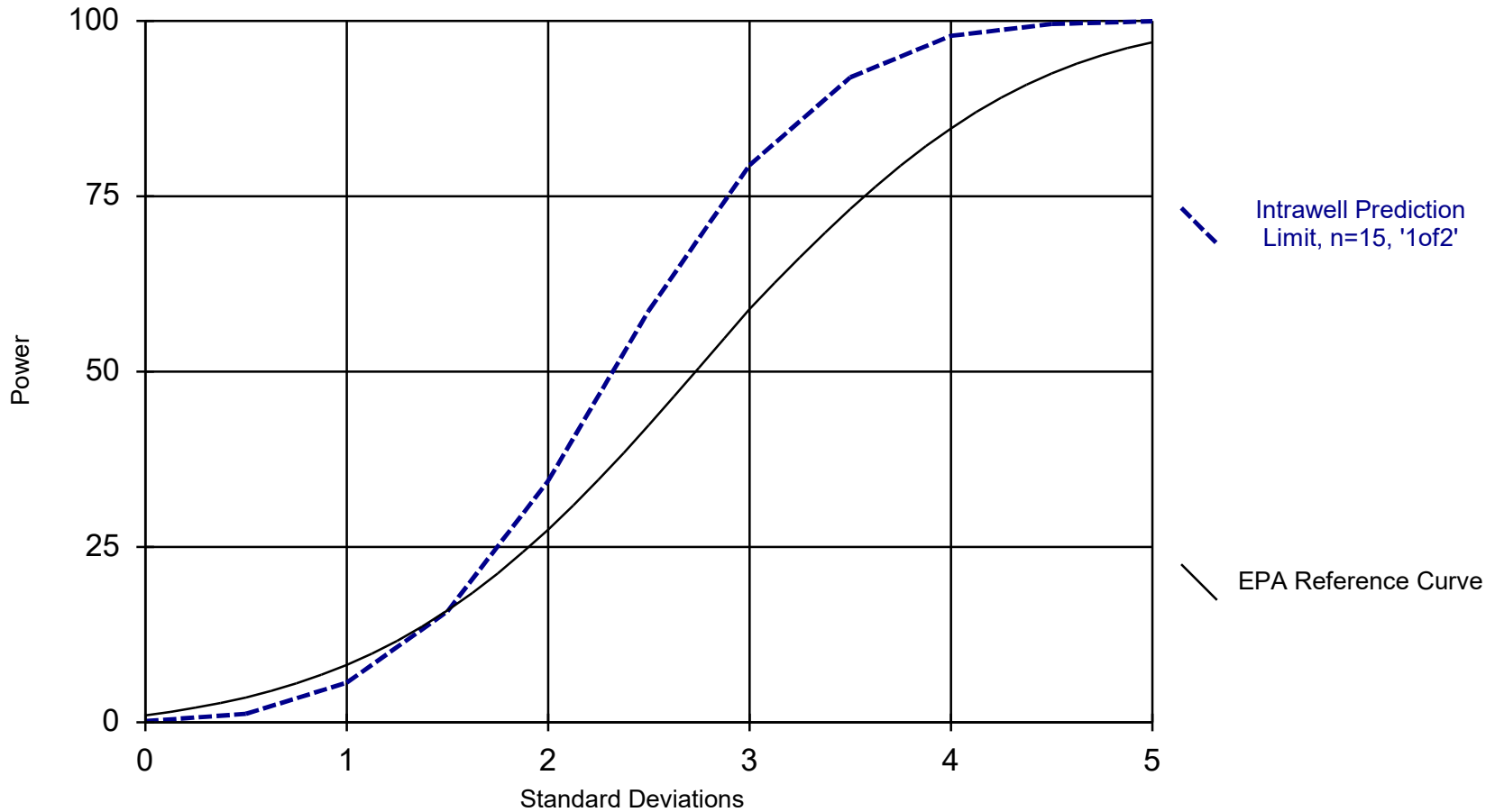


Andrew Collins
Project Manager



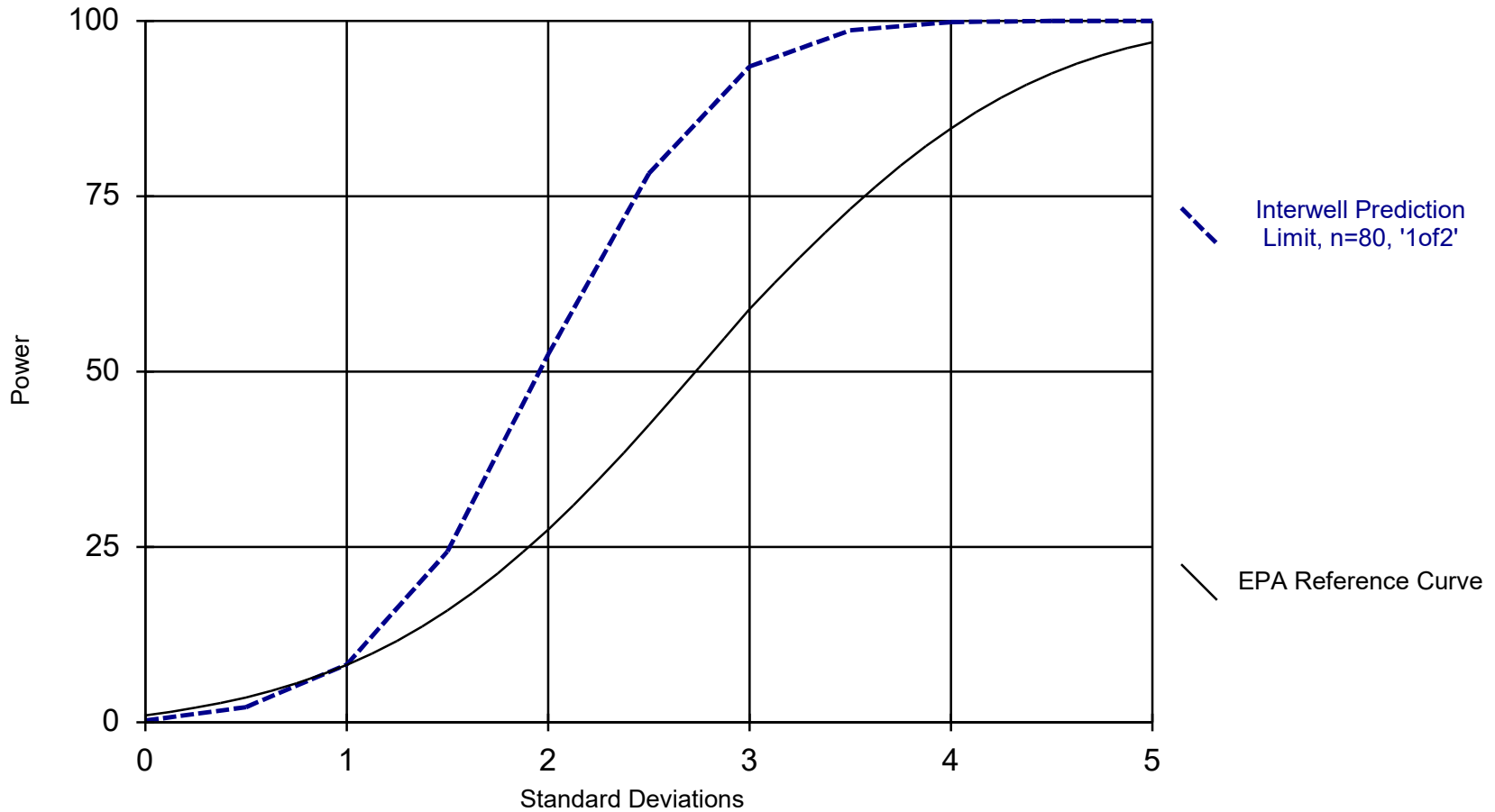
Kristina Rayner
Senior Statistician

Intrawell Power Curve



Kappa = 2.25, based on 6 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Interwell Power Curve



Kappa = 1.857, based on 6 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

100% Non-Detects: Appendix IV Downgradient

Analysis Run 7/13/2023 2:18 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Antimony (mg/L)

BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Beryllium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Cadmium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Fluoride (mg/L)

BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Lead (mg/L)

BY-GSA-MW-8

Lithium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Mercury (mg/L)

BY-GSA-MW-10, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Molybdenum (mg/L)

BY-GSA-MW-10, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-9, BY-GSA-PZ-11

Thallium (mg/L)

BY-GSA-MW-10, BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-PZ-11

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/14/2023, 12:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-6	7.663	n/a	4/11/2023	7.94	Yes	16	4.996	1.21	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	4/11/2023	22.6	Yes	16	1.782	0.4263	0	None	ln(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	4/11/2023	34.8	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	43.64	n/a	4/11/2023	53.6	Yes	15	18.13	11.34	0	None	No	0.001254	Param Intra 1 of 2

Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/14/2023, 12:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N Bg	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-10	5.122	n/a	4/11/2023	3.17	No	16	3.79	0.6038	0	None	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-5	6.23	n/a	4/11/2023	5.21	No	16	n/a	n/a	6.25	n/a	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-6	7.663	n/a	4/11/2023	7.94	Yes	16	4.996	1.21	0	None	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	4/11/2023	22.6	Yes	16	1.782	0.4263	0	None	None	ln(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-8	5.581	n/a	4/11/2023	5.2	No	16	4.673	0.412	0	None	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-9	11.11	n/a	4/11/2023	4.32	No	16	6.335	2.163	0	None	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-1	7.803	n/a	4/12/2023	2.31	No	16	1.317	0.3346	0	None	None	ln(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-2	5.452	n/a	4/12/2023	2.25	No	16	3.622	0.8297	0	None	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-3	4.6	n/a	4/12/2023	3.11	No	16	n/a	n/a	0	n/a	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-UP-MW-4	4.448	n/a	4/12/2023	3.42	No	16	1.912	0.08933	0	None	None	sqrt(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.19	n/a	4/11/2023	11.9	No	16	9.999	1.445	0	None	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	4/11/2023	34.8	Yes	16	2.238	0.4647	0	None	None	x^(1/3)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	43.64	n/a	4/11/2023	53.6	Yes	15	18.13	11.34	0	None	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.32	n/a	4/11/2023	1ND	No	16	3.349	0.8938	0	None	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.631	n/a	4/11/2023	5.57	No	16	3.852	0.8066	0	None	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	13.89	n/a	4/11/2023	10.2	No	16	8.877	2.273	0	None	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-1	28.44	n/a	4/12/2023	11.8	No	16	3.458	0.85	0	None	None	sqrt(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-2	9.382	n/a	4/12/2023	8.54	No	16	6.282	1.406	0	None	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-3	8.868	n/a	4/12/2023	7.59	No	16	7.496	0.6224	0	None	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-4	10.8	n/a	4/12/2023	5.93	No	16	n/a	n/a	0	n/a	n/a	n/a	0.006456	NP Intra (normality) 1 of 2

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 2:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg. N	Bg. Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	4/11/2023	0.54	Yes	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	4/11/2023	0.925	Yes	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.07	n/a	4/11/2023	6.62	Yes	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.07	n/a	4/11/2023	10.9	Yes	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	4/11/2023	0.135	Yes	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	4/11/2023	5.34	Yes	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	4/11/2023	70.7	Yes	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	4/11/2023	106	Yes	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 2:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-10	0.188	n/a	4/11/2023	0.0503J	No	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	4/11/2023	0.54	Yes	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	4/11/2023	0.925	Yes	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	4/11/2023	0.1015ND	No	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	4/11/2023	0.0345J	No	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	4/11/2023	0.0664J	No	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-10	2.07	n/a	4/11/2023	1.16	No	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.07	n/a	4/11/2023	6.62	Yes	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.07	n/a	4/11/2023	10.9	Yes	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-7	2.07	n/a	4/11/2023	1.82	No	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-8	2.07	n/a	4/11/2023	0.971	No	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-9	2.07	n/a	4/11/2023	1.49	No	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.125	n/a	4/11/2023	0.125ND	No	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.125	n/a	4/11/2023	0.0834J	No	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	4/11/2023	0.135	Yes	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.125	n/a	4/11/2023	0.125ND	No	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.125	n/a	4/11/2023	0.125ND	No	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.125	n/a	4/11/2023	0.125ND	No	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-10	4.98	3.31	4/11/2023	4.43	No	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-5	4.98	3.31	4/11/2023	4.63	No	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	4/11/2023	5.34	Yes	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-7	4.98	3.31	4/11/2023	4.3	No	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-8	4.98	3.31	4/11/2023	4.04	No	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-9	4.98	3.31	4/11/2023	4.17	No	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-10	58	n/a	4/11/2023	34	No	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	4/11/2023	70.7	Yes	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	4/11/2023	106	Yes	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-7	58	n/a	4/11/2023	50	No	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	4/11/2023	32	No	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	4/11/2023	32.7	No	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 3:03 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.05783	101	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1123	124	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-7	1.946	122	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.361	-127	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.06405	-104	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.04945	-90	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-1 (bg)	0.009664	91	87	Yes	21	57.14	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-2 (bg)	0.01456	105	87	Yes	21	52.38	n/a	n/a	0.01	NP
pH, Field (SU)	BY-GSA-MW-6	-0.1715	-193	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-2 (bg)	-0.05688	-140	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-3 (bg)	-0.07203	-134	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-4 (bg)	-0.03806	-111	-92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.876	95	81	Yes	20	20	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 3:03 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.03009	51	81	No	20	15	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-6	0.04645	40	81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-1 (bg)	-0.0009367	-48	-81	No	20	40	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	32	81	No	20	85	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	81	No	20	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	29	81	No	20	90	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-5	0.03416	4	81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-6	-0.5556	-27	-81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.004603	-12	-81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.0288	40	81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.05783	101	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1123	124	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-6	0.3084	53	81	No	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-7	1.946	122	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-0.1864	-62	-81	No	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.361	-127	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.06405	-104	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.04945	-90	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-6	0	25	87	No	21	66.67	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-1 (bg)	0.009664	91	87	Yes	21	57.14	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-2 (bg)	0.01456	105	87	Yes	21	52.38	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-3 (bg)	0	82	87	No	21	76.19	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-4 (bg)	0	82	87	No	21	76.19	n/a	n/a	0.01	NP
pH, Field (SU)	BY-GSA-MW-6	-0.1715	-193	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-1 (bg)	-0.002988	-13	-92	No	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-2 (bg)	-0.05688	-140	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-3 (bg)	-0.07203	-134	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-4 (bg)	-0.03806	-111	-92	Yes	22	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-5	0.3552	9	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-6	3.364	59	74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-1 (bg)	0.7972	50	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-2 (bg)	0.1197	21	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-3 (bg)	-0.07299	-38	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-4 (bg)	-0.06997	-35	-81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-5	3.901	36	81	No	20	5	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-1.342	-9	-81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.942	51	81	No	20	10	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.9688	48	81	No	20	10	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.7112	31	81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.876	95	81	Yes	20	20	n/a	n/a	0.01	NP

Upper Tolerance Limits Summary Table

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/11/2022, 4:06 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.00102	68	n/a	n/a	92.65	n/a	n/a	0.03056	NP Inter
Arsenic (mg/L)	0.0017	68	n/a	n/a	88.24	n/a	n/a	0.03056	NP Inter
Barium (mg/L)	0.183	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Beryllium (mg/L)	0.00102	68	n/a	n/a	91.18	n/a	n/a	0.03056	NP Inter
Cadmium (mg/L)	0.0002	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Chromium (mg/L)	0.01	68	n/a	n/a	83.82	n/a	n/a	0.03056	NP Inter
Cobalt (mg/L)	0.0157	68	n/a	n/a	57.35	n/a	n/a	0.03056	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Fluoride (mg/L)	0.1	72	n/a	n/a	59.72	n/a	n/a	0.02489	NP Inter
Lead (mg/L)	0.00126	68	n/a	n/a	89.71	n/a	n/a	0.03056	NP Inter
Lithium (mg/L)	0.02	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Mercury (mg/L)	0.0005	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Molybdenum (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Selenium (mg/L)	0.00102	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Thallium (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter

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

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2021.

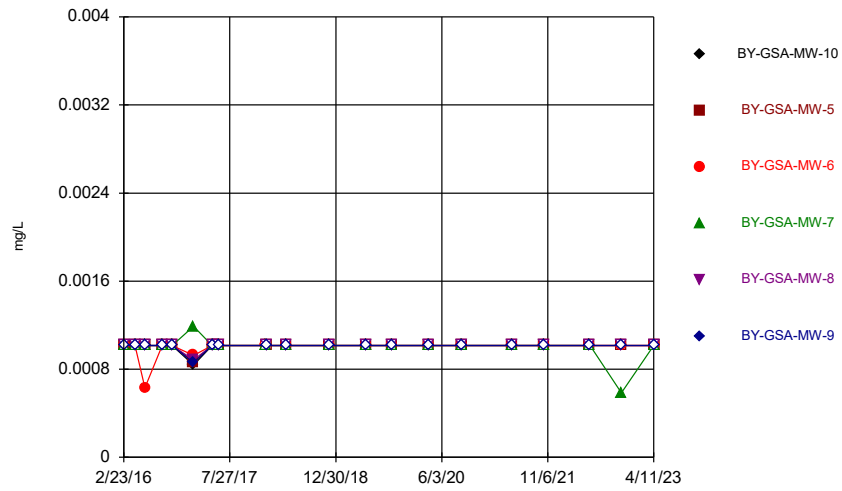
Confidence Intervals - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 2:20 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BY-GSA-MW-7	0.001015	0.000586	0.006	No	8	0.0009614	0.0001517	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-10	0.000203	0.00009	0.01	No	8	0.0001635	0.00004508	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-5	0.000548	0.0002	0.01	No	8	0.0003328	0.0001626	37.5	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-6	0.0006732	0.000186	0.01	No	8	0.0004296	0.0002457	37.5	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	BY-GSA-MW-7	0.0003108	0.000166	0.01	No	8	0.0002478	0.00007559	37.5	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	BY-GSA-MW-8	0.000203	0.000083	0.01	No	8	0.0001826	0.00004297	75	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.000203	0.0001	0.01	No	8	0.0001793	0.00003826	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-PZ-11	0.000203	0.000085	0.01	No	7	0.0001626	0.00005208	57.14	Kaplan-Meier	No	0.008	NP (NDs)
Barium (mg/L)	BY-GSA-MW-10	0.135	0.1188	2	No	8	0.1269	0.007624	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.1829	0.05867	2	No	8	0.1208	0.05861	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-6	0.2255	0.1037	2	No	8	0.1646	0.05747	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.1177	0.05897	2	No	8	0.08834	0.0277	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.05157	0.04441	2	No	8	0.04799	0.003376	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1749	0.1341	2	No	8	0.1545	0.01925	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-PZ-11	0.08827	0.04776	2	No	7	0.06801	0.01705	0	None	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.00102	0.000575	0.004	No	8	0.0008744	0.0001845	50	None	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-6	0.00102	0.000408	0.004	No	8	0.0008526	0.0002262	50	None	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-7	0.001015	0.000464	0.004	No	8	0.0009461	0.0001948	87.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.0001689	0.0000986	0.005	No	8	0.0001597	0.0000455	37.5	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	BY-GSA-MW-6	0.0002047	0.0001271	0.005	No	8	0.0001833	0.00003705	37.5	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-10	0.00102	0.000659	0.1	No	8	0.0008446	0.0001635	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-5	0.002714	0.00147	0.1	No	8	0.00208	0.0007054	25	Kaplan-Meier	x^2	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-6	0.004389	0.001741	0.1	No	8	0.003065	0.001249	12.5	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-7	0.001491	0.001055	0.1	No	8	0.001275	0.0002229	37.5	Kaplan-Meier	x^2	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-8	0.002523	0.002032	0.1	No	8	0.002278	0.000232	0	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-9	0.00104	0.000783	0.1	No	8	0.0009312	0.0001075	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-PZ-11	0.003194	0.002486	0.1	No	7	0.00284	0.0002977	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-10	0.0027	0.00237	0.006	No	8	0.0025	0.0001367	0	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-5	0.005765	0.002296	0.006	No	8	0.004467	0.001618	25	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-6	0.007413	0.002952	0.006	No	8	0.005182	0.002104	12.5	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.00162	0.006	No	8	0.003076	0.001609	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.000338	0.006	No	8	0.002157	0.002355	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.000888	0.006	No	8	0.002713	0.001911	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-PZ-11	0.005	0.00101	0.006	No	7	0.002349	0.001818	28.57	None	No	0.008	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.186	1.219	5	No	8	1.703	0.4561	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.615	0.4947	5	No	8	1.037	0.5901	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	2.694	0.8675	5	No	8	1.781	0.8618	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.508	0.5715	5	No	8	1.04	0.4419	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.623	0.4394	5	No	8	1.031	0.5585	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3.15	1.88	5	No	8	2.13	0.4184	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-PZ-11	1.12	0.487	5	No	7	0.8037	0.2666	0	None	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-5	0.125	0.0834	4	No	8	0.1198	0.01471	87.5	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-6	0.135	0.125	4	No	8	0.1263	0.003536	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.000203	0.0001	0.015	No	8	0.0001469	0.0000476	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-5	0.0002032	0.00008816	0.015	No	8	0.0001733	0.00005709	37.5	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	BY-GSA-MW-6	0.000213	0.00011	0.015	No	8	0.0001625	0.00004752	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-7	0.000203	0.0000798	0.015	No	8	0.0001371	0.00005754	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-9	0.000288	0.000203	0.015	No	8	0.0002268	0.00003059	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-PZ-11	0.000208	0.000082	0.015	No	7	0.0001656	0.00005118	42.86	None	No	0.008	NP (normality)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.00036	0.002	No	8	0.0004825	0.0000495	87.5	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.00035	0.002	No	8	0.0004813	0.00005303	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.01015	0.0001	0.1	No	8	0.008894	0.003553	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.01015	0.00008	0.1	No	8	0.008891	0.00356	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.001185	0.000735	0.05	No	8	0.001039	0.0001869	37.5	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-5	0.02085	0.00156	0.05	No	8	0.0112	0.009726	25	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-6	0.01773	0.004148	0.05	No	8	0.01094	0.006408	0	None	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.001015	0.000519	0.05	No	8	0.0008986	0.0002161	75	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.001015	0.00052	0.05	No	8	0.000895	0.0002223	75	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.00204	0.001015	0.05	No	8	0.001344	0.0004239	37.5	None	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-PZ-11	0.001582	0.0009642	0.05	No	7	0.001273	0.0002807	28.57	Kaplan-Meier	No	0.01	Param.

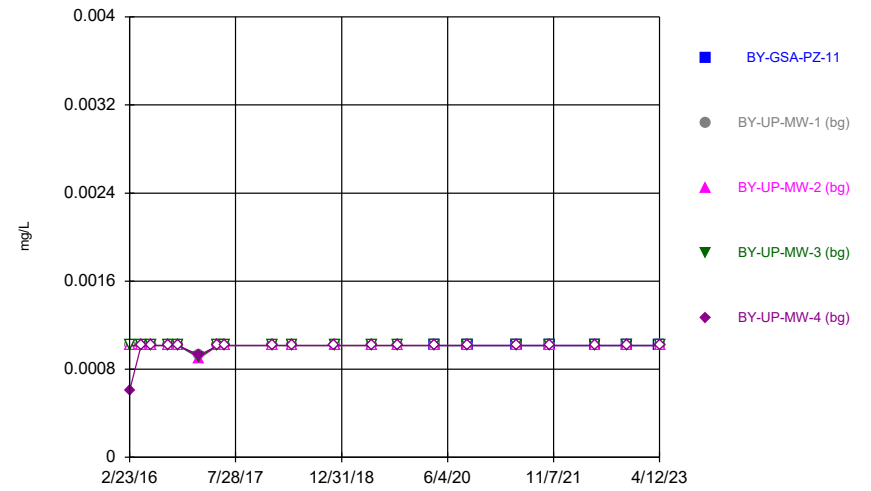
FIGURE A.

Time Series



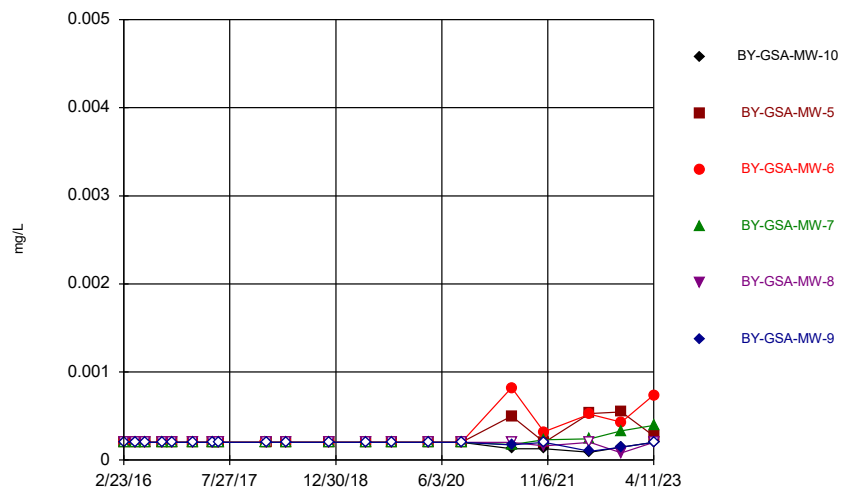
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



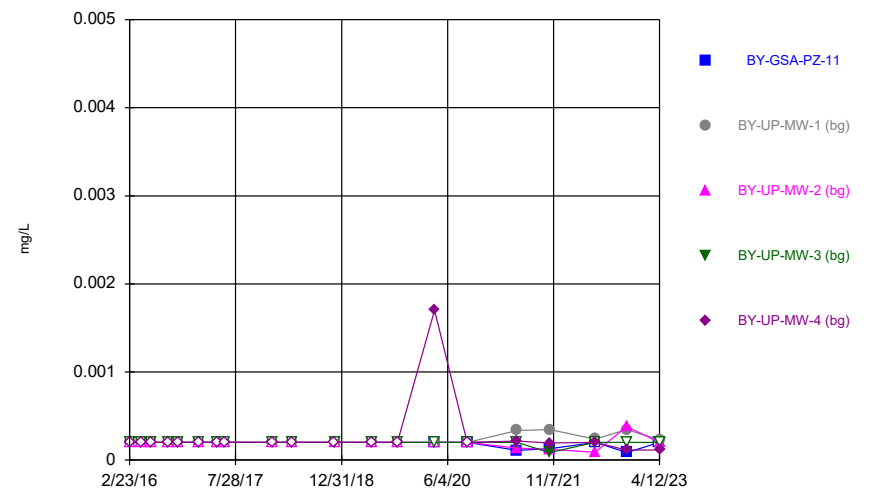
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



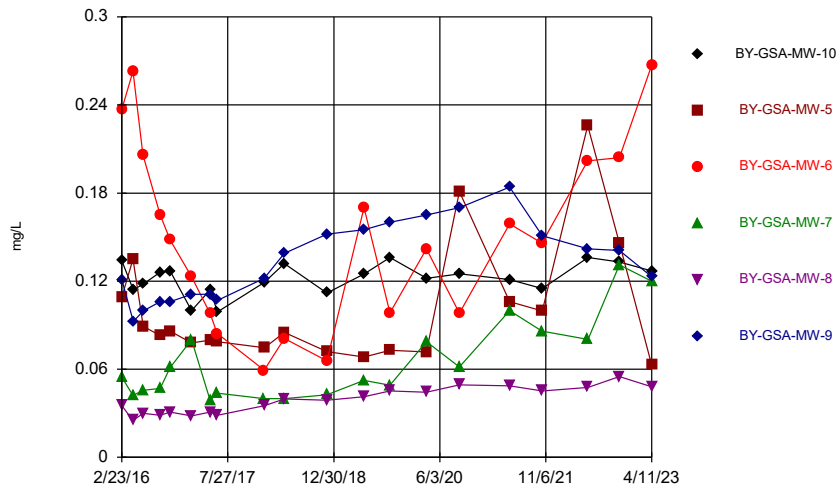
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



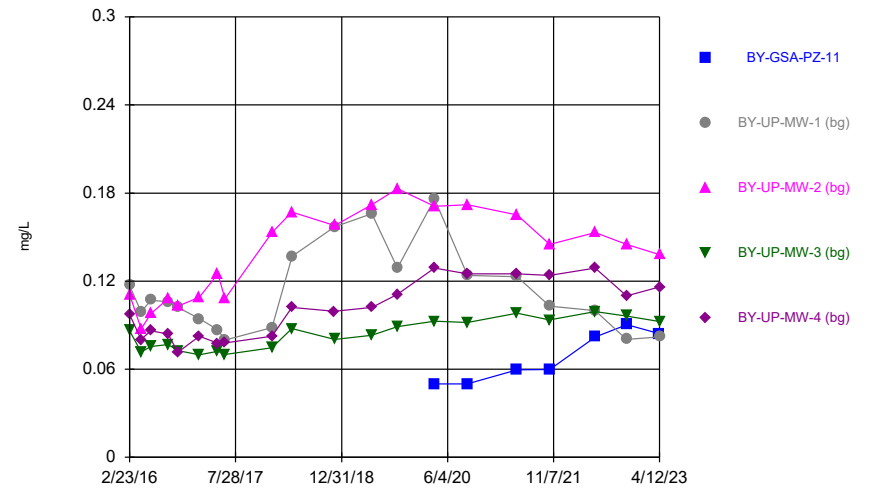
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Time Series



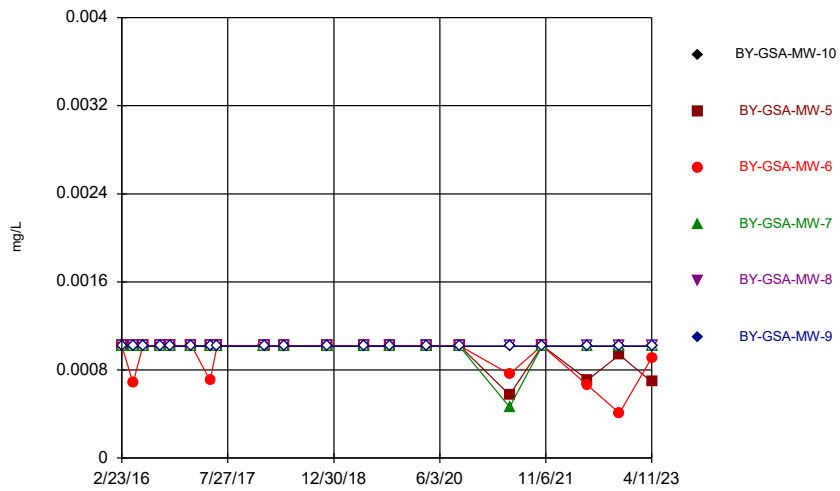
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



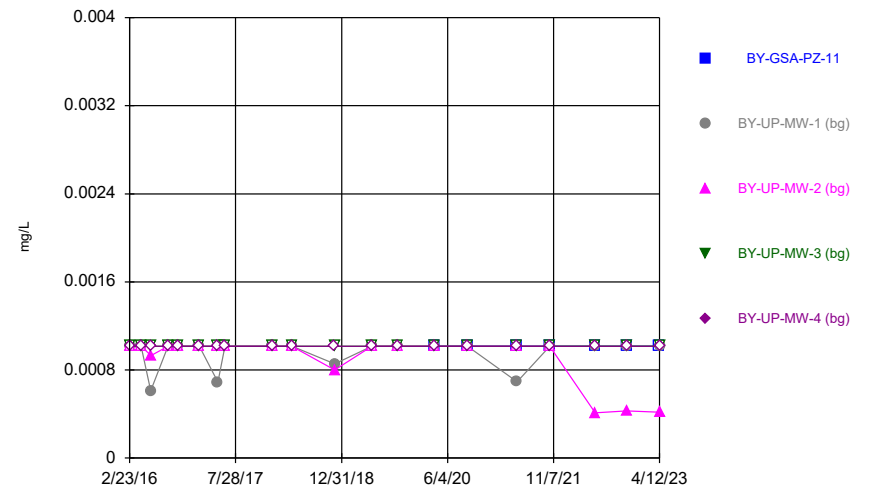
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 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



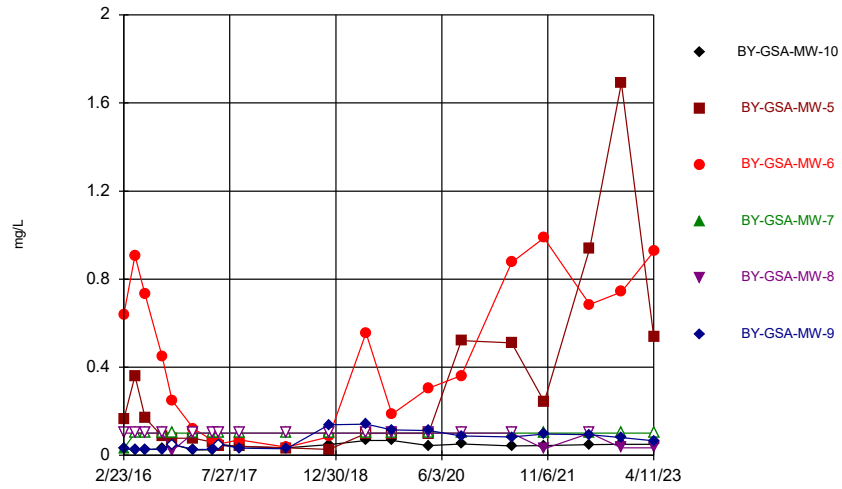
Constituent: Beryllium Analysis Run 7/14/2023 11:54 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



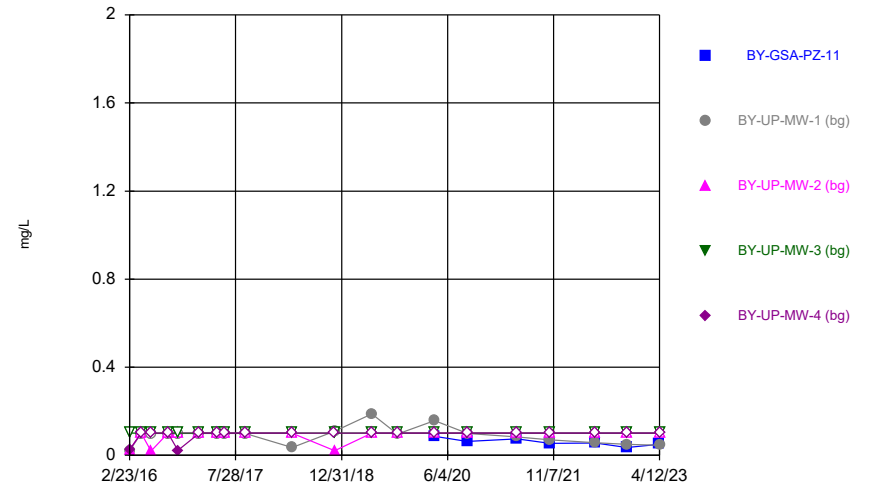
Constituent: Beryllium Analysis Run 7/14/2023 11:54 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



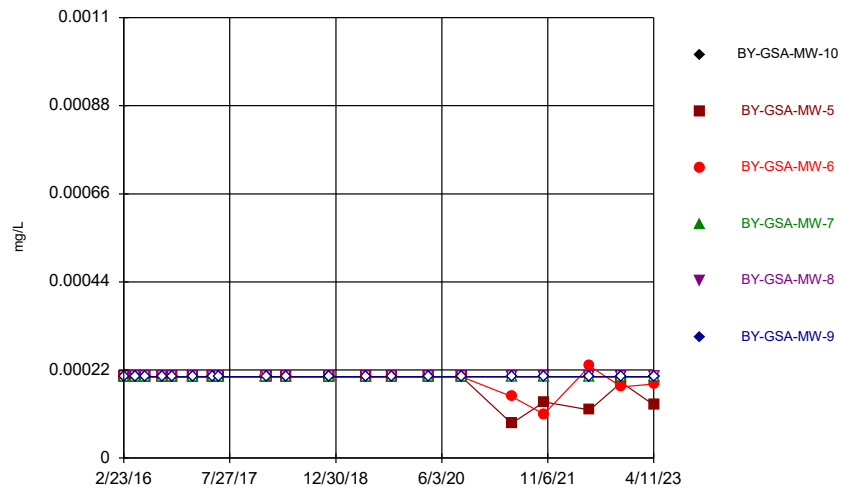
Constituent: Boron Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



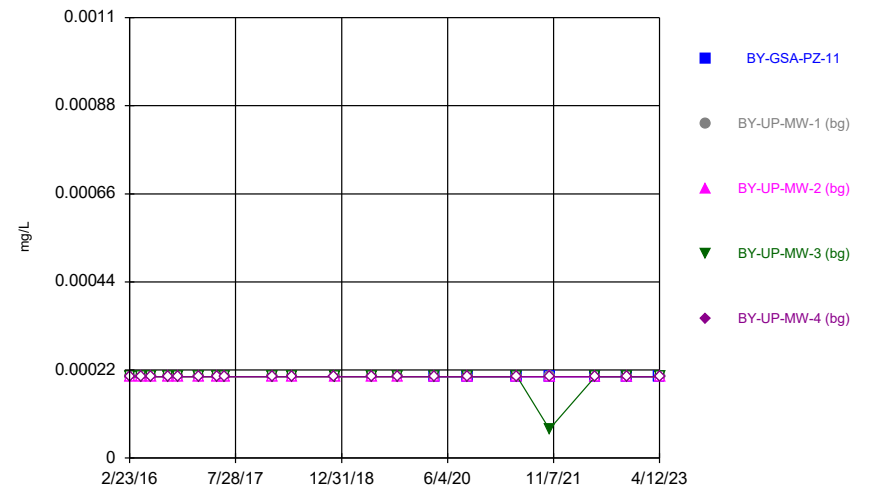
Constituent: Boron Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



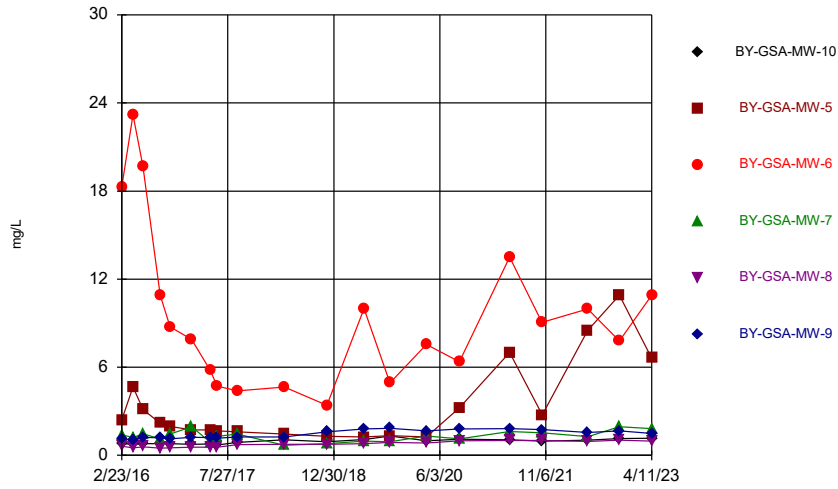
Constituent: Cadmium Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



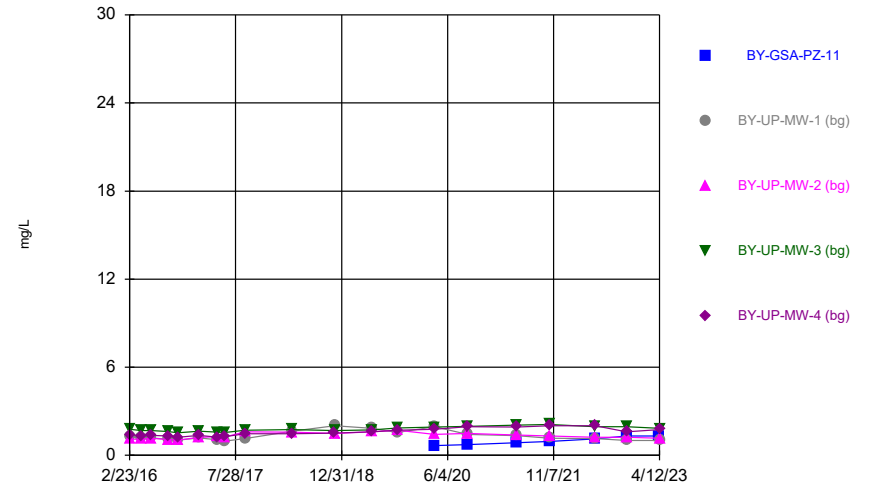
Constituent: Cadmium Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



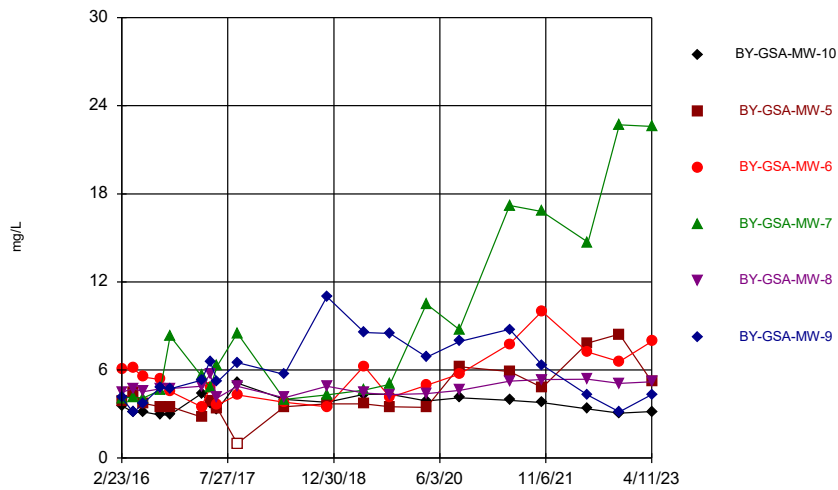
Constituent: Calcium, total Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



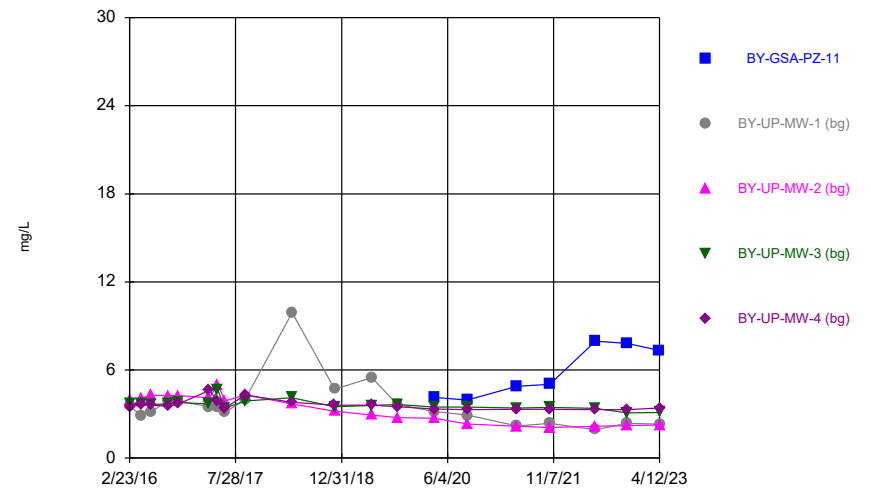
Constituent: Calcium, total Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



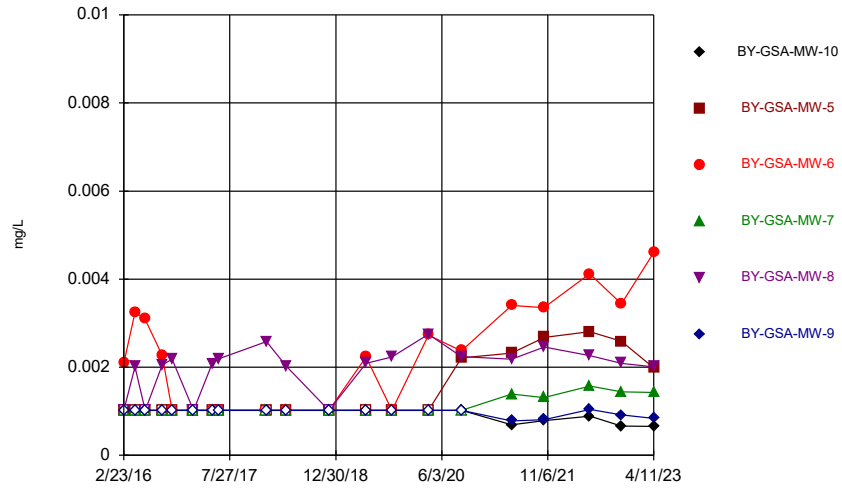
Constituent: Chloride, total Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



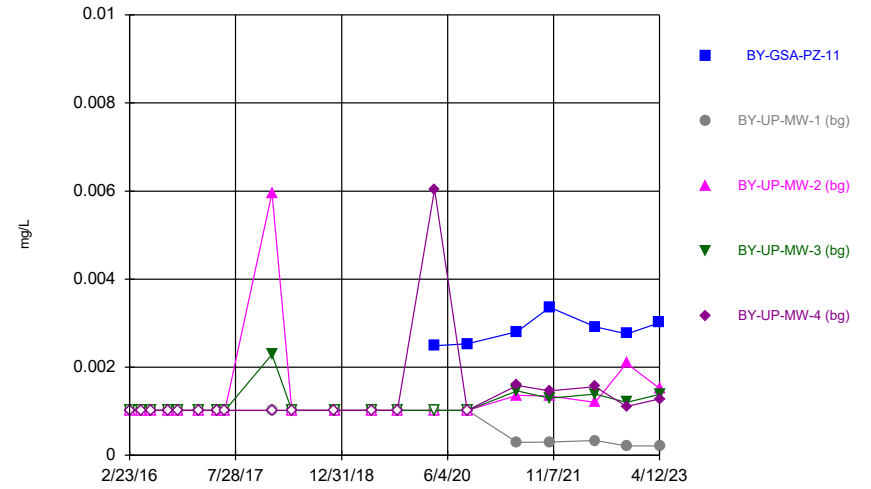
Constituent: Chloride, total Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



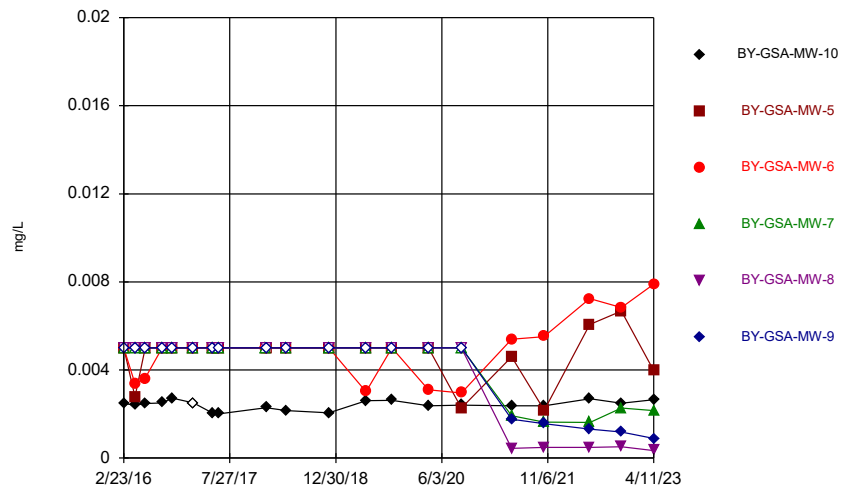
Constituent: Chromium Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



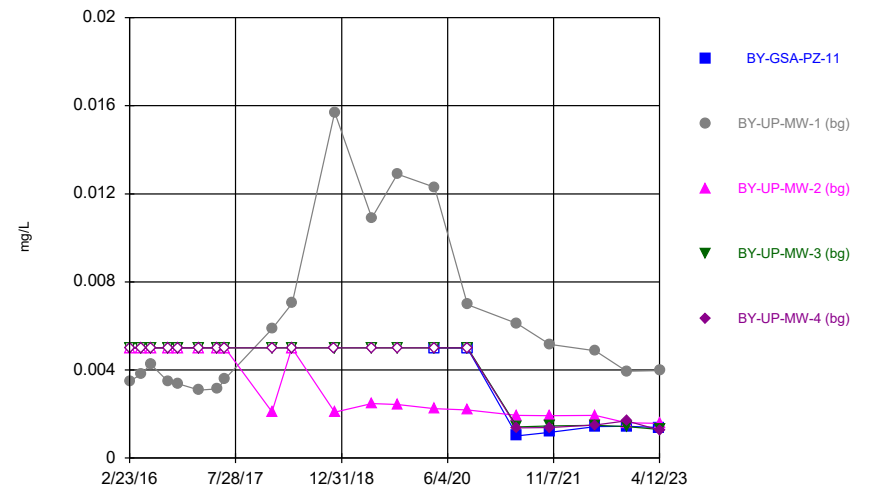
Constituent: Chromium Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



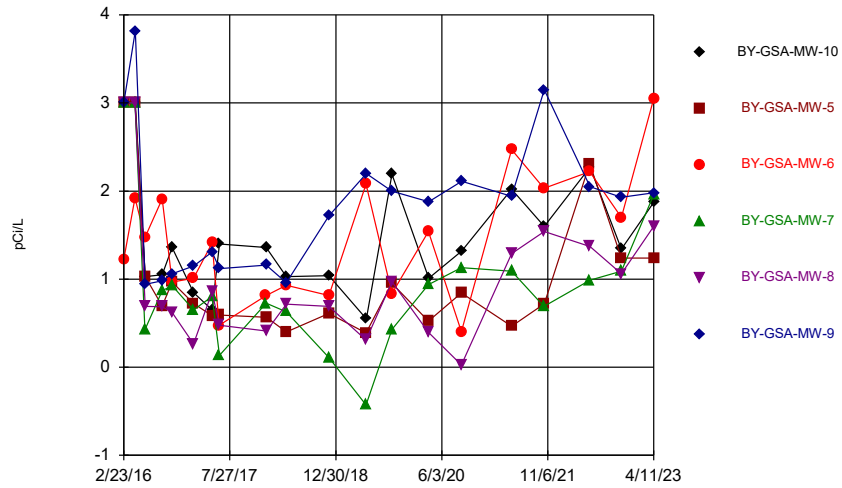
Constituent: Cobalt Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



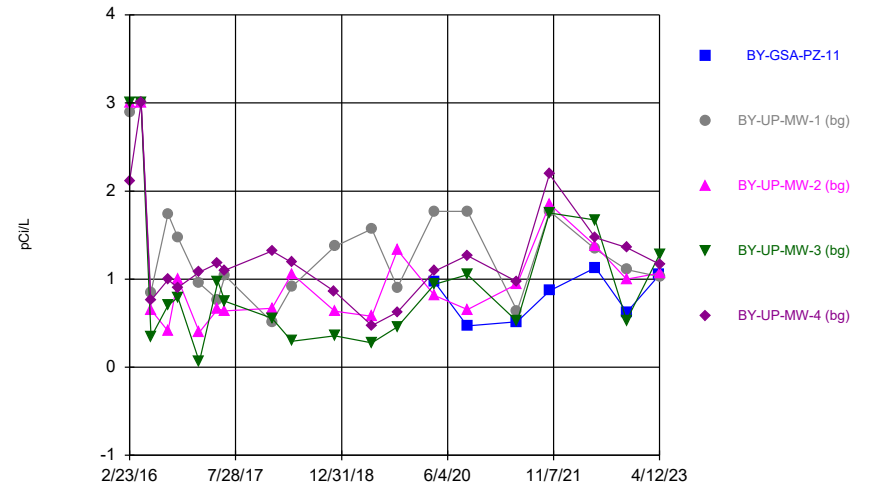
Constituent: Cobalt Analysis Run 7/14/2023 11:54 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



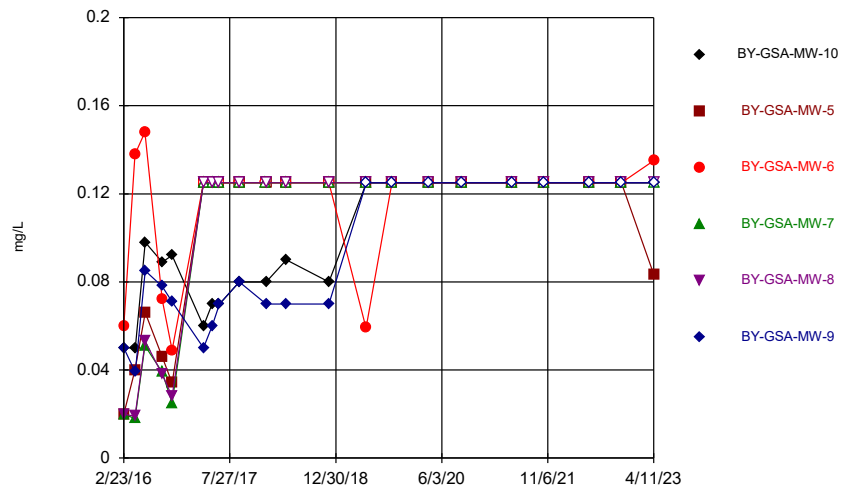
Constituent: Combined Radium 226 + 228 Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



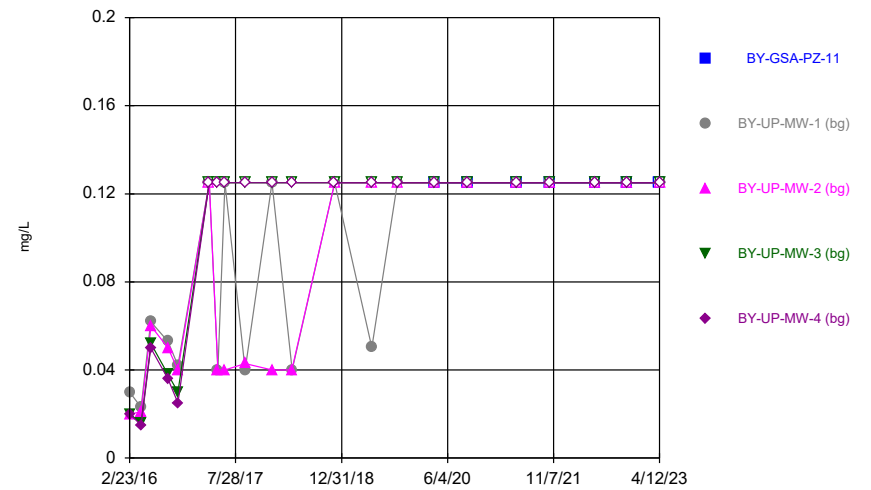
Constituent: Combined Radium 226 + 228 Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



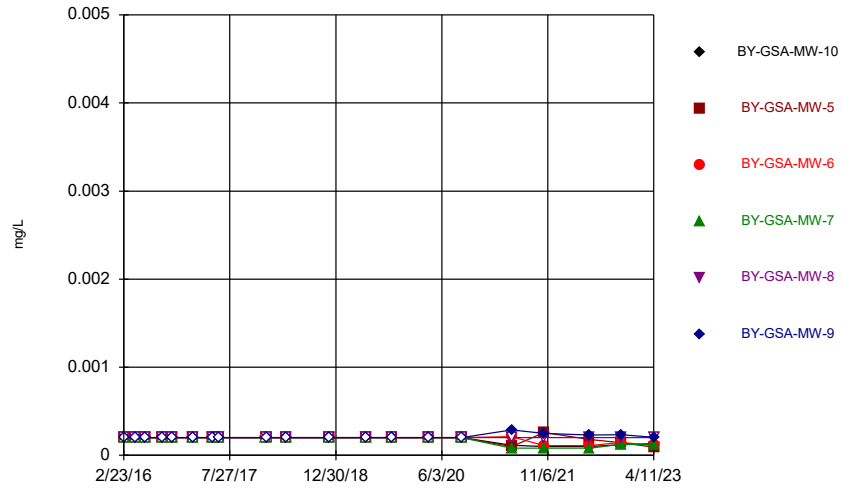
Constituent: Fluoride Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



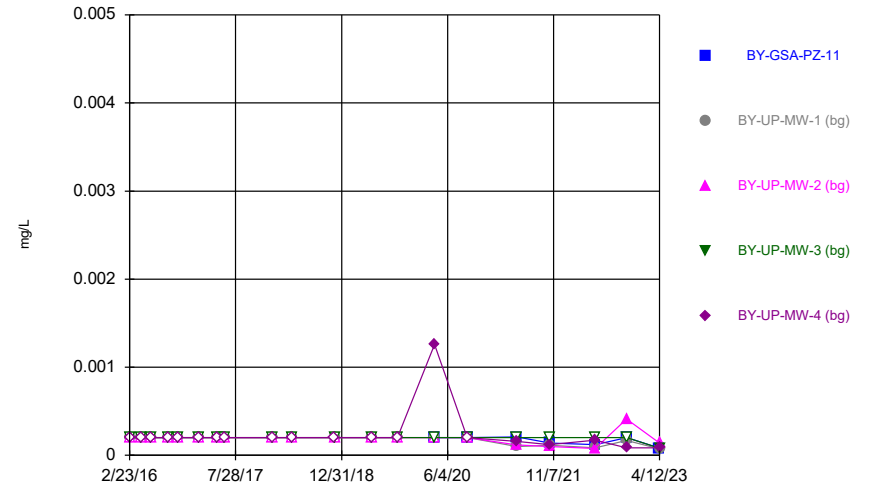
Constituent: Fluoride Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



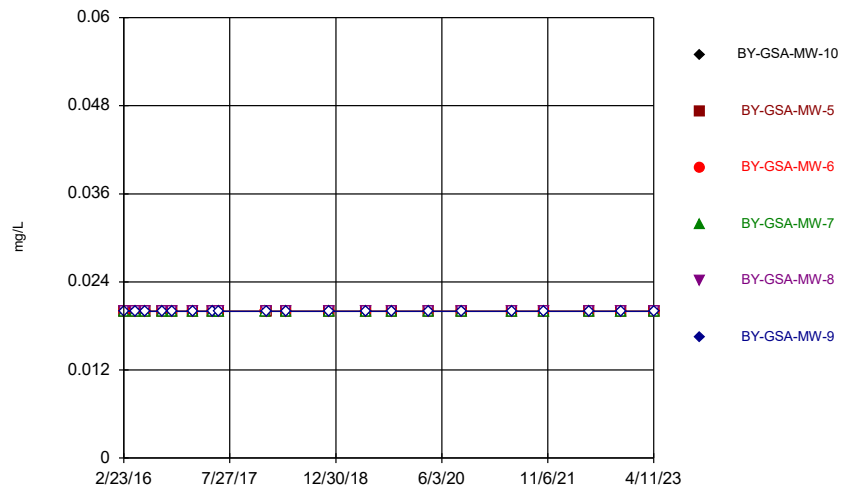
Constituent: Lead Analysis Run 7/14/2023 11:55 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



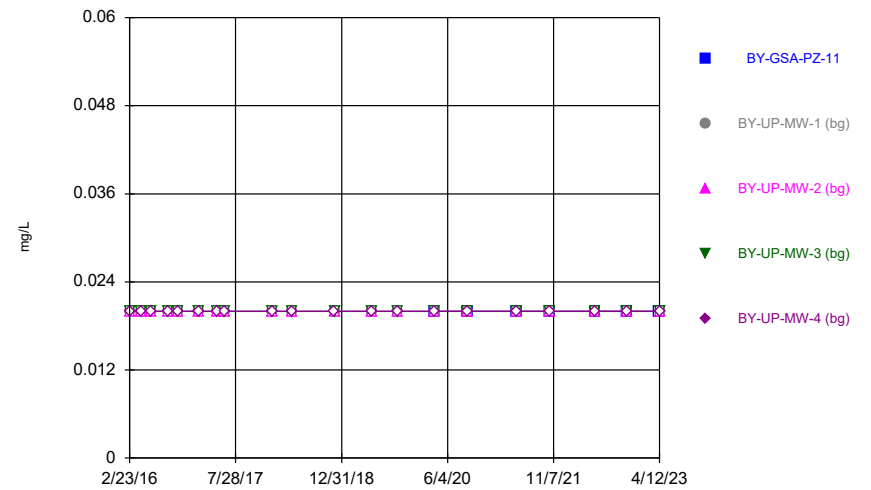
Constituent: Lead Analysis Run 7/14/2023 11:55 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



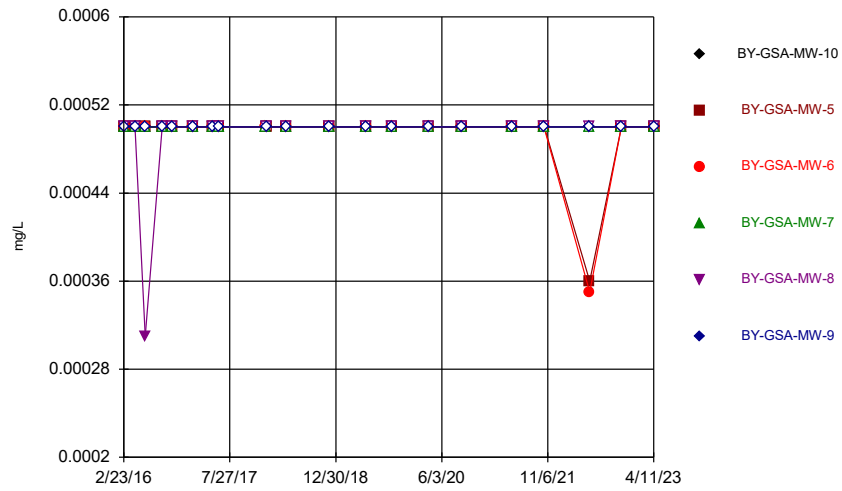
Constituent: Lithium Analysis Run 7/14/2023 11:55 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



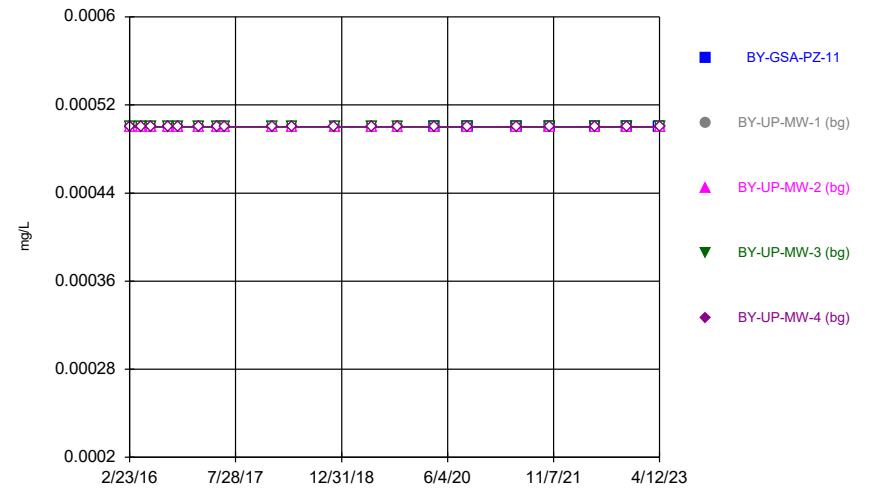
Constituent: Lithium Analysis Run 7/14/2023 11:55 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



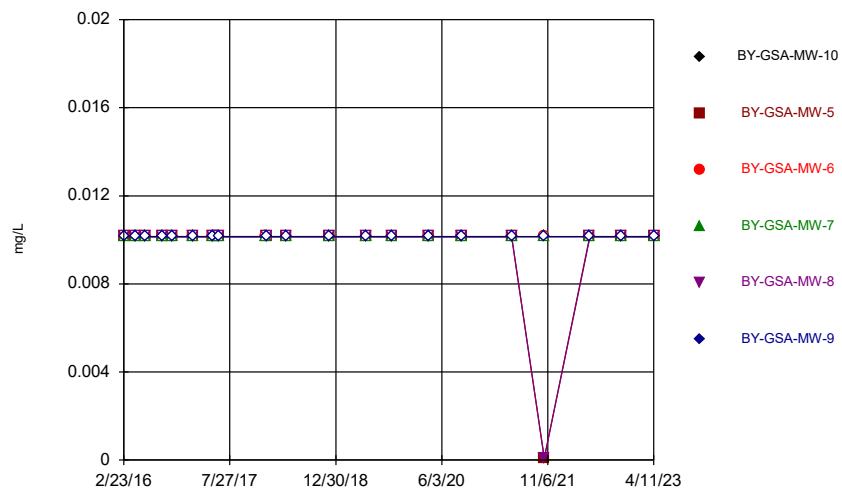
Constituent: Mercury Analysis Run 7/14/2023 11:55 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



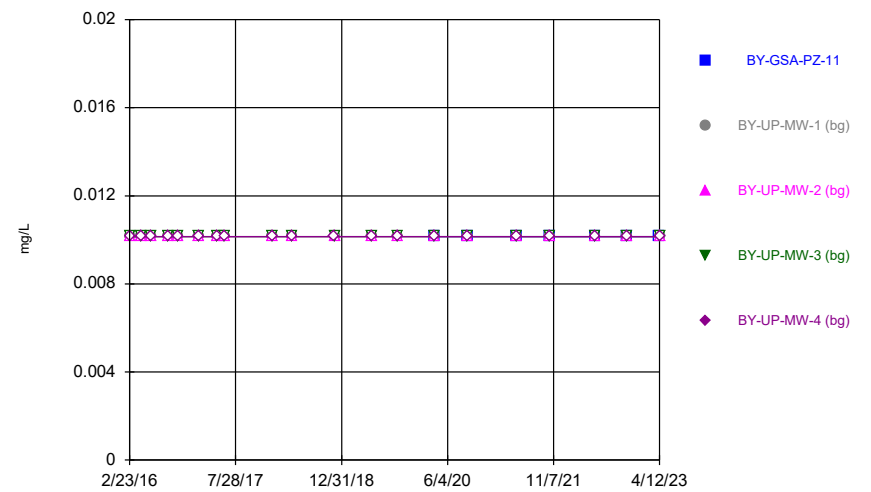
Constituent: Mercury Analysis Run 7/14/2023 11:55 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



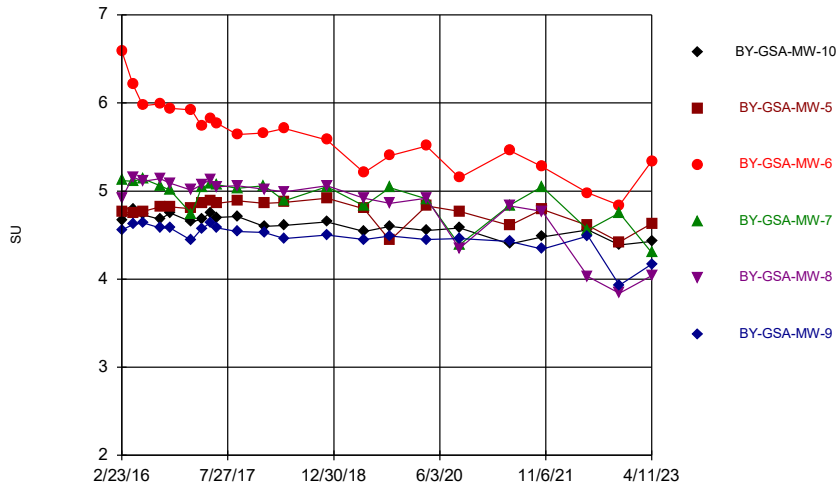
Constituent: Molybdenum Analysis Run 7/14/2023 11:55 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



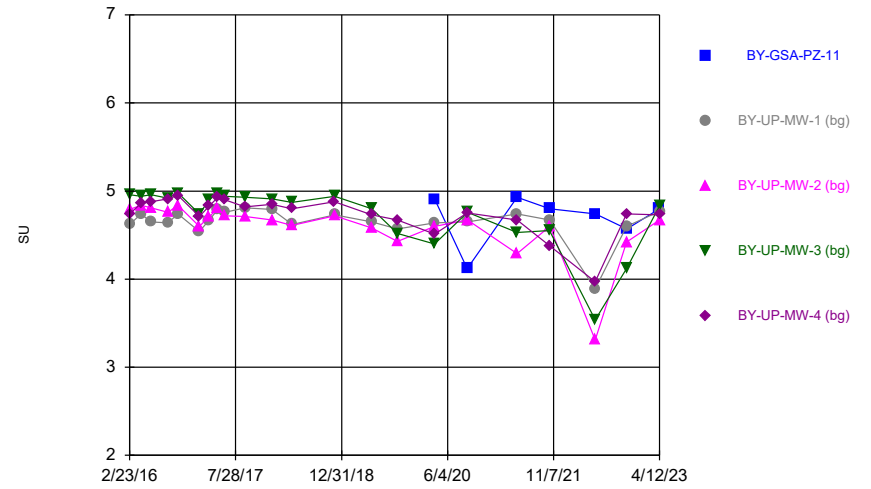
Constituent: Molybdenum Analysis Run 7/14/2023 11:55 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



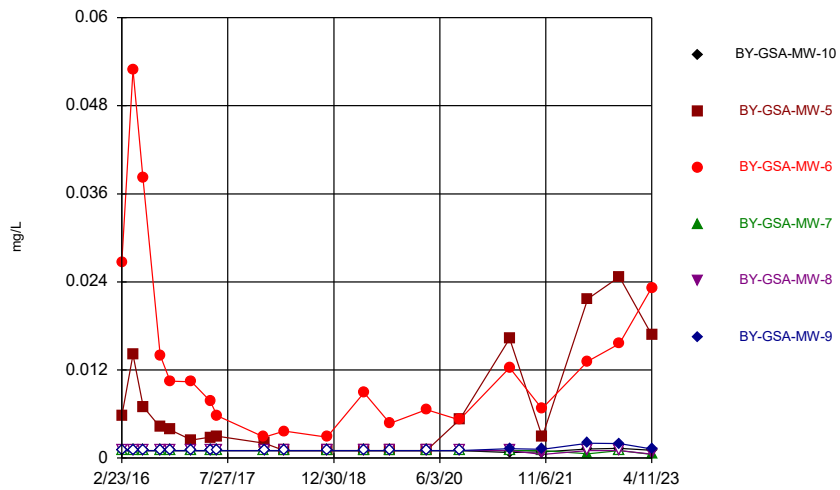
Constituent: pH, Field Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



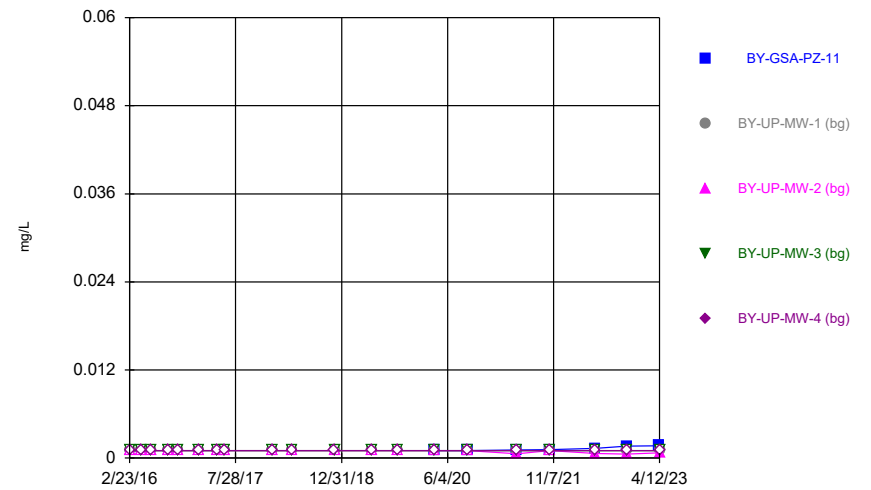
Constituent: pH, Field Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



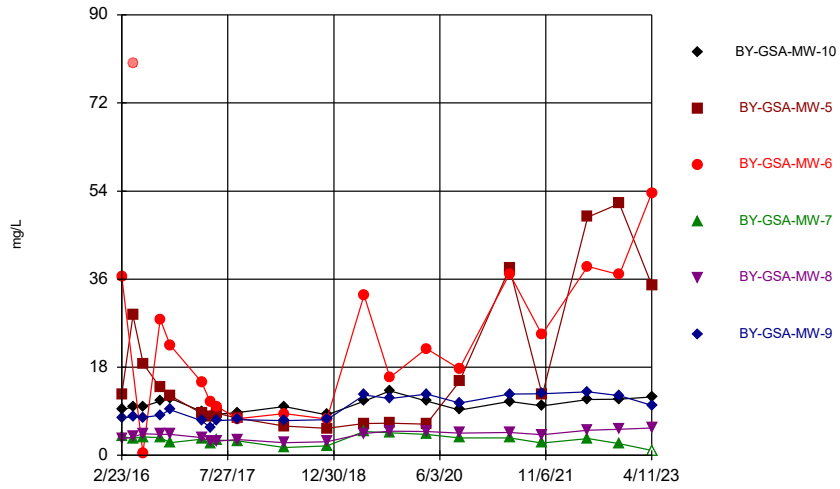
Constituent: Selenium Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



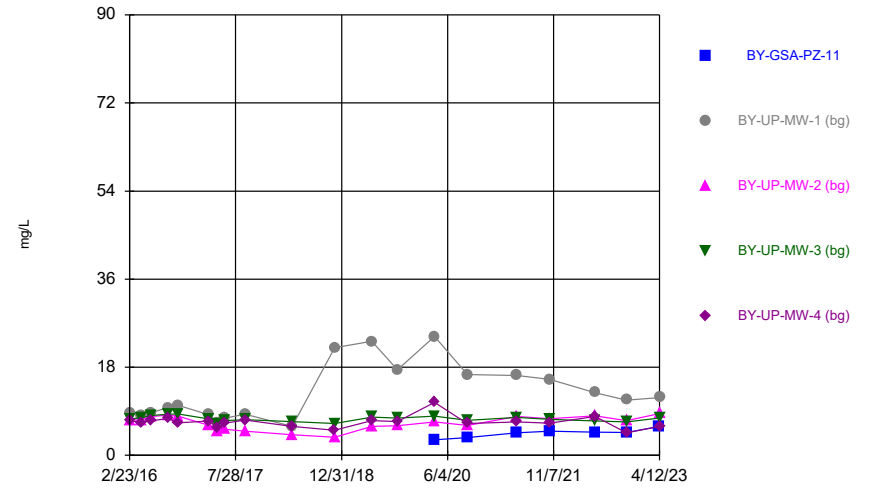
Constituent: Selenium Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



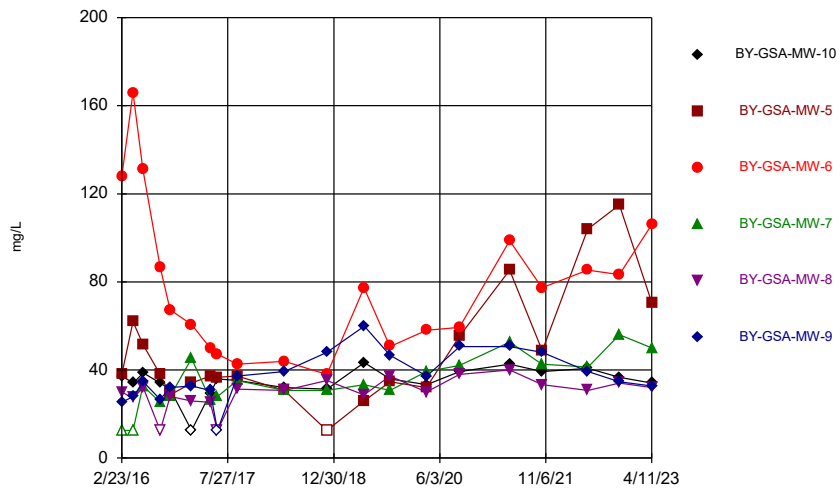
Constituent: Sulfate Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



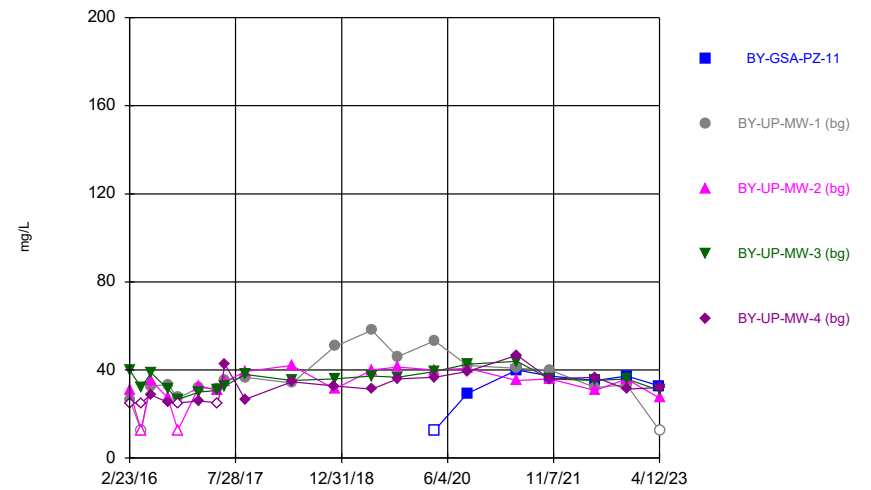
Constituent: Sulfate Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



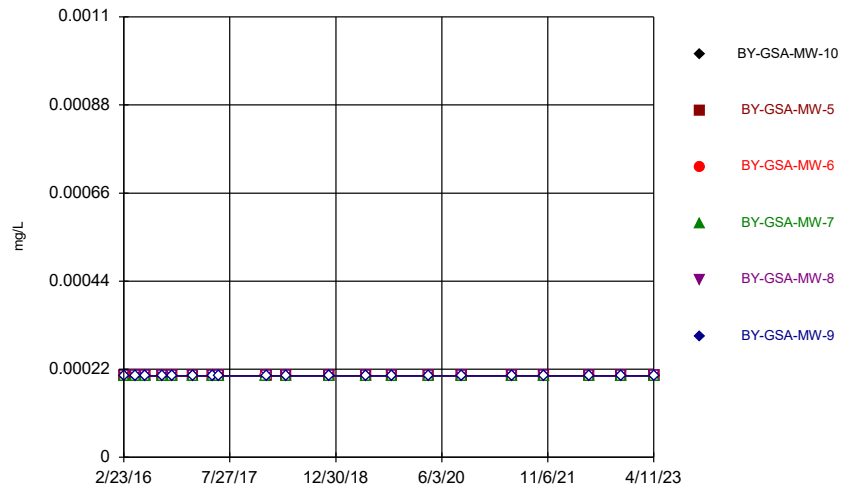
Constituent: TDS Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



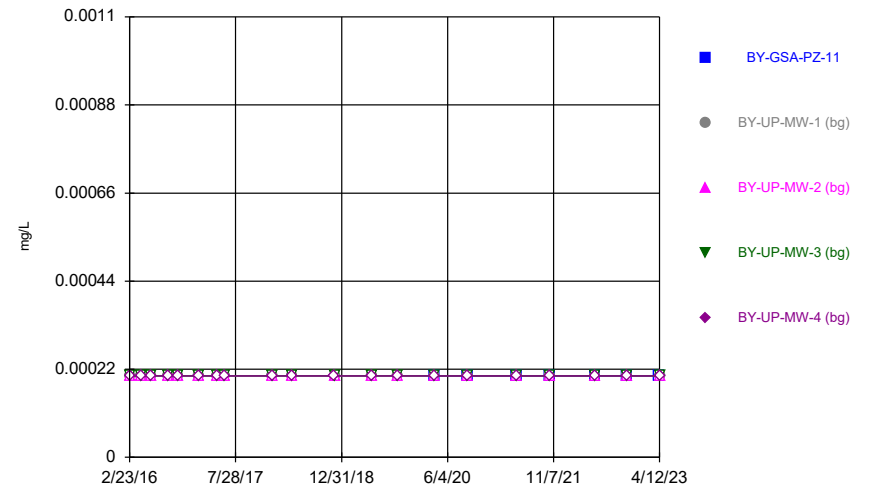
Constituent: TDS Analysis Run 7/14/2023 11:55 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



Constituent: Thallium Analysis Run 7/14/2023 11:55 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



Constituent: Thallium Analysis Run 7/14/2023 11:55 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
4/18/2016		<0.001015	<0.001015	<0.001015	<0.001015	
4/19/2016	<0.001015					<0.001015
6/6/2016			0.000633 (J)	<0.001015		
6/7/2016	<0.001015	<0.001015			<0.001015	<0.001015
8/30/2016	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
10/18/2016	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
1/30/2017	0.000838 (J)			0.00119 (J)		0.000859 (J)
1/31/2017		0.000866 (J)	0.000926 (J)		0.000885 (J)	
5/2/2017	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015			
6/7/2017	<0.001015			<0.001015	<0.001015	<0.001015
1/22/2018			<0.001015	<0.001015		
1/23/2018	<0.001015					<0.001015
1/24/2018		<0.001015			<0.001015	
5/1/2018	<0.001015		<0.001015	<0.001015		<0.001015
5/2/2018		<0.001015			<0.001015	
11/26/2018	<0.001015		<0.001015			<0.001015
11/27/2018		<0.001015		<0.001015	<0.001015	
5/28/2019		<0.001015	<0.001015	<0.001015	<0.001015	
5/29/2019	<0.001015					<0.001015
10/2/2019	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
3/30/2020		<0.001015	<0.001015	<0.001015	<0.001015	
3/31/2020	<0.001015					<0.001015
9/8/2020		<0.001015	<0.001015	<0.001015	<0.001015	
9/9/2020	<0.001015					<0.001015
5/12/2021	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
10/18/2021			<0.001015	<0.001015		
10/19/2021	<0.001015	<0.001015			<0.001015	<0.001015
5/31/2022		<0.001015	<0.001015			
6/1/2022	<0.001015			<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015	<0.001015	<0.001015	0.000586 (J)	<0.001015	<0.001015
4/11/2023	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.001015	<0.001015	<0.001015	0.000606 (J)
4/19/2016		<0.001015	<0.001015	<0.001015	<0.001015
6/6/2016		<0.001015			<0.001015
6/7/2016			<0.001015	<0.001015	
8/30/2016		<0.001015	<0.001015	<0.001015	<0.001015
10/18/2016		<0.001015	<0.001015	<0.001015	<0.001015
1/31/2017		0.000925 (J)	0.000898 (J)	0.000911 (J)	0.000928 (J)
5/2/2017		<0.001015	<0.001015	<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015	<0.001015	<0.001015
1/23/2018		<0.001015	<0.001015	<0.001015	<0.001015
5/1/2018			<0.001015	<0.001015	<0.001015
5/2/2018		<0.001015			
11/26/2018					<0.001015
11/27/2018		<0.001015	<0.001015	<0.001015	
5/28/2019					<0.001015
5/29/2019		<0.001015	<0.001015	<0.001015	
10/2/2019		<0.001015	<0.001015	<0.001015	<0.001015
3/31/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
9/8/2020	<0.001015				<0.001015
9/9/2020		<0.001015	<0.001015	<0.001015	
5/11/2021			<0.001015	<0.001015	<0.001015
5/12/2021	<0.001015	<0.001015			
10/18/2021				<0.001015	<0.001015
10/19/2021	<0.001015	<0.001015	<0.001015		
5/31/2022		<0.001015	<0.001015	<0.001015	<0.001015
6/1/2022	<0.001015				
11/1/2022		<0.001015	<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015				
4/11/2023	<0.001015				
4/12/2023		<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/18/2016		<0.000203	<0.000203	<0.000203	<0.000203	
4/19/2016	<0.000203					<0.000203
6/6/2016			<0.000203	<0.000203		
6/7/2016	<0.000203	<0.000203			<0.000203	<0.000203
8/30/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/30/2017	<0.000203			<0.000203		<0.000203
1/31/2017		<0.000203	<0.000203		<0.000203	
5/2/2017	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203			
6/7/2017	<0.000203			<0.000203	<0.000203	<0.000203
1/22/2018			<0.000203	<0.000203		
1/23/2018	<0.000203					<0.000203
1/24/2018		<0.000203			<0.000203	
5/1/2018	<0.000203		<0.000203	<0.000203		<0.000203
5/2/2018		<0.000203			<0.000203	
11/26/2018	<0.000203		<0.000203			<0.000203
11/27/2018		<0.000203		<0.000203	<0.000203	
5/28/2019		<0.000203	<0.000203	<0.000203	<0.000203	
5/29/2019	<0.000203					<0.000203
10/2/2019	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203	
3/31/2020	<0.000203					<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203	
9/9/2020	<0.000203					<0.000203
5/12/2021	0.000129 (J)	0.000501	0.000821	0.000177 (J)	<0.000203	0.000173 (J)
10/18/2021			0.00032	0.00023		
10/19/2021	0.00013 (J)	0.0002 (J)			0.00016 (J)	<0.000203
5/31/2022		0.00053	0.00052			
6/1/2022	9E-05 (J)			0.00024	<0.000203	0.0001 (J)
11/2/2022	0.000147 (J)	0.000548	0.000429	0.000331	8.3E-05 (J)	0.000146 (J)
4/11/2023	<0.000203	0.000274	0.000738	0.000395	<0.000203	<0.000203

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.000203	<0.000203	<0.000203	<0.000203
4/19/2016		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2016		<0.000203			<0.000203
6/7/2016			<0.000203	<0.000203	
8/30/2016		<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016		<0.000203	<0.000203	<0.000203	<0.000203
1/31/2017		<0.000203	<0.000203	<0.000203	<0.000203
5/2/2017		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203	<0.000203	<0.000203
1/23/2018		<0.000203	<0.000203	<0.000203	<0.000203
5/1/2018			<0.000203	<0.000203	<0.000203
5/2/2018		<0.000203			
11/26/2018					<0.000203
11/27/2018		<0.000203	<0.000203	<0.000203	
5/28/2019					<0.000203
5/29/2019		<0.000203	<0.000203	<0.000203	
10/2/2019		<0.000203	<0.000203	<0.000203	<0.000203
3/31/2020	<0.000203	<0.000203	<0.000203	<0.000203	0.0017 (J)
9/8/2020	<0.000203				<0.000203
9/9/2020		<0.000203	<0.000203	<0.000203	
5/11/2021			0.000136 (J)	<0.000203	0.000217
5/12/2021	0.000111 (J)	0.000336			
10/18/2021				8.69E-05 (J)	0.000193 (J)
10/19/2021	0.00013 (J)	0.000346	0.000122 (J)		
5/31/2022		0.000237	8.79E-05 (J)	<0.000203	0.000203
6/1/2022	<0.000203				
11/1/2022		0.000345	0.000379	<0.000203	0.000115 (J)
11/2/2022	8.5E-05 (J)				
4/11/2023	<0.000203				
4/12/2023		0.00023	0.0002 (J)	<0.000203	0.000114 (J)

Time Series

Constituent: Barium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.134	0.109	0.237	0.0546	0.0352	0.121
4/18/2016		0.135	0.263	0.0421	0.0251	
4/19/2016	0.114					0.0926
6/6/2016			0.206	0.0457		
6/7/2016	0.118	0.0892			0.0299	0.0998
8/30/2016	0.126	0.083	0.165	0.0469	0.0287	0.106
10/18/2016	0.127	0.0859	0.148	0.0611	0.0309	0.106
1/30/2017	0.1			0.0801		0.111
1/31/2017		0.0779	0.123		0.0282	
5/2/2017	0.114	0.0799	0.098	0.0388	0.0309	0.111
6/6/2017		0.0788	0.0844			
6/7/2017	0.0991			0.0437	0.0287	0.107
1/22/2018			0.0593	0.0399		
1/23/2018	0.119					0.122
1/24/2018		0.0746			0.0351	
5/1/2018	0.132		0.081	0.04		0.139
5/2/2018		0.085			0.0398	
11/26/2018	0.112		0.0657			0.152
11/27/2018		0.072		0.0427	0.0388	
5/28/2019		0.0684	0.17	0.0524	0.0412	
5/29/2019	0.125					0.155
10/2/2019	0.136	0.0728	0.0985	0.0492	0.0453	0.16
3/30/2020		0.0718	0.142	0.0788	0.0444	
3/31/2020	0.122					0.165
9/8/2020		0.181	0.0981	0.0615	0.0494	
9/9/2020	0.125					0.17
5/12/2021	0.121	0.106	0.159	0.1	0.0488	0.184
10/18/2021			0.146	0.0859		
10/19/2021	0.115	0.0998			0.0452	0.151
5/31/2022		0.226	0.202			
6/1/2022	0.136			0.0803	0.0477	0.142
11/2/2022	0.133	0.146	0.204	0.131	0.055	0.141
4/11/2023	0.127	0.0629	0.267	0.12	0.0481	0.123

Time Series

Constituent: Barium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.117	0.111	0.0862	0.0973
4/19/2016		0.099	0.0875	0.0718	0.0802
6/6/2016		0.107			0.0862
6/7/2016			0.0979	0.0754	
8/30/2016		0.106	0.108	0.0768	0.0841
10/18/2016		0.102	0.103	0.0727	0.0715
1/31/2017		0.0944	0.109	0.0698	0.0825
5/2/2017		0.0868	0.125	0.0723	0.0777
6/6/2017		0.0799	0.108	0.07	0.078
1/23/2018		0.0884	0.153	0.0747	0.0825
5/1/2018			0.167	0.0877	0.102
5/2/2018		0.137			
11/26/2018					0.0994
11/27/2018		0.157	0.158	0.0804	
5/28/2019					0.102
5/29/2019		0.166	0.172	0.0831	
10/2/2019		0.129	0.183	0.089	0.111
3/31/2020	0.0499	0.176	0.171	0.0927	0.129
9/8/2020	0.05				0.125
9/9/2020		0.124	0.172	0.0919	
5/11/2021			0.165	0.0981	0.125
5/12/2021	0.0597	0.123			
10/18/2021				0.0935	0.124
10/19/2021	0.0599	0.103	0.145		
5/31/2022		0.1	0.153	0.0992	0.129
6/1/2022	0.0821				
11/1/2022		0.0804	0.145	0.0963	0.11
11/2/2022	0.0903				
4/11/2023	0.0842				
4/12/2023		0.082	0.138	0.0925	0.116

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/14/2023 11:56 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.001015	<0.00102	<0.00102	<0.001015	<0.001015	<0.001015
4/18/2016		<0.00102	0.000681 (J)	<0.001015	<0.001015	
4/19/2016	<0.001015					<0.001015
6/6/2016			<0.00102	<0.001015		
6/7/2016	<0.001015	<0.00102			<0.001015	<0.001015
8/30/2016	<0.001015	<0.00102	<0.00102	<0.001015	<0.001015	<0.001015
10/18/2016	<0.001015	<0.00102	<0.00102	<0.001015	<0.001015	<0.001015
1/30/2017	<0.001015			<0.001015		<0.001015
1/31/2017		<0.00102	<0.00102		<0.001015	
5/2/2017	<0.001015	<0.00102	0.000704 (J)	<0.001015	<0.001015	<0.001015
6/6/2017		<0.00102	<0.00102			
6/7/2017	<0.001015			<0.001015	<0.001015	<0.001015
1/22/2018			<0.00102	<0.001015		
1/23/2018	<0.001015					<0.001015
1/24/2018		<0.00102			<0.001015	
5/1/2018	<0.001015		<0.00102	<0.001015		<0.001015
5/2/2018		<0.00102			<0.001015	
11/26/2018	<0.001015		<0.00102			<0.001015
11/27/2018		<0.00102		<0.001015	<0.001015	
5/28/2019		<0.00102	<0.00102	<0.001015	<0.001015	
5/29/2019	<0.001015					<0.001015
10/2/2019	<0.001015	<0.00102	<0.00102	<0.001015	<0.001015	<0.001015
3/30/2020		<0.00102	<0.00102	<0.001015	<0.001015	
3/31/2020	<0.001015					<0.001015
9/8/2020		<0.00102	<0.00102	<0.001015	<0.001015	
9/9/2020	<0.001015					<0.001015
5/12/2021	<0.001015	0.000575 (J)	0.000763 (J)	0.000464 (J)	<0.001015	<0.001015
10/18/2021			<0.00102	<0.001015		
10/19/2021	<0.001015	<0.00102			<0.001015	<0.001015
5/31/2022		0.00071 (J)	0.00066 (J)			
6/1/2022	<0.001015			<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015	0.000937 (J)	0.000408 (J)	<0.001015	<0.001015	<0.001015
4/11/2023	<0.001015	0.000693 (J)	0.00091 (J)	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.001015	<0.001015	<0.001015	<0.001015
4/19/2016		<0.001015	<0.001015	<0.001015	<0.001015
6/6/2016		0.000612 (J)			<0.001015
6/7/2016			0.00093 (J)	<0.001015	
8/30/2016		<0.001015	<0.001015	<0.001015	<0.001015
10/18/2016		<0.001015	<0.001015	<0.001015	<0.001015
1/31/2017		<0.001015	<0.001015	<0.001015	<0.001015
5/2/2017		0.00069 (J)	<0.001015	<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015	<0.001015	<0.001015
1/23/2018		<0.001015	<0.001015	<0.001015	<0.001015
5/1/2018			<0.001015	<0.001015	<0.001015
5/2/2018		<0.001015			
11/26/2018					<0.001015
11/27/2018		0.000856 (J)	0.000801 (J)	<0.001015	
5/28/2019					<0.001015
5/29/2019		<0.001015	<0.001015	<0.001015	
10/2/2019		<0.001015	<0.001015	<0.001015	<0.001015
3/31/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
9/8/2020	<0.001015				<0.001015
9/9/2020		<0.001015	<0.001015	<0.001015	
5/11/2021			<0.001015	<0.001015	<0.001015
5/12/2021	<0.001015	0.000694 (J)			
10/18/2021				<0.001015	<0.001015
10/19/2021	<0.001015	<0.001015	<0.001015		
5/31/2022		<0.001015	0.00041 (J)	<0.001015	<0.001015
6/1/2022	<0.001015				
11/1/2022		<0.001015	0.000429 (J)	<0.001015	<0.001015
11/2/2022	<0.001015				
4/11/2023	<0.001015				
4/12/2023		<0.001015	0.000416 (J)	<0.001015	<0.001015

Time Series

Constituent: Boron (mg/L) Analysis Run 7/14/2023 11:56 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.0294 (J)	0.163	0.638	0.0314 (J)	<0.1015	0.0297 (J)
4/18/2016		0.361	0.908	<0.1015	<0.1015	
4/19/2016	0.0257 (J)					0.0269 (J)
6/6/2016			0.733	<0.1015		
6/7/2016	0.0257 (J)	0.169			<0.1015	0.0271 (J)
8/30/2016	0.0317 (J)	0.0858 (J)	0.448	<0.1015	<0.1015	0.0272 (J)
10/18/2016	<0.1	0.0778 (J)	0.249	<0.1015	0.0207 (J)	<0.1
1/30/2017	0.0243 (J)			<0.1015		0.0269 (J)
1/31/2017		0.077 (J)	0.121		<0.1015	
5/2/2017	0.0259 (J)	0.0602 (J)	0.0695 (J)	<0.1015	<0.1015	0.027 (J)
6/6/2017		0.0442 (J)	0.0509 (J)			
6/7/2017	<0.1			<0.1015	<0.1015	<0.1
9/12/2017			0.0709 (J)	<0.1015		
9/13/2017	0.0394 (J)	0.0411 (J)			<0.1015	0.032 (J)
5/1/2018	0.0338 (J)		0.0365 (J)	<0.1015		0.0302 (J)
5/2/2018		0.0334 (J)			<0.1015	
11/26/2018	0.0484 (J)		0.0836 (J)			0.139
11/27/2018		0.0265 (J)		<0.1015	<0.1015	
5/28/2019		<0.1	0.556	<0.1015	<0.1015	
5/29/2019	0.0669 (J)					0.141
10/2/2019	0.0671 (J)	<0.1	0.186	<0.1015	<0.1015	0.116
3/30/2020		<0.1	0.304	<0.1015	<0.1015	
3/31/2020	0.0442 (J)					0.112
9/8/2020		0.521	0.362	<0.1015	<0.1015	
9/9/2020	0.0509 (J)					0.0873 (J)
5/12/2021	0.0423 (J)	0.511	0.876	<0.1015	<0.1015	0.0834 (J)
10/18/2021			0.987	<0.1015		
10/19/2021	0.0444 (J)	0.243			0.0303 (J)	0.0966 (J)
5/31/2022		0.939	0.685			
6/1/2022	0.0493 (J)			<0.1015	<0.1015	0.0933 (J)
11/2/2022	0.0502 (J)	1.69	0.741	<0.1015	0.0343 (J)	0.0809 (J)
4/11/2023	0.0503 (J)	0.54	0.925	<0.1015	0.0345 (J)	0.0664 (J)

Time Series

Constituent: Boron (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.0212 (J)	0.0252 (J)	<0.1015	0.0257 (J)
4/19/2016		<0.1	<0.1015	<0.1015	<0.1015
6/6/2016		<0.1			<0.1015
6/7/2016			0.0202 (J)	<0.1015	
8/30/2016		<0.1	<0.1015	<0.1015	<0.1015
10/18/2016		<0.1	<0.1015	<0.1015	0.022 (J)
1/31/2017		<0.1	<0.1015	<0.1015	<0.1015
5/2/2017		<0.1	<0.1015	<0.1015	<0.1015
6/6/2017		<0.1	<0.1015	<0.1015	<0.1015
9/12/2017					<0.1015
9/13/2017		<0.1	<0.1015	<0.1015	
5/1/2018			<0.1015	<0.1015	<0.1015
5/2/2018		0.0362 (J)			
11/26/2018					<0.1015
11/27/2018		0.11	0.0207 (J)	<0.1015	
5/28/2019					<0.1015
5/29/2019		0.188	<0.1015	<0.1015	
10/2/2019		0.097 (J)	<0.1015	<0.1015	<0.1015
3/31/2020	0.0864 (J)	0.157	<0.1015	<0.1015	<0.1015
9/8/2020	0.0638 (J)				<0.1015
9/9/2020		0.0999 (J)	<0.1015	<0.1015	
5/11/2021			<0.1015	<0.1015	<0.1015
5/12/2021	0.0742 (J)	0.0841 (J)			
10/18/2021				<0.1015	<0.1015
10/19/2021	0.0551 (J)	0.0708 (J)	<0.1015		
5/31/2022		0.0567 (J)	<0.1015	<0.1015	<0.1015
6/1/2022	0.0564 (J)				
11/1/2022		0.0501 (J)	<0.1015	<0.1015	<0.1015
11/2/2022	0.035 (J)				
4/11/2023	0.0507 (J)				
4/12/2023		0.0464 (J)	<0.1015	<0.1015	<0.1015

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/18/2016		<0.000203	<0.000203	<0.000203	<0.000203	
4/19/2016	<0.000203					<0.000203
6/6/2016			<0.000203	<0.000203		
6/7/2016	<0.000203	<0.000203			<0.000203	<0.000203
8/30/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/30/2017	<0.000203			<0.000203		<0.000203
1/31/2017		<0.000203	<0.000203		<0.000203	
5/2/2017	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203			
6/7/2017	<0.000203			<0.000203	<0.000203	<0.000203
1/22/2018			<0.000203	<0.000203		
1/23/2018	<0.000203					<0.000203
1/24/2018		<0.000203			<0.000203	
5/1/2018	<0.000203		<0.000203	<0.000203		<0.000203
5/2/2018		<0.000203			<0.000203	
11/26/2018	<0.000203		<0.000203			<0.000203
11/27/2018		<0.000203		<0.000203	<0.000203	
5/28/2019		<0.000203	<0.000203	<0.000203	<0.000203	
5/29/2019	<0.000203					<0.000203
10/2/2019	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203	
3/31/2020	<0.000203					<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203	
9/9/2020	<0.000203					<0.000203
5/12/2021	<0.000203	8.67E-05 (J)	0.000154 (J)	<0.000203	<0.000203	<0.000203
10/18/2021			0.00011 (J)	<0.000203		
10/19/2021	<0.000203	0.00014 (J)			<0.000203	<0.000203
5/31/2022		0.00012 (J)	0.00023			
6/1/2022	<0.000203			<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203	0.000189 (J)	0.000178 (J)	<0.000203	<0.000203	<0.000203
4/11/2023	<0.000203	0.000133 (J)	0.000185 (J)	<0.000203	<0.000203	<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.000203	<0.000203	<0.000203	<0.000203
4/19/2016		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2016		<0.000203			<0.000203
6/7/2016			<0.000203	<0.000203	
8/30/2016		<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016		<0.000203	<0.000203	<0.000203	<0.000203
1/31/2017		<0.000203	<0.000203	<0.000203	<0.000203
5/2/2017		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203	<0.000203	<0.000203
1/23/2018		<0.000203	<0.000203	<0.000203	<0.000203
5/1/2018			<0.000203	<0.000203	<0.000203
5/2/2018		<0.000203			
11/26/2018					<0.000203
11/27/2018		<0.000203	<0.000203	<0.000203	
5/28/2019					<0.000203
5/29/2019		<0.000203	<0.000203	<0.000203	
10/2/2019		<0.000203	<0.000203	<0.000203	<0.000203
3/31/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
9/8/2020	<0.000203				<0.000203
9/9/2020		<0.000203	<0.000203	<0.000203	
5/11/2021			<0.000203	<0.000203	<0.000203
5/12/2021	<0.000203	<0.000203			
10/18/2021				7.25E-05 (J)	<0.000203
10/19/2021	<0.000203	<0.000203	<0.000203		
5/31/2022		<0.000203	<0.000203	<0.000203	<0.000203
6/1/2022	<0.000203				
11/1/2022		<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203				
4/11/2023	<0.000203				
4/12/2023		<0.000203	<0.000203	<0.000203	<0.000203

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 7/14/2023 11:56 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.795	2.42	18.3	1.4	0.618	1.15
4/18/2016		4.65	23.2	1.2	0.505	
4/19/2016	0.761					1.04
6/6/2016			19.7	1.48		
6/7/2016	0.799	3.1			0.587	1.22
8/30/2016	0.788	2.19	10.9	1.13	0.495 (J)	1.18
10/18/2016	0.788	1.97	8.74	1.45	0.503	1.12
1/30/2017	0.755			1.95		1.23
1/31/2017		1.73	7.89		0.554	
5/2/2017	0.763	1.74	5.81	0.908	0.548	1.2
6/6/2017		1.66	4.72			
6/7/2017	0.706			1.29	0.545	1.17
9/12/2017			4.39	1.44		
9/13/2017	0.873	1.61			0.723	1.25
5/1/2018	1.05		4.66	0.695		1.25
5/2/2018		1.44			0.751	
11/26/2018	0.922		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	1.07					1.8
10/2/2019	1.32	1.33	4.94	0.929	0.882	1.85
3/30/2020		1.26	7.56	1.32	0.841	
3/31/2020	0.98					1.67
9/8/2020		3.24	6.38	1.12	0.981	
9/9/2020	1.1					1.79
5/12/2021	1.06	7	13.5	1.63	1.02	1.82
10/18/2021			9.06	1.53		
10/19/2021	0.977	2.75			1.01	1.75
5/31/2022		8.52	9.98			
6/1/2022	1.04			1.27	0.94	1.55
11/2/2022	1.15	10.9	7.78	1.96	1.04	1.67
4/11/2023	1.16	6.62	10.9	1.82	0.971	1.49

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 7/14/2023 11:56 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		1.28	1.11	1.77	1.42
4/19/2016		1.19	1.09	1.68	1.31
6/6/2016		1.19			1.35
6/7/2016			1.16	1.68	
8/30/2016		1.11	1.08	1.62	1.31
10/18/2016		1.04	1.03	1.53	1.22
1/31/2017		1.19	1.23	1.65	1.36
5/2/2017		1.05	1.28	1.58	1.24
6/6/2017		0.978	1.25	1.55	1.28
9/12/2017					1.47
9/13/2017		1.14	1.6	1.71	
5/1/2018			1.58	1.76	1.47
5/2/2018		1.64			
11/26/2018					1.52
11/27/2018		2.01	1.49	1.69	
5/28/2019					1.6
5/29/2019		1.85	1.59	1.74	
10/2/2019		1.55	1.7	1.86	1.7
3/31/2020	0.663	1.96	1.43	1.92	1.78
9/8/2020	0.724				1.94
9/9/2020		1.43	1.5	1.97	
5/11/2021			1.39	2.06	1.93
5/12/2021	0.861	1.34			
10/18/2021				2.1	2.01
10/19/2021	0.941	1.17	1.32		
5/31/2022		1.14	1.24	1.95	2.02
6/1/2022	1.13				
11/1/2022		1.01	1.23	1.94	1.59
11/2/2022	1.31				
4/11/2023	1.31				
4/12/2023		1.02	1.16	1.83	1.76

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 11:56 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	3.57	3.86	6.06	4.08	4.47	4.1
4/18/2016		4.46	6.13	4.14	4.74	
4/19/2016	3.12					3.11
6/6/2016			5.52	4.09		
6/7/2016	3.14	3.74			4.52	3.72
8/30/2016	2.93	3.5	5.35	4.6	4.71	4.8
10/18/2016	2.96	3.5	4.55	8.32	4.73	4.71
3/21/2017	4.4	2.8	3.5	5.6	4.9	5.3
5/2/2017	3.7	3.9	4.8	4.8	5.7	6.6
6/6/2017		3.4	3.6			
6/7/2017	3.3			6.3	4.1	5.2
9/12/2017			4.3	8.5		
9/13/2017	5.1	<2 (U*)			4.9	6.5
5/1/2018	4		3.8	4		5.7
5/2/2018		3.5			4.1	
11/26/2018	3.8		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	4.34					8.56
10/2/2019	4.34	3.49	4.13	5.02	4.32	8.48
3/30/2020		3.45	4.95	10.5	4.38	
3/31/2020	3.89					6.87
9/8/2020		6.23	5.71	8.74	4.61	
9/9/2020	4.11					7.94
5/12/2021	3.94	5.89	7.77	17.2	5.25	8.77
10/18/2021			10	16.8		
10/19/2021	3.79	4.81			5.34	6.33
5/31/2022		7.83	7.22			
6/1/2022	3.35			14.7	5.38	4.29
11/2/2022	3.07	8.44	6.58	22.700001	5.08	3.14
4/11/2023	3.17	5.21	7.94	22.6	5.2	4.32

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 11:56 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
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		4	4.3	3.9	
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	4.13	3.17	2.72	3.47	3.34
9/8/2020	3.96				3.29
9/9/2020		2.92	2.32	3.47	
5/11/2021			2.16	3.42	3.33
5/12/2021	4.89	2.18			
10/18/2021				3.45	3.32
10/19/2021	5.02	2.37	2.08		
5/31/2022		1.93	2.17	3.39	3.31
6/1/2022	7.97				
11/1/2022		2.37	2.22	3.09	3.3
11/2/2022	7.81				
4/11/2023	7.33				
4/12/2023		2.31	2.25	3.11	3.42

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/14/2023 11:56 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.00102	<0.00102	0.00209 (J)	<0.00102	<0.00102	<0.00102
4/18/2016		<0.00102	0.00324 (J)	<0.00102	0.00201 (J)	
4/19/2016	<0.00102					<0.00102
6/6/2016			0.0031 (J)	<0.00102		
6/7/2016	<0.00102	<0.00102			<0.00102	<0.00102
8/30/2016	<0.00102	<0.00102	0.00227 (J)	<0.00102	0.00205 (J)	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102	<0.00102	0.00218 (J)	<0.00102
1/30/2017	<0.00102			<0.00102		<0.00102
1/31/2017		<0.00102	<0.00102		<0.00102	
5/2/2017	<0.00102	<0.00102	<0.00102	<0.00102	0.00208 (J)	<0.00102
6/6/2017		<0.00102	<0.00102			
6/7/2017	<0.00102			<0.00102	0.0022 (J)	<0.00102
1/22/2018			<0.00102	<0.00102		
1/23/2018	<0.00102					<0.00102
1/24/2018		<0.00102			0.00258 (J)	
5/1/2018	<0.00102		<0.00102	<0.00102		<0.00102
5/2/2018		<0.00102			0.00202 (J)	
11/26/2018	<0.00102		<0.00102			<0.00102
11/27/2018		<0.00102		<0.00102	<0.00102	
5/28/2019		<0.00102	0.00223 (J)	<0.00102	0.00209 (J)	
5/29/2019	<0.00102					<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102	<0.00102	0.00223 (J)	<0.00102
3/30/2020		<0.00102	0.00273 (J)	<0.00102	0.00275 (J)	
3/31/2020	<0.00102					<0.00102
9/8/2020		0.00221 (J)	0.00237 (J)	<0.00102	0.00224 (J)	
9/9/2020	<0.00102					<0.00102
5/12/2021	0.000695 (J)	0.00232	0.0034	0.00139	0.00218	0.000783 (J)
10/18/2021			0.00335	0.00131		
10/19/2021	0.00079 (J)	0.00268			0.00246	0.00081 (J)
5/31/2022		0.00281	0.00412			
6/1/2022	0.00089 (J)			0.00157	0.00226	0.00104
11/2/2022	0.000663 (J)	0.00259	0.00344	0.00144	0.00209	0.000918 (J)
4/11/2023	0.000659 (J)	0.00199	0.0046	0.00143	0.00201	0.000839 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/14/2023 11:56 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.00102	<0.00102	<0.00102	<0.00102
4/19/2016		<0.00102	<0.00102	<0.00102	<0.00102
6/6/2016		<0.00102			<0.00102
6/7/2016			<0.00102	<0.00102	
8/30/2016		<0.00102	<0.00102	<0.00102	<0.00102
10/18/2016		<0.00102	<0.00102	<0.00102	<0.00102
1/31/2017		<0.00102	<0.00102	<0.00102	<0.00102
5/2/2017		<0.00102	<0.00102	<0.00102	<0.00102
6/6/2017		<0.00102	<0.00102	<0.00102	<0.00102
1/23/2018		<0.00102	0.00596 (J)	0.00229 (J)	<0.00102
5/1/2018			<0.00102	<0.00102	<0.00102
5/2/2018		<0.00102			
11/26/2018					<0.00102
11/27/2018		<0.00102	<0.00102	<0.00102	
5/28/2019					<0.00102
5/29/2019		<0.00102	<0.00102	<0.00102	
10/2/2019		<0.00102	<0.00102	<0.00102	<0.00102
3/31/2020	0.00249 (J)	<0.00102	<0.00102	<0.00102	0.00604 (J)
9/8/2020	0.00253 (J)				<0.00102
9/9/2020		<0.00102	<0.00102	<0.00102	
5/11/2021			0.00136	0.00146	0.00159
5/12/2021	0.00281	0.000296 (J)			
10/18/2021				0.0013	0.00146
10/19/2021	0.00336	0.000301 (J)	0.00135		
5/31/2022		0.000334 (J)	0.0012	0.00139	0.00156
6/1/2022	0.00292				
11/1/2022		0.000212 (J)	0.00209	0.0012	0.00111
11/2/2022	0.00276				
4/11/2023	0.00301				
4/12/2023		0.000215 (J)	0.00152	0.00138	0.00128

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/14/2023 11:56 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.00247 (J)	<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	0.00241 (J)					<0.005
6/6/2016			0.00361 (J)	<0.005		
6/7/2016	0.00247 (J)	<0.005			<0.005	<0.005
8/30/2016	0.00251 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
10/18/2016	0.00272 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2017	<0.005			<0.005		<0.005
1/31/2017		<0.005	<0.005		<0.005	
5/2/2017	0.00205 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2017		<0.005	<0.005			
6/7/2017	0.00201 (J)			<0.005	<0.005	<0.005
1/22/2018			<0.005	<0.005		
1/23/2018	0.00229 (J)					<0.005
1/24/2018		<0.005			<0.005	
5/1/2018	0.00216 (J)		<0.005	<0.005		<0.005
5/2/2018		<0.005			<0.005	
11/26/2018	0.00205 (J)		<0.005			<0.005
11/27/2018		<0.005		<0.005	<0.005	
5/28/2019		<0.005	0.00301 (J)	<0.005	<0.005	
5/29/2019	0.00261 (J)					<0.005
10/2/2019	0.00262 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
3/30/2020		<0.005	0.0031 (J)	<0.005	<0.005	
3/31/2020	0.00238 (J)					<0.005
9/8/2020		0.00227 (J)	0.00296 (J)	<0.005	<0.005	
9/9/2020	0.00241 (J)					<0.005
5/12/2021	0.00237	0.0046	0.0054	0.00192	0.000437	0.00177
10/18/2021			0.00552	0.00164		
10/19/2021	0.00238	0.00217			0.00049	0.00156
5/31/2022		0.00606	0.00724			
6/1/2022	0.0027			0.00162	0.00048	0.00131
11/2/2022	0.00249	0.00667	0.00684	0.00228	0.000514	0.00118
4/11/2023	0.00265	0.00397	0.0079	0.00215	0.000338	0.000888

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.0035 (J)	<0.005	<0.005	<0.005
4/19/2016		0.0038 (J)	<0.005	<0.005	<0.005
6/6/2016		0.00427 (J)			<0.005
6/7/2016			<0.005	<0.005	
8/30/2016		0.00348 (J)	<0.005	<0.005	<0.005
10/18/2016		0.00338 (J)	<0.005	<0.005	<0.005
1/31/2017		0.00308 (J)	<0.005	<0.005	<0.005
5/2/2017		0.00314 (J)	<0.005	<0.005	<0.005
6/6/2017		0.0036 (J)	<0.005	<0.005	<0.005
1/23/2018		0.00586 (J)	0.0021 (J)	<0.005	<0.005
5/1/2018			<0.005	<0.005	<0.005
5/2/2018		0.00702 (J)			
11/26/2018					<0.005
11/27/2018		0.0157	0.00209 (J)	<0.005	
5/28/2019					<0.005
5/29/2019		0.0109	0.00248 (J)	<0.005	
10/2/2019		0.0129	0.00244 (J)	<0.005	<0.005
3/31/2020	<0.005	0.0123	0.00224 (J)	<0.005	<0.005
9/8/2020	<0.005				<0.005
9/9/2020		0.00697	0.00219 (J)	<0.005	
5/11/2021			0.00194	0.00142	0.00137
5/12/2021	0.00101	0.00611			
10/18/2021				0.00146	0.00139
10/19/2021	0.00117	0.00517	0.00192		
5/31/2022		0.00487	0.00194	0.00149	0.0015
6/1/2022	0.00143				
11/1/2022		0.00394	0.0016	0.00143	0.00169
11/2/2022	0.00144				
4/11/2023	0.00139				
4/12/2023		0.00398	0.00157	0.0013	0.00127

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/14/2023 11:56 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	3 (U)	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)					3.81872
6/6/2016			1.47	0.427		
6/7/2016	1.03	1.03			0.69	0.941
8/30/2016	1.05	0.696	1.91	0.869	0.687	0.98
10/18/2016	1.36	0.966	0.966	0.927	0.62	1.06
1/30/2017	0.847			0.649		1.15
1/31/2017		0.724	1.01		0.266 (U)	
5/2/2017	0.649	0.587	1.41	0.804	0.853	1.31
6/6/2017		0.591	0.476			
6/7/2017	1.4			0.136 (U)	0.477	1.12
1/22/2018			0.814 (U)	0.726 (U)		
1/23/2018	1.36 (U)					1.16 (U)
1/24/2018		0.566 (U)			0.411 (U)	
5/1/2018	1.03		0.931	0.63		0.961
5/2/2018		0.401			0.718	
11/26/2018	1.04		0.815			1.72
11/27/2018		0.611		0.109 (U)	0.691	
5/28/2019		0.391 (U)	2.08	-0.428 (U)	0.311 (U)	
5/29/2019	0.548 (U)					2.2
10/2/2019	2.19	0.954	0.836	0.43 (U)	0.969	2
3/30/2020		0.525	1.54	0.939	0.397 (U)	
3/31/2020	1.01					1.88
9/8/2020		0.845	0.402 (U)	1.13	0.0249 (U)	
9/9/2020	1.32					2.11
5/12/2021	2.02	0.465 (U)	2.47	1.09	1.29	1.94
10/18/2021			2.03	0.69 (U)		
10/19/2021	1.6 (V)	0.719 (U)			1.54	3.15
5/31/2022		2.31	2.22			
6/1/2022	2.27			0.99	1.37	2.05
11/2/2022	1.34	1.24	1.7	1.09	1.06	1.93
4/11/2023	1.87	1.24	3.05	1.96	1.6	1.98

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/14/2023 11:56 AM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		2.8971 (U)	3 (U)	3 (U)	2.1138
4/19/2016		3 (U)	3 (U)	3 (U)	3 (U)
6/6/2016		0.841			0.757
6/7/2016			0.652	0.342 (U)	
8/30/2016		1.74	0.411 (U)	0.702	0.992
10/18/2016		1.47	1	0.791	0.905
1/31/2017		0.952	0.398 (U)	0.0613 (U)	1.08
5/2/2017		0.768	0.66	0.974	1.18
6/6/2017		1.04	0.639	0.748	1.1
1/23/2018		0.513 (U)	0.669 (U)	0.558 (U)	1.32 (U)
5/1/2018			1.06	0.296 (U)	1.19
5/2/2018		0.916			
11/26/2018					0.863
11/27/2018		1.37	0.636	0.357 (U)	
5/28/2019					0.474 (U)
5/29/2019		1.57	0.579 (U)	0.275 (U)	
10/2/2019		0.905	1.33	0.458 (U)	0.624 (U)
3/31/2020	0.968	1.77	0.814	0.941	1.09
9/8/2020	0.468 (U)				1.27
9/9/2020		1.77	0.653 (U)	1.05	
5/11/2021			0.945 (U)	0.521 (U)	0.969 (U)
5/12/2021	0.515 (U)	0.639 (U)			
10/18/2021				1.75	2.19
10/19/2021	0.87 (U)	1.77	1.85		
5/31/2022		1.34	1.38	1.67	1.47
6/1/2022	1.13				
11/1/2022		1.11	1	0.53 (U)	1.36
11/2/2022	0.625 (U)				
4/11/2023	1.05				
4/12/2023		1.03 (U)	1.07	1.28	1.17

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/14/2023 11:56 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.05 (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	0.05 (J)					0.039 (J)
6/6/2016			0.148 (J)	0.051 (J)		
6/7/2016	0.098 (J)	0.066 (J)			0.053 (J)	0.085 (J)
8/30/2016	0.089 (J)	0.046 (J)	0.072 (J)	0.039 (J)	0.038 (J)	0.078 (J)
10/18/2016	0.092 (J)	0.034 (J)	0.049 (J)	0.025 (J)	0.028 (J)	0.071 (J)
3/21/2017	0.06 (J)	<0.125	<0.125	<0.125	<0.125	0.05 (J)
5/2/2017	0.07 (J)	<0.125	<0.125	<0.125	<0.125	0.06 (J)
6/6/2017		<0.125	<0.125			
6/7/2017	0.07 (J)			<0.125	<0.125	0.07 (J)
9/12/2017			<0.125	<0.125		
9/13/2017	0.08 (J)	<0.125			<0.125	0.08 (J)
1/22/2018			<0.125	<0.125		
1/23/2018	0.08 (J)					0.07 (J)
1/24/2018		<0.125			<0.125	
5/1/2018	0.09 (J)		<0.125	<0.125		0.07 (J)
5/2/2018		<0.125			<0.125	
11/26/2018	0.08 (J)		<0.125			0.07 (J)
11/27/2018		<0.125		<0.125	<0.125	
5/28/2019		<0.125	0.0591 (J)	<0.125	<0.125	
5/29/2019	<0.125					<0.125
10/2/2019	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
3/30/2020		<0.125	<0.125	<0.125	<0.125	
3/31/2020	<0.125					<0.125
9/8/2020		<0.125	<0.125	<0.125	<0.125	
9/9/2020	<0.125					<0.125
5/12/2021	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
10/18/2021			<0.125	<0.125		
10/19/2021	<0.125	<0.125			<0.125	<0.125
5/31/2022		<0.125	<0.125			
6/1/2022	<0.125			<0.125	<0.125	<0.125
11/2/2022	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
4/11/2023	<0.125	0.0834 (J)	0.135	<0.125	<0.125	<0.125

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.03 (J)	0.02 (J)	0.02 (J)	0.02 (J)
4/19/2016		0.023 (J)	0.021 (J)	0.016 (J)	0.015 (J)
6/6/2016		0.062 (J)			0.05 (J)
6/7/2016			0.06 (J)	0.052 (J)	
8/30/2016		0.053 (J)	0.05 (J)	0.038 (J)	0.036 (J)
10/18/2016		0.042 (J)	0.04 (J)	0.03 (J)	0.025 (J)
3/20/2017		<0.125	<0.125	<0.125	<0.125
5/2/2017		0.04 (J)	0.04 (J)	<0.125	<0.125
6/6/2017		<0.125	0.04 (J)	<0.125	<0.125
9/12/2017					<0.125
9/13/2017		0.04 (J)	0.043 (J)	<0.125	
1/23/2018		<0.125	0.04 (J)	<0.125	<0.125
5/1/2018			0.04 (J)	<0.125	<0.125
5/2/2018		0.04 (J)			
11/26/2018					<0.125
11/27/2018		<0.125	<0.125	<0.125	
5/28/2019					<0.125
5/29/2019		0.0502 (J)	<0.125	<0.125	
10/2/2019		<0.125	<0.125	<0.125	<0.125
3/31/2020	<0.125	<0.125	<0.125	<0.125	<0.125
9/8/2020	<0.125				<0.125
9/9/2020		<0.125	<0.125	<0.125	
5/11/2021			<0.125	<0.125	<0.125
5/12/2021	<0.125	<0.125			
10/18/2021				<0.125	<0.125
10/19/2021	<0.125	<0.125	<0.125		
5/31/2022		<0.125	<0.125	<0.125	<0.125
6/1/2022	<0.125				
11/1/2022		<0.125	<0.125	<0.125	<0.125
11/2/2022	<0.125				
4/11/2023	<0.125				
4/12/2023		<0.125	<0.125	<0.125	<0.125

Time Series

Constituent: Lead (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/18/2016		<0.000203	<0.000203	<0.000203	<0.000203	
4/19/2016	<0.000203					<0.000203
6/6/2016			<0.000203	<0.000203		
6/7/2016	<0.000203	<0.000203			<0.000203	<0.000203
8/30/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/30/2017	<0.000203			<0.000203		<0.000203
1/31/2017		<0.000203	<0.000203		<0.000203	
5/2/2017	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203			
6/7/2017	<0.000203			<0.000203	<0.000203	<0.000203
1/22/2018			<0.000203	<0.000203		
1/23/2018	<0.000203					<0.000203
1/24/2018		<0.000203			<0.000203	
5/1/2018	<0.000203		<0.000203	<0.000203		<0.000203
5/2/2018		<0.000203			<0.000203	
11/26/2018	<0.000203		<0.000203			<0.000203
11/27/2018		<0.000203		<0.000203	<0.000203	
5/28/2019		<0.000203	<0.000203	<0.000203	<0.000203	
5/29/2019	<0.000203					<0.000203
10/2/2019	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203	
3/31/2020	<0.000203					<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203	
9/9/2020	<0.000203					<0.000203
5/12/2021	0.000113 (J)	9.94E-05 (J)	0.000213	7.98E-05 (J)	<0.000203	0.000288
10/18/2021			0.00011 (J)	8E-05 (J)		
10/19/2021	0.0001 (J)	0.00026			<0.000203	0.00025
5/31/2022		0.00018 (J)	0.00011 (J)			
6/1/2022	0.0001 (J)			8E-05 (J)	<0.000203	0.00023
11/2/2022	0.000122 (J)	0.000144 (J)	0.000146 (J)	0.000125 (J)	<0.000203	0.000233
4/11/2023	0.000131 (J)	9.4E-05 (J)	0.000112 (J)	0.000123 (J)	<0.000203	0.000204

Time Series

Constituent: Lead (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.000203	<0.000203	<0.000203	<0.000203
4/19/2016		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2016		<0.000203			<0.000203
6/7/2016			<0.000203	<0.000203	
8/30/2016		<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016		<0.000203	<0.000203	<0.000203	<0.000203
1/31/2017		<0.000203	<0.000203	<0.000203	<0.000203
5/2/2017		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203	<0.000203	<0.000203
1/23/2018		<0.000203	<0.000203	<0.000203	<0.000203
5/1/2018			<0.000203	<0.000203	<0.000203
5/2/2018		<0.000203			
11/26/2018					<0.000203
11/27/2018		<0.000203	<0.000203	<0.000203	
5/28/2019					<0.000203
5/29/2019		<0.000203	<0.000203	<0.000203	
10/2/2019		<0.000203	<0.000203	<0.000203	<0.000203
3/31/2020	<0.000203	<0.000203	<0.000203	<0.000203	0.00126 (J)
9/8/2020	<0.000203				<0.000203
9/9/2020		<0.000203	<0.000203	<0.000203	
5/11/2021			0.000118 (J)	<0.000203	0.000159 (J)
5/12/2021	0.000208	9.79E-05 (J)			
10/18/2021				<0.000203	0.00012 (J)
10/19/2021	0.00014 (J)	0.000115 (J)	0.0001 (J)		
5/31/2022		8.38E-05 (J)	7.81E-05 (J)	<0.000203	0.000173 (J)
6/1/2022	0.00012 (J)				
11/1/2022		0.00017 (J)	0.000411	<0.000203	8.6E-05 (J)
11/2/2022	<0.000203				
4/11/2023	8.2E-05 (J)				
4/12/2023		7.57E-05 (J)	0.00014 (J)	8.25E-05 (J)	8.65E-05 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<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
6/6/2016			<0.02	<0.02		
6/7/2016	<0.02	<0.02			<0.02	<0.02
8/30/2016	<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
1/30/2017	<0.02			<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	<0.02
6/6/2017		<0.02	<0.02			
6/7/2017	<0.02			<0.02	<0.02	<0.02
1/22/2018			<0.02	<0.02		
1/23/2018	<0.02					<0.02
1/24/2018		<0.02			<0.02	
5/1/2018	<0.02		<0.02	<0.02		<0.02
5/2/2018		<0.02			<0.02	
11/26/2018	<0.02		<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					<0.02
10/2/2019	<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
9/8/2020		<0.02	<0.02	<0.02	<0.02	
9/9/2020	<0.02					<0.02
5/12/2021	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10/18/2021			<0.02	<0.02		
10/19/2021	<0.02	<0.02			<0.02	<0.02
5/31/2022		<0.02	<0.02			
6/1/2022	<0.02			<0.02	<0.02	<0.02
11/2/2022	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4/11/2023	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.01999956	<0.01999956	<0.01999956	<0.01999956
4/19/2016		<0.01999956	<0.01999956	<0.01999956	<0.01999956
6/6/2016		<0.01999956			<0.01999956
6/7/2016			<0.01999956	<0.01999956	
8/30/2016		<0.01999956	<0.01999956	<0.01999956	<0.01999956
10/18/2016		<0.01999956	<0.01999956	<0.01999956	<0.01999956
1/31/2017		<0.01999956	<0.01999956	<0.01999956	<0.01999956
5/2/2017		<0.01999956	<0.01999956	<0.01999956	<0.01999956
6/6/2017		<0.01999956	<0.01999956	<0.01999956	<0.01999956
1/23/2018		<0.01999956	<0.01999956	<0.01999956	<0.01999956
5/1/2018			<0.01999956	<0.01999956	<0.01999956
5/2/2018		<0.01999956			
11/26/2018					<0.01999956
11/27/2018		<0.01999956	<0.01999956	<0.01999956	
5/28/2019					<0.01999956
5/29/2019		<0.01999956	<0.01999956	<0.01999956	
10/2/2019		<0.01999956	<0.01999956	<0.01999956	<0.01999956
3/31/2020	<0.02	<0.01999956	<0.01999956	<0.01999956	<0.01999956
9/8/2020	<0.02				<0.01999956
9/9/2020		<0.01999956	<0.01999956	<0.01999956	
5/11/2021			<0.01999956	<0.01999956	<0.01999956
5/12/2021	<0.02	<0.01999956			
10/18/2021				<0.01999956	<0.01999956
10/19/2021	<0.02	<0.01999956	<0.01999956		
5/31/2022		<0.01999956	<0.01999956	<0.01999956	<0.01999956
6/1/2022	<0.02				
11/1/2022		<0.01999956	<0.01999956	<0.01999956	<0.01999956
11/2/2022	<0.02				
4/11/2023	<0.02				
4/12/2023		<0.01999956	<0.01999956	<0.01999956	<0.01999956

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<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
6/6/2016			<0.0005	<0.0005		
6/7/2016	<0.0005	<0.0005			0.00031 (J)	<0.0005
8/30/2016	<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
1/30/2017	<0.0005			<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	<0.0005
6/6/2017		<0.0005	<0.0005			
6/7/2017	<0.0005			<0.0005	<0.0005	<0.0005
1/22/2018			<0.0005	<0.0005		
1/23/2018	<0.0005					<0.0005
1/24/2018		<0.0005			<0.0005	
5/1/2018	<0.0005		<0.0005	<0.0005		<0.0005
5/2/2018		<0.0005			<0.0005	
11/26/2018	<0.0005		<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					<0.0005
10/2/2019	<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
9/8/2020		<0.0005	<0.0005	<0.0005	<0.0005	
9/9/2020	<0.0005					<0.0005
5/12/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10/18/2021			<0.0005	<0.0005		
10/19/2021	<0.0005	<0.0005			<0.0005	<0.0005
5/31/2022		0.00036 (J)	0.00035 (J)			
6/1/2022	<0.0005			<0.0005	<0.0005	<0.0005
11/2/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/11/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.0005	<0.0005	<0.0005	<0.0005
4/19/2016		<0.0005	<0.0005	<0.0005	<0.0005
6/6/2016		<0.0005			<0.0005
6/7/2016			<0.0005	<0.0005	
8/30/2016		<0.0005	<0.0005	<0.0005	<0.0005
10/18/2016		<0.0005	<0.0005	<0.0005	<0.0005
1/31/2017		<0.0005	<0.0005	<0.0005	<0.0005
5/2/2017		<0.0005	<0.0005	<0.0005	<0.0005
6/6/2017		<0.0005	<0.0005	<0.0005	<0.0005
1/23/2018		<0.0005	<0.0005	<0.0005	<0.0005
5/1/2018			<0.0005	<0.0005	<0.0005
5/2/2018		<0.0005			
11/26/2018					<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	
10/2/2019		<0.0005	<0.0005	<0.0005	<0.0005
3/31/2020	<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	
5/11/2021			<0.0005	<0.0005	<0.0005
5/12/2021	<0.0005	<0.0005			
10/18/2021				<0.0005	<0.0005
10/19/2021	<0.0005	<0.0005	<0.0005		
5/31/2022		<0.0005	<0.0005	<0.0005	<0.0005
6/1/2022	<0.0005				
11/1/2022		<0.0005	<0.0005	<0.0005	<0.0005
11/2/2022	<0.0005				
4/11/2023	<0.0005				
4/12/2023		<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
4/18/2016		<0.01015	<0.01015	<0.01015	<0.01015	
4/19/2016	<0.01015					<0.01015
6/6/2016			<0.01015	<0.01015		
6/7/2016	<0.01015	<0.01015			<0.01015	<0.01015
8/30/2016	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
10/18/2016	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
1/30/2017	<0.01015			<0.01015		<0.01015
1/31/2017		<0.01015	<0.01015		<0.01015	
5/2/2017	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
6/6/2017		<0.01015	<0.01015			
6/7/2017	<0.01015			<0.01015	<0.01015	<0.01015
1/22/2018			<0.01015	<0.01015		
1/23/2018	<0.01015					<0.01015
1/24/2018		<0.01015			<0.01015	
5/1/2018	<0.01015		<0.01015	<0.01015		<0.01015
5/2/2018		<0.01015			<0.01015	
11/26/2018	<0.01015		<0.01015			<0.01015
11/27/2018		<0.01015		<0.01015	<0.01015	
5/28/2019		<0.01015	<0.01015	<0.01015	<0.01015	
5/29/2019	<0.01015					<0.01015
10/2/2019	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
3/30/2020		<0.01015	<0.01015	<0.01015	<0.01015	
3/31/2020	<0.01015					<0.01015
9/8/2020		<0.01015	<0.01015	<0.01015	<0.01015	
9/9/2020	<0.01015					<0.01015
5/12/2021	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
10/18/2021			<0.01015	<0.01015		
10/19/2021	<0.01015	0.0001 (J)			8E-05 (J)	<0.01015
5/31/2022		<0.01015	<0.01015			
6/1/2022	<0.01015			<0.01015	<0.01015	<0.01015
11/2/2022	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
4/11/2023	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.01015	<0.01015	<0.01015	<0.01015
4/19/2016		<0.01015	<0.01015	<0.01015	<0.01015
6/6/2016		<0.01015			<0.01015
6/7/2016			<0.01015	<0.01015	
8/30/2016		<0.01015	<0.01015	<0.01015	<0.01015
10/18/2016		<0.01015	<0.01015	<0.01015	<0.01015
1/31/2017		<0.01015	<0.01015	<0.01015	<0.01015
5/2/2017		<0.01015	<0.01015	<0.01015	<0.01015
6/6/2017		<0.01015	<0.01015	<0.01015	<0.01015
1/23/2018		<0.01015	<0.01015	<0.01015	<0.01015
5/1/2018			<0.01015	<0.01015	<0.01015
5/2/2018		<0.01015			
11/26/2018					<0.01015
11/27/2018		<0.01015	<0.01015	<0.01015	
5/28/2019					<0.01015
5/29/2019		<0.01015	<0.01015	<0.01015	
10/2/2019		<0.01015	<0.01015	<0.01015	<0.01015
3/31/2020	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
9/8/2020	<0.01015				<0.01015
9/9/2020		<0.01015	<0.01015	<0.01015	
5/11/2021			<0.01015	<0.01015	<0.01015
5/12/2021	<0.01015	<0.01015			
10/18/2021				<0.01015	<0.01015
10/19/2021	<0.01015	<0.01015	<0.01015		
5/31/2022		<0.01015	<0.01015	<0.01015	<0.01015
6/1/2022	<0.01015				
11/1/2022		<0.01015	<0.01015	<0.01015	<0.01015
11/2/2022	<0.01015				
4/11/2023	<0.01015				
4/12/2023		<0.01015	<0.01015	<0.01015	<0.01015

Time Series

Constituent: pH, Field (SU) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	4.67	4.76	6.59	5.12	4.92	4.56
4/18/2016		4.75	6.21	5.11	5.16	
4/19/2016	4.79					4.62
6/6/2016			5.97	5.14		
6/7/2016	4.73	4.77			5.11	4.64
8/30/2016	4.68	4.82	5.99	5.06	5.14	4.58
10/18/2016	4.75	4.82	5.94	5.01	5.09	4.58
1/30/2017	4.65			4.74		4.44
1/31/2017		4.8	5.92		5.01	
3/21/2017	4.68	4.86	5.74	5.04	5.07	4.57
5/2/2017	4.75	4.89	5.82	5.08	5.13	4.64
6/6/2017		4.86	5.77			
6/7/2017	4.7			5.07	5.05	4.58
9/12/2017			5.64	5.03		
9/13/2017	4.71	4.89			5.06	4.54
1/22/2018			5.66	5.06		
1/23/2018	4.6					4.53
1/24/2018		4.86			5.02	
5/1/2018	4.61		5.71	4.89		4.46
5/2/2018		4.87			4.99	
11/26/2018	4.65		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	4.54					4.45
10/2/2019	4.6	4.44	5.4	5.04	4.86	4.49
3/30/2020		4.83	5.51	4.91	4.92	
3/31/2020	4.55					4.45
9/8/2020		4.77	5.15	4.39	4.35	
9/9/2020	4.58					4.46
5/12/2021	4.4	4.61	5.46	4.84	4.83	4.43
10/18/2021			5.28	5.05		
10/19/2021	4.48	4.79			4.77	4.34
5/31/2022		4.61	4.98			
6/1/2022	4.56			4.56	4.03	4.49
11/2/2022	4.39	4.42	4.84	4.75	3.84	3.93
4/11/2023	4.43	4.63	5.34	4.3	4.04	4.17

Time Series

Constituent: pH, Field (SU) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		4.62	4.79	4.96	4.74
4/19/2016		4.74	4.84	4.94	4.86
6/6/2016		4.65			4.88
6/7/2016			4.81	4.96	
8/30/2016		4.64	4.76	4.92	4.91
10/18/2016		4.74	4.84	4.98	4.95
1/31/2017		4.54	4.6	4.74	4.71
3/20/2017		4.67	4.71	4.9	4.83
5/2/2017		4.79	4.8	4.98	4.93
6/6/2017		4.76	4.72	4.94	4.9
9/12/2017					4.82
9/13/2017		4.81	4.71	4.93	
1/23/2018		4.79	4.67	4.91	4.85
5/1/2018			4.61	4.87	4.8
5/2/2018		4.62			
11/26/2018					4.88
11/27/2018		4.73	4.72	4.94	
5/28/2019					4.73
5/29/2019		4.65	4.58	4.8	
10/2/2019		4.57	4.43	4.52	4.67
3/31/2020	4.91	4.64	4.6	4.4	4.51
9/8/2020	4.12				4.75
9/9/2020		4.65	4.67	4.76	
5/11/2021			4.29	4.53	4.67
5/12/2021	4.93	4.74			
10/18/2021				4.55	4.38
10/19/2021	4.8	4.67	4.6		
5/31/2022		3.89	3.31	3.54	3.97
6/1/2022	4.74				
11/1/2022		4.6	4.42	4.12	4.74
11/2/2022	4.57				
4/11/2023	4.8				
4/12/2023		4.77	4.67	4.83	4.73

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.001015	0.00572 (J)	0.0266	<0.001015	<0.001015	<0.001015
4/18/2016		0.0141	0.0529	<0.001015	<0.001015	
4/19/2016	<0.001015					<0.001015
6/6/2016			0.0382	<0.001015		
6/7/2016	<0.001015	0.00698 (J)			<0.001015	<0.001015
8/30/2016	<0.001015	0.0042 (J)	0.014	<0.001015	<0.001015	<0.001015
10/18/2016	<0.001015	0.00386 (J)	0.0105	<0.001015	<0.001015	<0.001015
1/30/2017	<0.001015			<0.001015		<0.001015
1/31/2017		0.00247 (J)	0.0104		<0.001015	
5/2/2017	<0.001015	0.00284 (J)	0.00778 (J)	<0.001015	<0.001015	<0.001015
6/6/2017		0.003 (J)	0.00576 (J)			
6/7/2017	<0.001015			<0.001015	<0.001015	<0.001015
1/22/2018			0.00287 (J)	<0.001015		
1/23/2018	<0.001015					<0.001015
1/24/2018		0.00201 (J)			<0.001015	
5/1/2018	<0.001015		0.00367 (J)	<0.001015		<0.001015
5/2/2018		<0.001015			<0.001015	
11/26/2018	<0.001015		0.00286 (J)			<0.001015
11/27/2018		<0.001015		<0.001015	<0.001015	
5/28/2019		<0.001015	0.0089 (J)	<0.001015	<0.001015	
5/29/2019	<0.001015					<0.001015
10/2/2019	<0.001015	<0.001015	0.00472 (J)	<0.001015	<0.001015	<0.001015
3/30/2020		<0.001015	0.00658 (J)	<0.001015	<0.001015	
3/31/2020	<0.001015					<0.001015
9/8/2020		0.0052 (J)	0.0052 (J)	<0.001015	<0.001015	
9/9/2020	<0.001015					<0.001015
5/12/2021	0.000778 (J)	0.0163	0.0123	<0.001015	<0.001015	0.00128
10/18/2021			0.00672	<0.001015		
10/19/2021	0.00083 (J)	0.0029			0.00052 (J)	0.00118
5/31/2022		0.0217	0.0132			
6/1/2022	0.00125			0.00058 (J)	<0.001015	0.00204
11/2/2022	0.00133	0.0247	0.0156	<0.001015	<0.001015	0.00198
4/11/2023	0.00108	0.0168	0.0232	0.000519 (J)	0.00055 (J)	0.00123

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.001015	<0.001015	<0.001015	<0.001015
4/19/2016		<0.001015	<0.001015	<0.001015	<0.001015
6/6/2016		<0.001015			<0.001015
6/7/2016			<0.001015	<0.001015	
8/30/2016		<0.001015	<0.001015	<0.001015	<0.001015
10/18/2016		<0.001015	<0.001015	<0.001015	<0.001015
1/31/2017		<0.001015	<0.001015	<0.001015	<0.001015
5/2/2017		<0.001015	<0.001015	<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015	<0.001015	<0.001015
1/23/2018		<0.001015	<0.001015	<0.001015	<0.001015
5/1/2018			<0.001015	<0.001015	<0.001015
5/2/2018		<0.001015			
11/26/2018					<0.001015
11/27/2018		<0.001015	<0.001015	<0.001015	
5/28/2019					<0.001015
5/29/2019		<0.001015	<0.001015	<0.001015	
10/2/2019		<0.001015	<0.001015	<0.001015	<0.001015
3/31/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
9/8/2020	<0.001015				<0.001015
9/9/2020		<0.001015	<0.001015	<0.001015	
5/11/2021			0.000602 (J)	<0.001015	<0.001015
5/12/2021	0.00111	<0.001015			
10/18/2021				<0.001015	<0.001015
10/19/2021	0.00114	<0.001015	<0.001015		
5/31/2022		<0.001015	0.000633 (J)	<0.001015	<0.001015
6/1/2022	0.00132				
11/1/2022		<0.001015	0.000558 (J)	<0.001015	<0.001015
11/2/2022	0.00163				
4/11/2023	0.00168				
4/12/2023		<0.001015	0.000702 (J)	<0.001015	<0.001015

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 11:56 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	9.29	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	9.92					7.85
6/6/2016			0.498 (J)	3.76		
6/7/2016	10	18.7			4.44	7.76
8/30/2016	11.1	13.8	27.8	3.62	4.29	8.22
10/18/2016	11.7	12.2	22.5	2.58	4.27	9.29
3/21/2017	9	8.6	15	3.3 (J)	3.6 (J)	7.1
5/2/2017	7.9	8	11	2.5 (J)	2.9 (J)	5.7
6/6/2017		8.6	10			
6/7/2017	8.4			3.1 (J)	2.9 (J)	7.1
9/12/2017			7.5	3 (J)		
9/13/2017	8.7	7.6			3.2 (J)	7.3
5/1/2018	10		8.5	1.6 (J)		7.1
5/2/2018		6			2.6 (J)	
11/26/2018	8.3		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	11.1					12.3
10/2/2019	13.2	6.55	15.9	4.6	4.96	11.6
3/30/2020		6.34	21.8	4.29	4.84	
3/31/2020	11.1					12.5
9/8/2020		15.1	17.7	3.59	4.56	
9/9/2020	9.28					10.7
5/12/2021	11	38.2	37.1	3.58	4.7	12.5
10/18/2021			24.7	2.54		
10/19/2021	10.1	12.3			4.2	12.6
5/31/2022		48.7	38.6			
6/1/2022	11.4			3.4	5.11	13
11/2/2022	11.5	51.400002	36.900002	2.35	5.34	12.2
4/11/2023	11.9	34.799999	53.599998	<2	5.57	10.2

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		8.59	7.2	7.44	7.04
4/19/2016		8.27	7.22	7.66	6.74
6/6/2016		8.66			7.04
6/7/2016			7.92	8.16	
8/30/2016		9.74	8.17	8.43	7.57
10/18/2016		10.2	7.99	8.47	6.62
3/20/2017		8.3	6.1	7.4	7
5/2/2017		6.6	5	6.3	5.6
6/6/2017		7.6	5.3	7.1	6.6
9/12/2017					7.2
9/13/2017		8.4	4.9 (J)	7.3	
5/1/2018			4.2 (J)	6.9	5.9
5/2/2018		5.9			
11/26/2018					5.1
11/27/2018		22	3.7 (J)	6.5	
5/28/2019					7.1
5/29/2019		23.3	5.94	7.81	
10/2/2019		17.5	6.04	7.62	6.88
3/31/2020	3.16	24.3	6.83	7.98	10.8
9/8/2020	3.61				6.52
9/9/2020		16.5	6.08	7.13	
5/11/2021			7.92	7.73	6.8
5/12/2021	4.62	16.3			
10/18/2021				7.36	6.58
10/19/2021	4.92	15.5	7.48		
5/31/2022		12.8	8.09	7.02	7.94
6/1/2022	4.75				
11/1/2022		11.3	7.11	6.83	4.59
11/2/2022	4.65				
4/11/2023	5.92				
4/12/2023		11.8	8.54	7.59	5.93

Time Series

Constituent: TDS (mg/L) Analysis Run 7/14/2023 11:56 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	37.3	38	128	<25	30	25.3
4/18/2016		62	166	<25	27.3	
4/19/2016	34					28
6/6/2016			131	32.7		
6/7/2016	38.7	51.3			32	34.7
8/30/2016	34	38	86.7	25.3	<25	26.7
10/18/2016	31.3	28.7	67.3	28	28	32
1/30/2017	<25			45.3		32.7
1/31/2017		34	60.7		26	
5/2/2017	29.3	37.3	50	26.7	25.3	30.7
6/6/2017		36.7	47.3			
6/7/2017	36			28	<25	<25
9/12/2017			42.7	35.3		
9/13/2017	35.3	37.3			31.3	37.3
5/1/2018	32		44	30.7		39.3
5/2/2018		30.7			30.7	
11/26/2018	31.3		38			48
11/27/2018		<25		30.7	35.3	
5/28/2019		26	77.3	33.3	28.7	
5/29/2019	43.3					60
10/2/2019	36	34.7	50.7	30.7	37.3	46.7
3/30/2020		32	58	39.3	30	
3/31/2020	33.3					37.3
9/8/2020		55.3	59.3	42	38	
9/9/2020	39.3					50.7
5/12/2021	42.7	85.3	98.7	52.7	40	50.7
10/18/2021			77.3	42.7		
10/19/2021	39.3	48.7			33.3	48
5/31/2022		104	85.3			
6/1/2022	40.7			41.3	30.7	39.3
11/2/2022	36.700001	115	83.300003	56	34	34.700001
4/11/2023	34	70.699997	106	50	32	32.700001

Time Series

Constituent: TDS (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		26.7	30.7	40	<25
4/19/2016		<25	<25	32	<25
6/6/2016		32.7			28.7
6/7/2016			35.3	38.7	
8/30/2016		33.3	27.3	31.3	25.3
10/18/2016		27.3	<25	26.7	<25
1/31/2017		32	32.7	30	26
5/2/2017		31.3	30.7	30.7	<25
6/6/2017		35.3	34.7	32.7	42.7
9/12/2017					26.7
9/13/2017		36.7	39.3	38	
5/1/2018			42	35.3	34.7
5/2/2018		34			
11/26/2018					32.7
11/27/2018		50.7	31.3	36	
5/28/2019					31.3
5/29/2019		58	40	37.3	
10/2/2019		46	41.3	36.7	36
3/31/2020	<25	53.3	40	39.3	36.7
9/8/2020	29.3				39.3
9/9/2020		42	40.7	42.7	
5/11/2021			35.3	44	46.7
5/12/2021	40	40.7			
10/18/2021				36	36
10/19/2021	37.3	40	36		
5/31/2022		32	30.7	35.3	36.7
6/1/2022	35.3				
11/1/2022		33.299999	36	36	31.299999
11/2/2022	37.299999				
4/11/2023	32.700001				
4/12/2023		<25	27.299999	30.700001	32

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/18/2016		<0.000203	<0.000203	<0.000203	<0.000203	
4/19/2016	<0.000203					<0.000203
6/6/2016			<0.000203	<0.000203		
6/7/2016	<0.000203	<0.000203			<0.000203	<0.000203
8/30/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/30/2017	<0.000203			<0.000203		<0.000203
1/31/2017		<0.000203	<0.000203		<0.000203	
5/2/2017	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203			
6/7/2017	<0.000203			<0.000203	<0.000203	<0.000203
1/22/2018			<0.000203	<0.000203		
1/23/2018	<0.000203					<0.000203
1/24/2018		<0.000203			<0.000203	
5/1/2018	<0.000203		<0.000203	<0.000203		<0.000203
5/2/2018		<0.000203			<0.000203	
11/26/2018	<0.000203		<0.000203			<0.000203
11/27/2018		<0.000203		<0.000203	<0.000203	
5/28/2019		<0.000203	<0.000203	<0.000203	<0.000203	
5/29/2019	<0.000203					<0.000203
10/2/2019	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203	
3/31/2020	<0.000203					<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203	
9/9/2020	<0.000203					<0.000203
5/12/2021	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2021			<0.000203	<0.000203		
10/19/2021	<0.000203	<0.000203			<0.000203	<0.000203
5/31/2022		<0.000203	<0.000203			
6/1/2022	<0.000203			<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/11/2023	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203

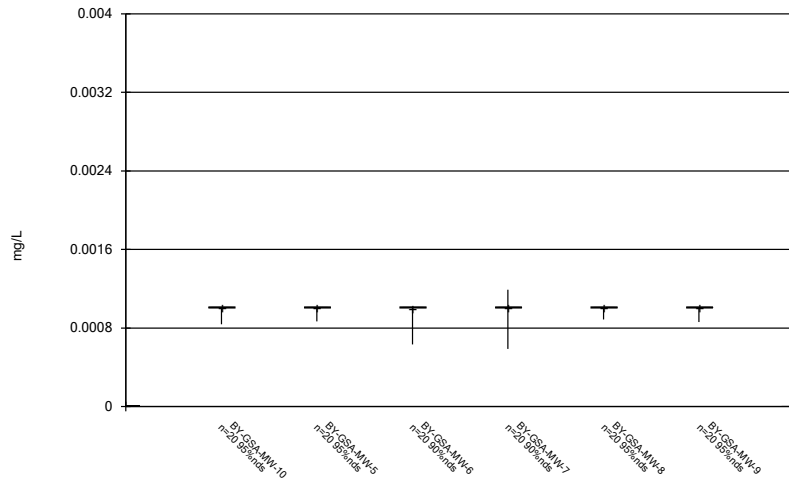
Time Series

Constituent: Thallium (mg/L) Analysis Run 7/14/2023 11:56 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.000203	<0.000203	<0.000203	<0.000203
4/19/2016		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2016		<0.000203			<0.000203
6/7/2016			<0.000203	<0.000203	
8/30/2016		<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016		<0.000203	<0.000203	<0.000203	<0.000203
1/31/2017		<0.000203	<0.000203	<0.000203	<0.000203
5/2/2017		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203	<0.000203	<0.000203
1/23/2018		<0.000203	<0.000203	<0.000203	<0.000203
5/1/2018			<0.000203	<0.000203	<0.000203
5/2/2018		<0.000203			
11/26/2018					<0.000203
11/27/2018		<0.000203	<0.000203	<0.000203	
5/28/2019					<0.000203
5/29/2019		<0.000203	<0.000203	<0.000203	
10/2/2019		<0.000203	<0.000203	<0.000203	<0.000203
3/31/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
9/8/2020	<0.000203				<0.000203
9/9/2020		<0.000203	<0.000203	<0.000203	
5/11/2021			<0.000203	<0.000203	<0.000203
5/12/2021	<0.000203	<0.000203			
10/18/2021				<0.000203	<0.000203
10/19/2021	<0.000203	<0.000203	<0.000203		
5/31/2022		<0.000203	<0.000203	<0.000203	<0.000203
6/1/2022	<0.000203				
11/1/2022		<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203				
4/11/2023	<0.000203				
4/12/2023		<0.000203	<0.000203	<0.000203	<0.000203

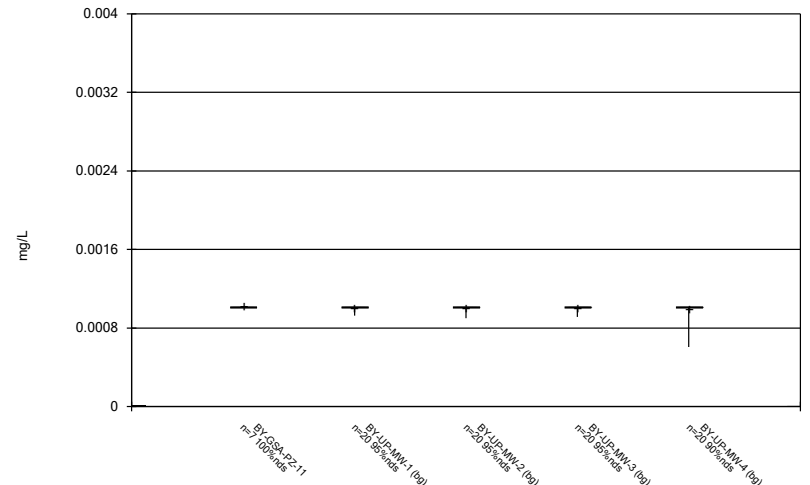
FIGURE B.

Box & Whiskers Plot



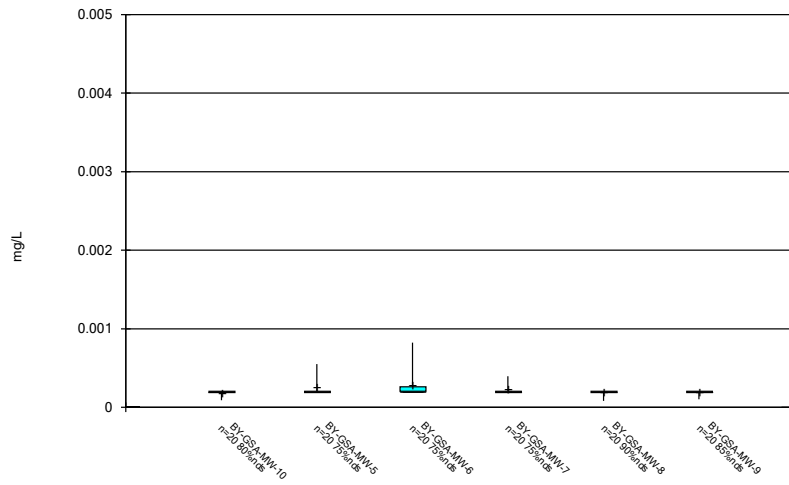
Constituent: Antimony Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



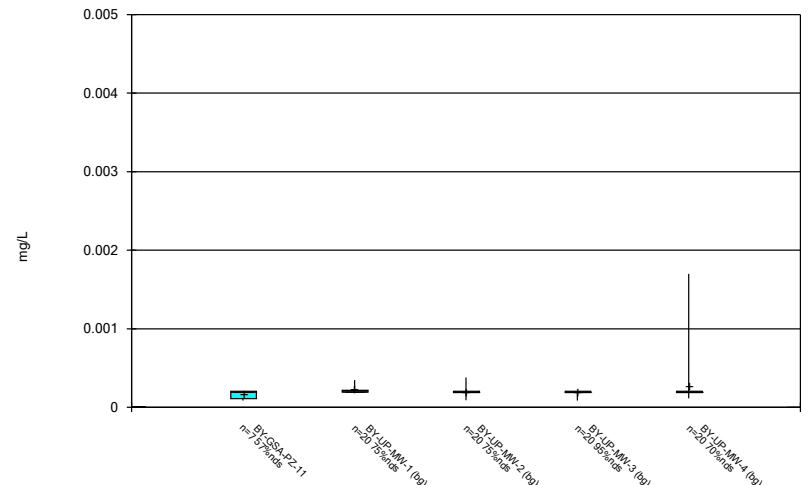
Constituent: Antimony Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



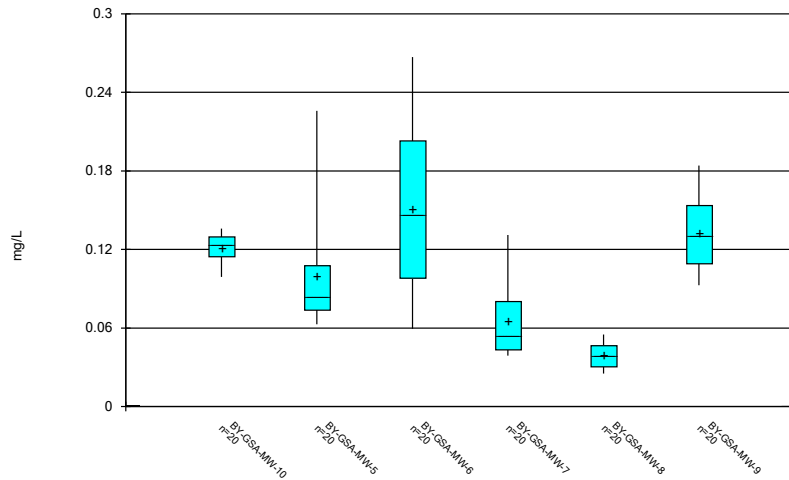
Constituent: Arsenic Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



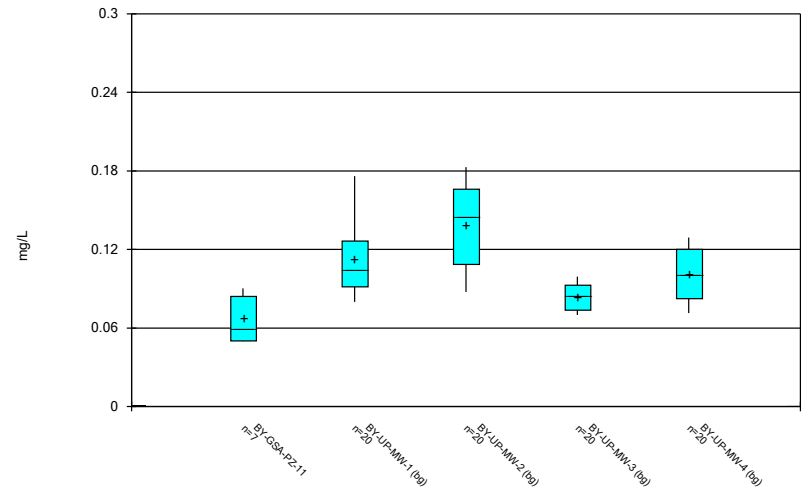
Constituent: Arsenic Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



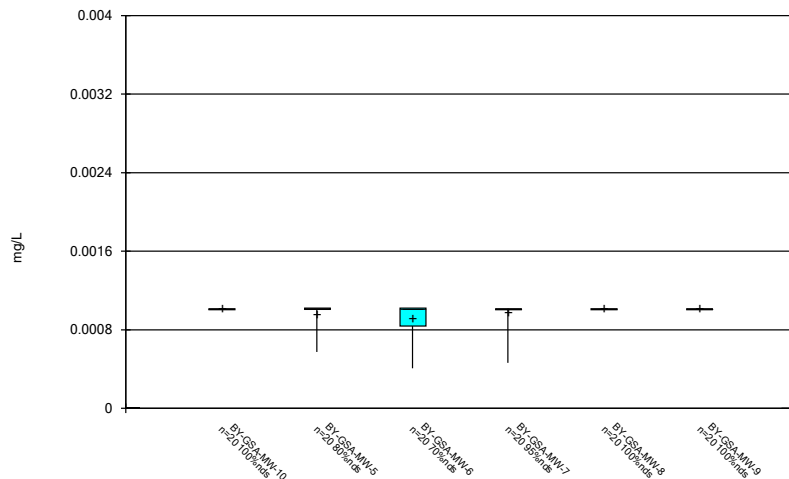
Constituent: Barium Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



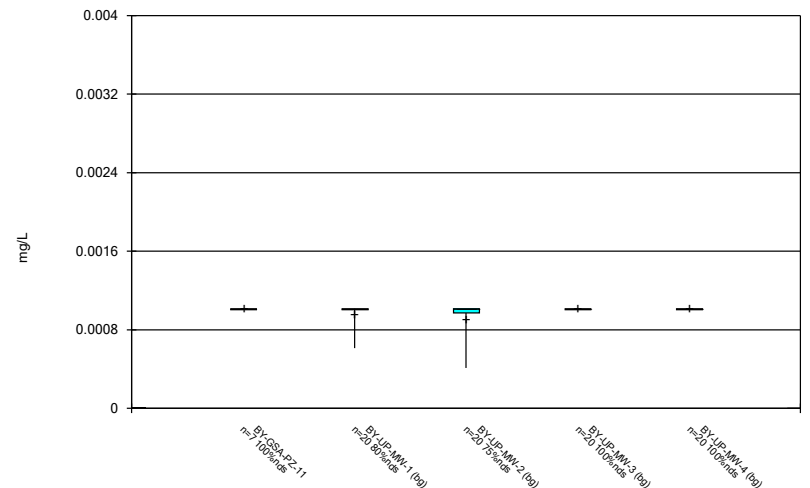
Constituent: Barium Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



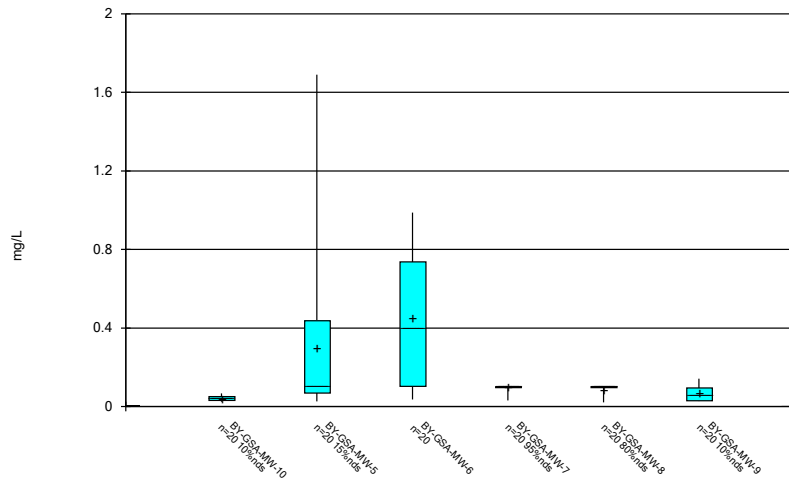
Constituent: Beryllium Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



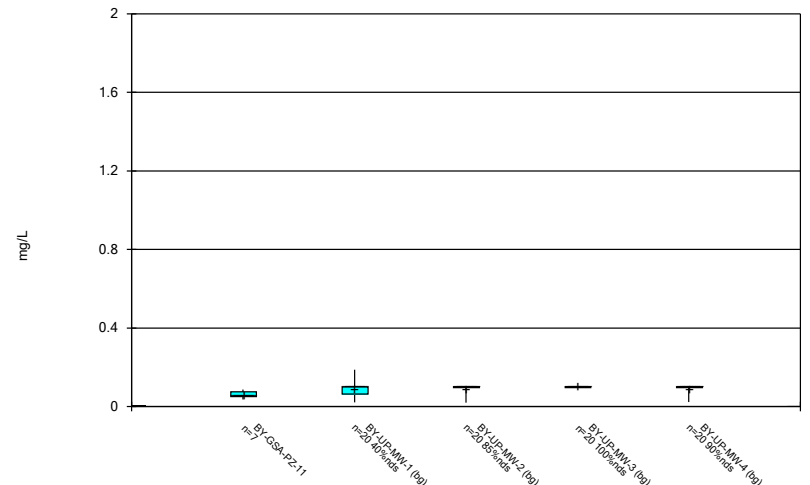
Constituent: Beryllium Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



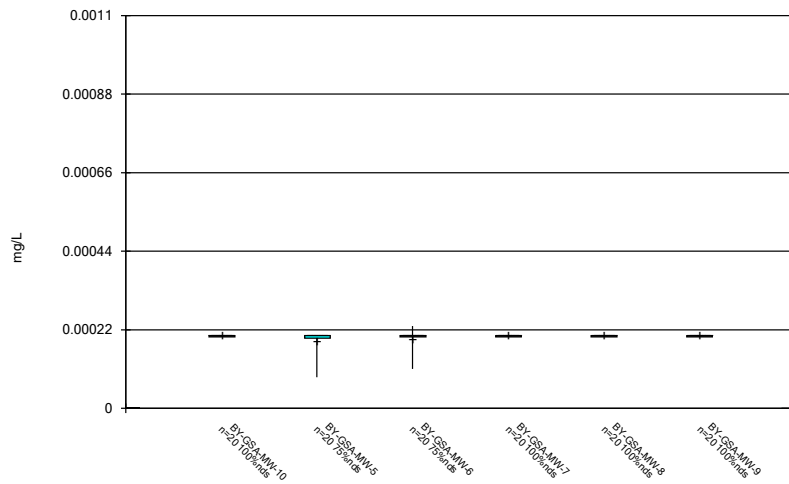
Constituent: Boron Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



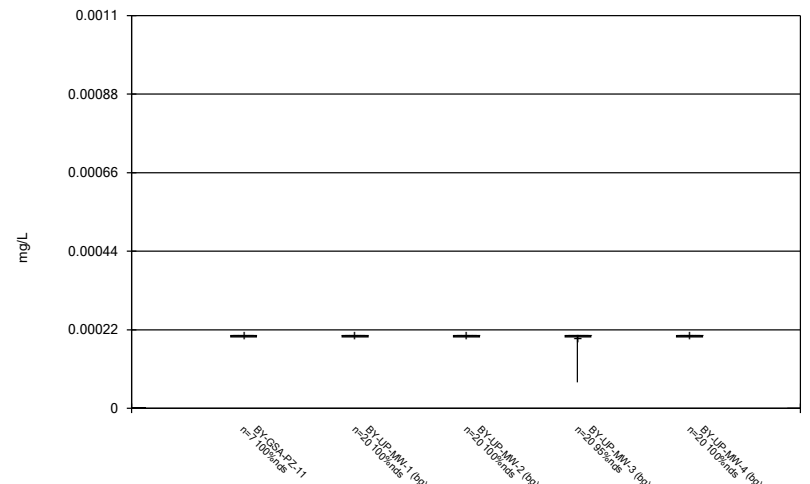
Constituent: Boron Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



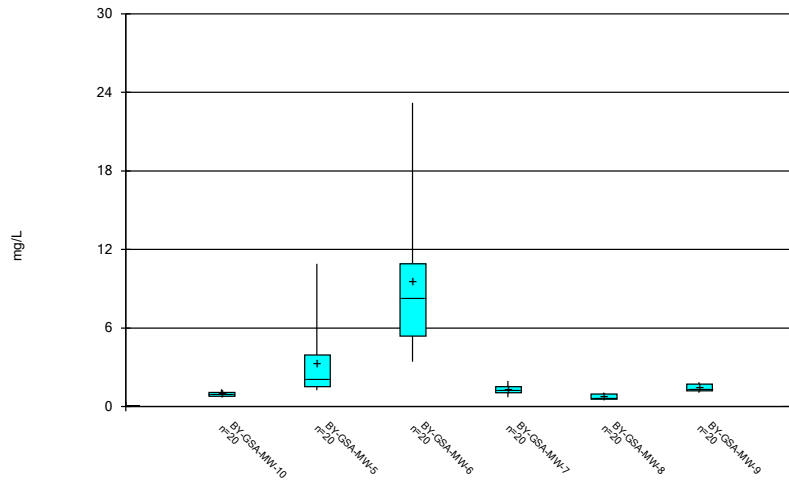
Constituent: Cadmium Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



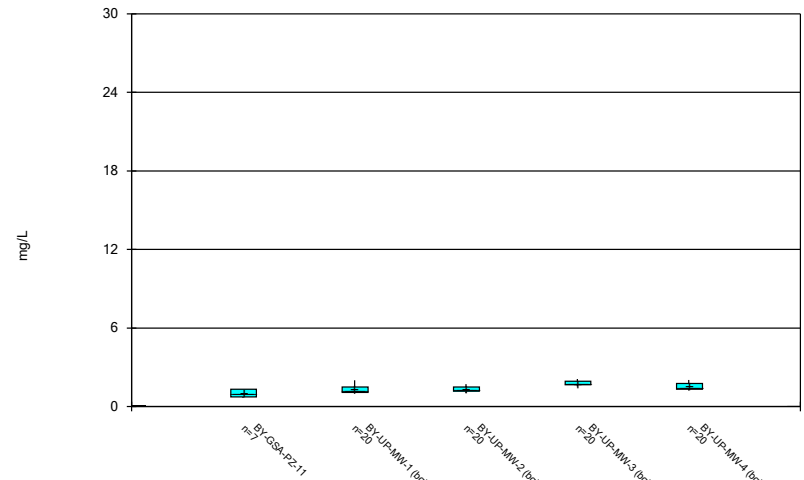
Constituent: Cadmium Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



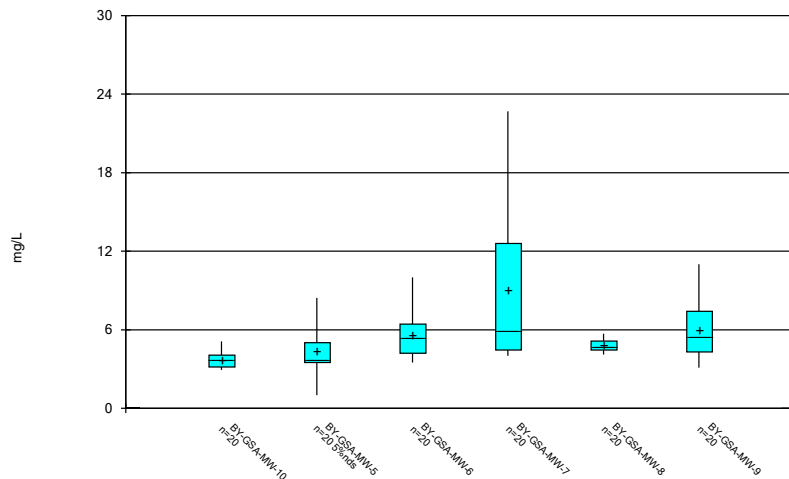
Constituent: Calcium, total Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



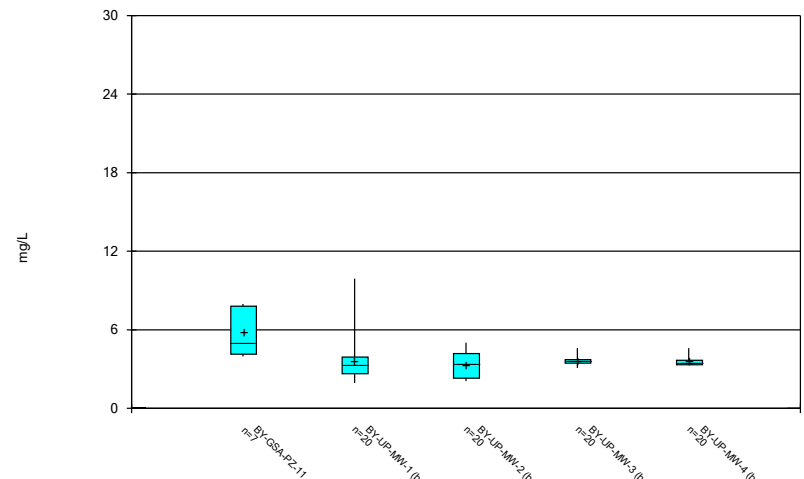
Constituent: Calcium, total Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



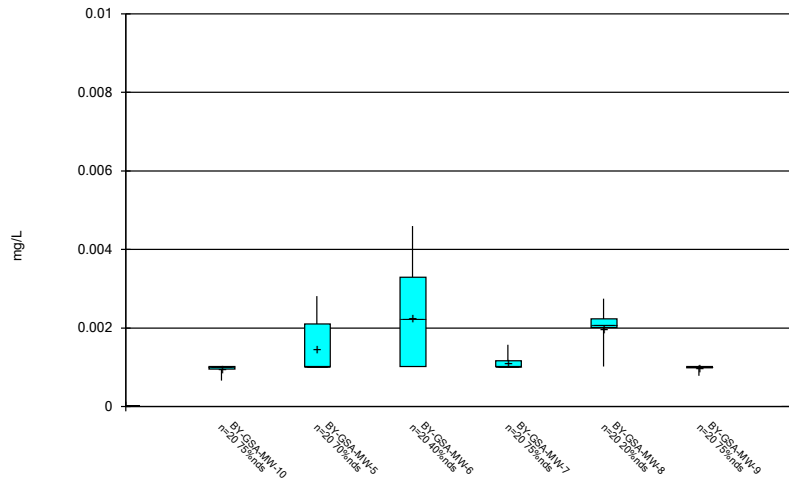
Constituent: Chloride, total Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



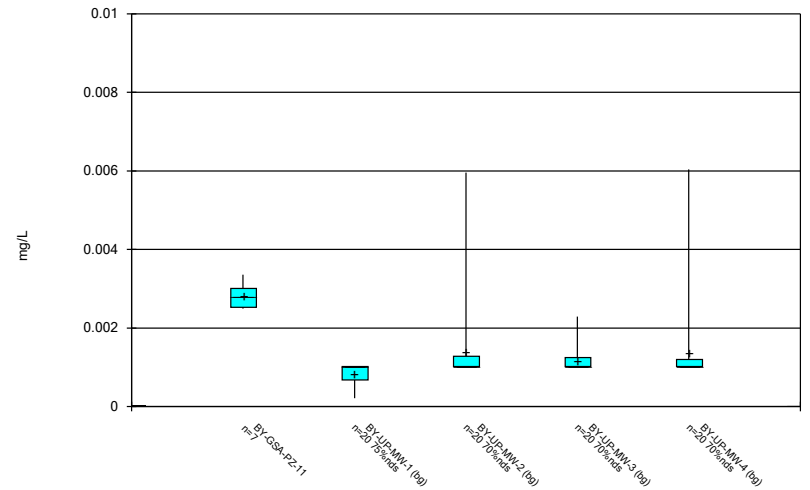
Constituent: Chloride, total Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



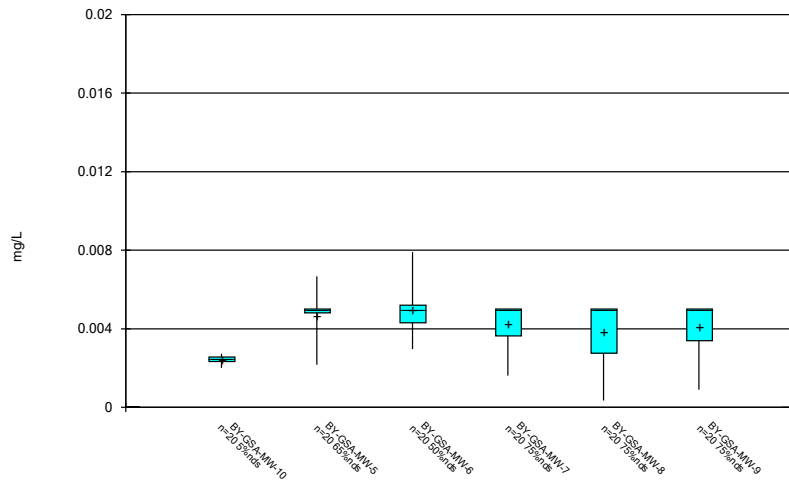
Constituent: Chromium Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



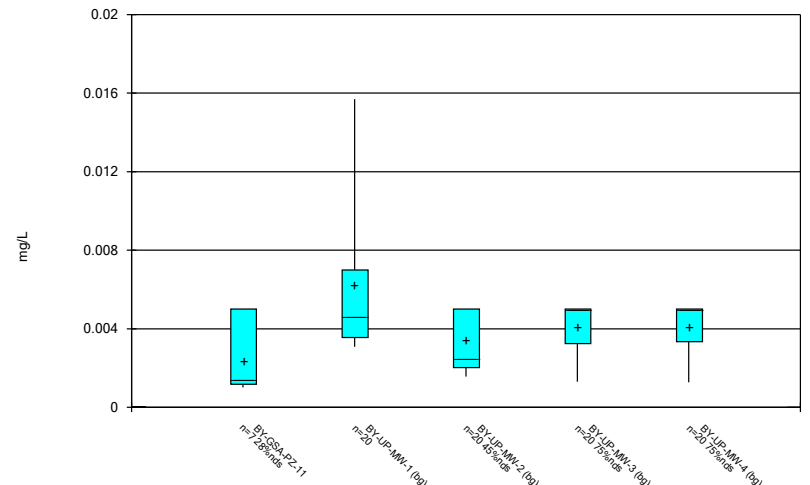
Constituent: Chromium Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



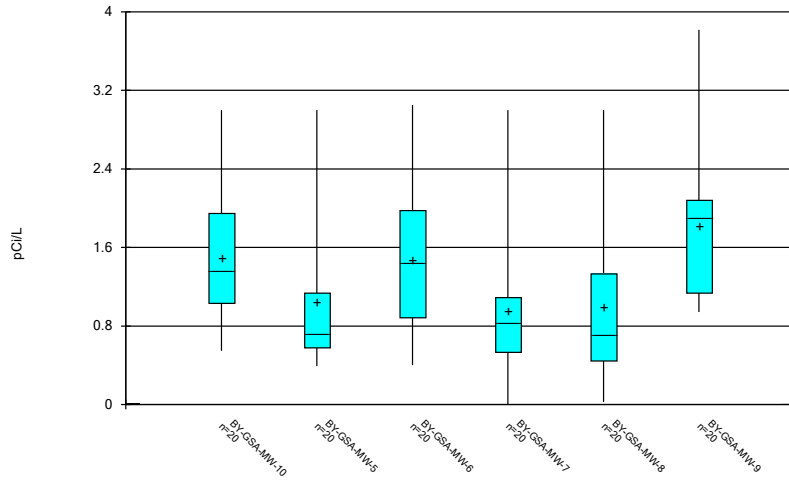
Constituent: Cobalt Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



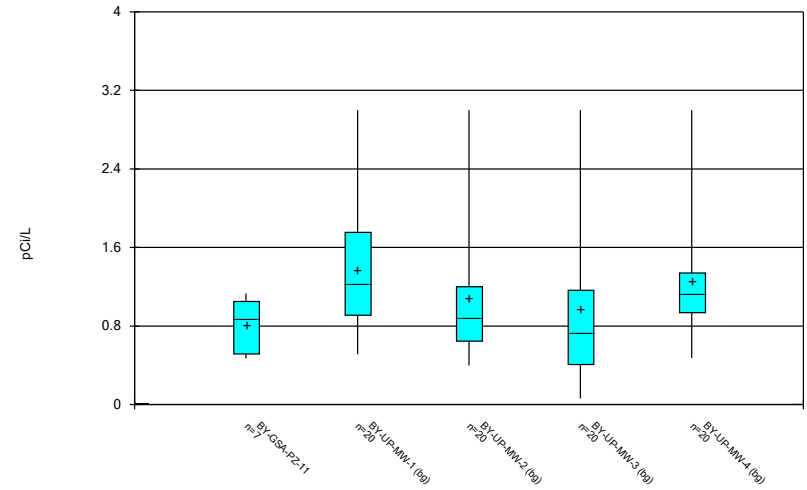
Constituent: Cobalt Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



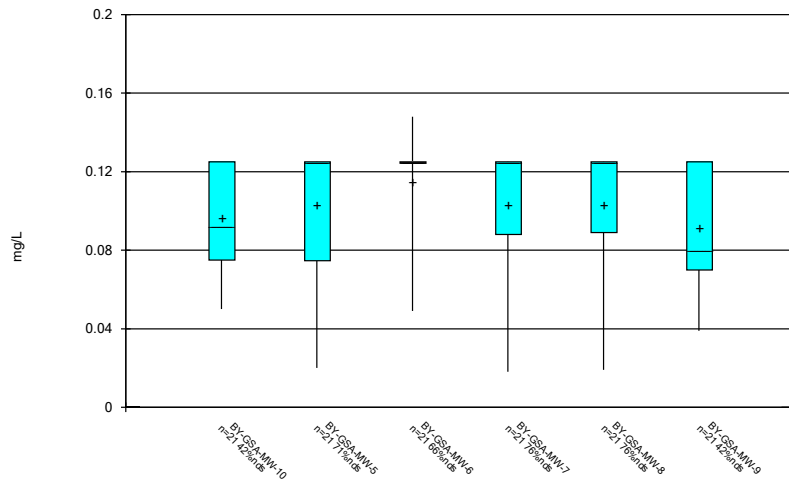
Constituent: Combined Radium 226 + 228 Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



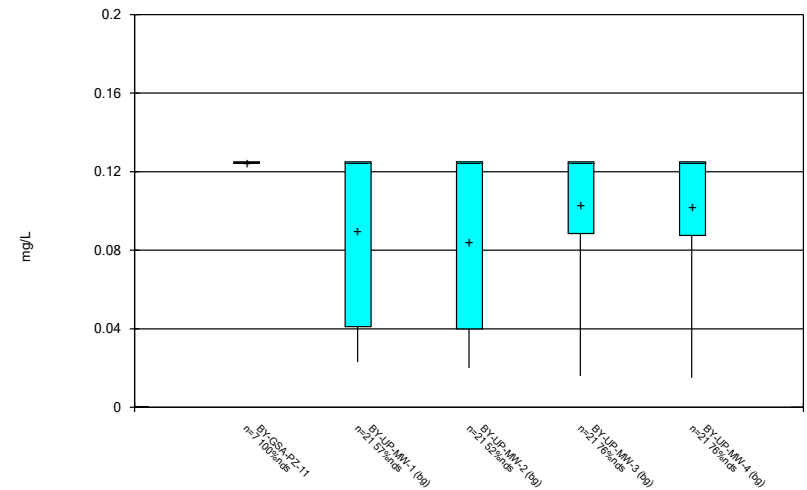
Constituent: Combined Radium 226 + 228 Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



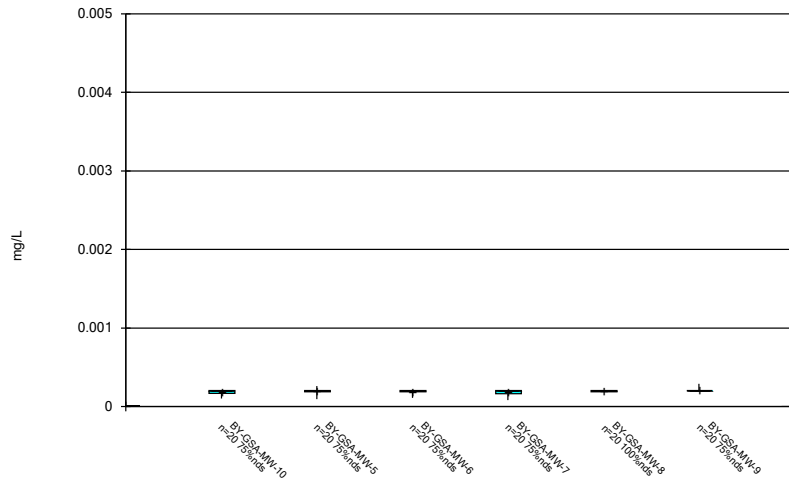
Constituent: Fluoride Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



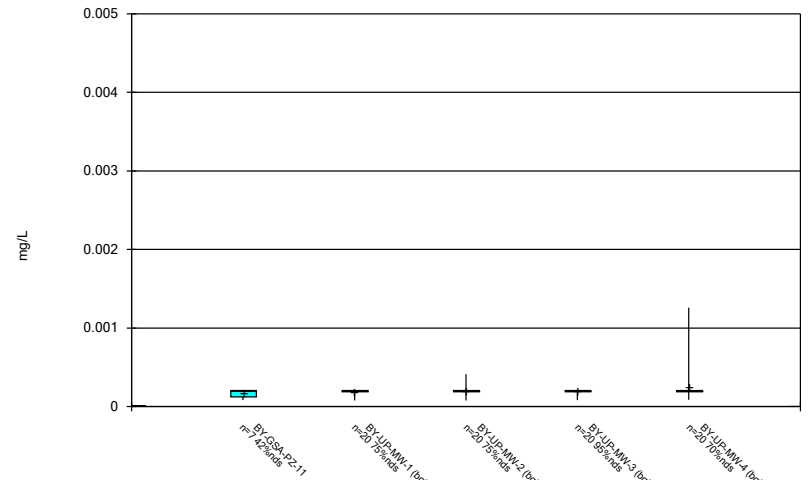
Constituent: Fluoride Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



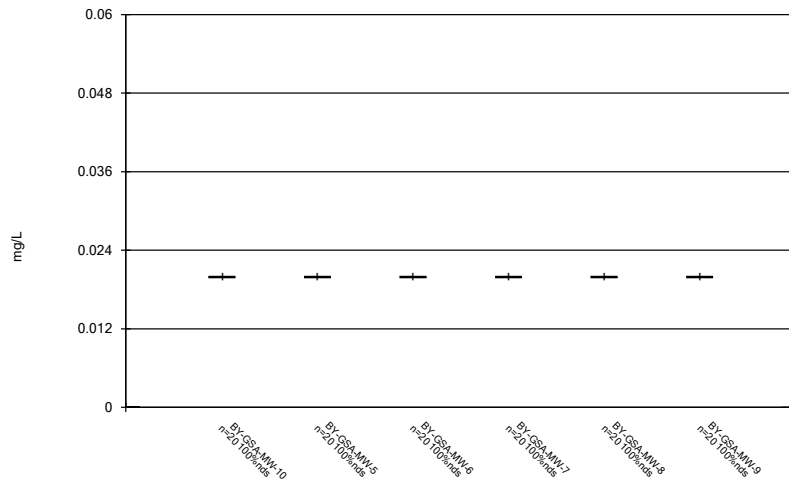
Constituent: Lead Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



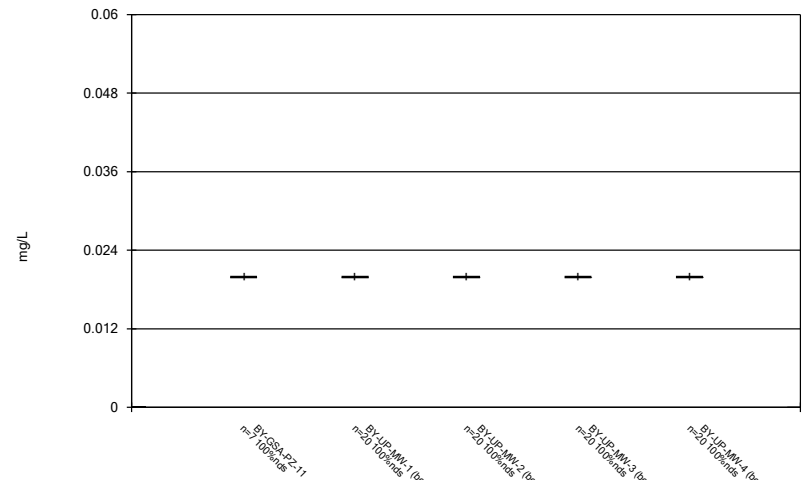
Constituent: Lead Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



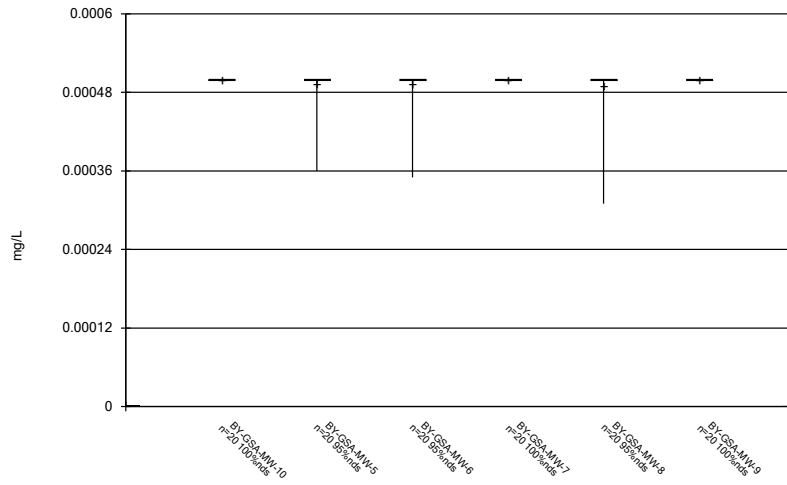
Constituent: Lithium Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



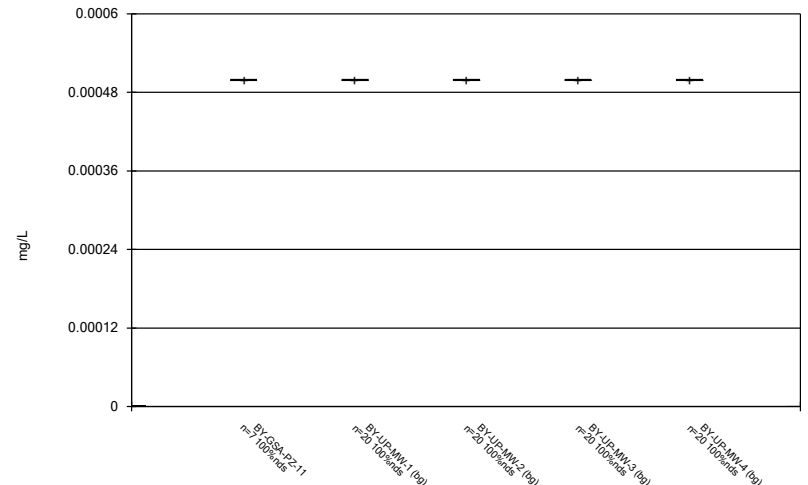
Constituent: Lithium Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



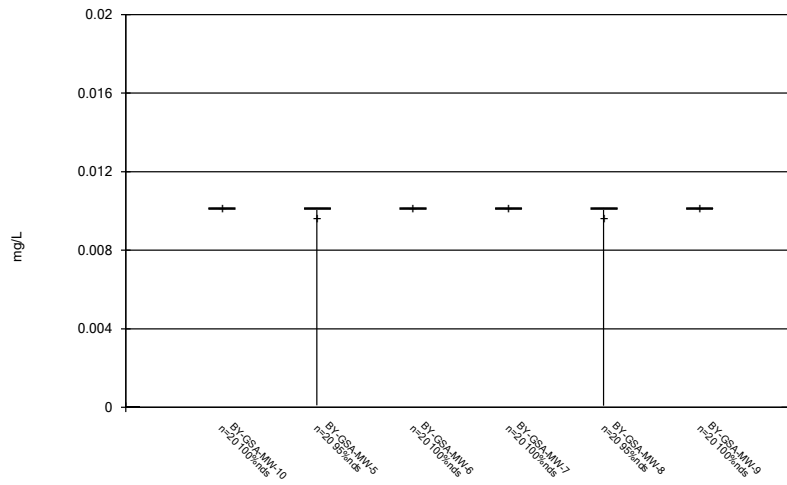
Constituent: Mercury Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



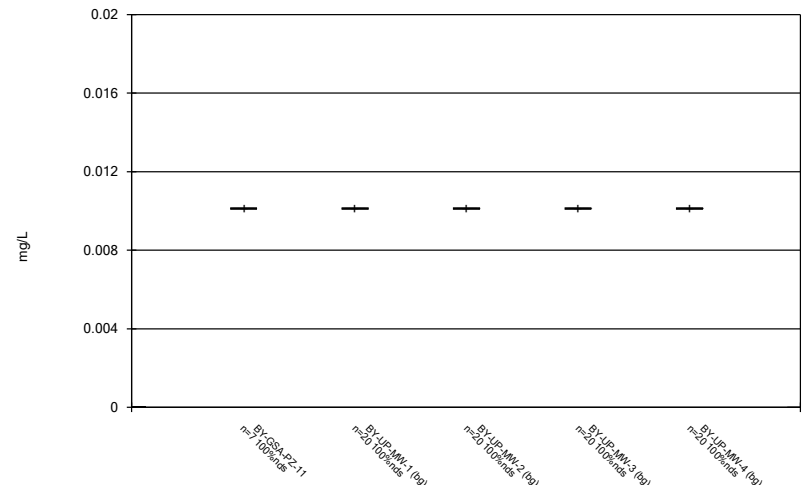
Constituent: Mercury Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



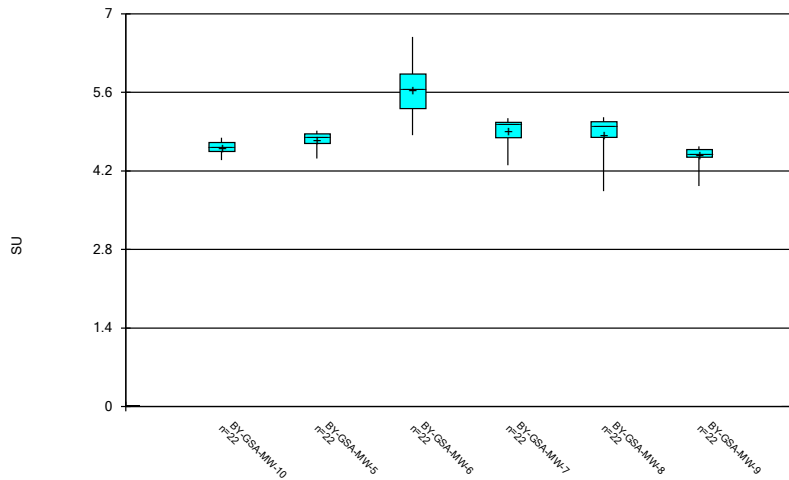
Constituent: Molybdenum Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



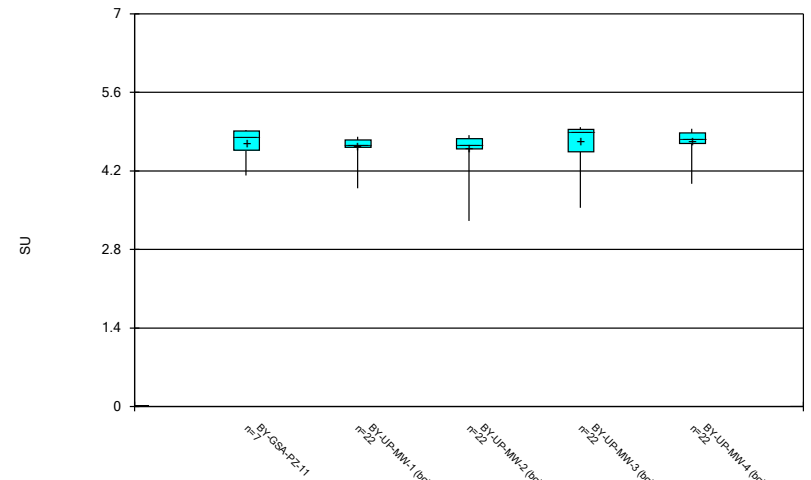
Constituent: Molybdenum Analysis Run 7/14/2023 11:57 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



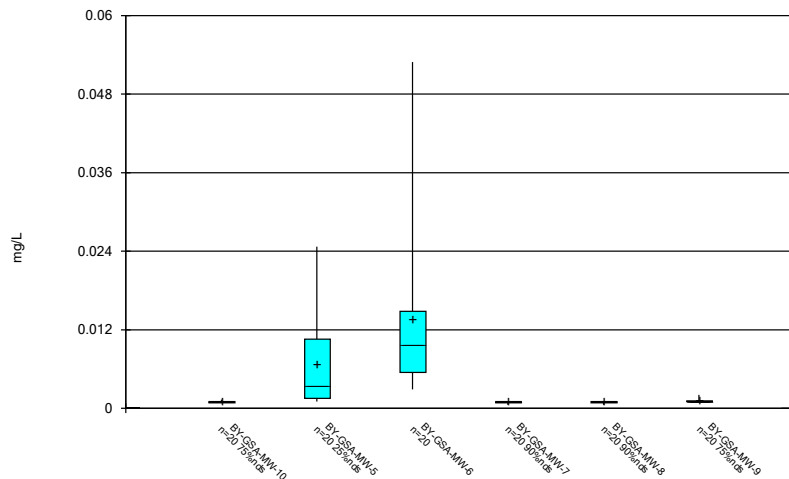
Constituent: pH, Field Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



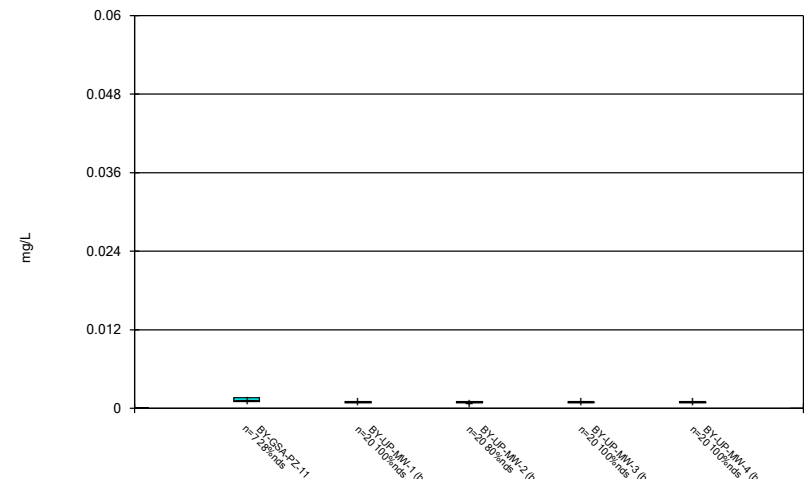
Constituent: pH, Field Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



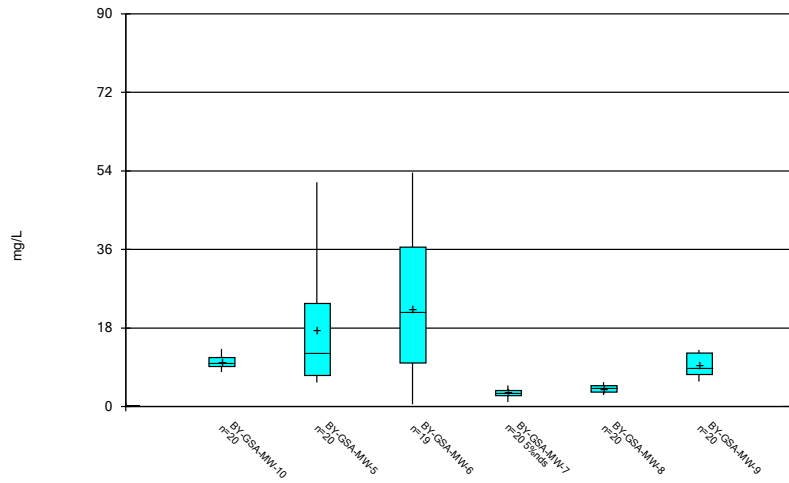
Constituent: Selenium Analysis Run 7/14/2023 11:57 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



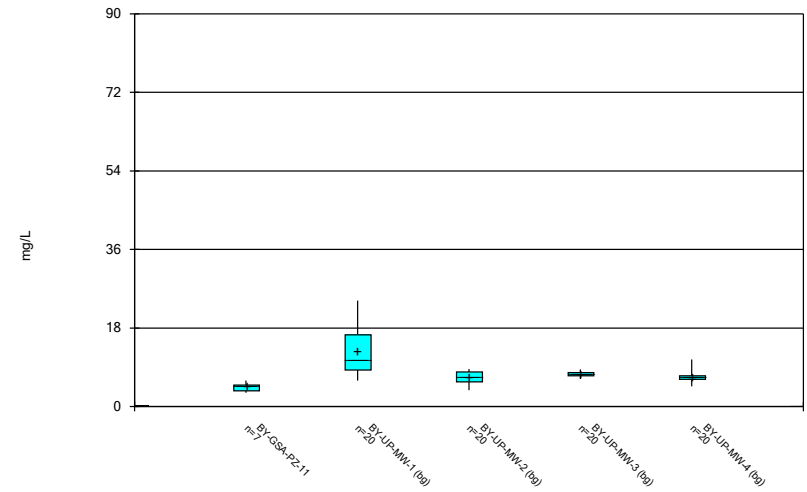
Constituent: Selenium Analysis Run 7/14/2023 11:58 AM
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



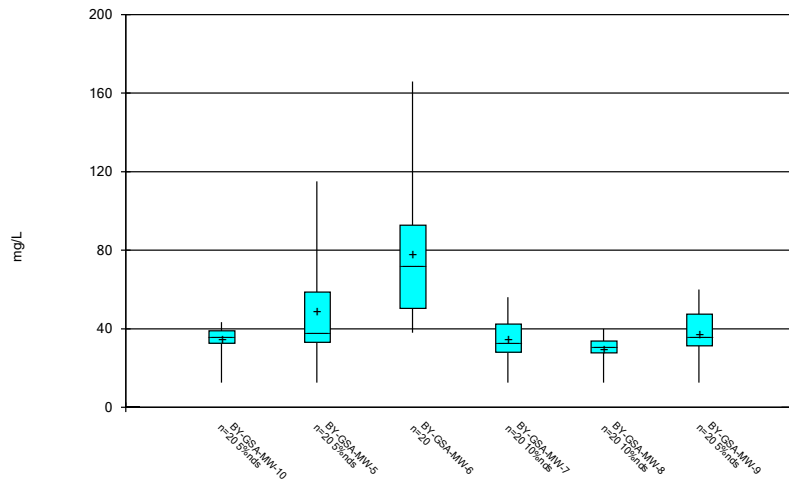
Constituent: Sulfate Analysis Run 7/14/2023 11:58 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



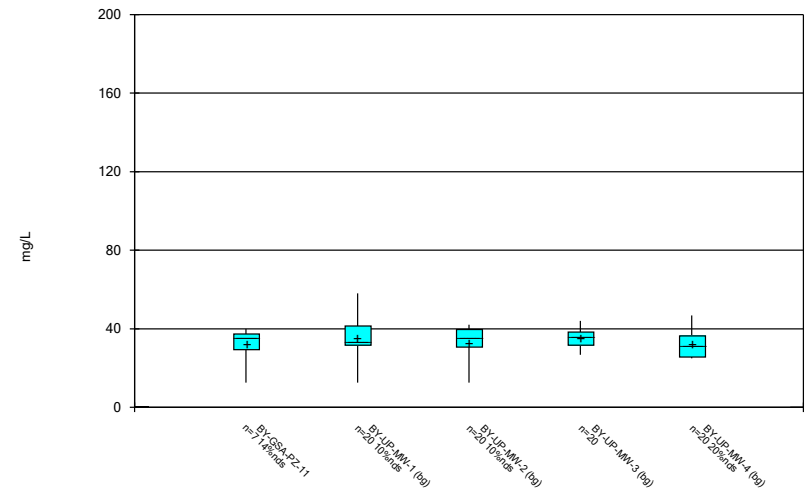
Constituent: Sulfate Analysis Run 7/14/2023 11:58 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



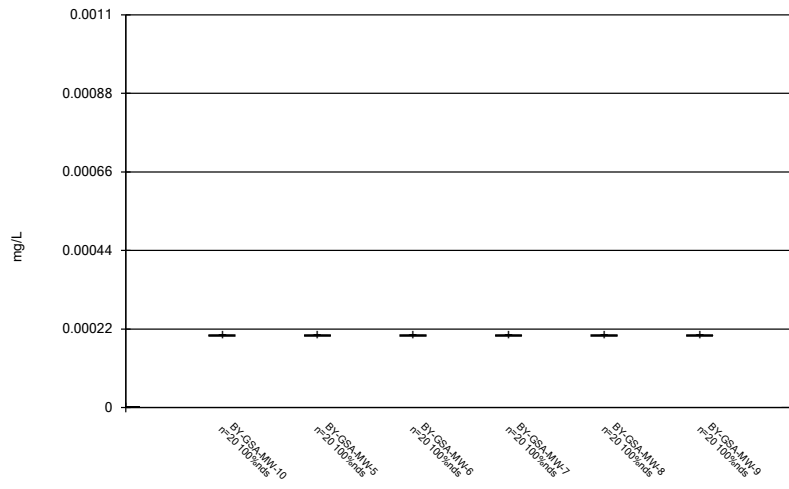
Constituent: TDS Analysis Run 7/14/2023 11:58 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



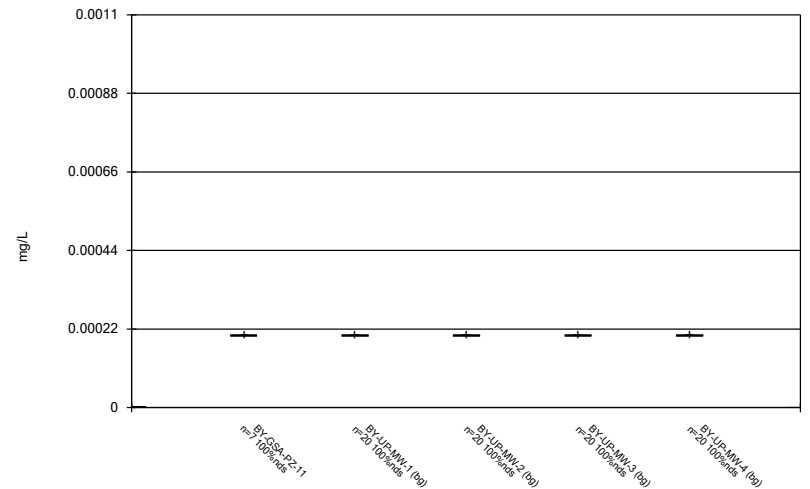
Constituent: TDS Analysis Run 7/14/2023 11:58 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 7/14/2023 11:58 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 7/14/2023 11:58 AM
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE C.

Outlier Summary

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 2:11 PM

BY-GSA-MW-6 Sulfate (mg/L)

4/18/2016

80.2 (O)

FIGURE D.

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/14/2023, 12:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg.N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-6	7.663	n/a	4/11/2023	7.94	Yes	16	4.996	1.21	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	4/11/2023	22.6	Yes	16	1.782	0.4263	0	None	ln(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	4/11/2023	34.8	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	43.64	n/a	4/11/2023	53.6	Yes	15	18.13	11.34	0	None	No	0.001254	Param Intra 1 of 2

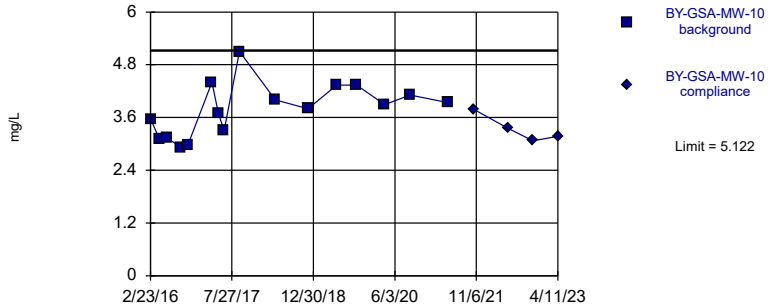
Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/14/2023, 12:01 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-10	5.122	n/a	4/11/2023	3.17	No	16	3.79	0.6038	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-5	6.23	n/a	4/11/2023	5.21	No	16	n/a	n/a	6.25	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-6	7.663	n/a	4/11/2023	7.94	Yes	16	4.996	1.21	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	15.21	n/a	4/11/2023	22.6	Yes	16	1.782	0.4263	0	None	ln(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-8	5.581	n/a	4/11/2023	5.2	No	16	4.673	0.412	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-9	11.11	n/a	4/11/2023	4.32	No	16	6.335	2.163	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-1	7.803	n/a	4/12/2023	2.31	No	16	1.317	0.3346	0	None	ln(x)	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-2	5.452	n/a	4/12/2023	2.25	No	16	3.622	0.8297	0	None	No	0.001254	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-3	4.6	n/a	4/12/2023	3.11	No	16	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2
Chloride, total (mg/L)	BY-UP-MW-4	4.448	n/a	4/12/2023	3.42	No	16	1.912	0.08933	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.19	n/a	4/11/2023	11.9	No	16	9.999	1.445	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	34.74	n/a	4/11/2023	34.8	Yes	16	2.238	0.4647	0	None	x^(1/3)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	43.64	n/a	4/11/2023	53.6	Yes	15	18.13	11.34	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.32	n/a	4/11/2023	1ND	No	16	3.349	0.8938	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	5.631	n/a	4/11/2023	5.57	No	16	3.852	0.8066	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	13.89	n/a	4/11/2023	10.2	No	16	8.877	2.273	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-1	28.44	n/a	4/12/2023	11.8	No	16	3.458	0.85	0	None	sqrt(x)	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-2	9.382	n/a	4/12/2023	8.54	No	16	6.282	1.406	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-3	8.868	n/a	4/12/2023	7.59	No	16	7.496	0.6224	0	None	No	0.001254	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-4	10.8	n/a	4/12/2023	5.93	No	16	n/a	n/a	0	n/a	n/a	0.006456	NP Intra (normality) 1 of 2

Within Limit

Prediction Limit
Intrawell Parametric

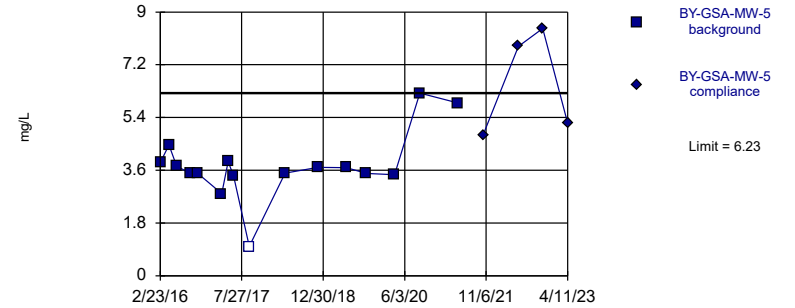


Background Data Summary: Mean=3.79, Std. Dev.=0.6038, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9569, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/14/2023 11:59 AM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Non-parametric

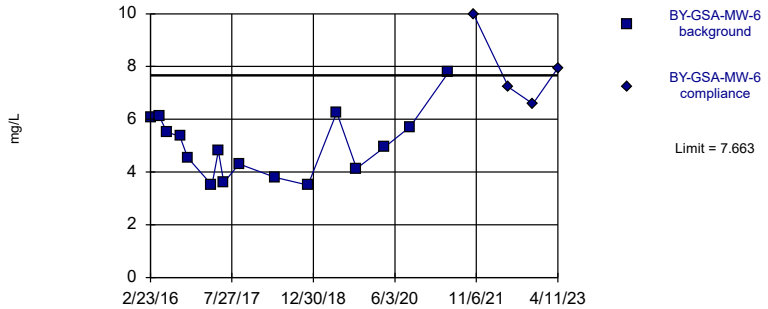


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 16 background values. 6.25% NDs. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Chloride, total Analysis Run 7/14/2023 11:59 AM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit

Prediction Limit
Intrawell Parametric

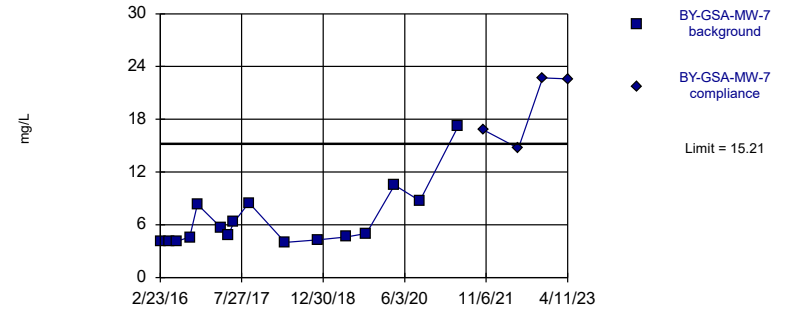


Background Data Summary: Mean=4.996, Std. Dev.=1.21, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9409, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/14/2023 11:59 AM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit

Prediction Limit
Intrawell Parametric

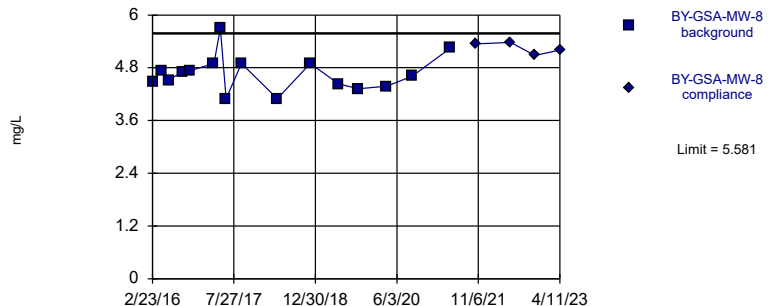


Background Data Summary (based on natural log transformation): Mean=1.782, Std. Dev.=0.4263, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8462, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/14/2023 11:59 AM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

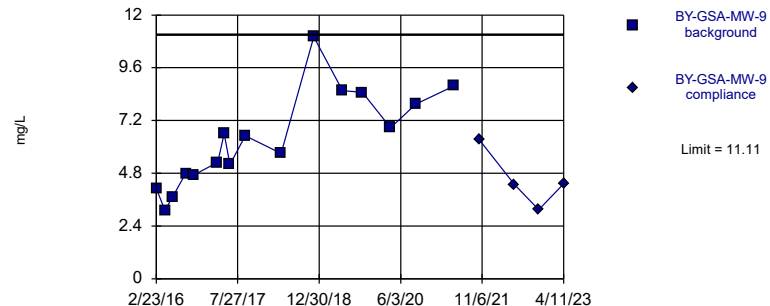


Background Data Summary: Mean=4.673, Std. Dev.=0.412, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9362, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

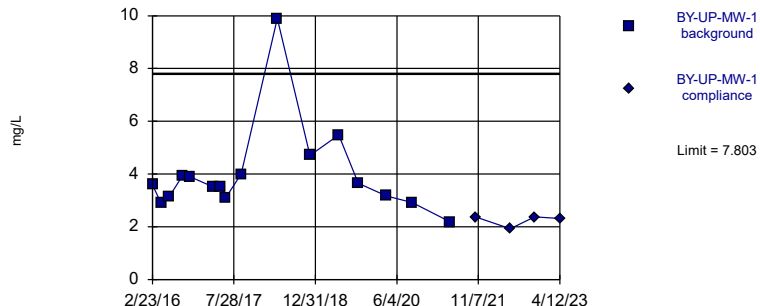


Background Data Summary: Mean=6.335, Std. Dev.=2.163, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9628, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Chloride, total Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

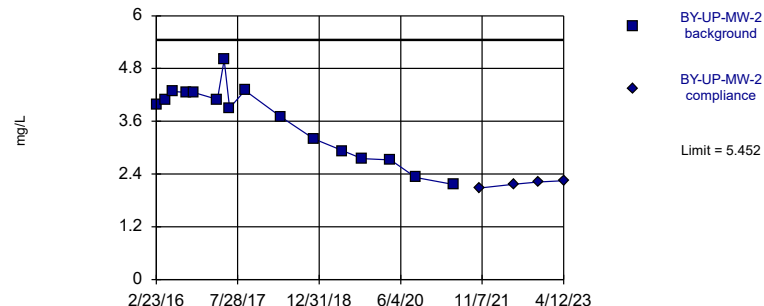


Background Data Summary (based on natural log transformation): Mean=1.317, Std. Dev.=0.3346, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8595, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

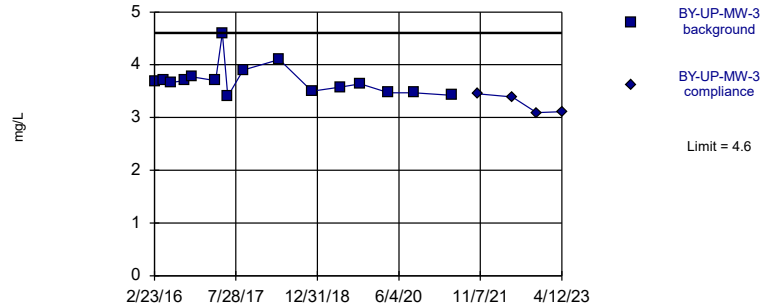
Constituent: Chloride, total Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

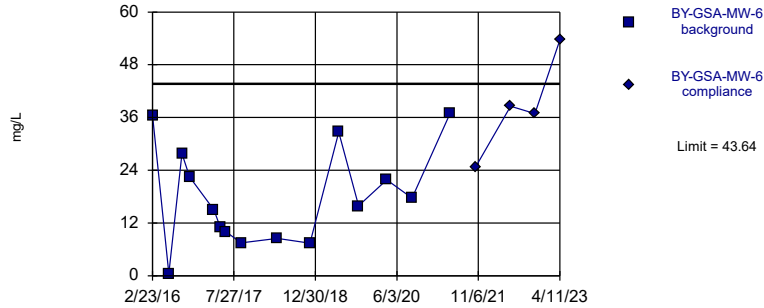


Within Limit Prediction Limit Intrawell Non-parametric



Exceeds Limit

Prediction Limit
Intrawell Parametric

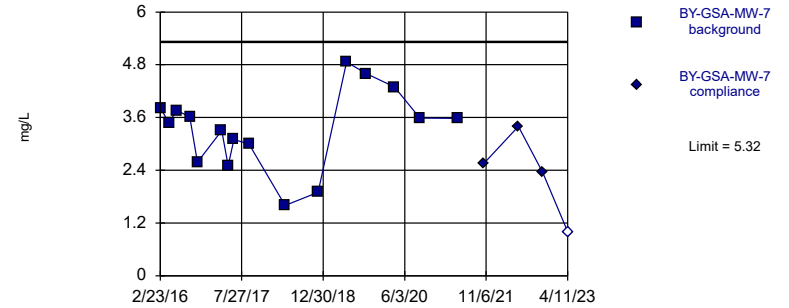


Background Data Summary: Mean=18.13, Std. Dev.=11.34, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9407, critical = 0.835. Kappa = 2.25 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

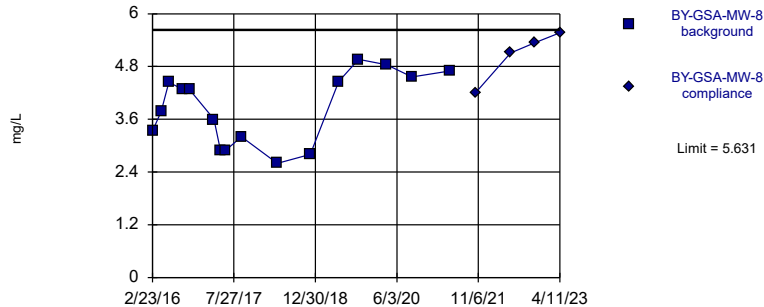


Background Data Summary: Mean=3.349, Std. Dev.=0.8938, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9701, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

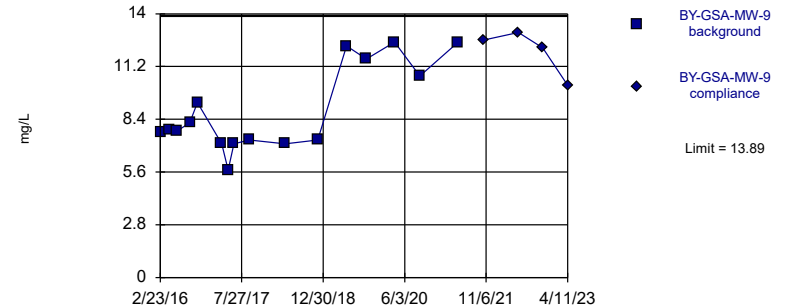


Background Data Summary: Mean=3.852, Std. Dev.=0.8066, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9127, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

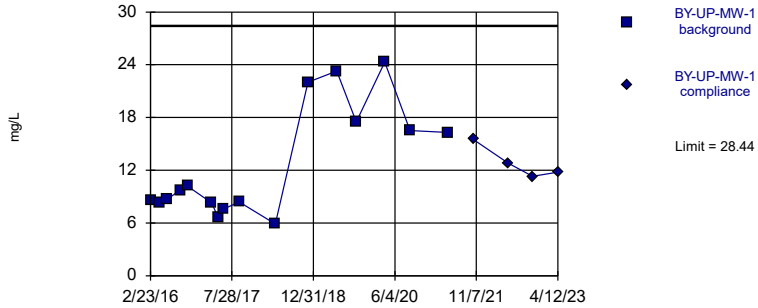


Background Data Summary: Mean=8.877, Std. Dev.=2.273, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8511, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

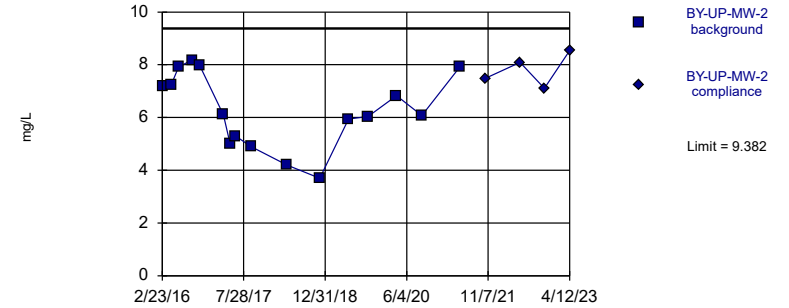


Background Data Summary (based on square root transformation): Mean=3.458, Std. Dev.=0.85, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8598, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

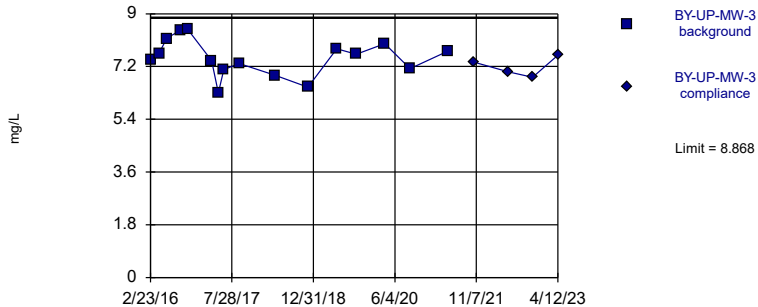


Background Data Summary: Mean=6.282, Std. Dev.=1.406, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9428, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Parametric

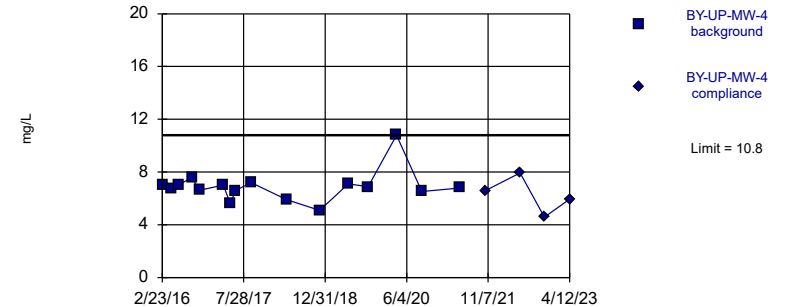


Background Data Summary: Mean=7.496, Std. Dev.=0.6224, n=16. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9756, critical = 0.844. Kappa = 2.205 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.001254.

Constituent: Sulfate Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 16 background values. Well-constituent pair annual alpha = 0.01287. Individual comparison alpha = 0.006456 (1 of 2).

Constituent: Sulfate Analysis Run 7/14/2023 12:00 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	3.57	
4/19/2016	3.12	
6/7/2016	3.14	
8/30/2016	2.93	
10/18/2016	2.96	
3/21/2017	4.4	
5/2/2017	3.7	
6/7/2017	3.3	
9/13/2017	5.1	
5/1/2018	4	
11/26/2018	3.8	
5/29/2019	4.34	
10/2/2019	4.34	
3/31/2020	3.89	
9/9/2020	4.11	
5/12/2021	3.94	
10/19/2021		3.79
6/1/2022		3.35
11/2/2022		3.07
4/11/2023		3.17

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	3.86	
4/18/2016	4.46	
6/7/2016	3.74	
8/30/2016	3.5	
10/18/2016	3.5	
3/21/2017	2.8	
5/2/2017	3.9	
6/6/2017	3.4	
9/13/2017	<2 (U*)	
5/2/2018	3.5	
11/27/2018	3.7	
5/28/2019	3.69	
10/2/2019	3.49	
3/30/2020	3.45	
9/8/2020	6.23	
5/12/2021	5.89	
10/19/2021		4.81
5/31/2022		7.83
11/2/2022		8.44
4/11/2023		5.21

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	6.06	
4/18/2016	6.13	
6/6/2016	5.52	
8/30/2016	5.35	
10/18/2016	4.55	
3/21/2017	3.5	
5/2/2017	4.8	
6/6/2017	3.6	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.5	
5/28/2019	6.26	
10/2/2019	4.13	
3/30/2020	4.95	
9/8/2020	5.71	
5/12/2021	7.77	
10/18/2021		10
5/31/2022		7.22
11/2/2022		6.58
4/11/2023		7.94

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	4.08	
4/18/2016	4.14	
6/6/2016	4.09	
8/30/2016	4.6	
10/18/2016	8.32	
3/21/2017	5.6	
5/2/2017	4.8	
6/7/2017	6.3	
9/12/2017	8.5	
5/1/2018	4	
11/27/2018	4.3	
5/28/2019	4.63	
10/2/2019	5.02	
3/30/2020	10.5	
9/8/2020	8.74	
5/12/2021	17.2	
10/18/2021		16.8
6/1/2022		14.7
11/2/2022		22.700001
4/11/2023		22.6

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	4.47	
4/18/2016	4.74	
6/7/2016	4.52	
8/30/2016	4.71	
10/18/2016	4.73	
3/21/2017	4.9	
5/2/2017	5.7	
6/7/2017	4.1	
9/13/2017	4.9	
5/2/2018	4.1	
11/27/2018	4.9	
5/28/2019	4.43	
10/2/2019	4.32	
3/30/2020	4.38	
9/8/2020	4.61	
5/12/2021	5.25	
10/19/2021		5.34
6/1/2022		5.38
11/2/2022		5.08
4/11/2023		5.2

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	4.1	
4/19/2016	3.11	
6/7/2016	3.72	
8/30/2016	4.8	
10/18/2016	4.71	
3/21/2017	5.3	
5/2/2017	6.6	
6/7/2017	5.2	
9/13/2017	6.5	
5/1/2018	5.7	
11/26/2018	11	
5/29/2019	8.56	
10/2/2019	8.48	
3/31/2020	6.87	
9/9/2020	7.94	
5/12/2021	8.77	
10/19/2021		6.33
6/1/2022		4.29
11/2/2022		3.14
4/11/2023		4.32

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	3.59	
4/19/2016	2.89	
6/6/2016	3.12	
8/30/2016	3.91	
10/18/2016	3.9	
3/20/2017	3.5	
5/2/2017	3.5	
6/6/2017	3.1	
9/13/2017	4	
5/2/2018	9.9	
11/27/2018	4.7	
5/29/2019	5.48	
10/2/2019	3.65	
3/31/2020	3.17	
9/9/2020	2.92	
5/12/2021	2.18	
10/19/2021		2.37
5/31/2022		1.93
11/1/2022		2.37
4/12/2023		2.31

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	3.99	
4/19/2016	4.08	
6/7/2016	4.28	
8/30/2016	4.26	
10/18/2016	4.26	
3/20/2017	4.1	
5/2/2017	5	
6/6/2017	3.9	
9/13/2017	4.3	
5/1/2018	3.7	
11/27/2018	3.2	
5/29/2019	2.93	
10/2/2019	2.75	
3/31/2020	2.72	
9/9/2020	2.32	
5/11/2021	2.16	
10/19/2021		2.08
5/31/2022		2.17
11/1/2022		2.22
4/12/2023		2.25

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	3.68	
4/19/2016	3.72	
6/7/2016	3.66	
8/30/2016	3.7	
10/18/2016	3.77	
3/20/2017	3.7	
5/2/2017	4.6	
6/6/2017	3.4	
9/13/2017	3.9	
5/1/2018	4.1	
11/27/2018	3.5	
5/29/2019	3.58	
10/2/2019	3.64	
3/31/2020	3.47	
9/9/2020	3.47	
5/11/2021	3.42	
10/18/2021		3.45
5/31/2022		3.39
11/1/2022		3.09
4/12/2023		3.11

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	3.5	
4/19/2016	3.63	
6/6/2016	3.6	
8/30/2016	3.54	
10/18/2016	3.68	
3/20/2017	4.6	
5/2/2017	3.9	
6/6/2017	3.4	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.6	
5/28/2019	3.6	
10/2/2019	3.5	
3/31/2020	3.34	
9/8/2020	3.29	
5/11/2021	3.33	
10/18/2021		3.32
5/31/2022		3.31
11/1/2022		3.3
4/12/2023		3.42

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 12:01 PM View: IntraWell PLS

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	9.29	
4/19/2016	9.92	
6/7/2016	10	
8/30/2016	11.1	
10/18/2016	11.7	
3/21/2017	9	
5/2/2017	7.9	
6/7/2017	8.4	
9/13/2017	8.7	
5/1/2018	10	
11/26/2018	8.3	
5/29/2019	11.1	
10/2/2019	13.2	
3/31/2020	11.1	
9/9/2020	9.28	
5/12/2021	11	
10/19/2021		10.1
6/1/2022		11.4
11/2/2022		11.5
4/11/2023		11.9

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 12:01 PM View: IntraWell PLS

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	12.5	
4/18/2016	28.6	
6/7/2016	18.7	
8/30/2016	13.8	
10/18/2016	12.2	
3/21/2017	8.6	
5/2/2017	8	
6/6/2017	8.6	
9/13/2017	7.6	
5/2/2018	6	
11/27/2018	5.5	
5/28/2019	6.5	
10/2/2019	6.55	
3/30/2020	6.34	
9/8/2020	15.1	
5/12/2021	38.2	
10/19/2021		12.3
5/31/2022		48.7
11/2/2022		51.400002
4/11/2023		34.799999

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLS

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	36.5	
4/18/2016	80.2 (O)	
6/6/2016	0.498 (J)	
8/30/2016	27.8	
10/18/2016	22.5	
3/21/2017	15	
5/2/2017	11	
6/6/2017	10	
9/12/2017	7.5	
5/1/2018	8.5	
11/26/2018	7.4	
5/28/2019	32.7	
10/2/2019	15.9	
3/30/2020	21.8	
9/8/2020	17.7	
5/12/2021	37.1	
10/18/2021		24.7
5/31/2022		38.6
11/2/2022		36.900002
4/11/2023		53.599998

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	3.82	
4/18/2016	3.48	
6/6/2016	3.76	
8/30/2016	3.62	
10/18/2016	2.58	
3/21/2017	3.3 (J)	
5/2/2017	2.5 (J)	
6/7/2017	3.1 (J)	
9/12/2017	3 (J)	
5/1/2018	1.6 (J)	
11/27/2018	1.9 (J)	
5/28/2019	4.86	
10/2/2019	4.6	
3/30/2020	4.29	
9/8/2020	3.59	
5/12/2021	3.58	
10/18/2021		2.54
6/1/2022		3.4
11/2/2022		2.35
4/11/2023		<2

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	3.33	
4/18/2016	3.78	
6/7/2016	4.44	
8/30/2016	4.29	
10/18/2016	4.27	
3/21/2017	3.6 (J)	
5/2/2017	2.9 (J)	
6/7/2017	2.9 (J)	
9/13/2017	3.2 (J)	
5/2/2018	2.6 (J)	
11/27/2018	2.8 (J)	
5/28/2019	4.46	
10/2/2019	4.96	
3/30/2020	4.84	
9/8/2020	4.56	
5/12/2021	4.7	
10/19/2021		4.2
6/1/2022		5.11
11/2/2022		5.34
4/11/2023		5.57

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 12:01 PM View: IntraWell PLS

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	7.71	
4/19/2016	7.85	
6/7/2016	7.76	
8/30/2016	8.22	
10/18/2016	9.29	
3/21/2017	7.1	
5/2/2017	5.7	
6/7/2017	7.1	
9/13/2017	7.3	
5/1/2018	7.1	
11/26/2018	7.3	
5/29/2019	12.3	
10/2/2019	11.6	
3/31/2020	12.5	
9/9/2020	10.7	
5/12/2021	12.5	
10/19/2021		12.6
6/1/2022		13
11/2/2022		12.2
4/11/2023		10.2

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLS

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	8.59	
4/19/2016	8.27	
6/6/2016	8.66	
8/30/2016	9.74	
10/18/2016	10.2	
3/20/2017	8.3	
5/2/2017	6.6	
6/6/2017	7.6	
9/13/2017	8.4	
5/2/2018	5.9	
11/27/2018	22	
5/29/2019	23.3	
10/2/2019	17.5	
3/31/2020	24.3	
9/9/2020	16.5	
5/12/2021	16.3	
10/19/2021		15.5
5/31/2022		12.8
11/1/2022		11.3
4/12/2023		11.8

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLS
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	7.2	
4/19/2016	7.22	
6/7/2016	7.92	
8/30/2016	8.17	
10/18/2016	7.99	
3/20/2017	6.1	
5/2/2017	5	
6/6/2017	5.3	
9/13/2017	4.9 (J)	
5/1/2018	4.2 (J)	
11/27/2018	3.7 (J)	
5/29/2019	5.94	
10/2/2019	6.04	
3/31/2020	6.83	
9/9/2020	6.08	
5/11/2021	7.92	
10/19/2021		7.48
5/31/2022		8.09
11/1/2022		7.11
4/12/2023		8.54

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLs

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	7.44	
4/19/2016	7.66	
6/7/2016	8.16	
8/30/2016	8.43	
10/18/2016	8.47	
3/20/2017	7.4	
5/2/2017	6.3	
6/6/2017	7.1	
9/13/2017	7.3	
5/1/2018	6.9	
11/27/2018	6.5	
5/29/2019	7.81	
10/2/2019	7.62	
3/31/2020	7.98	
9/9/2020	7.13	
5/11/2021	7.73	
10/18/2021		7.36
5/31/2022		7.02
11/1/2022		6.83
4/12/2023		7.59

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 7/14/2023 12:01 PM View: Intrawell PLS

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	7.04	
4/19/2016	6.74	
6/6/2016	7.04	
8/30/2016	7.57	
10/18/2016	6.62	
3/20/2017	7	
5/2/2017	5.6	
6/6/2017	6.6	
9/12/2017	7.2	
5/1/2018	5.9	
11/26/2018	5.1	
5/28/2019	7.1	
10/2/2019	6.88	
3/31/2020	10.8	
9/8/2020	6.52	
5/11/2021	6.8	
10/18/2021		6.58
5/31/2022		7.94
11/1/2022		4.59
4/12/2023		5.93

FIGURE E.

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 2:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg. N	Bg. Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	4/11/2023	0.54	Yes	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	4/11/2023	0.925	Yes	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.07	n/a	4/11/2023	6.62	Yes	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.07	n/a	4/11/2023	10.9	Yes	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	4/11/2023	0.135	Yes	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	4/11/2023	5.34	Yes	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	4/11/2023	70.7	Yes	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	4/11/2023	106	Yes	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2

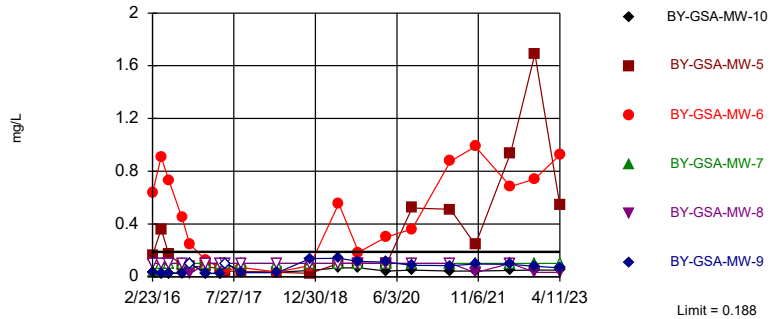
Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 2:13 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-10	0.188	n/a	4/11/2023	0.0503J	No	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	4/11/2023	0.54	Yes	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	4/11/2023	0.925	Yes	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	4/11/2023	0.1015ND	No	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	4/11/2023	0.0345J	No	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	4/11/2023	0.0664J	No	80	n/a	n/a	78.75	n/a	n/a	0.0002988	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-10	2.07	n/a	4/11/2023	1.16	No	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.07	n/a	4/11/2023	6.62	Yes	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.07	n/a	4/11/2023	10.9	Yes	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-7	2.07	n/a	4/11/2023	1.82	No	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-8	2.07	n/a	4/11/2023	0.971	No	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-9	2.07	n/a	4/11/2023	1.49	No	80	1.495	0.3096	0	None	No	0.001254	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.125	n/a	4/11/2023	0.125ND	No	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.125	n/a	4/11/2023	0.0834J	No	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	4/11/2023	0.135	Yes	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.125	n/a	4/11/2023	0.125ND	No	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.125	n/a	4/11/2023	0.125ND	No	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.125	n/a	4/11/2023	0.125ND	No	84	n/a	n/a	65.48	n/a	n/a	0.0002742	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-10	4.98	3.31	4/11/2023	4.43	No	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-5	4.98	3.31	4/11/2023	4.63	No	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	4/11/2023	5.34	Yes	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-7	4.98	3.31	4/11/2023	4.3	No	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-8	4.98	3.31	4/11/2023	4.04	No	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-9	4.98	3.31	4/11/2023	4.17	No	88	n/a	n/a	0	n/a	n/a	0.0004994	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-10	58	n/a	4/11/2023	34	No	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	4/11/2023	70.7	Yes	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	4/11/2023	106	Yes	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-7	58	n/a	4/11/2023	50	No	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	4/11/2023	32	No	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	4/11/2023	32.7	No	80	n/a	n/a	10	n/a	n/a	0.0002988	NP Inter (normality) 1 of 2

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit
Interwell Non-parametric

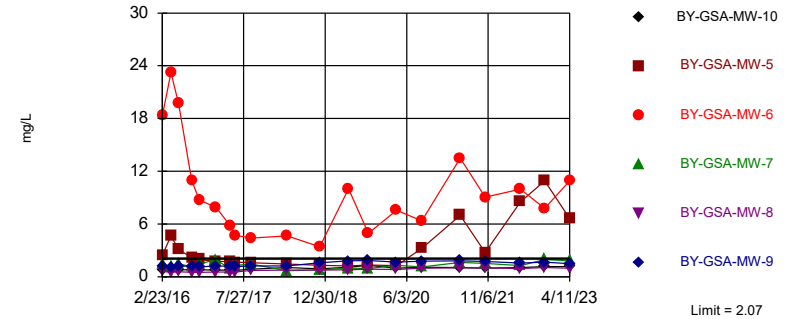


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 80 background values. 78.75% NDs. Annual per-constituent alpha = 0.00358. Individual comparison alpha = 0.0002988 (1 of 2). Comparing 6 points to limit.

Constituent: Boron Analysis Run 7/13/2023 2:12 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit
Interwell Parametric

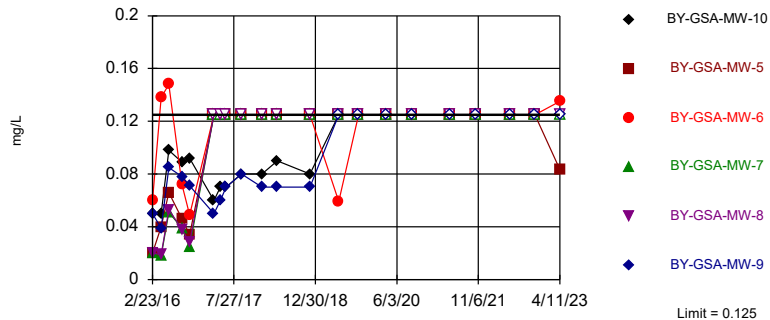


Background Data Summary: Mean=1.495, Std. Dev.=0.3096, n=80. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9714, critical = 0.957. Kappa = 1.857 (c=7, w=6, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001254. Comparing 6 points to limit.

Constituent: Calcium, total Analysis Run 7/13/2023 2:12 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit: BY-GSA-MW-6

Prediction Limit
Interwell Non-parametric

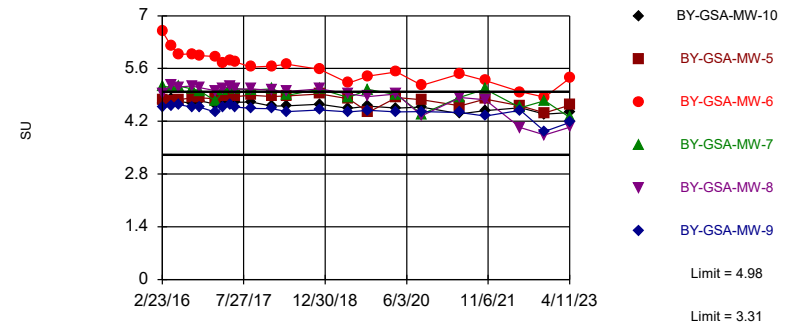


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 65.48% NDs. Annual per-constituent alpha = 0.003286. Individual comparison alpha = 0.0002742 (1 of 2). Comparing 6 points to limit.

Constituent: Fluoride Analysis Run 7/13/2023 2:12 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limits: BY-GSA-MW-6

Prediction Limit
Interwell Non-parametric

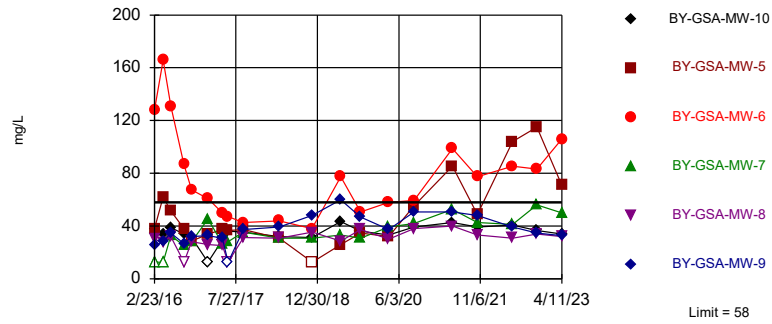


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 88 background values. Annual per-constituent alpha = 0.005984. Individual comparison alpha = 0.0004994 (1 of 2). Comparing 6 points to limit.

Constituent: pH, Field Analysis Run 7/13/2023 2:12 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 80 background values. 10% NDs. Annual per-constituent alpha = 0.00358. Individual comparison alpha = 0.0002988 (1 of 2). Comparing 6 points to limit.

Constituent: TDS Analysis Run 7/13/2023 2:12 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/13/2023 2:13 PM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-7	BY-UP-MW-2 (bg)	BY-GSA-MW-8	BY-GSA-MW-9	BY-UP-MW-4 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-6	BY-GSA-MW-5
2/23/2016	0.0294 (J)	0.0314 (J)	0.0252 (J)	<0.1015	0.0297 (J)	0.0257 (J)	<0.1015	0.638	0.163
4/18/2016		<0.1015		<0.1015				0.908	0.361
4/19/2016	0.0257 (J)		<0.1015		0.0269 (J)	<0.1015	<0.1015		
6/6/2016		<0.1015				<0.1015		0.733	
6/7/2016	0.0257 (J)		0.0202 (J)	<0.1015	0.0271 (J)		<0.1015		0.169
8/30/2016	0.0317 (J)	<0.1015	<0.1015	<0.1015	0.0272 (J)	<0.1015	<0.1015	0.448	0.0858 (J)
10/18/2016	<0.1015	<0.1015	<0.1015	0.0207 (J)	<0.1015	0.022 (J)	<0.1015	0.249	0.0778 (J)
1/30/2017	0.0243 (J)	<0.1015			0.0269 (J)				
1/31/2017			<0.1015	<0.1015		<0.1015	<0.1015	0.121	0.077 (J)
5/2/2017	0.0259 (J)	<0.1015	<0.1015	<0.1015	0.027 (J)	<0.1015	<0.1015	0.0695 (J)	0.0602 (J)
6/6/2017			<0.1015			<0.1015	<0.1015	0.0509 (J)	0.0442 (J)
6/7/2017	<0.1015	<0.1015		<0.1015	<0.1015				
9/12/2017		<0.1015				<0.1015		0.0709 (J)	
9/13/2017	0.0394 (J)		<0.1015	<0.1015	0.032 (J)		<0.1015		0.0411 (J)
5/1/2018	0.0338 (J)	<0.1015	<0.1015		0.0302 (J)	<0.1015	<0.1015	0.0365 (J)	
5/2/2018				<0.1015					0.0334 (J)
11/26/2018	0.0484 (J)				0.139	<0.1015		0.0836 (J)	
11/27/2018		<0.1015	0.0207 (J)	<0.1015			<0.1015		0.0265 (J)
5/28/2019		<0.1015		<0.1015		<0.1015		0.556	<0.1015
5/29/2019	0.0669 (J)		<0.1015		0.141		<0.1015		
10/2/2019	0.0671 (J)	<0.1015	<0.1015	<0.1015	0.116	<0.1015	<0.1015	0.186	<0.1015
3/30/2020		<0.1015		<0.1015				0.304	<0.1015
3/31/2020	0.0442 (J)		<0.1015		0.112	<0.1015	<0.1015		
9/8/2020		<0.1015		<0.1015		<0.1015		0.362	0.521
9/9/2020	0.0509 (J)		<0.1015		0.0873 (J)		<0.1015		
5/11/2021			<0.1015			<0.1015	<0.1015		
5/12/2021	0.0423 (J)	<0.1015		<0.1015	0.0834 (J)			0.876	0.511
10/18/2021		<0.1015				<0.1015	<0.1015	0.987	
10/19/2021	0.0444 (J)		<0.1015	0.0303 (J)	0.0966 (J)				0.243
5/31/2022			<0.1015			<0.1015	<0.1015	0.685	0.939
6/1/2022	0.0493 (J)	<0.1015		<0.1015	0.0933 (J)				
11/1/2022			<0.1015			<0.1015	<0.1015		
11/2/2022	0.0502 (J)	<0.1015		0.0343 (J)	0.0809 (J)			0.741	1.69
4/11/2023	0.0503 (J)	<0.1015		0.0345 (J)	0.0664 (J)			0.925	0.54
4/12/2023			<0.1015			<0.1015	<0.1015		

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 7/13/2023 2:13 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)
2/23/2016	0.0212 (J)
4/18/2016	
4/19/2016	<0.1015
6/6/2016	<0.1015
6/7/2016	
8/30/2016	<0.1015
10/18/2016	<0.1015
1/30/2017	
1/31/2017	<0.1015
5/2/2017	<0.1015
6/6/2017	<0.1015
6/7/2017	
9/12/2017	
9/13/2017	<0.1015
5/1/2018	
5/2/2018	0.0362 (J)
11/26/2018	
11/27/2018	0.11
5/28/2019	
5/29/2019	0.188
10/2/2019	0.097 (J)
3/30/2020	
3/31/2020	0.157
9/8/2020	
9/9/2020	0.0999 (J)
5/11/2021	
5/12/2021	0.0841 (J)
10/18/2021	
10/19/2021	0.0708 (J)
5/31/2022	0.0567 (J)
6/1/2022	
11/1/2022	0.0501 (J)
11/2/2022	
4/11/2023	
4/12/2023	0.0464 (J)

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 7/13/2023 2:13 PM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-7	BY-UP-MW-2 (bg)	BY-GSA-MW-8	BY-GSA-MW-9	BY-UP-MW-4 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-6	BY-GSA-MW-5
2/23/2016	0.795	1.4	1.11	0.618	1.15	1.42	1.77	18.3	2.42
4/18/2016		1.2		0.505				23.2	4.65
4/19/2016	0.761		1.09		1.04	1.31	1.68		
6/6/2016		1.48				1.35		19.7	
6/7/2016	0.799		1.16	0.587	1.22		1.68		3.1
8/30/2016	0.788	1.13	1.08	0.495 (J)	1.18	1.31	1.62	10.9	2.19
10/18/2016	0.788	1.45	1.03	0.503	1.12	1.22	1.53	8.74	1.97
1/30/2017	0.755	1.95			1.23				
1/31/2017			1.23	0.554		1.36	1.65	7.89	1.73
5/2/2017	0.763	0.908	1.28	0.548	1.2	1.24	1.58	5.81	1.74
6/6/2017			1.25			1.28	1.55	4.72	1.66
6/7/2017	0.706	1.29		0.545	1.17				
9/12/2017		1.44				1.47		4.39	
9/13/2017	0.873		1.6	0.723	1.25		1.71		1.61
5/1/2018	1.05	0.695	1.58		1.25	1.47	1.76	4.66	
5/2/2018				0.751					1.44
11/26/2018	0.922				1.61	1.52		3.41	
11/27/2018		0.798	1.49	0.743			1.69		1.3
5/28/2019		0.973		0.789		1.6		10	1.25
5/29/2019	1.07		1.59		1.8		1.74		
10/2/2019	1.32	0.929	1.7	0.882	1.85	1.7	1.86	4.94	1.33
3/30/2020		1.32		0.841				7.56	1.26
3/31/2020	0.98		1.43		1.67	1.78	1.92		
9/8/2020		1.12		0.981		1.94		6.38	3.24
9/9/2020	1.1		1.5		1.79		1.97		
5/11/2021			1.39			1.93	2.06		
5/12/2021	1.06	1.63		1.02	1.82			13.5	7
10/18/2021		1.53				2.01	2.1	9.06	
10/19/2021	0.977		1.32	1.01	1.75				2.75
5/31/2022			1.24			2.02	1.95	9.98	8.52
6/1/2022	1.04	1.27		0.94	1.55				
11/1/2022			1.23			1.59	1.94		
11/2/2022	1.15	1.96		1.04	1.67			7.78	10.9
4/11/2023	1.16	1.82		0.971	1.49			10.9	6.62
4/12/2023			1.16			1.76	1.83		

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 7/13/2023 2:13 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)
2/23/2016	1.28
4/18/2016	
4/19/2016	1.19
6/6/2016	1.19
6/7/2016	
8/30/2016	1.11
10/18/2016	1.04
1/30/2017	
1/31/2017	1.19
5/2/2017	1.05
6/6/2017	0.978
6/7/2017	
9/12/2017	
9/13/2017	1.14
5/1/2018	
5/2/2018	1.64
11/26/2018	
11/27/2018	2.01
5/28/2019	
5/29/2019	1.85
10/2/2019	1.55
3/30/2020	
3/31/2020	1.96
9/8/2020	
9/9/2020	1.43
5/11/2021	
5/12/2021	1.34
10/18/2021	
10/19/2021	1.17
5/31/2022	1.14
6/1/2022	
11/1/2022	1.01
11/2/2022	
4/11/2023	
4/12/2023	1.02

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/13/2023 2:13 PM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-8	BY-UP-MW-1 (bg)	BY-GSA-MW-7	BY-UP-MW-2 (bg)	BY-GSA-MW-6	BY-UP-MW-3 (bg)	BY-GSA-MW-5	BY-UP-MW-4 (bg)
2/23/2016	0.05 (J)	0.02 (J)	0.03 (J)	0.02 (J)	0.02 (J)	0.06 (J)	0.02 (J)	0.02 (J)	0.02 (J)
4/18/2016		0.019 (J)		0.018 (J)		0.138 (J)		0.04 (J)	
4/19/2016	0.05 (J)		0.023 (J)		0.021 (J)		0.016 (J)		0.015 (J)
6/6/2016			0.062 (J)	0.051 (J)		0.148 (J)			0.05 (J)
6/7/2016	0.098 (J)	0.053 (J)			0.06 (J)		0.052 (J)	0.066 (J)	
8/30/2016	0.089 (J)	0.038 (J)	0.053 (J)	0.039 (J)	0.05 (J)	0.072 (J)	0.038 (J)	0.046 (J)	0.036 (J)
10/18/2016	0.092 (J)	0.028 (J)	0.042 (J)	0.025 (J)	0.04 (J)	0.049 (J)	0.03 (J)	0.034 (J)	0.025 (J)
3/20/2017			<0.125		<0.125		<0.125		<0.125
3/21/2017	0.06 (J)	<0.125		<0.125		<0.125		<0.125	
5/2/2017	0.07 (J)	<0.125	0.04 (J)	<0.125	0.04 (J)	<0.125	<0.125	<0.125	<0.125
6/6/2017			<0.125		0.04 (J)	<0.125	<0.125	<0.125	<0.125
6/7/2017	0.07 (J)	<0.125		<0.125					
9/12/2017				<0.125		<0.125			<0.125
9/13/2017	0.08 (J)	<0.125	0.04 (J)		0.043 (J)		<0.125	<0.125	
1/22/2018				<0.125		<0.125			
1/23/2018	0.08 (J)		<0.125		0.04 (J)		<0.125		<0.125
1/24/2018		<0.125						<0.125	
5/1/2018	0.09 (J)			<0.125	0.04 (J)	<0.125	<0.125		<0.125
5/2/2018		<0.125	0.04 (J)					<0.125	
11/26/2018	0.08 (J)					<0.125			<0.125
11/27/2018		<0.125	<0.125	<0.125	<0.125		<0.125	<0.125	
5/28/2019		<0.125		<0.125		0.0591 (J)		<0.125	<0.125
5/29/2019	<0.125		0.0502 (J)		<0.125		<0.125		
10/2/2019	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
3/30/2020		<0.125		<0.125		<0.125		<0.125	
3/31/2020	<0.125		<0.125		<0.125		<0.125		<0.125
9/8/2020		<0.125		<0.125		<0.125		<0.125	<0.125
9/9/2020	<0.125		<0.125		<0.125		<0.125		<0.125
5/11/2021					<0.125		<0.125		<0.125
5/12/2021	<0.125	<0.125	<0.125	<0.125		<0.125		<0.125	
10/18/2021				<0.125		<0.125	<0.125		<0.125
10/19/2021	<0.125	<0.125	<0.125		<0.125		<0.125	<0.125	
5/31/2022			<0.125		<0.125	<0.125	<0.125	<0.125	<0.125
6/1/2022	<0.125	<0.125		<0.125					
11/1/2022			<0.125		<0.125		<0.125		<0.125
11/2/2022	<0.125	<0.125		<0.125		<0.125		<0.125	
4/11/2023	<0.125	<0.125		<0.125		0.135		0.0834 (J)	
4/12/2023			<0.125		<0.125		<0.125		<0.125

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 7/13/2023 2:13 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9
2/23/2016	0.05 (J)
4/18/2016	
4/19/2016	0.039 (J)
6/6/2016	
6/7/2016	0.085 (J)
8/30/2016	0.078 (J)
10/18/2016	0.071 (J)
3/20/2017	
3/21/2017	0.05 (J)
5/2/2017	0.06 (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	0.07 (J)
1/24/2018	
5/1/2018	0.07 (J)
5/2/2018	
11/26/2018	0.07 (J)
11/27/2018	
5/28/2019	
5/29/2019	<0.125
10/2/2019	<0.125
3/30/2020	
3/31/2020	<0.125
9/8/2020	
9/9/2020	<0.125
5/11/2021	
5/12/2021	<0.125
10/18/2021	
10/19/2021	<0.125
5/31/2022	
6/1/2022	<0.125
11/1/2022	
11/2/2022	<0.125
4/11/2023	<0.125
4/12/2023	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 7/13/2023 2:13 PM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-UP-MW-3 (bg)	BY-GSA-MW-9	BY-UP-MW-1 (bg)	BY-GSA-MW-8	BY-GSA-MW-5	BY-GSA-MW-6	BY-UP-MW-2 (bg)	BY-UP-MW-4 (bg)
2/23/2016	4.67	4.96	4.56	4.62	4.92	4.76	6.59	4.79	4.74
4/18/2016					5.16	4.75	6.21		
4/19/2016	4.79	4.94	4.62	4.74				4.84	4.86
6/6/2016				4.65			5.97		4.88
6/7/2016	4.73	4.96	4.64		5.11	4.77		4.81	
8/30/2016	4.68	4.92	4.58	4.64	5.14	4.82	5.99	4.76	4.91
10/18/2016	4.75	4.98	4.58	4.74	5.09	4.82	5.94	4.84	4.95
1/30/2017	4.65		4.44						
1/31/2017		4.74		4.54	5.01	4.8	5.92	4.6	4.71
3/20/2017		4.9		4.67				4.71	4.83
3/21/2017	4.68		4.57		5.07	4.86	5.74		
5/2/2017	4.75	4.98	4.64	4.79	5.13	4.89	5.82	4.8	4.93
6/6/2017		4.94		4.76		4.86	5.77	4.72	4.9
6/7/2017	4.7		4.58		5.05				
9/12/2017							5.64		4.82
9/13/2017	4.71	4.93	4.54	4.81	5.06	4.89		4.71	
1/22/2018							5.66		
1/23/2018	4.6	4.91	4.53	4.79				4.67	4.85
1/24/2018					5.02	4.86			
5/1/2018	4.61	4.87	4.46				5.71	4.61	4.8
5/2/2018				4.62	4.99	4.87			
11/26/2018	4.65		4.5				5.58		4.88
11/27/2018		4.94		4.73	5.06	4.92		4.72	
5/28/2019					4.92	4.8	5.21		4.73
5/29/2019	4.54	4.8	4.45	4.65				4.58	
10/2/2019	4.6	4.52	4.49	4.57	4.86	4.44	5.4	4.43	4.67
3/30/2020					4.92	4.83	5.51		
3/31/2020	4.55	4.4	4.45	4.64				4.6	4.51
9/8/2020					4.35	4.77	5.15		4.75
9/9/2020	4.58	4.76	4.46	4.65				4.67	
5/11/2021		4.53						4.29	4.67
5/12/2021	4.4		4.43	4.74	4.83	4.61	5.46		
10/18/2021		4.55					5.28		4.38
10/19/2021	4.48		4.34	4.67	4.77	4.79		4.6	
5/31/2022		3.54		3.89		4.61	4.98	3.31	3.97
6/1/2022	4.56		4.49		4.03				
11/1/2022		4.12		4.6				4.42	4.74
11/2/2022	4.39		3.93		3.84	4.42	4.84		
4/11/2023	4.43		4.17		4.04	4.63	5.34		
4/12/2023		4.83		4.77				4.67	4.73

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 7/13/2023 2:13 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7
2/23/2016	5.12
4/18/2016	5.11
4/19/2016	
6/6/2016	5.14
6/7/2016	
8/30/2016	5.06
10/18/2016	5.01
1/30/2017	4.74
1/31/2017	
3/20/2017	
3/21/2017	5.04
5/2/2017	5.08
6/6/2017	
6/7/2017	5.07
9/12/2017	5.03
9/13/2017	
1/22/2018	5.06
1/23/2018	
1/24/2018	
5/1/2018	4.89
5/2/2018	
11/26/2018	
11/27/2018	5.05
5/28/2019	4.83
5/29/2019	
10/2/2019	5.04
3/30/2020	4.91
3/31/2020	
9/8/2020	4.39
9/9/2020	
5/11/2021	
5/12/2021	4.84
10/18/2021	5.05
10/19/2021	
5/31/2022	
6/1/2022	4.56
11/1/2022	
11/2/2022	4.75
4/11/2023	4.3
4/12/2023	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 7/13/2023 2:13 PM View: Interwell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-7	BY-UP-MW-2 (bg)	BY-GSA-MW-8	BY-GSA-MW-9	BY-UP-MW-4 (bg)	BY-UP-MW-3 (bg)	BY-GSA-MW-6	BY-GSA-MW-5
2/23/2016	37.3	<25	30.7	30	25.3	<25	40	128	38
4/18/2016		<25		27.3				166	62
4/19/2016	34		<25		28	<25	32		
6/6/2016		32.7				28.7		131	
6/7/2016	38.7		35.3	32	34.7		38.7		51.3
8/30/2016	34	25.3	27.3	<25	26.7	25.3	31.3	86.7	38
10/18/2016	31.3	28	<25	28	32	<25	26.7	67.3	28.7
1/30/2017	<25	45.3			32.7				
1/31/2017			32.7	26		26	30	60.7	34
5/2/2017	29.3	26.7	30.7	25.3	30.7	<25	30.7	50	37.3
6/6/2017			34.7			42.7	32.7	47.3	36.7
6/7/2017	36	28		<25	<25				
9/12/2017		35.3				26.7		42.7	
9/13/2017	35.3		39.3	31.3	37.3		38		37.3
5/1/2018	32	30.7	42		39.3	34.7	35.3	44	
5/2/2018				30.7					30.7
11/26/2018	31.3				48	32.7		38	
11/27/2018		30.7	31.3	35.3			36		<25
5/28/2019		33.3		28.7		31.3		77.3	26
5/29/2019	43.3		40		60		37.3		
10/2/2019	36	30.7	41.3	37.3	46.7	36	36.7	50.7	34.7
3/30/2020		39.3		30				58	32
3/31/2020	33.3		40		37.3	36.7	39.3		
9/8/2020		42		38		39.3		59.3	55.3
9/9/2020	39.3		40.7		50.7		42.7		
5/11/2021			35.3			46.7	44		
5/12/2021	42.7	52.7		40	50.7			98.7	85.3
10/18/2021		42.7				36	36	77.3	
10/19/2021	39.3		36	33.3	48				48.7
5/31/2022			30.7			36.7	35.3	85.3	104
6/1/2022	40.7	41.3		30.7	39.3				
11/1/2022			36			31.299999	36		
11/2/2022	36.700001	56		34	34.700001			83.300003	115
4/11/2023	34	50		32	32.700001			106	70.699997
4/12/2023			27.299999			32	30.700001		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 7/13/2023 2:13 PM View: Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1 (bg)
2/23/2016	26.7
4/18/2016	
4/19/2016	<25
6/6/2016	32.7
6/7/2016	
8/30/2016	33.3
10/18/2016	27.3
1/30/2017	
1/31/2017	32
5/2/2017	31.3
6/6/2017	35.3
6/7/2017	
9/12/2017	
9/13/2017	36.7
5/1/2018	
5/2/2018	34
11/26/2018	
11/27/2018	50.7
5/28/2019	
5/29/2019	58
10/2/2019	46
3/30/2020	
3/31/2020	53.3
9/8/2020	
9/9/2020	42
5/11/2021	
5/12/2021	40.7
10/18/2021	
10/19/2021	40
5/31/2022	32
6/1/2022	
11/1/2022	33.299999
11/2/2022	
4/11/2023	
4/12/2023	<25

FIGURE F.

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 3:03 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.05783	101	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1123	124	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-7	1.946	122	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.361	-127	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.06405	-104	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.04945	-90	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-1 (bg)	0.009664	91	87	Yes	21	57.14	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-2 (bg)	0.01456	105	87	Yes	21	52.38	n/a	n/a	0.01	NP
pH, Field (SU)	BY-GSA-MW-6	-0.1715	-193	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-2 (bg)	-0.05688	-140	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-3 (bg)	-0.07203	-134	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-4 (bg)	-0.03806	-111	-92	Yes	22	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.876	95	81	Yes	20	20	n/a	n/a	0.01	NP

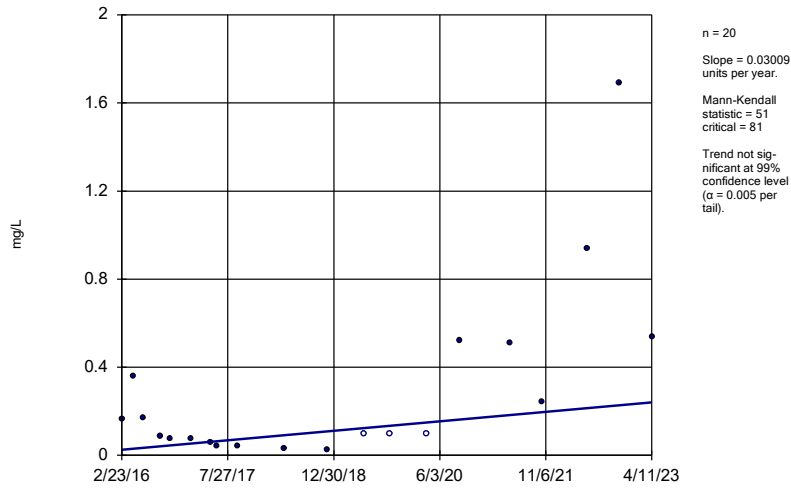
Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 3:03 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-5	0.03009	51	81	No	20	15	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-6	0.04645	40	81	No	20	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-1 (bg)	-0.0009367	-48	-81	No	20	40	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	32	81	No	20	85	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	81	No	20	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	29	81	No	20	90	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-5	0.03416	4	81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-6	-0.5556	-27	-81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.004603	-12	-81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.0288	40	81	No	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.05783	101	81	Yes	20	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.1123	124	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-6	0.3084	53	81	No	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-GSA-MW-7	1.946	122	81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-0.1864	-62	-81	No	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-0.361	-127	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-0.06405	-104	-81	Yes	20	0	n/a	n/a	0.01	NP
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-0.04945	-90	-81	Yes	20	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-6	0	25	87	No	21	66.67	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-1 (bg)	0.009664	91	87	Yes	21	57.14	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-2 (bg)	0.01456	105	87	Yes	21	52.38	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-3 (bg)	0	82	87	No	21	76.19	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-4 (bg)	0	82	87	No	21	76.19	n/a	n/a	0.01	NP
pH, Field (SU)	BY-GSA-MW-6	-0.1715	-193	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-1 (bg)	-0.002988	-13	-92	No	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-2 (bg)	-0.05688	-140	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-3 (bg)	-0.07203	-134	-92	Yes	22	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-4 (bg)	-0.03806	-111	-92	Yes	22	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-5	0.3552	9	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-6	3.364	59	74	No	19	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-1 (bg)	0.7972	50	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-2 (bg)	0.1197	21	81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-3 (bg)	-0.07299	-38	-81	No	20	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-UP-MW-4 (bg)	-0.06997	-35	-81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-5	3.901	36	81	No	20	5	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-1.342	-9	-81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.942	51	81	No	20	10	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.9688	48	81	No	20	10	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.7112	31	81	No	20	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.876	95	81	Yes	20	20	n/a	n/a	0.01	NP

Sen's Slope Estimator

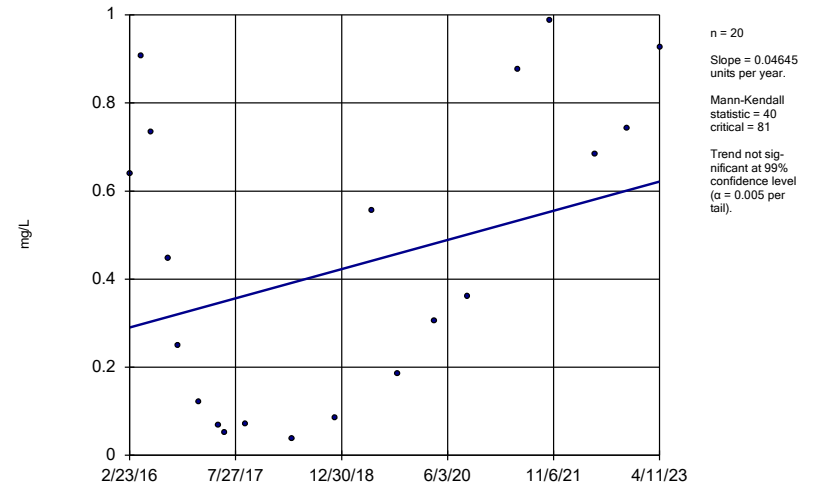
BY-GSA-MW-5



Constituent: Boron Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

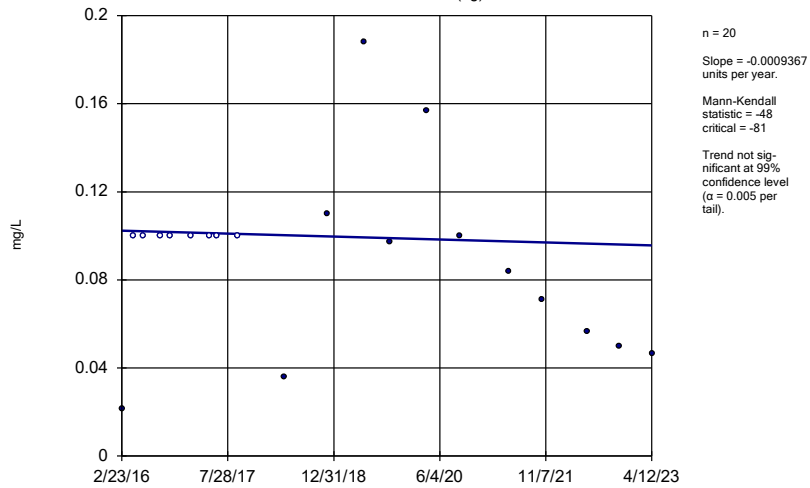
BY-GSA-MW-6



Constituent: Boron Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

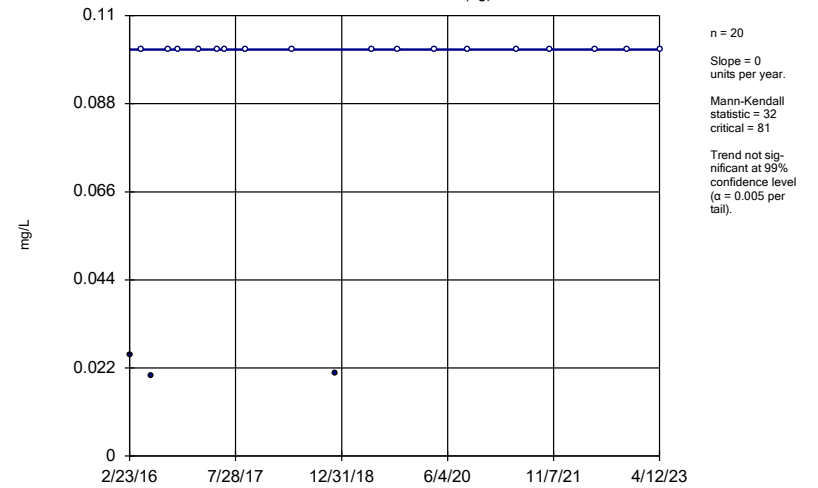
BY-UP-MW-1 (bg)



Constituent: Boron Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

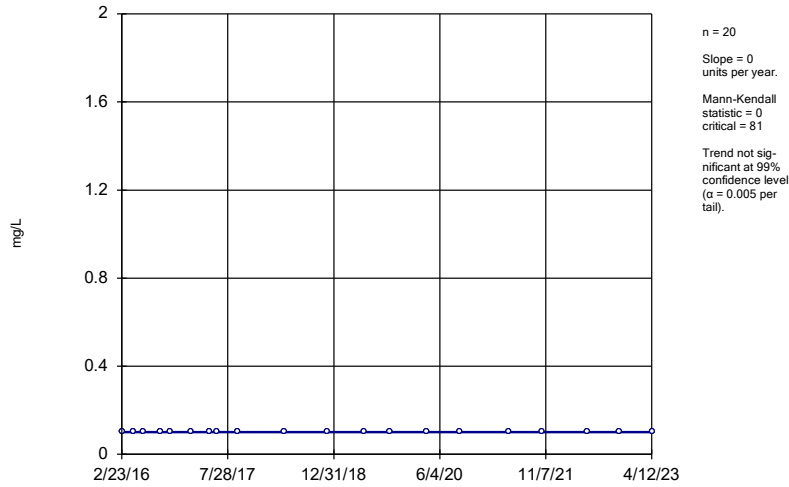
BY-UP-MW-2 (bg)



Constituent: Boron Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

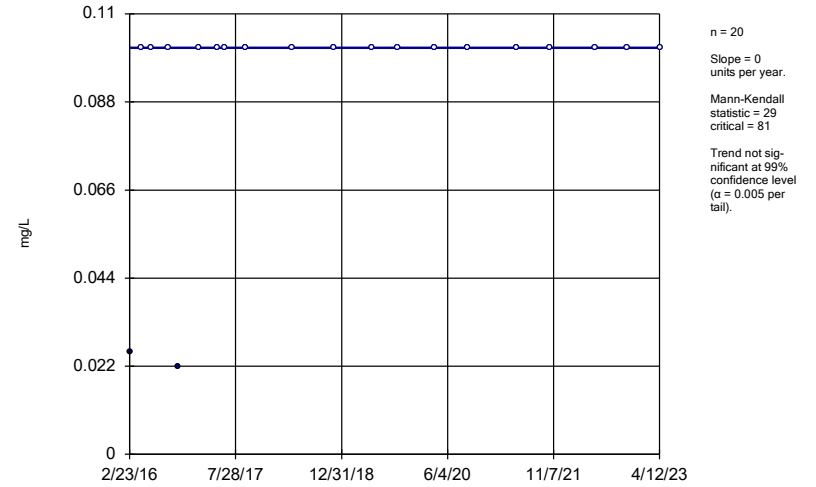
BY-UP-MW-3 (bg)



Constituent: Boron Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

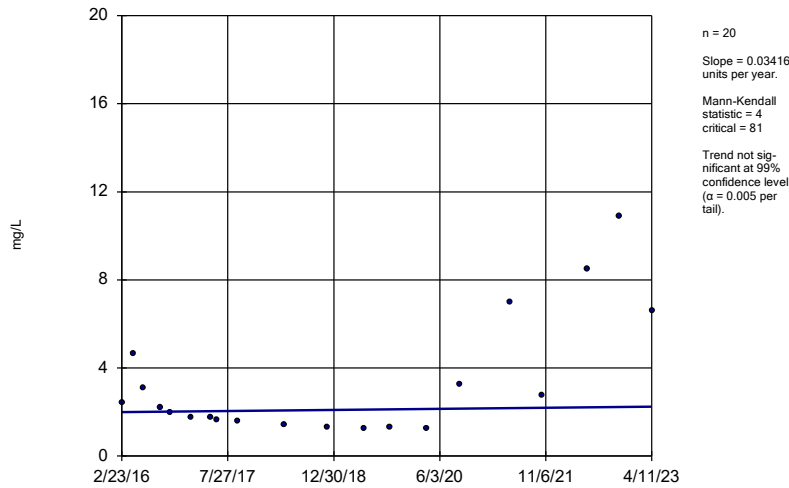
BY-UP-MW-4 (bg)



Constituent: Boron Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

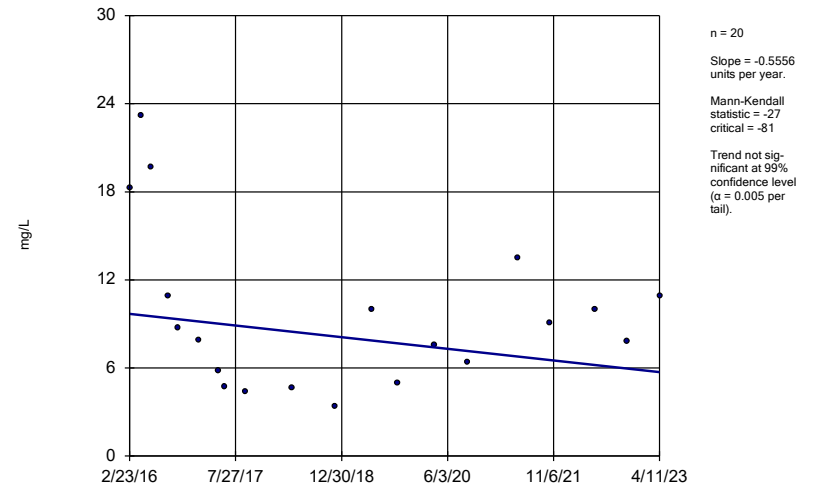
BY-GSA-MW-5



Constituent: Calcium, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

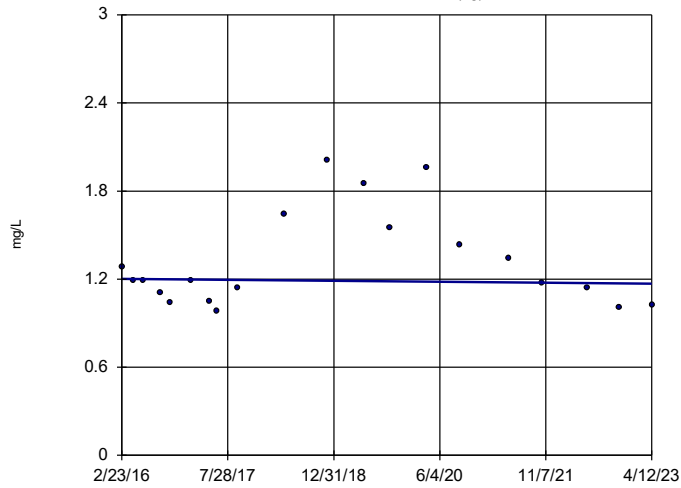
BY-GSA-MW-6



Constituent: Calcium, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

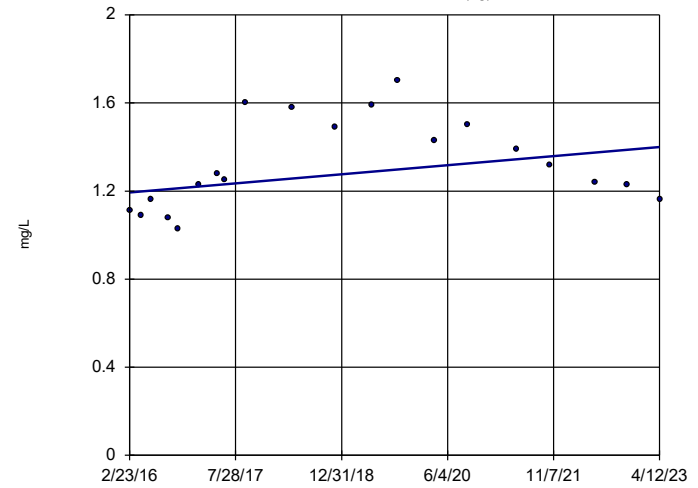


n = 20
 Slope = -0.004603 units per year.
 Mann-Kendall statistic = -12
 critical = -81
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

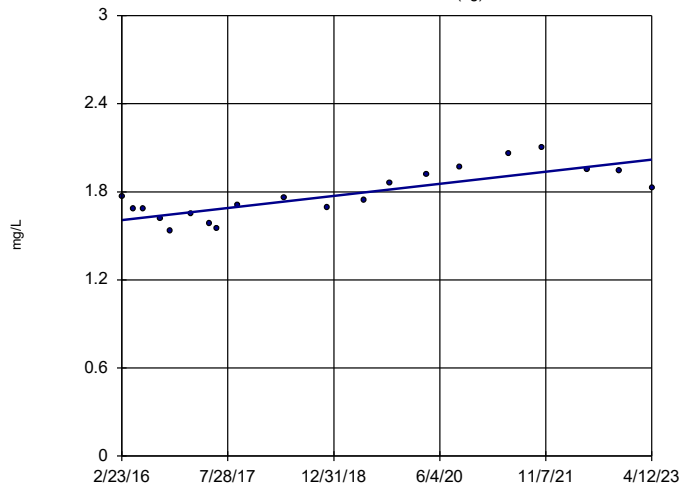


n = 20
 Slope = 0.0288 units per year.
 Mann-Kendall statistic = 40
 critical = 81
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

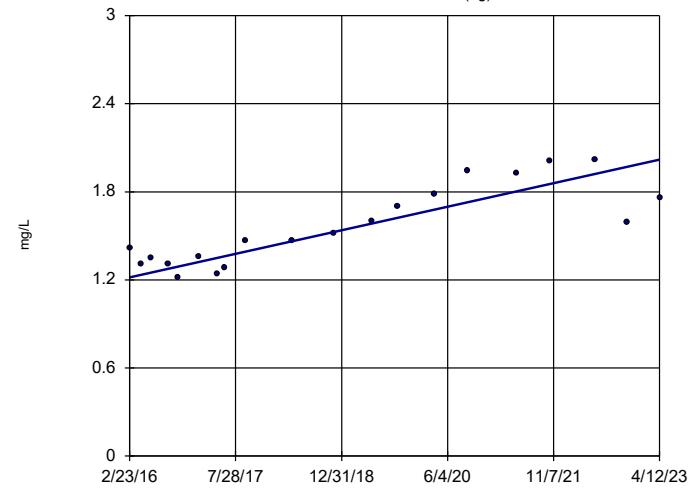


n = 20
 Slope = 0.05783 units per year.
 Mann-Kendall statistic = 101
 critical = 81
 Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

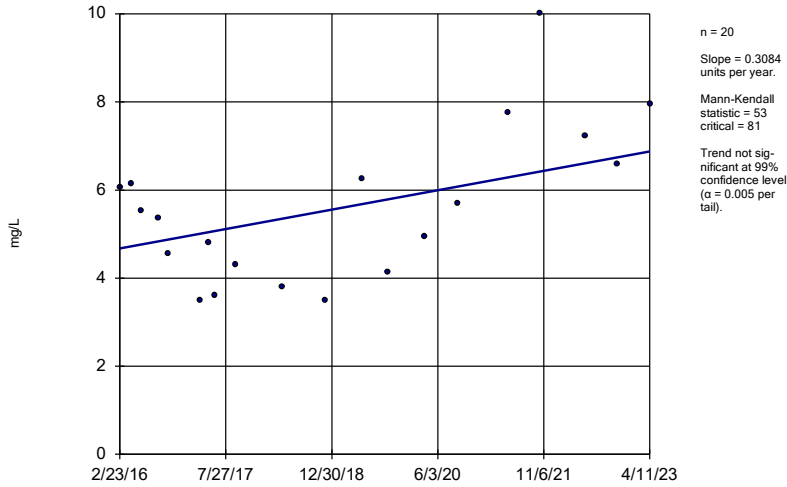


n = 20
 Slope = 0.1123 units per year.
 Mann-Kendall statistic = 124
 critical = 81
 Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Calcium, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

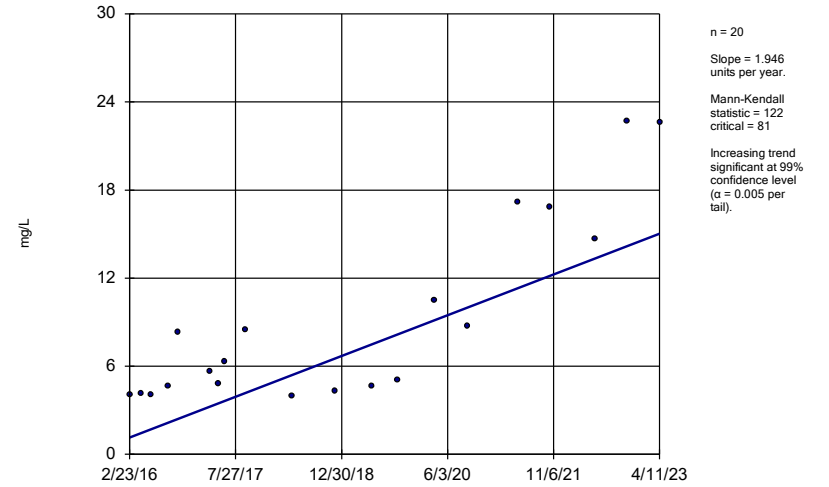
BY-GSA-MW-6



Constituent: Chloride, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

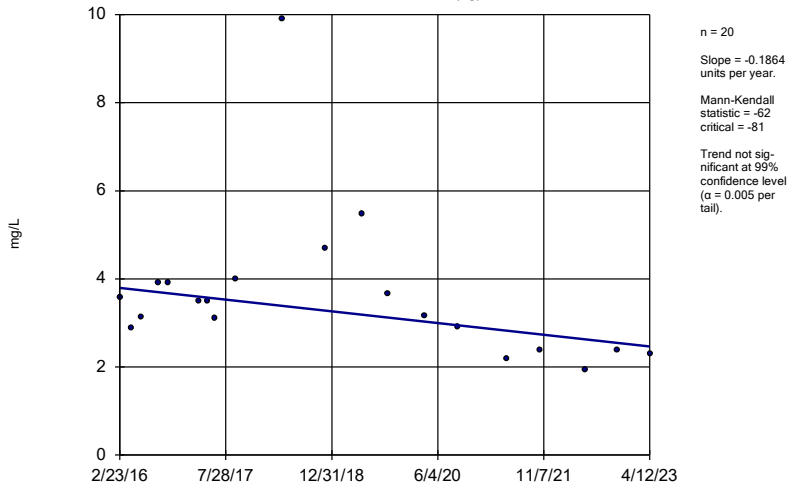
BY-GSA-MW-7



Constituent: Chloride, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

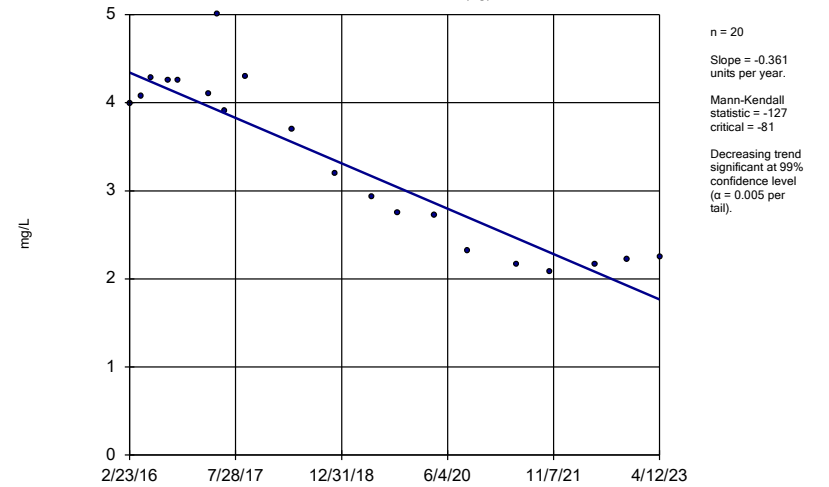
BY-UP-MW-1 (bg)



Constituent: Chloride, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

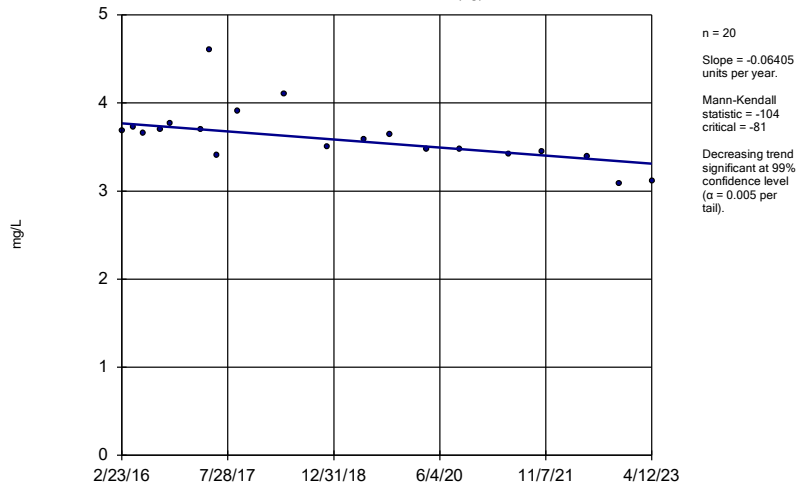
BY-UP-MW-2 (bg)



Constituent: Chloride, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

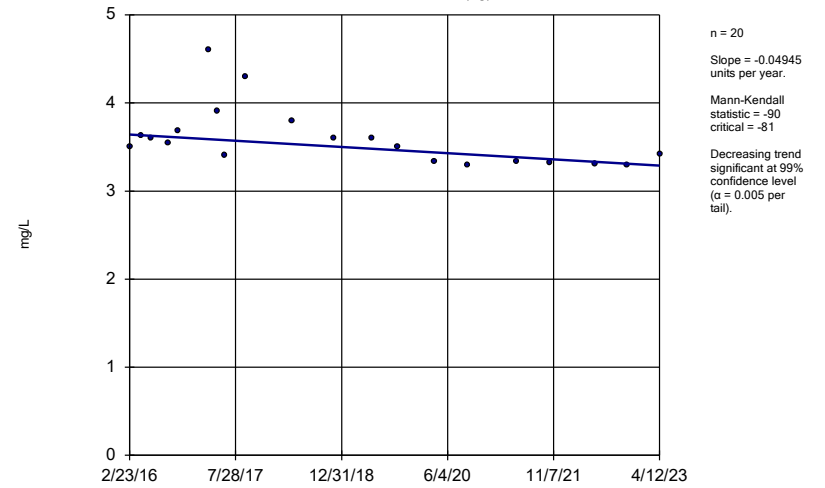
BY-UP-MW-3 (bg)



Constituent: Chloride, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

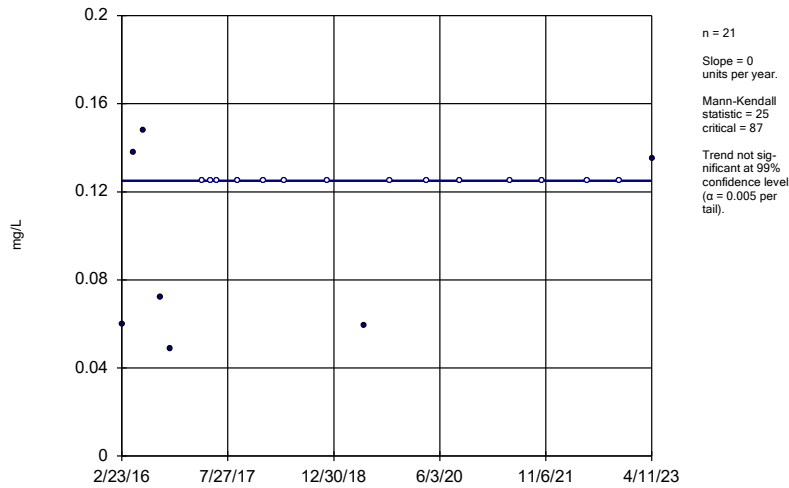
BY-UP-MW-4 (bg)



Constituent: Chloride, total Analysis Run 7/13/2023 3:02 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

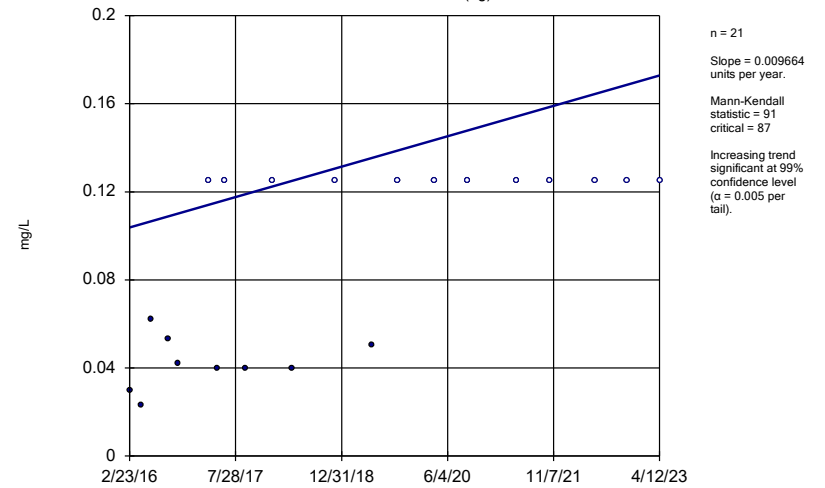
BY-GSA-MW-6



Constituent: Fluoride Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

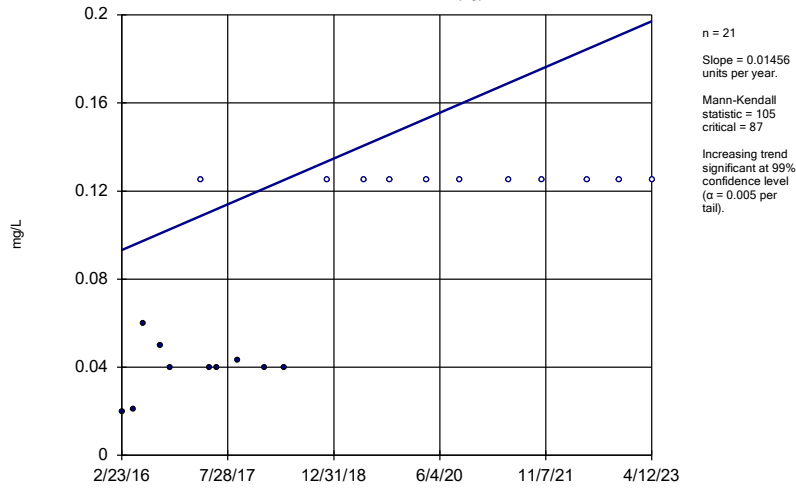
BY-UP-MW-1 (bg)



Constituent: Fluoride Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

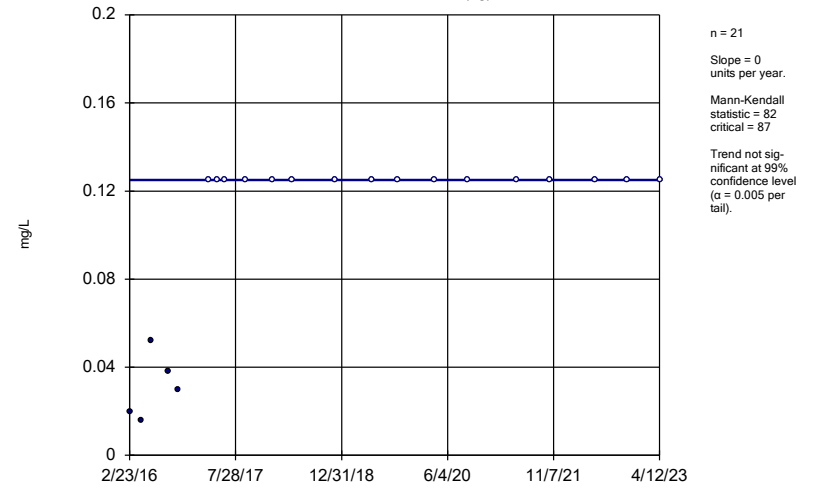
BY-UP-MW-2 (bg)



Constituent: Fluoride Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

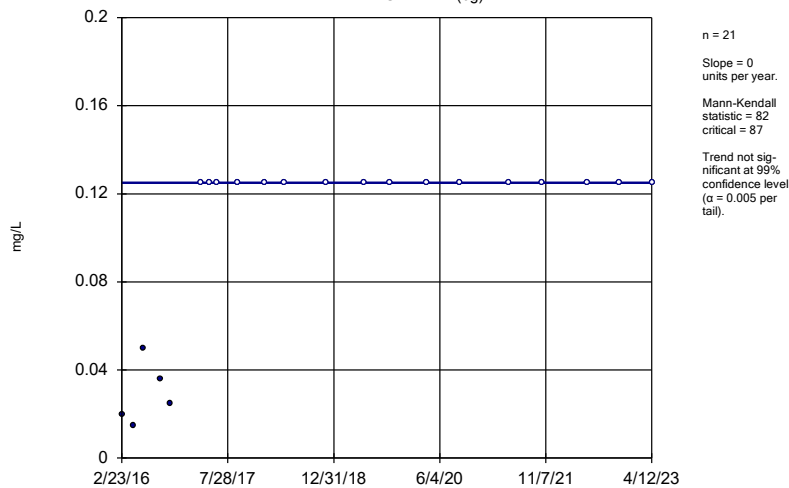
BY-UP-MW-3 (bg)



Constituent: Fluoride Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

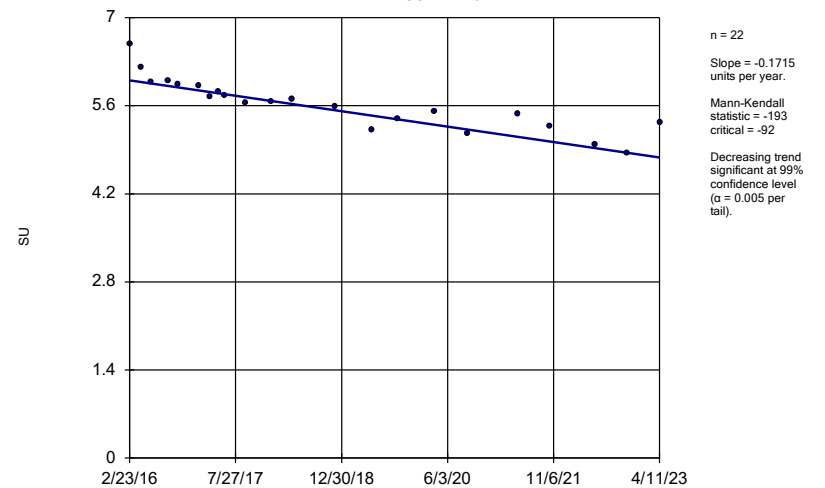
BY-UP-MW-4 (bg)



Constituent: Fluoride Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

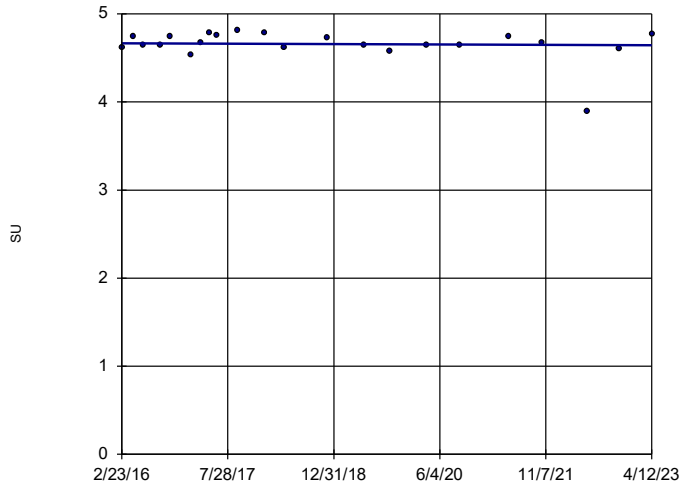
BY-GSA-MW-6



Constituent: pH, Field Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-1 (bg)

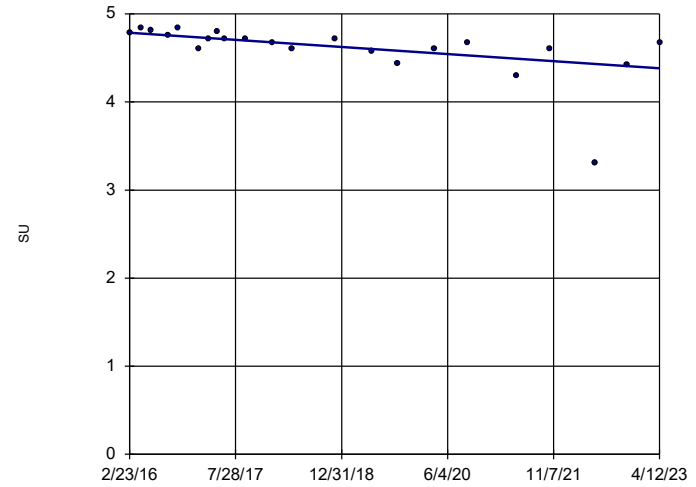


n = 22
 Slope = -0.002988 units per year.
 Mann-Kendall statistic = -13
 critical = -92
 Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

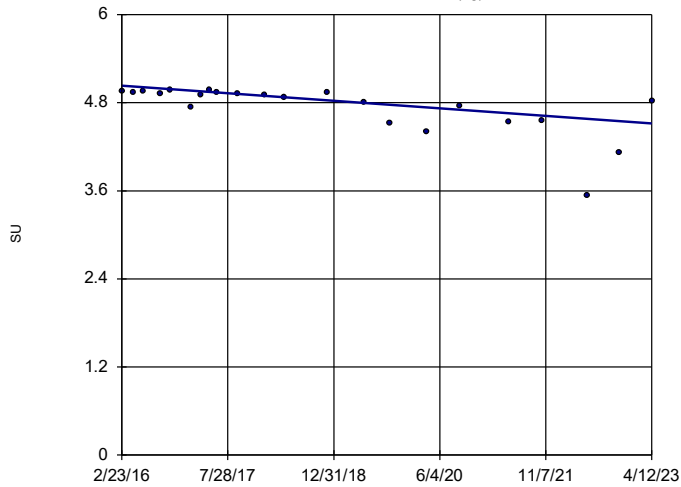


n = 22
 Slope = -0.05688 units per year.
 Mann-Kendall statistic = -140
 critical = -92
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

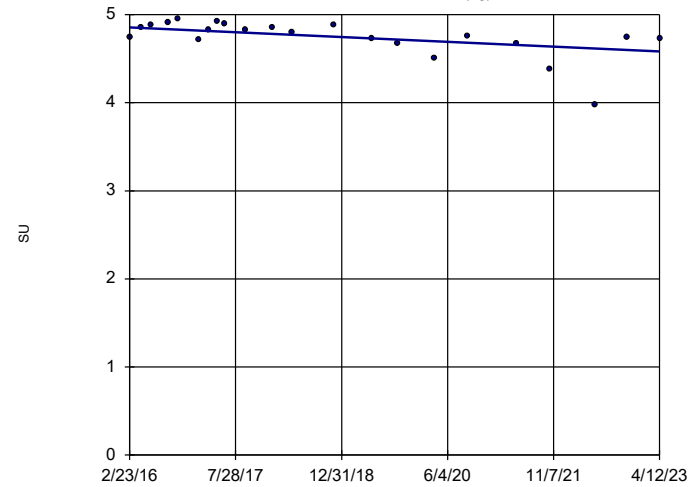


n = 22
 Slope = -0.07203 units per year.
 Mann-Kendall statistic = -134
 critical = -92
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

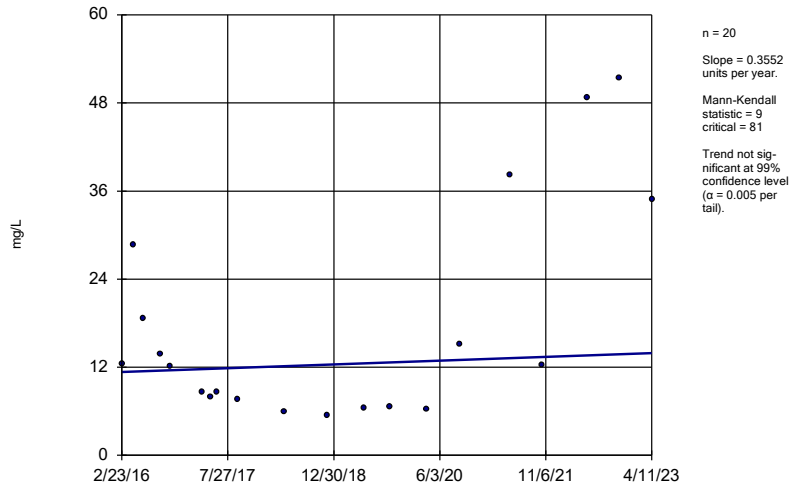


n = 22
 Slope = -0.03806 units per year.
 Mann-Kendall statistic = -111
 critical = -92
 Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH, Field Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

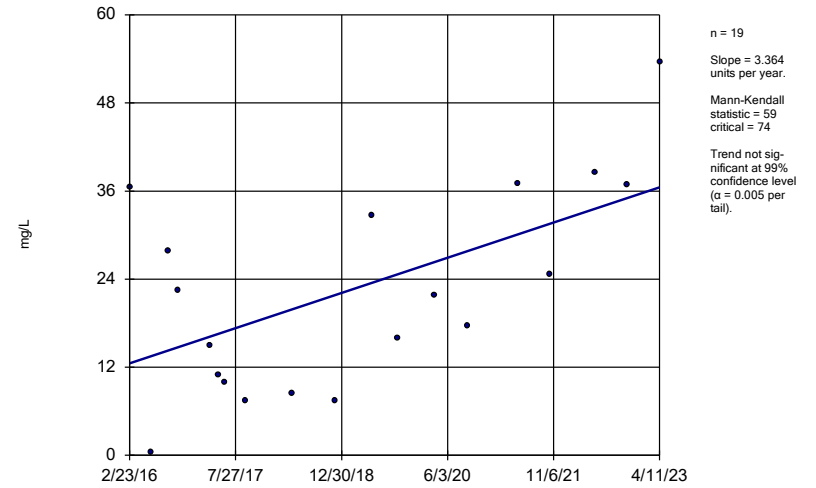
BY-GSA-MW-5



Constituent: Sulfate Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

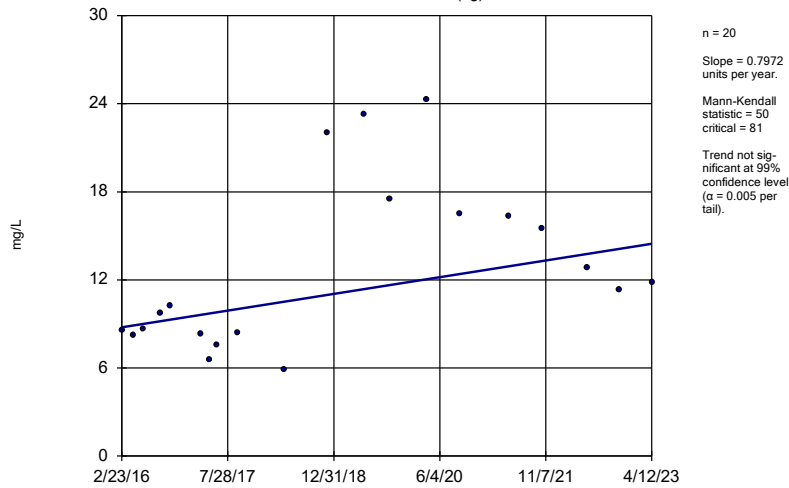
BY-GSA-MW-6



Constituent: Sulfate Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

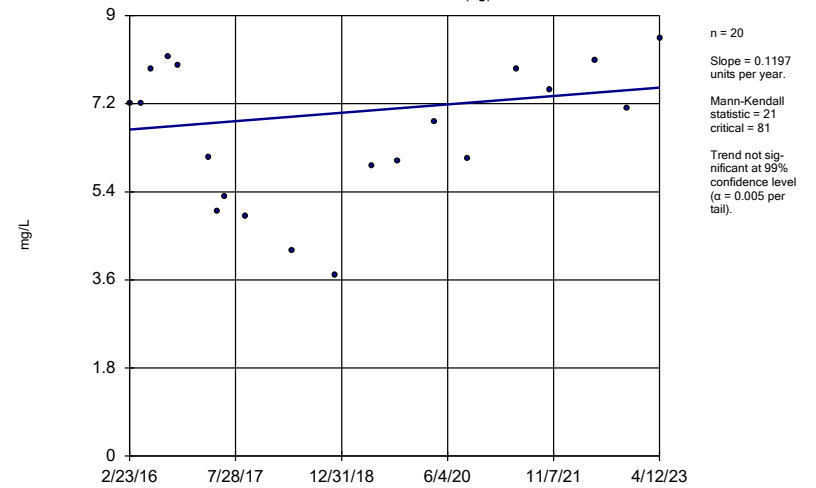
BY-UP-MW-1 (bg)



Constituent: Sulfate Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

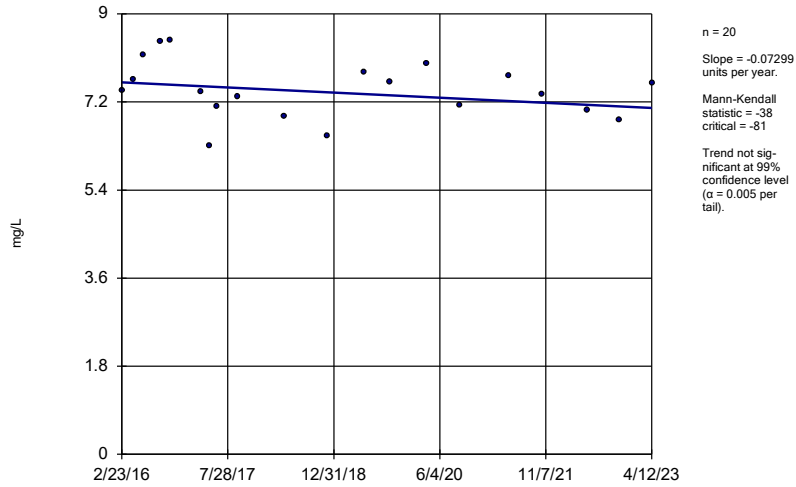
BY-UP-MW-2 (bg)



Constituent: Sulfate Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

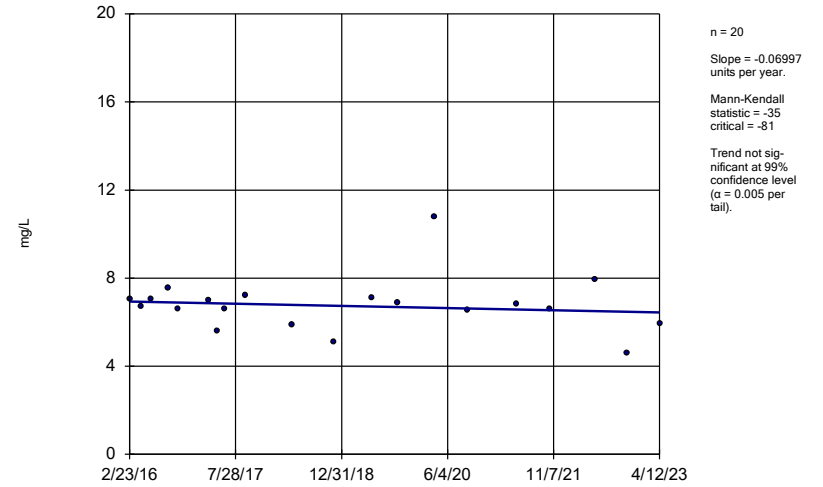
BY-UP-MW-3 (bg)



Constituent: Sulfate Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

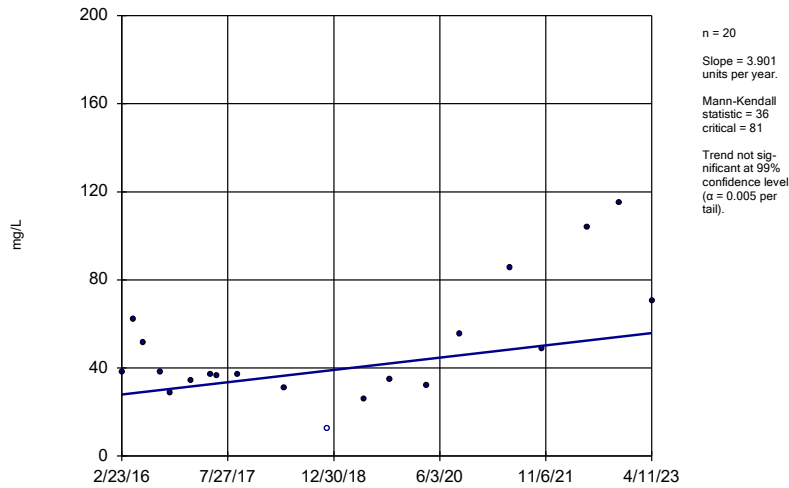
BY-UP-MW-4 (bg)



Constituent: Sulfate Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

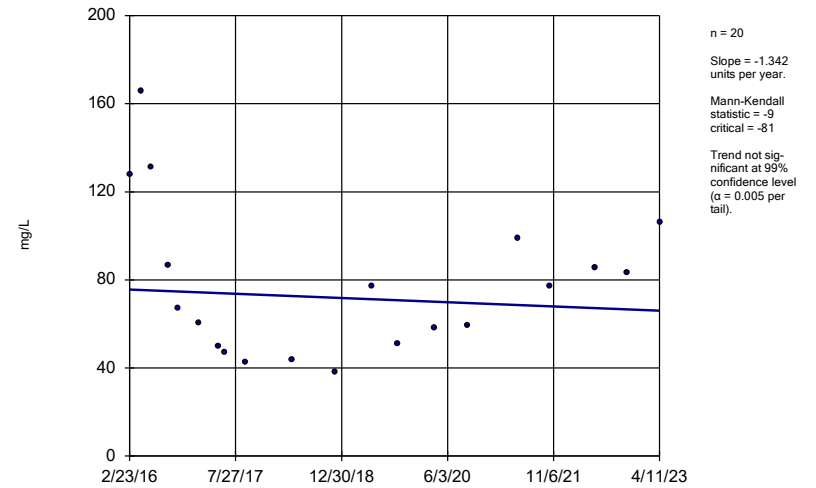
BY-GSA-MW-5



Constituent: TDS Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

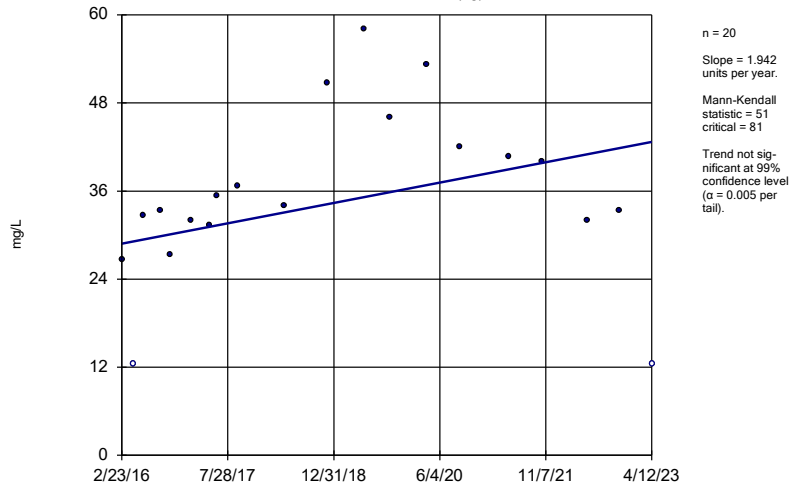
BY-GSA-MW-6



Constituent: TDS Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

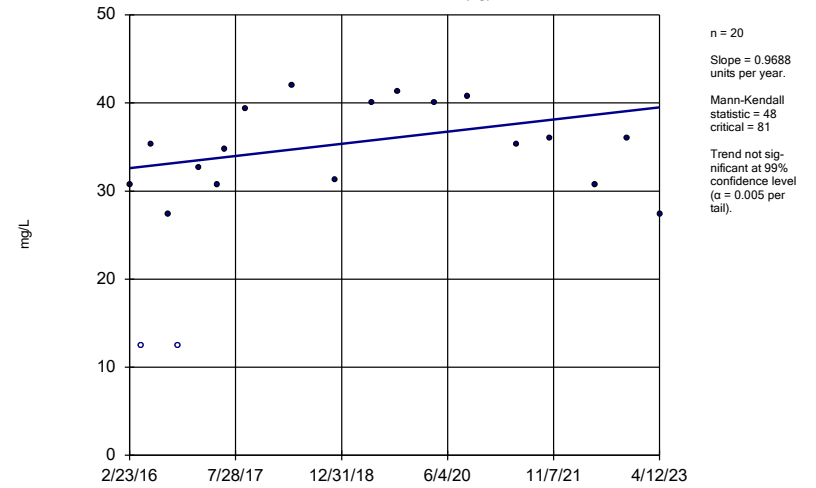
BY-UP-MW-1 (bg)



Constituent: TDS Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

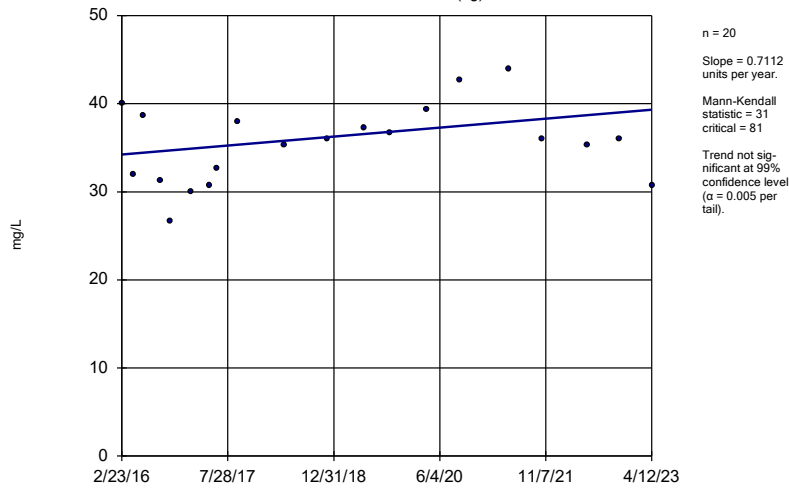
BY-UP-MW-2 (bg)



Constituent: TDS Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

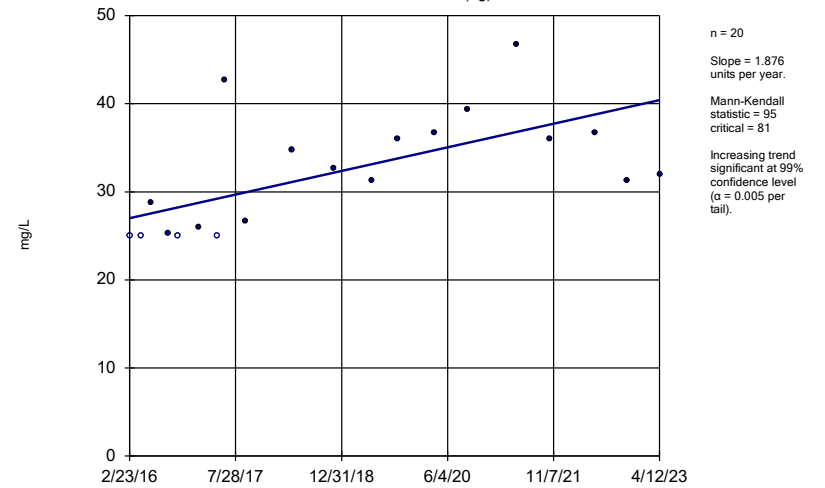
BY-UP-MW-3 (bg)



Constituent: TDS Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)



Constituent: TDS Analysis Run 7/13/2023 3:03 PM View: Appendix III Trend Tests
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE G.

Upper Tolerance Limits Summary Table

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 1/11/2022, 4:06 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.00102	68	n/a	n/a	92.65	n/a	n/a	0.03056	NP Inter
Arsenic (mg/L)	0.0017	68	n/a	n/a	88.24	n/a	n/a	0.03056	NP Inter
Barium (mg/L)	0.183	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Beryllium (mg/L)	0.00102	68	n/a	n/a	91.18	n/a	n/a	0.03056	NP Inter
Cadmium (mg/L)	0.0002	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Chromium (mg/L)	0.01	68	n/a	n/a	83.82	n/a	n/a	0.03056	NP Inter
Cobalt (mg/L)	0.0157	68	n/a	n/a	57.35	n/a	n/a	0.03056	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	68	n/a	n/a	0	n/a	n/a	0.03056	NP Inter
Fluoride (mg/L)	0.1	72	n/a	n/a	59.72	n/a	n/a	0.02489	NP Inter
Lead (mg/L)	0.00126	68	n/a	n/a	89.71	n/a	n/a	0.03056	NP Inter
Lithium (mg/L)	0.02	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Mercury (mg/L)	0.0005	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Molybdenum (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter
Selenium (mg/L)	0.00102	68	n/a	n/a	98.53	n/a	n/a	0.03056	NP Inter
Thallium (mg/L)	0.0002	68	n/a	n/a	100	n/a	n/a	0.03056	NP Inter

FIGURE H.

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

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter
3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.
4. GWPS established during second semi-annual sampling event in 2021.

FIGURE I.

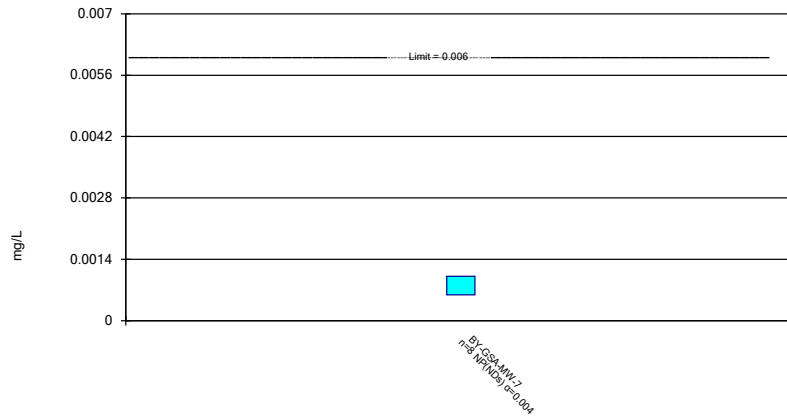
Confidence Intervals - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 7/13/2023, 2:20 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BY-GSA-MW-7	0.001015	0.000586	0.006	No	8	0.0009614	0.0001517	87.5	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-10	0.000203	0.00009	0.01	No	8	0.0001635	0.00004508	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-5	0.000548	0.0002	0.01	No	8	0.0003328	0.0001626	37.5	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-6	0.0006732	0.000186	0.01	No	8	0.0004296	0.0002457	37.5	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	BY-GSA-MW-7	0.0003108	0.000166	0.01	No	8	0.0002478	0.00007559	37.5	Kaplan-Meier	ln(x)	0.01	Param.
Arsenic (mg/L)	BY-GSA-MW-8	0.000203	0.000083	0.01	No	8	0.0001826	0.00004297	75	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.000203	0.0001	0.01	No	8	0.0001793	0.00003826	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-PZ-11	0.000203	0.000085	0.01	No	7	0.0001626	0.00005208	57.14	Kaplan-Meier	No	0.008	NP (NDs)
Barium (mg/L)	BY-GSA-MW-10	0.135	0.1188	2	No	8	0.1269	0.007624	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.1829	0.05867	2	No	8	0.1208	0.05861	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-6	0.2255	0.1037	2	No	8	0.1646	0.05747	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.1177	0.05897	2	No	8	0.08834	0.0277	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.05157	0.04441	2	No	8	0.04799	0.003376	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1749	0.1341	2	No	8	0.1545	0.01925	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-PZ-11	0.08827	0.04776	2	No	7	0.06801	0.01705	0	None	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-5	0.00102	0.000575	0.004	No	8	0.0008744	0.0001845	50	None	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-6	0.00102	0.000408	0.004	No	8	0.0008526	0.0002262	50	None	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-7	0.001015	0.000464	0.004	No	8	0.0009461	0.0001948	87.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.0001689	0.0000986	0.005	No	8	0.0001597	0.0000455	37.5	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	BY-GSA-MW-6	0.0002047	0.0001271	0.005	No	8	0.0001833	0.00003705	37.5	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-10	0.00102	0.000659	0.1	No	8	0.0008446	0.0001635	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-MW-5	0.002714	0.00147	0.1	No	8	0.00208	0.0007054	25	Kaplan-Meier	x^2	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-6	0.004389	0.001741	0.1	No	8	0.003065	0.001249	12.5	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-7	0.001491	0.001055	0.1	No	8	0.001275	0.0002229	37.5	Kaplan-Meier	x^2	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-8	0.002523	0.002032	0.1	No	8	0.002278	0.000232	0	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-9	0.00104	0.000783	0.1	No	8	0.0009312	0.0001075	37.5	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-GSA-PZ-11	0.003194	0.002486	0.1	No	7	0.00284	0.0002977	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-10	0.0027	0.00237	0.006	No	8	0.0025	0.0001367	0	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-5	0.005765	0.002296	0.006	No	8	0.004467	0.001618	25	Kaplan-Meier	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-6	0.007413	0.002952	0.006	No	8	0.005182	0.002104	12.5	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-7	0.005	0.00162	0.006	No	8	0.003076	0.001609	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.000338	0.006	No	8	0.002157	0.002355	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.000888	0.006	No	8	0.002713	0.001911	37.5	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-PZ-11	0.005	0.00101	0.006	No	7	0.002349	0.001818	28.57	None	No	0.008	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.186	1.219	5	No	8	1.703	0.4561	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.615	0.4947	5	No	8	1.037	0.5901	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	2.694	0.8675	5	No	8	1.781	0.8618	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.508	0.5715	5	No	8	1.04	0.4419	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.623	0.4394	5	No	8	1.031	0.5585	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3.15	1.88	5	No	8	2.13	0.4184	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-PZ-11	1.12	0.487	5	No	7	0.8037	0.2666	0	None	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-5	0.125	0.0834	4	No	8	0.1198	0.01471	87.5	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-6	0.135	0.125	4	No	8	0.1263	0.003536	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.000203	0.0001	0.015	No	8	0.0001469	0.0000476	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-5	0.0002032	0.00008816	0.015	No	8	0.0001733	0.00005709	37.5	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	BY-GSA-MW-6	0.000213	0.00011	0.015	No	8	0.0001625	0.00004752	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-7	0.000203	0.0000798	0.015	No	8	0.0001371	0.00005754	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-9	0.000288	0.000203	0.015	No	8	0.0002268	0.00003059	37.5	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-PZ-11	0.000208	0.000082	0.015	No	7	0.0001656	0.00005118	42.86	None	No	0.008	NP (normality)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.00036	0.002	No	8	0.0004825	0.0000495	87.5	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.00035	0.002	No	8	0.0004813	0.00005303	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.01015	0.0001	0.1	No	8	0.008894	0.003553	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.01015	0.00008	0.1	No	8	0.008891	0.00356	87.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.001185	0.000735	0.05	No	8	0.001039	0.0001869	37.5	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-5	0.02085	0.00156	0.05	No	8	0.0112	0.009726	25	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-6	0.01773	0.004148	0.05	No	8	0.01094	0.006408	0	None	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.001015	0.000519	0.05	No	8	0.0008986	0.0002161	75	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.001015	0.00052	0.05	No	8	0.000895	0.0002223	75	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.00204	0.001015	0.05	No	8	0.001344	0.0004239	37.5	None	No	0.004	NP (normality)
Selenium (mg/L)	BY-GSA-PZ-11	0.001582	0.0009642	0.05	No	7	0.001273	0.0002807	28.57	Kaplan-Meier	No	0.01	Param.

Non-Parametric Confidence Interval

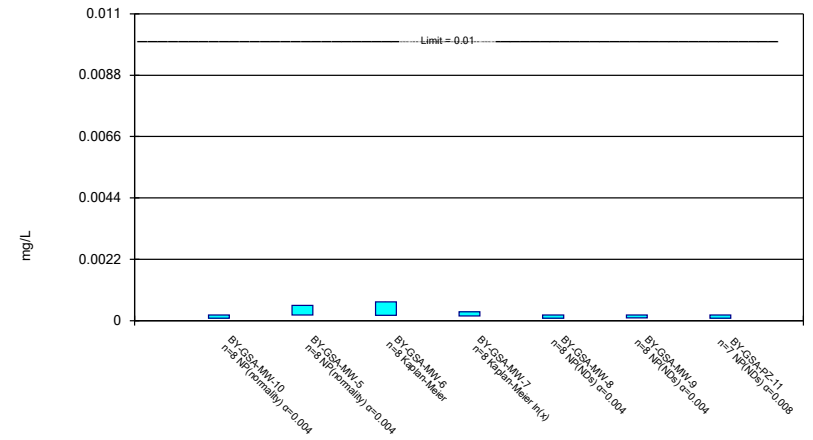
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 7/13/2023 2:19 PM View: Appendix IV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

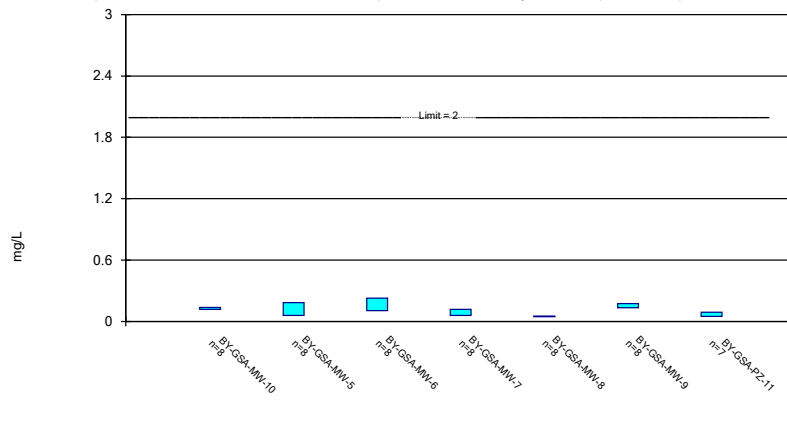
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 7/13/2023 2:19 PM View: Appendix IV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric Confidence Interval

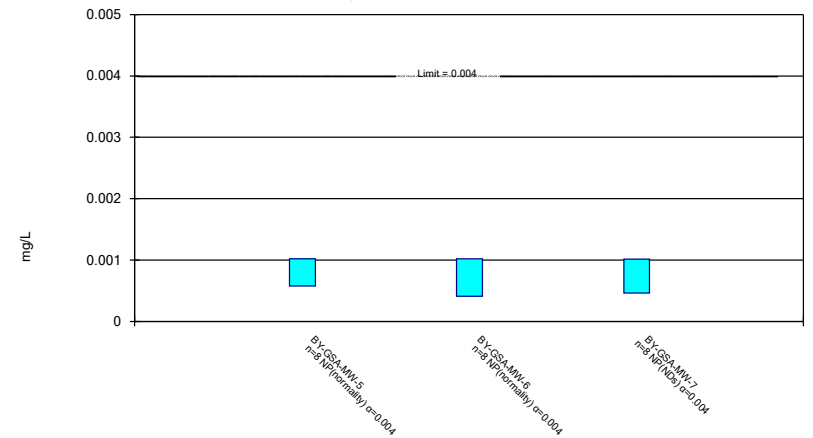
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 7/13/2023 2:19 PM View: Appendix IV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

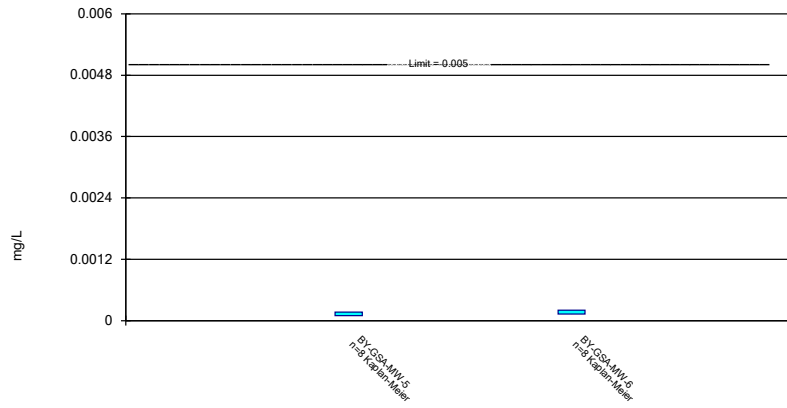
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 7/13/2023 2:19 PM View: Appendix IV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric Confidence Interval

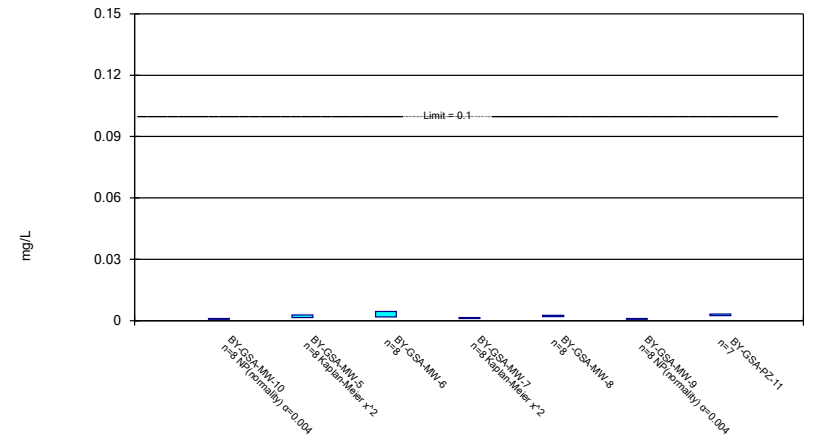
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 7/13/2023 2:19 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

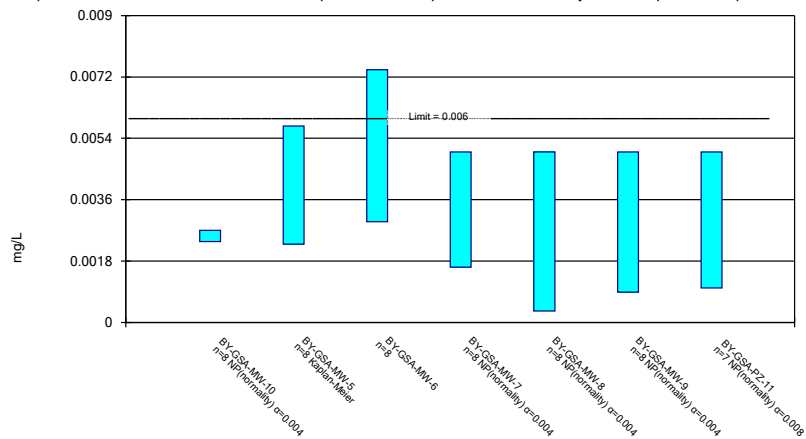
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 7/13/2023 2:19 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

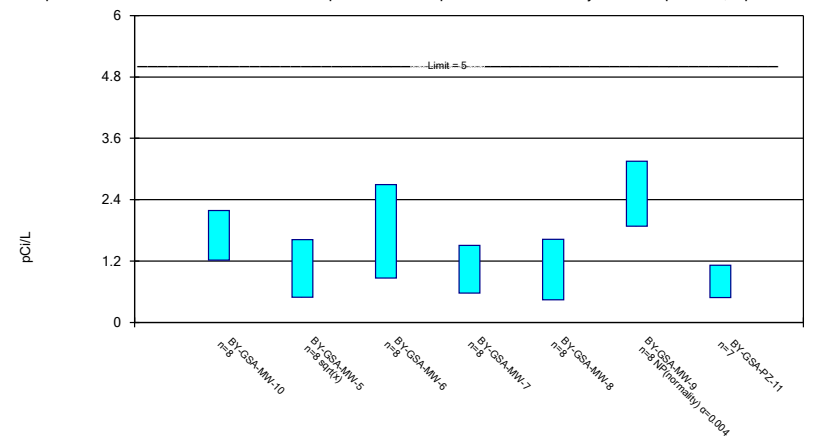
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 7/13/2023 2:19 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

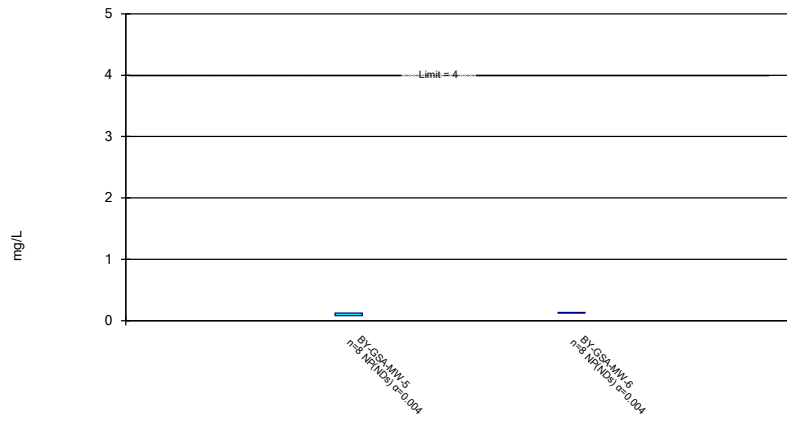
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 7/13/2023 2:19 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

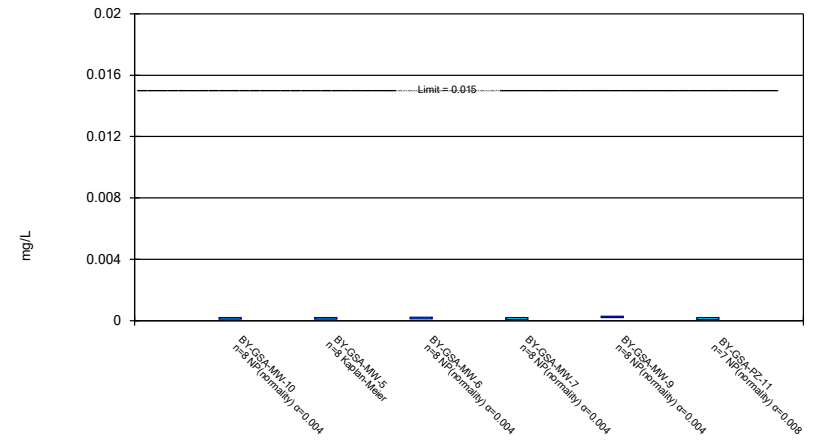
Compliance Limit is not exceeded.



Constituent: Fluoride Analysis Run 7/13/2023 2:19 PM View: Appendix IV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

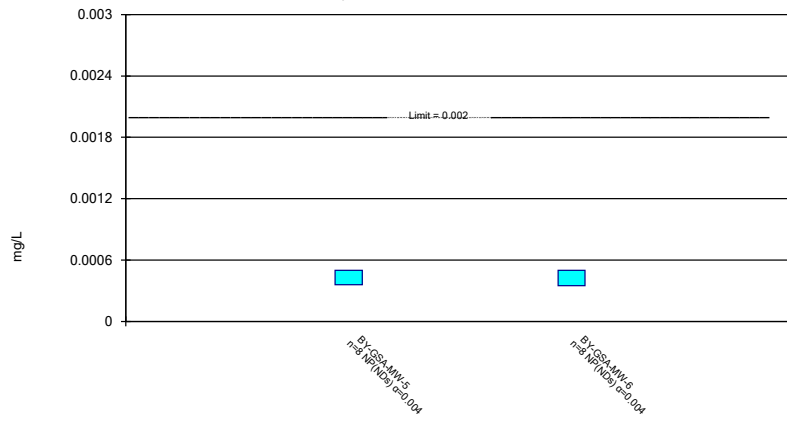
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 7/13/2023 2:19 PM View: Appendix IV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

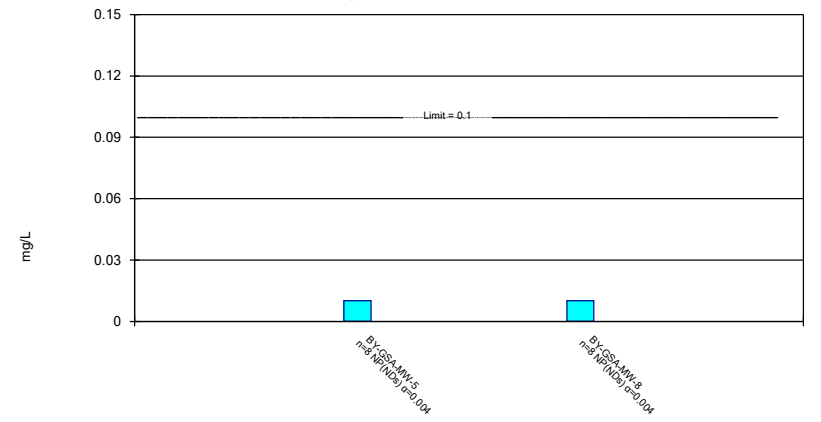
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 7/13/2023 2:19 PM View: Appendix IV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

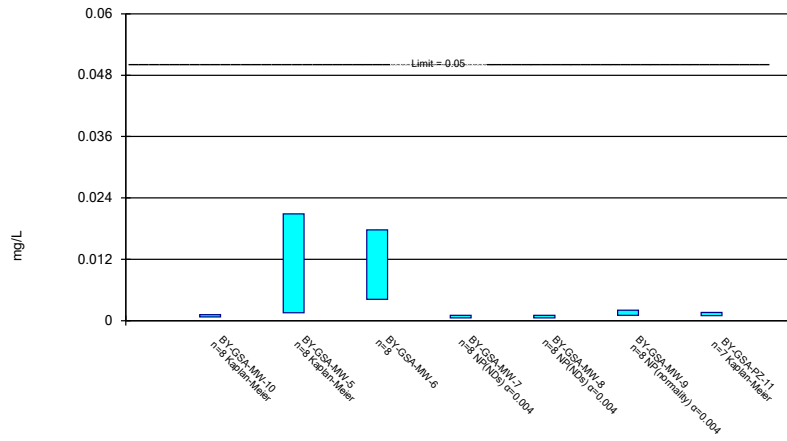
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 7/13/2023 2:19 PM View: Appendix IV
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 7/13/2023 2:19 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7
10/2/2019	<0.001015
3/30/2020	<0.001015
9/8/2020	<0.001015
5/12/2021	<0.001015
10/18/2021	<0.001015
6/1/2022	<0.001015
11/2/2022	0.000586 (J)
4/11/2023	<0.001015
Mean	0.0009614
Std. Dev.	0.0001517
Upper Lim.	0.001015
Lower Lim.	0.000586

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
10/2/2019	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203		
3/31/2020	<0.000203					<0.000203	<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203		<0.000203
9/9/2020	<0.000203					<0.000203	
5/12/2021	0.000129 (J)	0.000501	0.000821	0.000177 (J)	<0.000203	0.000173 (J)	0.000111 (J)
10/18/2021			0.00032	0.00023			
10/19/2021	0.00013 (J)	0.0002 (J)			0.00016 (J)	<0.000203	0.00013 (J)
5/31/2022		0.00053	0.00052				
6/1/2022	9E-05 (J)			0.00024	<0.000203	0.0001 (J)	<0.000203
11/2/2022	0.000147 (J)	0.000548	0.000429	0.000331	8.3E-05 (J)	0.000146 (J)	8.5E-05 (J)
4/11/2023	<0.000203	0.000274	0.000738	0.000395	<0.000203	<0.000203	<0.000203
Mean	0.0001635	0.0003328	0.0004296	0.0002478	0.0001826	0.0001793	0.0001626
Std. Dev.	4.508E-05	0.0001626	0.0002457	7.559E-05	4.297E-05	3.826E-05	5.208E-05
Upper Lim.	0.000203	0.000548	0.0006732	0.0003108	0.000203	0.000203	0.000203
Lower Lim.	9E-05	0.0002	0.000186	0.000166	8.3E-05	0.0001	8.5E-05

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
10/2/2019	0.136	0.0728	0.0985	0.0492	0.0453	0.16	
3/30/2020		0.0718	0.142	0.0788	0.0444		
3/31/2020	0.122					0.165	0.0499
9/8/2020		0.181	0.0981	0.0615	0.0494		0.05
9/9/2020	0.125					0.17	
5/12/2021	0.121	0.106	0.159	0.1	0.0488	0.184	0.0597
10/18/2021			0.146	0.0859			
10/19/2021	0.115	0.0998			0.0452	0.151	0.0599
5/31/2022		0.226	0.202				
6/1/2022	0.136			0.0803	0.0477	0.142	0.0821
11/2/2022	0.133	0.146	0.204	0.131	0.055	0.141	0.0903
4/11/2023	0.127	0.0629	0.267	0.12	0.0481	0.123	0.0842
Mean	0.1269	0.1208	0.1646	0.08834	0.04799	0.1545	0.06801
Std. Dev.	0.007624	0.05861	0.05747	0.0277	0.003376	0.01925	0.01705
Upper Lim.	0.135	0.1829	0.2255	0.1177	0.05157	0.1749	0.08827
Lower Lim.	0.1188	0.05867	0.1037	0.05897	0.04441	0.1341	0.04776

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7
10/2/2019	<0.00102	<0.00102	<0.001015
3/30/2020	<0.00102	<0.00102	<0.001015
9/8/2020	<0.00102	<0.00102	<0.001015
5/12/2021	0.000575 (J)	0.000763 (J)	0.000464 (J)
10/18/2021		<0.00102	<0.001015
10/19/2021	<0.00102		
5/31/2022	0.00071 (J)	0.00066 (J)	
6/1/2022			<0.001015
11/2/2022	0.000937 (J)	0.000408 (J)	<0.001015
4/11/2023	0.000693 (J)	0.00091 (J)	<0.001015
Mean	0.0008744	0.0008526	0.0009461
Std. Dev.	0.0001845	0.0002262	0.0001948
Upper Lim.	0.00102	0.00102	0.001015
Lower Lim.	0.000575	0.000408	0.000464

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6
10/2/2019	<0.000203	<0.000203
3/30/2020	<0.000203	<0.000203
9/8/2020	<0.000203	<0.000203
5/12/2021	8.67E-05 (J)	0.000154 (J)
10/18/2021		0.00011 (J)
10/19/2021	0.00014 (J)	
5/31/2022	0.00012 (J)	0.00023
11/2/2022	0.000189 (J)	0.000178 (J)
4/11/2023	0.000133 (J)	0.000185 (J)
Mean	0.0001597	0.0001833
Std. Dev.	4.55E-05	3.705E-05
Upper Lim.	0.0001689	0.0002047
Lower Lim.	9.86E-05	0.0001271

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
10/2/2019	<0.00102	<0.00102	<0.00102	<0.00102	0.00223 (J)	<0.00102	
3/30/2020		<0.00102	0.00273 (J)	<0.00102	0.00275 (J)		
3/31/2020	<0.00102					<0.00102	0.00249 (J)
9/8/2020		0.00221 (J)	0.00237 (J)	<0.00102	0.00224 (J)		0.00253 (J)
9/9/2020	<0.00102					<0.00102	
5/12/2021	0.000695 (J)	0.00232	0.0034	0.00139	0.00218	0.000783 (J)	0.00281
10/18/2021			0.00335	0.00131			
10/19/2021	0.00079 (J)	0.00268			0.00246	0.00081 (J)	0.00336
5/31/2022		0.00281	0.00412				
6/1/2022	0.00089 (J)			0.00157	0.00226	0.00104	0.00292
11/2/2022	0.000663 (J)	0.00259	0.00344	0.00144	0.00209	0.000918 (J)	0.00276
4/11/2023	0.000659 (J)	0.00199	0.0046	0.00143	0.00201	0.000839 (J)	0.00301
Mean	0.0008446	0.00208	0.003065	0.001275	0.002278	0.0009312	0.00284
Std. Dev.	0.0001635	0.0007054	0.001249	0.0002229	0.000232	0.0001075	0.0002977
Upper Lim.	0.00102	0.002714	0.004389	0.001491	0.002523	0.00104	0.003194
Lower Lim.	0.000659	0.00147	0.001741	0.001055	0.002032	0.000783	0.002486

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
10/2/2019	0.00262 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	
3/30/2020		<0.005	0.0031 (J)	<0.005	<0.005		
3/31/2020	0.00238 (J)					<0.005	<0.005
9/8/2020		0.00227 (J)	0.00296 (J)	<0.005	<0.005		<0.005
9/9/2020	0.00241 (J)					<0.005	
5/12/2021	0.00237	0.0046	0.0054	0.00192	0.000437	0.00177	0.00101
10/18/2021			0.00552	0.00164			
10/19/2021	0.00238	0.00217			0.00049	0.00156	0.00117
5/31/2022		0.00606	0.00724				
6/1/2022	0.0027			0.00162	0.00048	0.00131	0.00143
11/2/2022	0.00249	0.00667	0.00684	0.00228	0.000514	0.00118	0.00144
4/11/2023	0.00265	0.00397	0.0079	0.00215	0.000338	0.000888	0.00139
Mean	0.0025	0.004467	0.005182	0.003076	0.002157	0.002713	0.002349
Std. Dev.	0.0001367	0.001618	0.002104	0.001609	0.002355	0.001911	0.001818
Upper Lim.	0.0027	0.005765	0.007413	0.005	0.005	0.005	0.005
Lower Lim.	0.00237	0.002296	0.002952	0.00162	0.000338	0.000888	0.00101

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
10/2/2019	2.19	0.954	0.836	0.43 (U)	0.969	2	
3/30/2020		0.525	1.54	0.939	0.397 (U)		
3/31/2020	1.01					1.88	0.968
9/8/2020		0.845	0.402 (U)	1.13	0.0249 (U)		0.468 (U)
9/9/2020	1.32					2.11	
5/12/2021	2.02	0.465 (U)	2.47	1.09	1.29	1.94	0.515 (U)
10/18/2021			2.03	0.69 (U)			
10/19/2021	1.6 (V)	0.719 (U)			1.54	3.15	0.87 (U)
5/31/2022		2.31	2.22				
6/1/2022	2.27			0.99	1.37	2.05	1.13
11/2/2022	1.34	1.24	1.7	1.09	1.06	1.93	0.625 (U)
4/11/2023	1.87	1.24	3.05	1.96	1.6	1.98	1.05
Mean	1.703	1.037	1.781	1.04	1.031	2.13	0.8037
Std. Dev.	0.4561	0.5901	0.8618	0.4419	0.5585	0.4184	0.2666
Upper Lim.	2.186	1.615	2.694	1.508	1.623	3.15	1.12
Lower Lim.	1.219	0.4947	0.8675	0.5715	0.4394	1.88	0.487

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6
10/2/2019	<0.125	<0.125
3/30/2020	<0.125	<0.125
9/8/2020	<0.125	<0.125
5/12/2021	<0.125	<0.125
10/18/2021		<0.125
10/19/2021	<0.125	
5/31/2022	<0.125	<0.125
11/2/2022	<0.125	<0.125
4/11/2023	0.0834 (J)	0.135
Mean	0.1198	0.1263
Std. Dev.	0.01471	0.003536
Upper Lim.	0.125	0.135
Lower Lim.	0.0834	0.125

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-9	BY-GSA-PZ-11
10/2/2019	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	
3/30/2020		<0.000203	<0.000203	<0.000203		
3/31/2020	<0.000203				<0.000203	<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203		<0.000203
9/9/2020	<0.000203				<0.000203	
5/12/2021	0.000113 (J)	9.94E-05 (J)	0.000213	7.98E-05 (J)	0.000288	0.000208
10/18/2021			0.00011 (J)	8E-05 (J)		
10/19/2021	0.0001 (J)	0.00026			0.00025	0.00014 (J)
5/31/2022		0.00018 (J)	0.00011 (J)			
6/1/2022	0.0001 (J)			8E-05 (J)	0.00023	0.00012 (J)
11/2/2022	0.000122 (J)	0.000144 (J)	0.000146 (J)	0.000125 (J)	0.000233	<0.000203
4/11/2023	0.000131 (J)	9.4E-05 (J)	0.000112 (J)	0.000123 (J)	0.000204	8.2E-05 (J)
Mean	0.0001469	0.0001733	0.0001625	0.0001371	0.0002268	0.0001656
Std. Dev.	4.76E-05	5.709E-05	4.752E-05	5.754E-05	3.059E-05	5.118E-05
Upper Lim.	0.000203	0.0002032	0.000213	0.000203	0.000288	0.000208
Lower Lim.	0.0001	8.816E-05	0.00011	7.98E-05	0.000203	8.2E-05

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-6
10/2/2019	<0.0005	<0.0005
3/30/2020	<0.0005	<0.0005
9/8/2020	<0.0005	<0.0005
5/12/2021	<0.0005	<0.0005
10/18/2021		<0.0005
10/19/2021	<0.0005	
5/31/2022	0.00036 (J)	0.00035 (J)
11/2/2022	<0.0005	<0.0005
4/11/2023	<0.0005	<0.0005
Mean	0.0004825	0.0004813
Std. Dev.	4.95E-05	5.303E-05
Upper Lim.	0.0005	0.0005
Lower Lim.	0.00036	0.00035

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-8
10/2/2019	<0.01015	<0.01015
3/30/2020	<0.01015	<0.01015
9/8/2020	<0.01015	<0.01015
5/12/2021	<0.01015	<0.01015
10/19/2021	0.0001 (J)	8E-05 (J)
5/31/2022	<0.01015	
6/1/2022		<0.01015
11/2/2022	<0.01015	<0.01015
4/11/2023	<0.01015	<0.01015
Mean	0.008894	0.008891
Std. Dev.	0.003553	0.00356
Upper Lim.	0.01015	0.01015
Lower Lim.	0.0001	8E-05

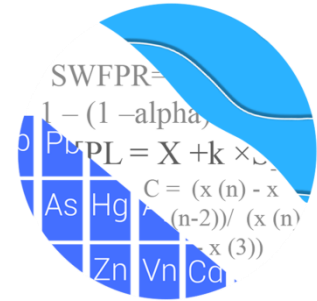
Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 7/13/2023 2:20 PM View: Appendix IV

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
10/2/2019	<0.001015	<0.001015	0.00472 (J)	<0.001015	<0.001015	<0.001015	
3/30/2020		<0.001015	0.00658 (J)	<0.001015	<0.001015		
3/31/2020	<0.001015					<0.001015	<0.001015
9/8/2020		0.0052 (J)	0.0052 (J)	<0.001015	<0.001015		<0.001015
9/9/2020	<0.001015					<0.001015	
5/12/2021	0.000778 (J)	0.0163	0.0123	<0.001015	<0.001015	0.00128	0.00111
10/18/2021			0.00672	<0.001015			
10/19/2021	0.00083 (J)	0.0029			0.00052 (J)	0.00118	0.00114
5/31/2022		0.0217	0.0132				
6/1/2022	0.00125			0.00058 (J)	<0.001015	0.00204	0.00132
11/2/2022	0.00133	0.0247	0.0156	<0.001015	<0.001015	0.00198	0.00163
4/11/2023	0.00108	0.0168	0.0232	0.000519 (J)	0.00055 (J)	0.00123	0.00168
Mean	0.001039	0.0112	0.01094	0.0008986	0.000895	0.001344	0.001273
Std. Dev.	0.0001869	0.009726	0.006408	0.0002161	0.0002223	0.0004239	0.0002807
Upper Lim.	0.001185	0.02085	0.01773	0.001015	0.001015	0.00204	0.001582
Lower Lim.	0.000735	0.00156	0.004148	0.000519	0.00052	0.001015	0.0009642

GROUNDWATER STATS CONSULTING



October 16, 2023

Southern Company Services
Attn: Mr. Greg Budd
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Barry Gypsum Pond
2nd Semi-Annual Analysis and Background Update– August 2023

Dear Mr. Budd,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the background update and statistical analysis of groundwater data for the August 2023 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 (CCR) from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BY-UP-MW-1, BY-UP-MW-2, BY-UP-MW-3, and BY-UP-MW-4
- **Downgradient wells:** BY-GSA-MW-5, BY-GSA-MW-6, BY-GSA-MW-7, BY-GSA-MW-8, BY-GSA-MW-9, BY-GSA-MW-10, and BY-GSA-PZ-11

Note that BY-GSA-PZ-11 was converted from a piezometer to a downgradient monitoring well. Since this well has the required minimum of respective samples, data from this well are evaluated with confidence intervals for Appendix IV constituents and interwell prediction limits for boron, calcium, fluoride, pH, and TDS. Intrawell prediction limits

require a minimum of 8 background samples. Therefore, during the next sample event when the 9th sample is available for comparison, data from this well will be evaluated for Appendix III constituents that use intrawell prediction limits (chloride and sulfate).

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to Groundwater Stats Consulting. The analysis was reviewed by Andrew Collins, Project Manager for 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 Appendix IV downgradient well/constituent pairs with 100% non-detects follows this letter. For all constituents, a substitution of the most recent reporting limit is used for non-detect data. This generally gives the most conservative limit in each case. Due to historic varying detection limits, the following reporting limits were substituted across all wells:

- Arsenic: 0.000203 mg/L
- Cadmium: 0.000203 mg/L
- Chromium: 0.00102 mg/L
- Cobalt: 0.005 mg/L
- Lead: 0.000203 mg/L
- Selenium: 0.001015 mg/L

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). A substitution of the most recent reporting limit is used for non-detect data. Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Any 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. Summary tables of all flagged values follow this report (Figure C).

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): 13
- # Background Samples (Interwell): 84
- # Constituents: 7
- # Downgradient wells: 7

Summary of Statistical Methods – Appendix III Parameters

Based on the earlier evaluation described above, the following statistical methods were selected:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for chloride and sulfate
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, fluoride, pH, and TDS

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are non-detects, a nonparametric test is utilized. While the annual false positive rate associated with parametric limits is fixed at 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with nonparametric limits is not fixed and depends upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any

adjustments as discussed below (USEPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate.

- No statistical analyses are required on wells and analytes containing 100% non-detects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% non-detects, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the most recent practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% non-detects, the Kaplan-Meier non-detect adjustment is applied to the background data for parametric limits. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% non-detects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In the interwell case, prediction limits are updated with upgradient well data following each sampling event after careful screening for any new outliers. While not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Background Update – Fall 2023

Intrawell prediction limits, which compare the most recent compliance sample from a given well to historical data from the same well, were last updated during the Fall 2021 by testing for the appropriateness of consolidating new sampling observations with the screened background data. Historical data were updated through May 2021.

During this analysis, historical data were evaluated for updating with newer data through April 2023 for constituents analyzed using intrawell prediction limits. Background data sets are evaluated through the use of time series graphs to identify potential outliers,

when necessary, as well as the Mann Whitney test for equality of medians. As discussed in the Statistical Analysis Plan (August 2020), intrawell prediction limits are used to evaluate chloride and sulfate at all wells due to spatial variation for these parameters. This process is described below and requires a minimum of four new data points.

Interwell prediction limits, which compare the most recent sample from each downgradient well to statistical limits constructed from pooled upgradient well data, are updated during each sample event. Data from upgradient wells are periodically re-screened for newly developing trends, which may require adjustment of the background period to eliminate the trend, as well as for outliers over the entire record. Interwell prediction limits are used to evaluate boron, calcium, fluoride, pH and TDS.

Outlier Analysis

Proposed background data were reviewed through visual screening and Tukey's outlier tests to identify any newly suspected outliers through April 2023 at all wells for chloride and sulfate, and through August 2023 at upgradient wells for boron, calcium, fluoride, pH, and TDS.

Tukey's test identified an outlier for sulfate in upgradient well BY-UP-MW-4; however, the reported measurement of 10.8 mg/L was not flagged as it is a low-level concentration similar to remaining measurements within this well and represents groundwater quality upgradient of the facility (Figure C). Additionally, Tukey's test identified the highest measurement of 58 mg/L for TDS in pooled upgradient wells and the measurement was not flagged as reported measurements in neighboring upgradient wells are similar in concentrations (Figure C).

While the highest measurement of 80.2 mg/L for sulfate was not identified by Tukey's test as a statistical outlier, the measurement was historically flagged as such since the concentration was reported in April 2016 and is higher than remaining measurements within this well. The measurement remains flagged as an outlier in order to construct statistical limits that are conservative (i.e., lower) from a regulatory perspective.

Outliers are flagged with "o" and excluded to reduce variation, better represent background conditions, and provide limits that are conservative (i.e., lower) from a regulatory perspective. Also, outliers that are not identified as significant by Tukey's test may be identified visually. Typically, the most recent value is not flagged as an outlier in the event that it precedes future trends. All flagged data are displayed in a lighter font and as a disconnected symbol on the time series reports, as well as in a lighter font on the accompanying data pages.

Mann-Whitney

For constituents requiring intrawell prediction limits, the Mann-Whitney (Wilcoxon Rank Sum) test was used to compare the medians of historical data through May 2021 to compliance data through April 2023 (Figure D). When no statistically significant difference in medians between the two groups is found at a 99% confidence level, background data may be updated with newer compliance data. Statistically significant differences (either an increase or decrease in median concentrations) were found between the two groups for the following well/constituent pairs:

Increase

- Chloride: BY-GSA-MW-5, BY-GSA-MW-6, and BY-GSA-MW-7

Decrease

- Chloride: BY-UP-MW-1, BY-UP-MW-2, and BY-UP-MW-3 (all upgradient)

Typically, when the test concludes that the medians of the two groups are statistically significantly different, particularly in the downgradient wells, the background data are not updated to include the newer data unless it can be reasonably justified that the change in concentrations reflects a shift unrelated to practices at the site. In studies such as the current one, in which at least one of the segments being compared is of short duration, the comparison is complicated by the fact that normal short-term variation may be mistaken for long-term change in medians.

Regarding well/constituent pairs for chloride with statistically significant increases in median concentrations, more recent low-level measurements are relatively similar to historic observations at downgradient wells BY-GSA-MW-5 and BY-GSA-MW-6 and appear to represent spatial variation in groundwater quality. Therefore, these records were updated through April 2023.

The record for chloride in downgradient well GSA-MW-7 indicates an increase in more recent concentrations compared to the majority of low-level historical concentrations; therefore, this record was not updated at this time. If further research indicates the more recent measurements are representative of naturally occurring groundwater quality, this record may be updated in the future. That study is beyond the scope of this analysis.

Regarding well/constituent pairs for chloride with statistically significant decreases in median concentrations, all reported measurements are low-level concentrations and represent groundwater quality upgradient of the facility. Additionally, the decreasing shift between historical and compliance data was small, which subsequently results in similar

or more conservative (i.e., lower) statistical limits. These records were updated through April 2023. A summary of the Mann-Whitney results follows this letter.

Trend Tests – Upgradient Wells

The Sen's Slope/Mann Kendall trend test was used to evaluate the entire record of data from upgradient wells for parameters utilizing interwell prediction limits (Figure E). When statistically significant increasing trends are identified in upgradient wells, the earlier portion of data may require deselection prior to construction of interwell statistical limits if the trending data would result in statistical limits that are not conservative from a regulatory perspective. The following upgradient well/constituent pairs were found to have statistically significant trends:

Increasing

- Calcium: BY-UP-MW-3 and BY-UP-MW-4
- Fluoride: BY-UP-MW-1 and BY-UP-MW-2
- TDS: BY-UP-MW-4

Decreasing

- pH: BY-UP-MW-2, BY-UP-MW-3 and BY-UP-MW-4

The median slopes for calcium, pH and TDS at the above wells were small relative to average concentrations at these wells and reported measurements were similar across all upgradient wells. In the case of fluoride, the increasing trend is a result of non-detects in the more recent portion of the record compared to trace values reported in the historical portion of the record. Therefore, no adjustments were required to any of the records.

Evaluation of Appendix III Parameters – August 2023

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 spatial variation for a release from the facility. Background data are re-evaluated when a minimum of 4 compliance samples are available.

Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether initial exceedances are present.

Prediction Limits – August 2023

Intrawell prediction limits, combined with a 1-of-2 resample plan, were constructed for chloride and sulfate using screened background data through April 2023 at each well (Figure F). The August 2023 sample at each well was compared to its respective intrawell prediction limit. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs, and a summary of all flagged outliers follows this report (Figure C).

Interwell prediction limits combined with a 1-of-2 resample plan were constructed for boron, calcium, fluoride, pH, and TDS using pooled upgradient well data through August 2023 (Figure G).

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:

- None

Interwell:

- Boron: BY-GSA-MW-6
- Calcium: BY-GSA-MW-5 and BY-GSA-MW-6
- TDS: BY-GSA-MW-6

Trend Tests Evaluation – Appendix III

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable at the 99% confidence

level (Figure H). 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 variability in groundwater that is unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Calcium: BY-UP-MW-3 and BY-UP-MW-4 (both upgradient)
- TDS: BY-UP-MW-4 (upgradient)

Decreasing:

- None

Evaluation of Appendix IV Parameters – August 2023

Prior to evaluating Appendix IV parameters, upgradient well data were screened through visual screening and Tukey's outlier test for potential outliers and extreme trending patterns that would lead to artificially elevated statistical limits. A discussion of those findings is provided below.

Tukey's outlier test on pooled upgradient well data for Appendix IV parameters through August 2023 identified values for chromium. However, no additional outliers were flagged for chromium since the highest measurements were two orders of magnitude lower than the MCL of 0.1 mg/L. Previously flagged values were confirmed by visual screening and Tukey's outlier test.

Additionally, downgradient well data through August 2023 were screened through visual screening using time series graphs. Since the downgradient well data are used to construct confidence intervals, a regulatory conservative approach is taken in that values that are marginally high relative to the rest of the data are retained unless there is particular justification for excluding them. No changes were to previously flagged data were made among downgradient wells for Appendix IV parameters. A summary of flagged outliers follows this report (Figure C).

Interwell Upper Tolerance Limits

Background limits were determined using tolerance limits constructed from pooled upgradient well data through August 2023 (Figure I). The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. The

confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. As requested by ADEM to eliminate variation among upgradient well data, nonparametric tolerance limits, which use the highest value in screened background as the statistical limit, were constructed. A summary table of the upper tolerance limits.

Groundwater Protection Standards

These background limits were then compared to the Maximum Contaminant Levels (MCLs) for each parameter, and the higher of the two was used as the GWPS (Figure J) in the confidence interval comparisons described below.

In accordance with Alabama Department of Environmental Management (ADEM), the Groundwater Protections Standards (GWPS) were updated during this 2023 2nd semi-annual statistical analysis. The GWPS will be updated again during the 2025 2nd semi-annual statistical analysis.

Confidence Intervals

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through August 2023 for each of the Appendix IV parameters (Figure K). These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of non-detects. Nonparametric confidence intervals, which use the highest and lowest values as interval limits when n=8, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% non-detects. The lower confidence limit, which is constructed with 99% confidence for parametric confidence intervals, is compared to the GWPS prepared as described above. The confidence level associated with nonparametric confidence intervals is dependent upon the number samples available.

As mentioned above, well/constituent pairs containing 100% non-detects for the most recent 8 samples did not require statistics and were, therefore, deselected prior to construction of confidence intervals. A list of deselected well/constituent pairs follows this report. Each confidence interval was compared with the corresponding GWPS. Only when the entire confidence interval is above the GWPS is the well/constituent pair considered to exceed its respective standard. Both a tabular summary and graphical presentation of the confidence interval results follow this letter. No exceedances were noted for any of the well/constituent pairs.

Trend Test Evaluation – Appendix IV

Although not required during this analysis because no confidence exceedances were identified, when confidence interval 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 at the 95% confidence level. Utilizing the 95% confidence level for trend tests readily identifies significant trends and is more sensitive than the 99% confidence level without drastically increasing the false negative rate. Upgradient wells are included in the trend analyses for all parameters found to exceed their confidence interval in downgradient wells. When similar patterns exist upgradient of the site, it is an indication of variability in groundwater which may be unrelated to practices at the site.

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,



Kristina Rayner
Senior Statistician

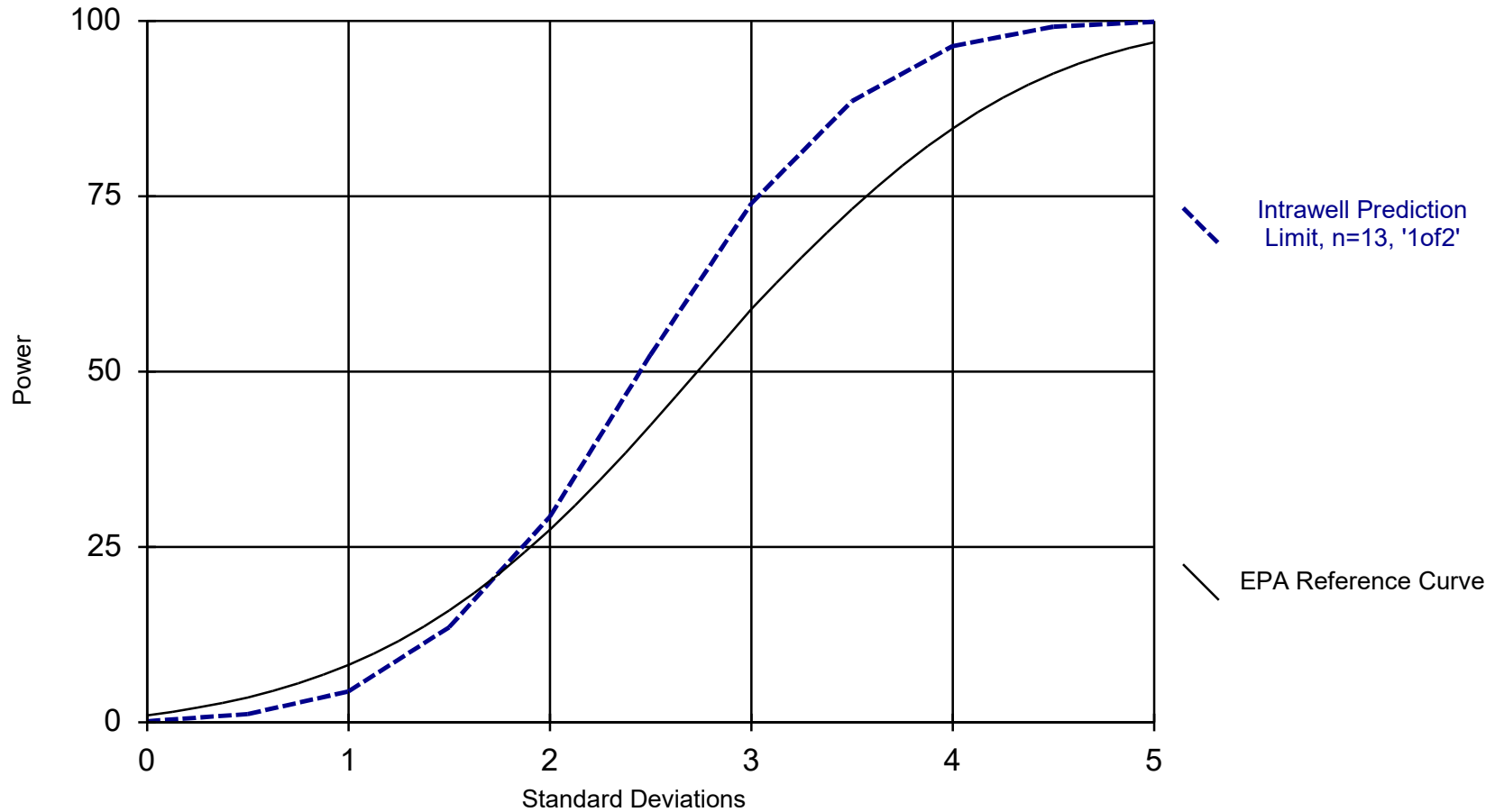


Andrew Collins
Project Manager

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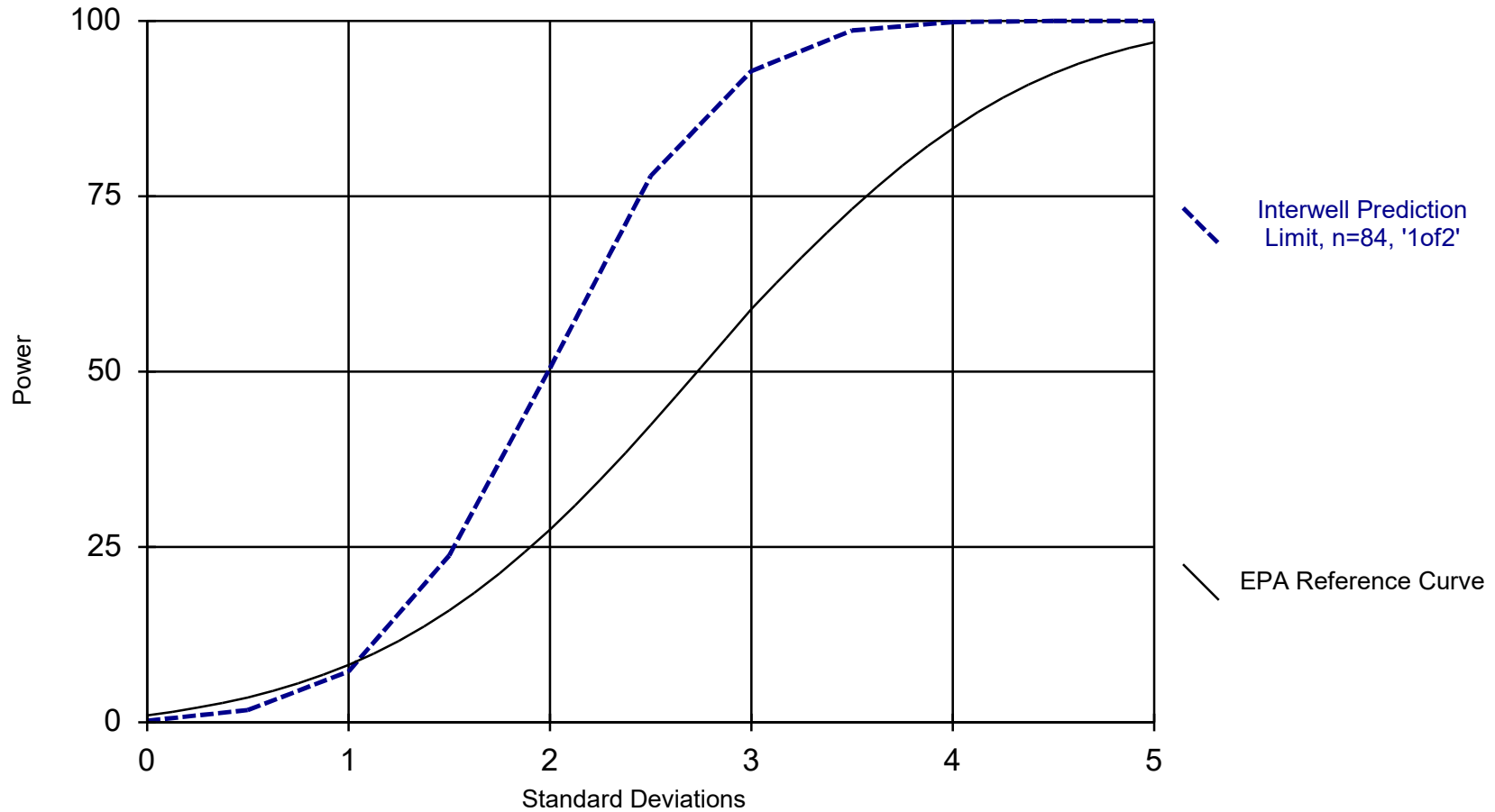
Intrawell Power Curve



Kappa = 2.402, based on 7 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 10/16/2023 2:35 PM View: PLs - Interwell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Interwell Power Curve



Kappa = 1.891, based on 7 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 10/11/2023 4:08 PM View: Trend Tests - PL Exceedances

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Date Ranges

Date: 10/16/2023 2:20 PM

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Chloride, total (mg/L)

BY-GSA-MW-7 background:8/30/2016-5/12/2021

Welch's t-test/Mann-Whitney - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/13/2023, 10:14 AM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Sig.</u>	<u>Method</u>
Chloride, total (mg/L)	BY-GSA-MW-5	2.602	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-6	2.789	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-7	2.787	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-2.79	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-2.789	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-2.884	Yes	0.01	Yes	Mann-W

Welch's t-test/Mann-Whitney - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/13/2023, 10:14 AM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Sig.</u>	<u>Method</u>
Chloride, total (mg/L)	BY-GSA-MW-10	-1.371	No	0.01	No	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-5	2.602	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-6	2.789	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-7	2.787	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-8	2.414	No	0.01	No	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-9	-1.654	No	0.01	No	Mann-W
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-2.79	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-2.789	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-2.884	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-2.414	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-10	1.941	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-5	2.316	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-6	2.45	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-7	-1.937	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-8	2.221	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-9	2.226	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-UP-MW-1 (bg)	0.7087	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-UP-MW-2 (bg)	1.938	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-UP-MW-3 (bg)	-1.276	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-UP-MW-4 (bg)	-0.9925	No	0.01	No	Mann-W

Trend Tests - Upgradient Wells - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/13/2023, 10:19 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-2 (bg)	-0.05214	-154	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-3 (bg)	-0.08243	-154	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-4 (bg)	-0.03972	-127	-98	Yes	23	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Trend Tests - Upgradient Wells - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/13/2023, 10:19 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-UP-MW-1 (bg)	-0.003302	-64	-87	No	21	38.1	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	35	87	No	21	85.71	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	31	87	No	21	90.48	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.02191	-32	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.01469	21	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-3 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-4 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-1 (bg)	-0.007802	-33	-98	No	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-2 (bg)	-0.05214	-154	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-3 (bg)	-0.08243	-154	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-4 (bg)	-0.03972	-127	-98	Yes	23	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.366	39	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.5823	36	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.5158	24	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Intrawell Prediction Limit - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/16/2023, 2:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-10	4.954	n/a	8/15/2023	2.98	No	20	3.701	0.5807	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-5	8.012	n/a	8/15/2023	3.72	No	20	4.32	1.711	5	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-6	9.295	n/a	8/15/2023	5.49	No	20	5.584	1.72	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	16.61	n/a	8/15/2023	7.69	No	13	2.602	0.6135	0	None	sqrt(x)	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-8	5.736	n/a	8/15/2023	4.57	No	20	4.788	0.4395	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-9	10.56	n/a	8/15/2023	5.16	No	20	5.972	2.128	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-1	7.421	n/a	8/16/2023	2.61	No	20	1.214	0.3661	0	None	ln(x)	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-2	5.375	n/a	8/16/2023	2.01	No	20	3.334	0.9458	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-3	4.334	n/a	8/16/2023	2.94	No	20	3.618	0.3318	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-4	4.6	n/a	8/16/2023	3.12	No	20	n/a	n/a	0	n/a	n/a	0.004291	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.3	n/a	8/15/2023	11.7	No	20	10.24	1.414	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	64.49	n/a	8/15/2023	11.9	No	20	2.584	0.7333	0	None	ln(x)	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	52.96	n/a	8/15/2023	38.2	No	19	22.41	13.99	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.262	n/a	8/15/2023	3.85	No	20	3.144	0.9817	5	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	6.04	n/a	8/15/2023	5.94	No	20	4.093	0.9024	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	14.77	n/a	8/15/2023	10.4	No	20	9.502	2.443	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-1	24.9	n/a	8/16/2023	9.38	No	20	12.68	5.664	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-2	9.649	n/a	8/16/2023	8.28	No	20	6.587	1.419	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-3	8.693	n/a	8/16/2023	7.26	No	20	7.437	0.5821	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-4	9.544	n/a	8/16/2023	7.05	No	20	2.594	0.2297	0	None	sqrt(x)	0.001075	Param Intra 1 of 2

Interwell Prediction Limits - Significant Results

Plant Barry Data: Barry Gypsum Pond Printed 1/23/2024, 11:27 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-6	0.188	n/a	8/15/2023	0.6	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002738 NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.088	n/a	8/15/2023	2.46	Yes	84	1.487	0.3175	0	None	No	0.001075 Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.088	n/a	8/15/2023	7.55	Yes	84	1.487	0.3175	0	None	No	0.001075 Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	8/15/2023	84	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002738 NP Inter (normality) 1 of 2

Interwell Prediction Limits - All Results

Plant Barry Data: Barry Gypsum Pond Printed 1/23/2024, 11:27 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	8/15/2023	0.0492J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	8/15/2023	0.143	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	8/15/2023	0.6	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	8/15/2023	0.1015ND	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	8/15/2023	0.04J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	8/15/2023	0.0622J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-PZ-11	0.188	n/a	8/15/2023	0.0341J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-10	2.088	n/a	8/15/2023	1.08	No	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.088	n/a	8/15/2023	2.46	Yes	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.088	n/a	8/15/2023	7.55	Yes	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-7	2.088	n/a	8/15/2023	0.941	No	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-8	2.088	n/a	8/15/2023	0.903	No	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-9	2.088	n/a	8/15/2023	1.58	No	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-PZ-11	2.088	n/a	8/15/2023	1.54	No	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	8/15/2023	0.0957J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-PZ-11	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-10	4.98	3.31	8/15/2023	4.17	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-5	4.98	3.31	8/15/2023	4.1	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	8/15/2023	4.33	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-7	4.98	3.31	8/15/2023	4.56	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-8	4.98	3.31	8/15/2023	4.45	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-9	4.98	3.31	8/15/2023	3.86	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-PZ-11	4.98	3.31	8/15/2023	4.45	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-10	58	n/a	8/15/2023	36.7	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	8/15/2023	41.3	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	8/15/2023	84	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-7	58	n/a	8/15/2023	38.7	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	8/15/2023	34	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	8/15/2023	39.3	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-PZ-11	58	n/a	8/15/2023	45.3	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 4:03 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 4:03 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-6	0.04645	44	87	No	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-1 (bg)	-0.003302	-64	-87	No	21	38.1	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	35	87	No	21	85.71	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	31	87	No	21	90.48	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-5	0.03711	8	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-6	-0.45	-33	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.02191	-32	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.01469	21	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-0.3156	-3	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.366	39	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.5823	36	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.5158	24	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Upper Tolerance Limits

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 4:12 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.001015	84	n/a	n/a	94.05	n/a	n/a	0.01345	NP Inter
Arsenic (mg/L)	0.0017	84	n/a	n/a	77.38	n/a	n/a	0.01345	NP Inter
Barium (mg/L)	0.183	84	n/a	n/a	0	n/a	n/a	0.01345	NP Inter
Beryllium (mg/L)	0.001015	84	n/a	n/a	89.29	n/a	n/a	0.01345	NP Inter
Cadmium (mg/L)	0.000203	84	n/a	n/a	98.81	n/a	n/a	0.01345	NP Inter
Chromium (mg/L)	0.00604	84	n/a	n/a	67.86	n/a	n/a	0.01345	NP Inter
Cobalt (mg/L)	0.0157	84	n/a	n/a	46.43	n/a	n/a	0.01345	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	84	n/a	n/a	0	n/a	n/a	0.01345	NP Inter
Fluoride (mg/L)	0.125	88	n/a	n/a	67.05	n/a	n/a	0.01096	NP Inter
Lead (mg/L)	0.00126	84	n/a	n/a	78.57	n/a	n/a	0.01345	NP Inter
Lithium (mg/L)	0.02	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Mercury (mg/L)	0.0005	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Molybdenum (mg/L)	0.01015	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Selenium (mg/L)	0.001015	84	n/a	n/a	94.05	n/a	n/a	0.01345	NP Inter
Thallium (mg/L)	0.000203	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter

BARRY GYPSUM POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.001015	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.001015	0.004
Cadmium	mg/L	0.000203	0.005
Chromium	mg/L	0.00604	0.1
Cobalt	mg/L	0.0157	0.0157
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.125	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01015	0.1
Selenium	mg/L	0.001015	0.05
Thallium	mg/L	0.000203	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 2023.

Confidence Interval Summary Table - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 4:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BY-GSA-MW-10	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-5	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-6	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-7	0.001015	0.000586	0.006	No 8	0.0009614	0.0001517	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-8	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-9	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-PZ-11	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-10	0.000203	0.00009	0.01	No 8	0.0001635	0.00004508	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-5	0.000548	0.0002	0.01	No 8	0.0003328	0.0001626	37.5	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-6	0.000717	0.0002495	0.01	No 8	0.0004833	0.0002358	25	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	BY-GSA-MW-7	0.0003318	0.0001719	0.01	No 8	0.0002584	0.00007437	25	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	BY-GSA-MW-8	0.000203	0.000083	0.01	No 8	0.0001826	0.00004297	75	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.000203	0.0001	0.01	No 8	0.0001793	0.00003826	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-PZ-11	0.000203	0.000085	0.01	No 8	0.0001676	0.00005029	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Barium (mg/L)	BY-GSA-MW-10	0.1322	0.1175	2	No 8	0.1249	0.006958	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.1834	0.06327	2	No 8	0.1233	0.05665	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-6	0.2311	0.1221	2	No 8	0.1766	0.05143	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.1167	0.06488	2	No 8	0.09078	0.02443	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.05179	0.04501	2	No 8	0.0484	0.003198	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1728	0.1297	2	No 8	0.1513	0.02035	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-PZ-11	0.09585	0.05042	2	No 8	0.07314	0.02143	0	None	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-10	0.001015	0.001015	0.004	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-5	0.001015	0.000575	0.004	No 8	0.0008719	0.0001823	50	None	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-6	0.0008446	0.0004886	0.004	No 8	0.0007991	0.0002315	37.5	Kaplan-Meier	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-7	0.001015	0.000464	0.004	No 8	0.0009461	0.0001948	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-8	0.001015	0.001015	0.004	No 8	0.001015	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-9	0.001015	0.001015	0.004	No 8	0.001015	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-PZ-11	0.001015	0.001015	0.004	No 8	0.001015	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-10	0.000203	0.000203	0.005	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.0001632	0.00008632	0.005	No 8	0.0001443	0.00004939	25	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	BY-GSA-MW-6	0.0002005	0.0001202	0.005	No 8	0.0001735	0.00004114	25	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	BY-GSA-MW-7	0.000203	0.000203	0.005	No 8	0.000203	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-8	0.000203	0.000203	0.005	No 8	0.000203	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-9	0.000203	0.000203	0.005	No 8	0.000203	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-PZ-11	0.000203	0.000203	0.005	No 8	0.000203	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-10	0.0008838	0.0006572	0.1	No 8	0.0008329	0.0001521	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-5	0.002882	0.001283	0.1	No 8	0.002082	0.0007542	12.5	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-6	0.004464	0.002706	0.1	No 8	0.003585	0.0008291	0	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-7	0.001609	0.001119	0.1	No 8	0.001364	0.0002469	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-8	0.002529	0.002039	0.1	No 8	0.002284	0.0002312	0	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-9	0.0009515	0.0007855	0.1	No 8	0.0009125	0.0001027	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-GSA-PZ-11	0.003215	0.002562	0.1	No 8	0.002889	0.0003081	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-10	0.002621	0.002352	0.006	No 8	0.002486	0.0001282	0	None	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-5	0.005749	0.001736	0.006	No 8	0.003742	0.001893	12.5	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-6	0.008	0.00375	0.006	No 8	0.005875	0.002005	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-7	0.002225	0.001377	0.006	No 8	0.002595	0.001525	25	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.000338	0.006	No 8	0.001595	0.002102	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.000888	0.006	No 8	0.002235	0.001727	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-PZ-11	0.005	0.00101	0.006	No 8	0.002285	0.001693	25	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.044	1.113	5	No 8	1.579	0.4389	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.71	0.4484	5	No 8	1.079	0.5952	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	2.713	1.068	5	No 8	1.89	0.776	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.5	0.7802	5	No 8	1.134	0.3673	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.608	0.412	5	No 8	1.01	0.5644	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3.15	0.994	5	No 8	2.004	0.5822	0	None	No	0.004	NP (normality)

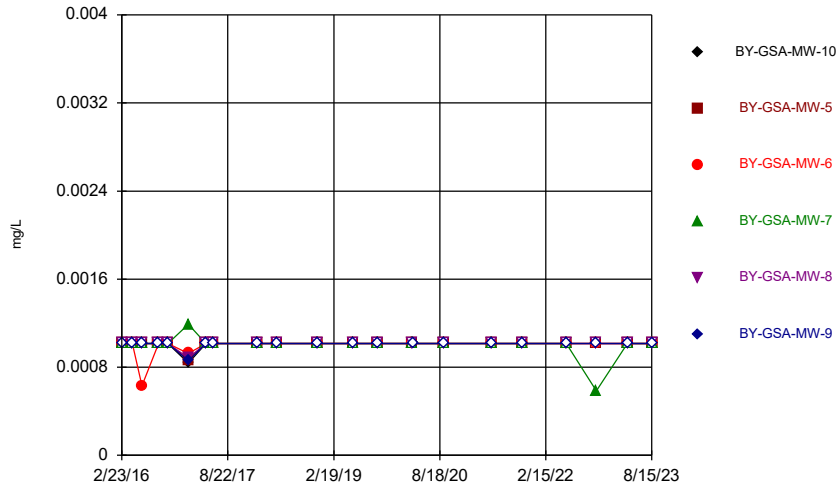
Confidence Interval Summary Table - All Results (No Significant) Page 2

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 4:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	BY-GSA-PZ-11	1.173	0.5482	5	No 8	0.8608	0.2949	0	None	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-10	0.125	0.125	4	No 8	0.125	0	100	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-5	0.125	0.0834	4	No 8	0.1198	0.01471	87.5	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-6	0.135	0.0957	4	No 8	0.1226	0.01141	75	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-7	0.125	0.125	4	No 8	0.125	0	100	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-8	0.125	0.125	4	No 8	0.125	0	100	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-9	0.125	0.125	4	No 8	0.125	0	100	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-PZ-11	0.125	0.125	4	No 8	0.125	0	100	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.0001392	0.0001006	0.015	No 8	0.0001406	0.00004215	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	BY-GSA-MW-5	0.0002032	0.00008816	0.015	No 8	0.0001733	0.00005709	37.5	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	BY-GSA-MW-6	0.000238	0.00008977	0.015	No 8	0.0001843	0.00008975	25	Kaplan-Meier	x^(1/3)	0.01	Param.
Lead (mg/L)	BY-GSA-MW-7	0.000203	0.0000798	0.015	No 8	0.0001251	0.00005153	25	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-8	0.000203	0.000109	0.015	No 8	0.0001913	0.00003323	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-9	0.0002629	0.0002031	0.015	No 8	0.000233	0.00003015	25	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	BY-GSA-PZ-11	0.000208	0.000082	0.015	No 8	0.0001663	0.00004742	37.5	None	No	0.004	NP (normality)
Lithium (mg/L)	BY-GSA-MW-10	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-5	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-6	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-7	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-8	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-9	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-PZ-11	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-10	0.0005	0.0005	0.002	No 8	0.0005	0	100	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.00036	0.002	No 8	0.0004825	0.0000495	87.5	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.00035	0.002	No 8	0.0004813	0.00005303	87.5	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-7	0.0005	0.0005	0.002	No 8	0.0005	0	100	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-8	0.0005	0.0005	0.002	No 8	0.0005	0	100	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-9	0.0005	0.0005	0.002	No 8	0.0005	0	100	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-PZ-11	0.0005	0.0005	0.002	No 8	0.0005	0	100	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-10	0.01015	0.01015	0.1	No 8	0.01015	0	100	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.01015	0.0001	0.1	No 8	0.008894	0.003553	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-6	0.01015	0.01015	0.1	No 8	0.01015	0	100	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-7	0.01015	0.01015	0.1	No 8	0.01015	0	100	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.01015	0.00008	0.1	No 8	0.008891	0.00356	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-9	0.01015	0.01015	0.1	No 8	0.01015	0	100	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-PZ-11	0.01015	0.01015	0.1	No 8	0.01015	0	100	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.001217	0.0007772	0.05	No 8	0.00105	0.0001877	25	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-5	0.0215	0.001694	0.05	No 8	0.01159	0.009341	12.5	None	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-6	0.01883	0.005916	0.05	No 8	0.01238	0.006094	0	None	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.001015	0.000519	0.05	No 8	0.0008431	0.0002379	62.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.001015	0.00052	0.05	No 8	0.000895	0.0002223	75	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.001755	0.001028	0.05	No 8	0.001389	0.0004025	25	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	BY-GSA-PZ-11	0.00158	0.001032	0.05	No 8	0.001306	0.0002765	25	Kaplan-Meier	No	0.01	Param.
Thallium (mg/L)	BY-GSA-MW-10	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-5	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-6	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-7	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-8	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-9	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-PZ-11	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)

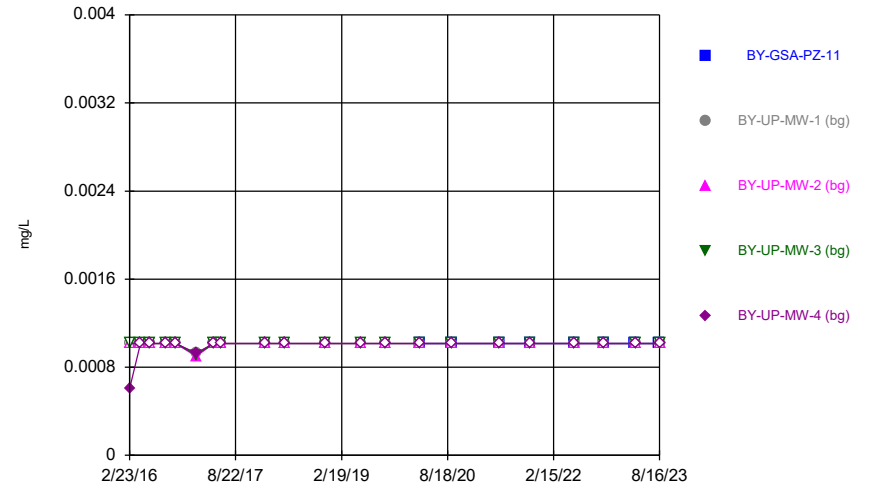
FIGURE A.

Time Series



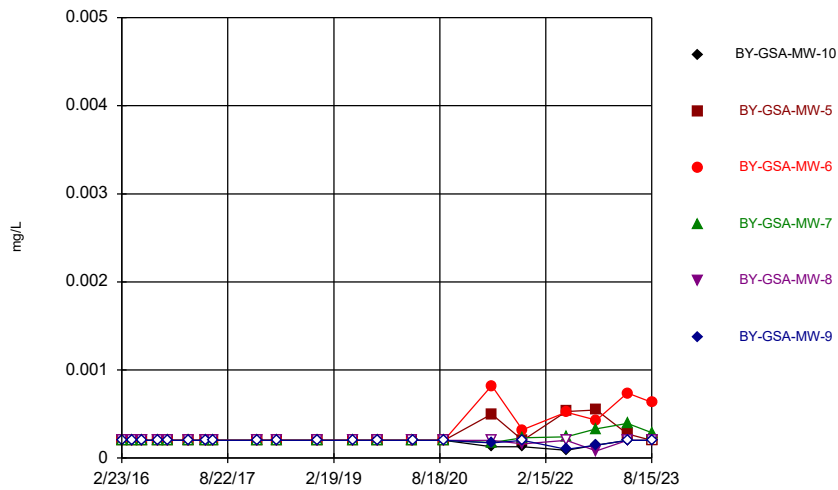
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



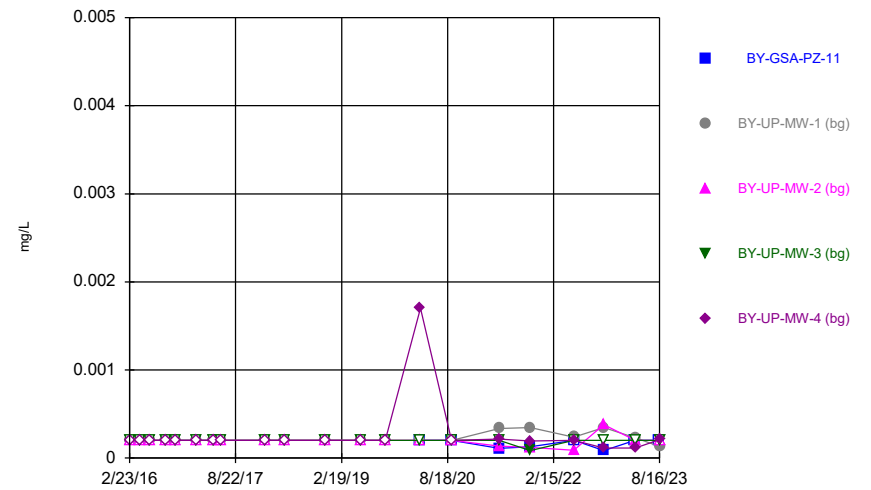
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Time Series



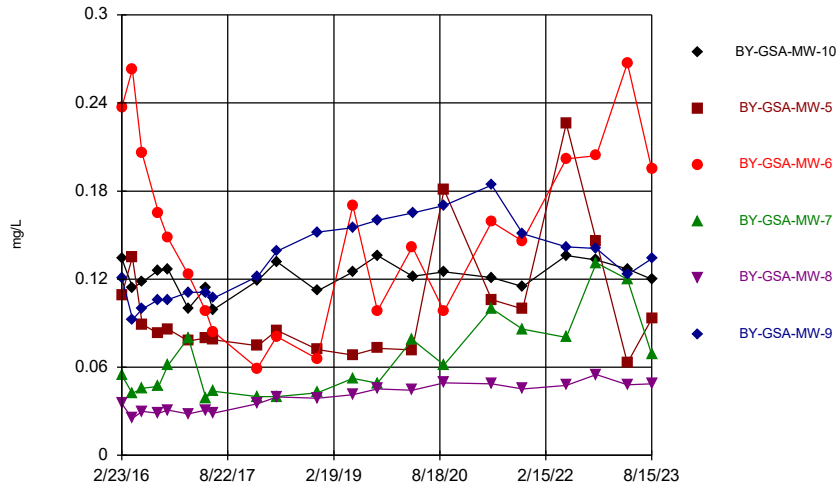
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Time Series



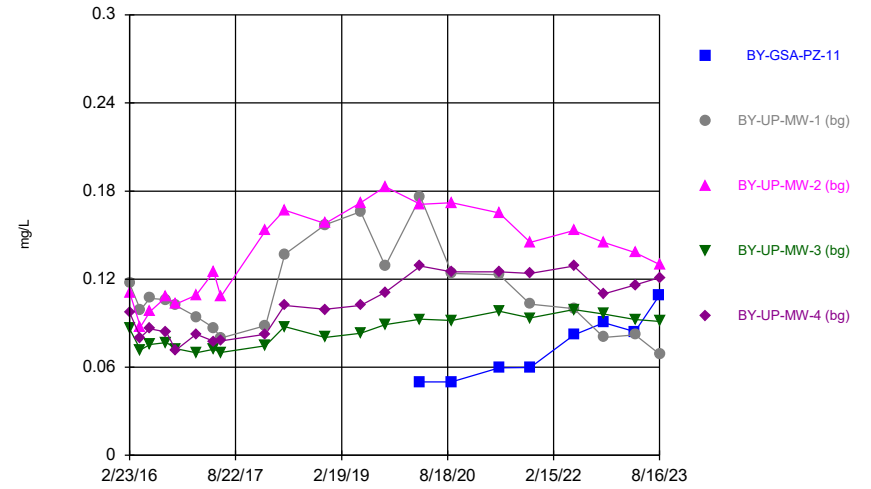
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Time Series



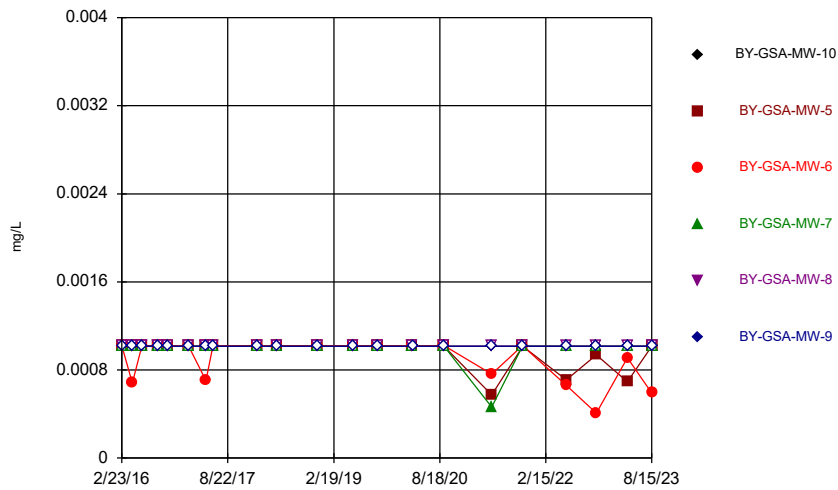
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Time Series



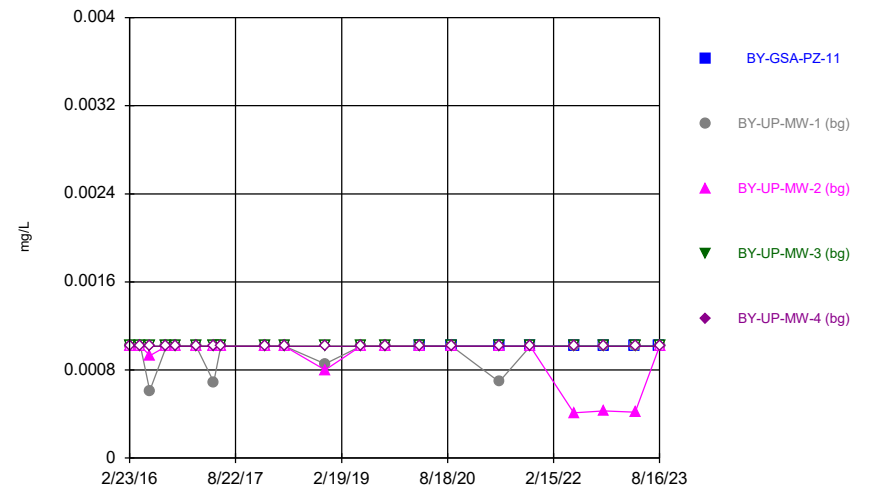
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Time Series



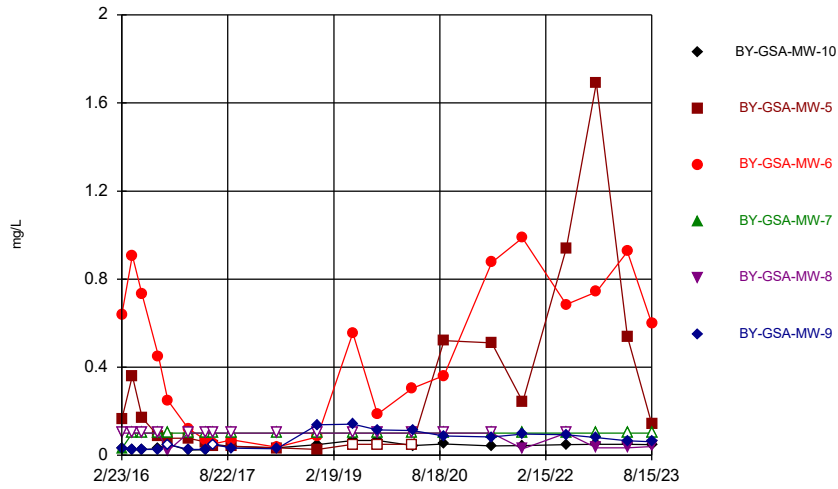
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Time Series



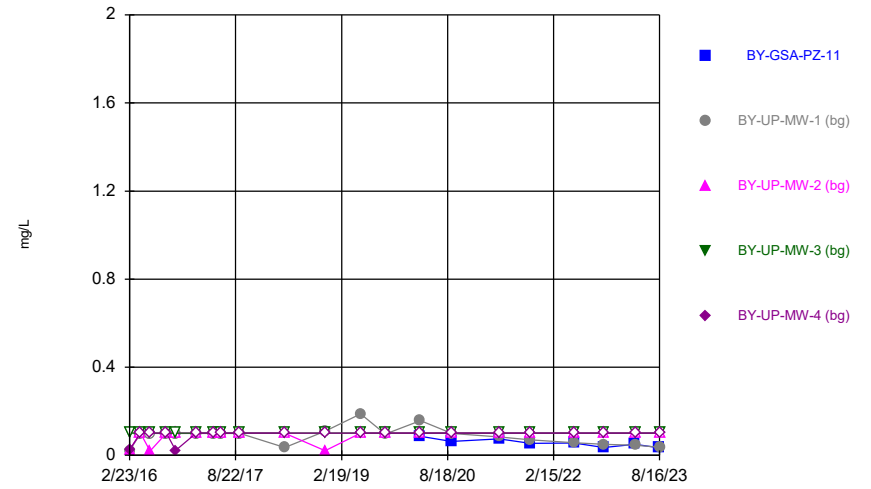
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Time Series



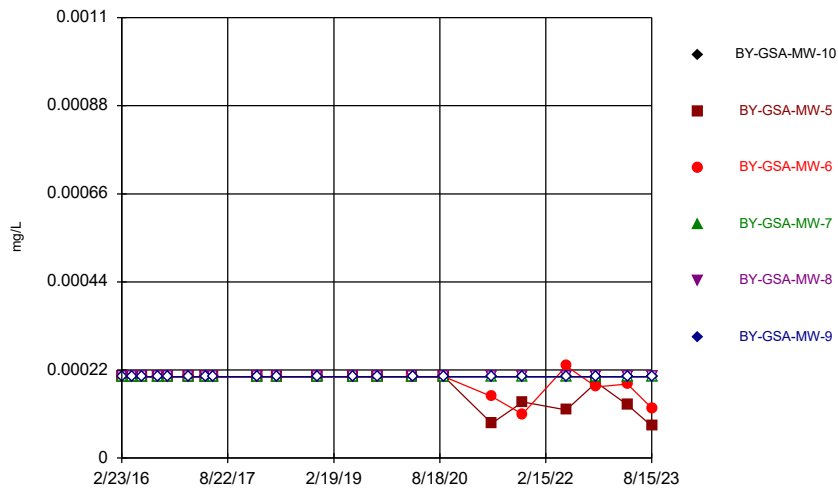
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



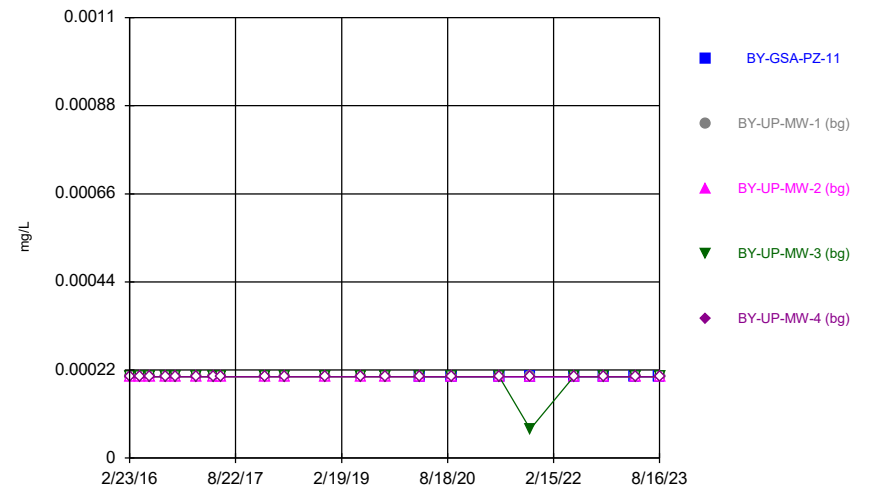
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



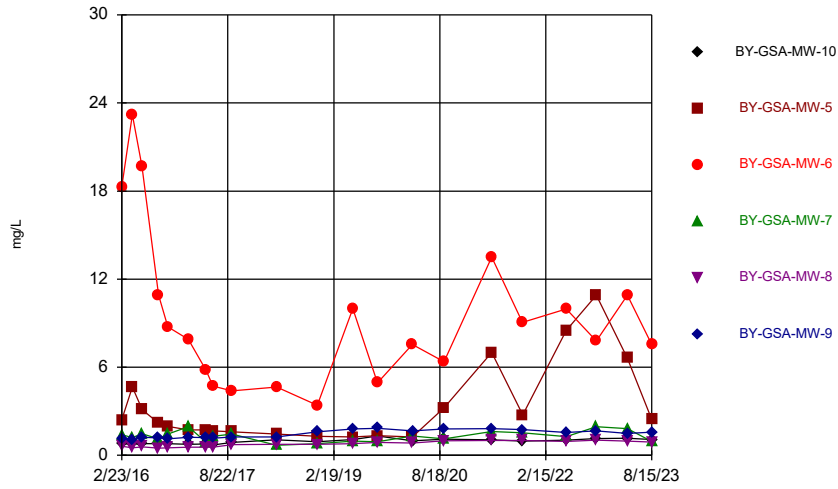
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



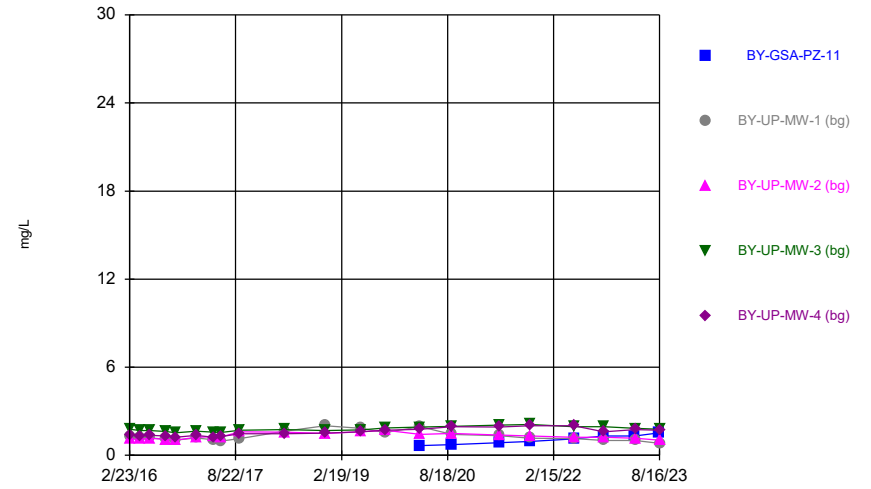
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



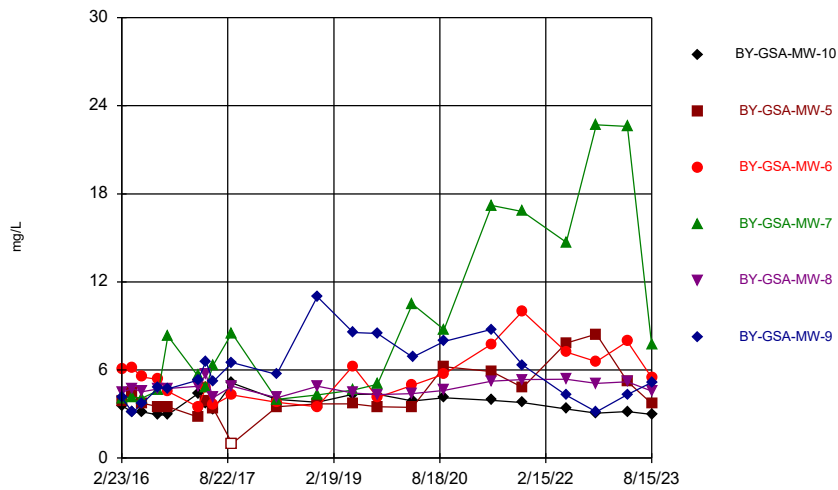
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Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



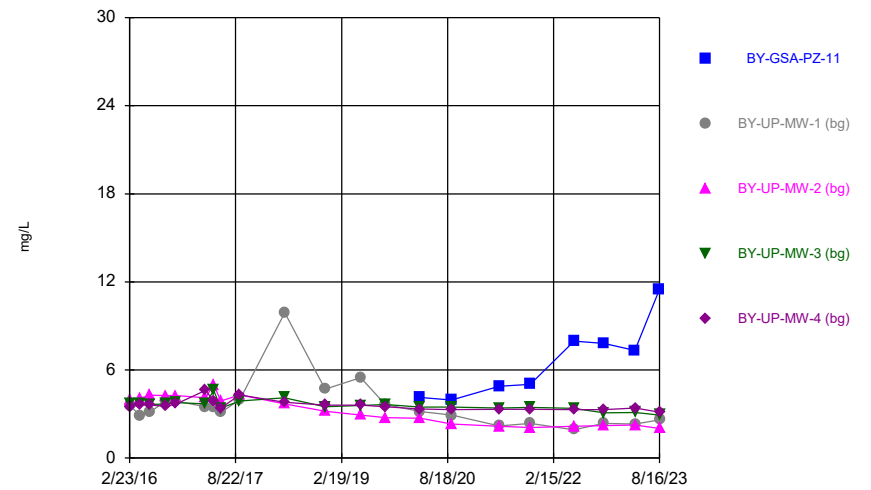
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Time Series



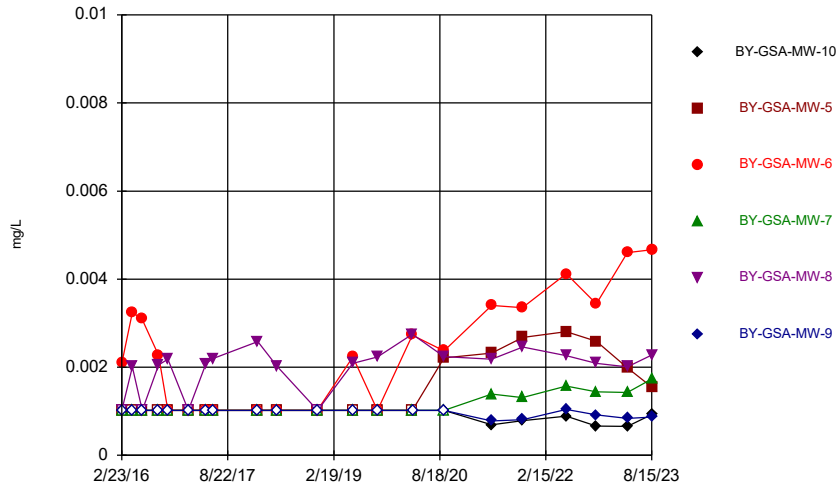
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Time Series



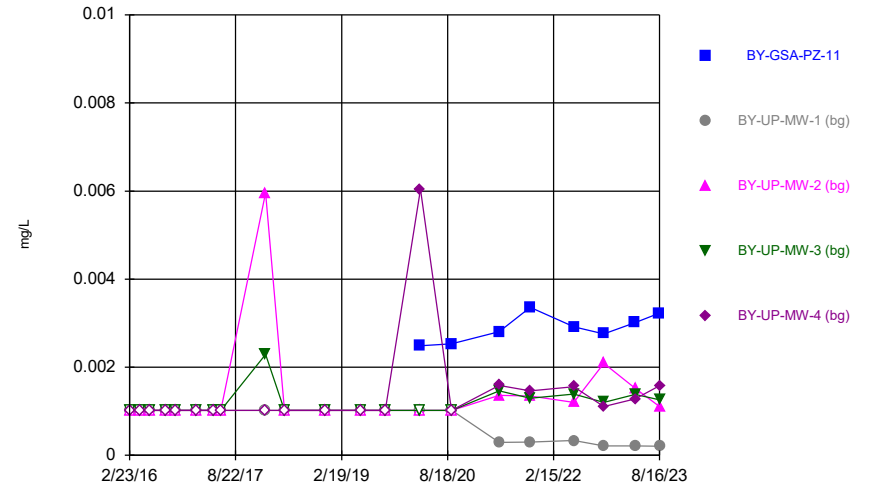
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Time Series



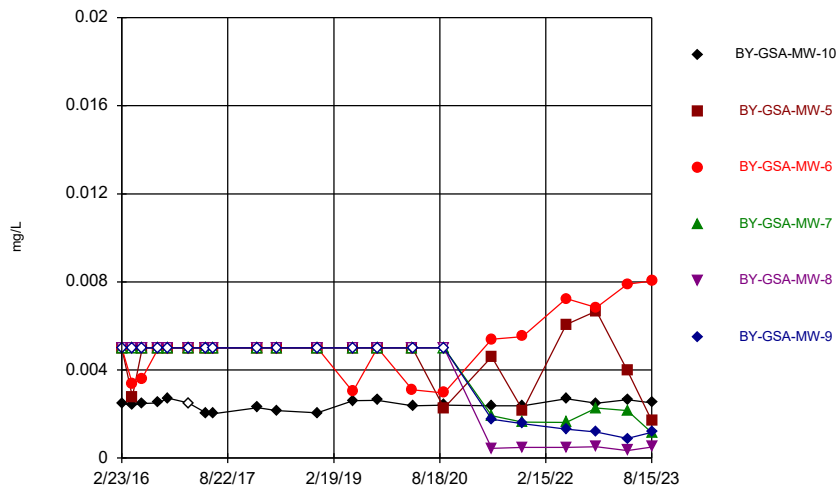
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Time Series



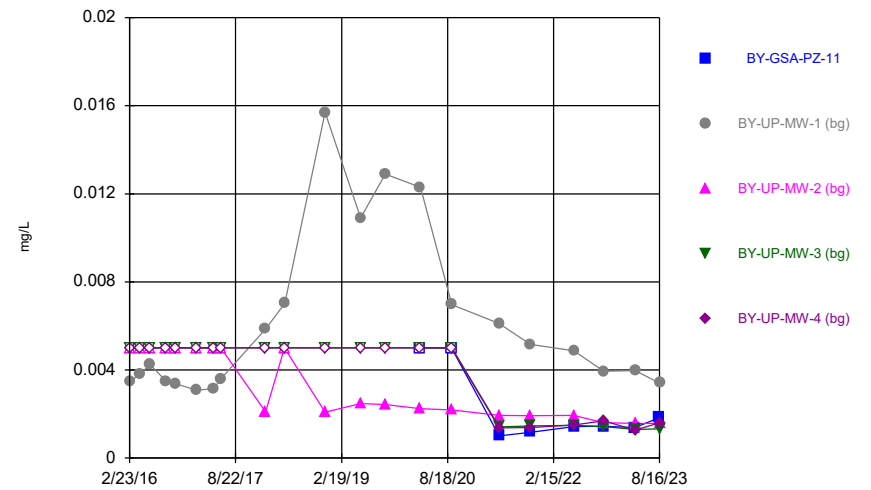
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Time Series



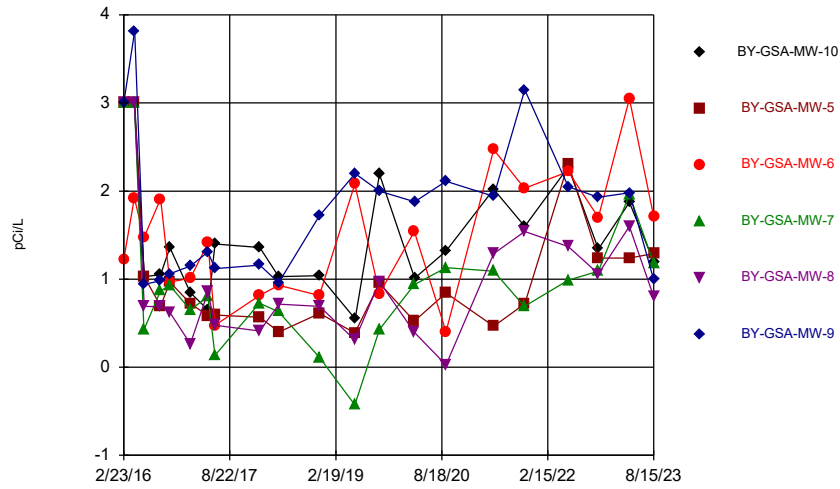
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Time Series



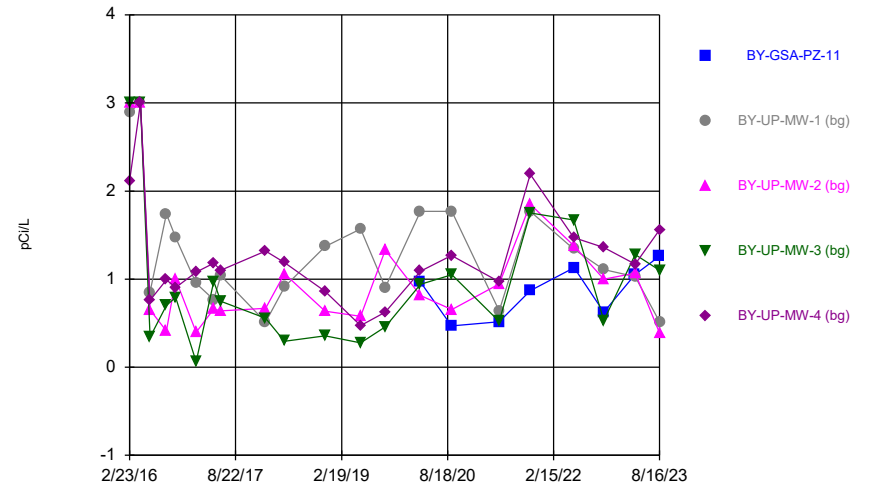
Constituent: Cobalt Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



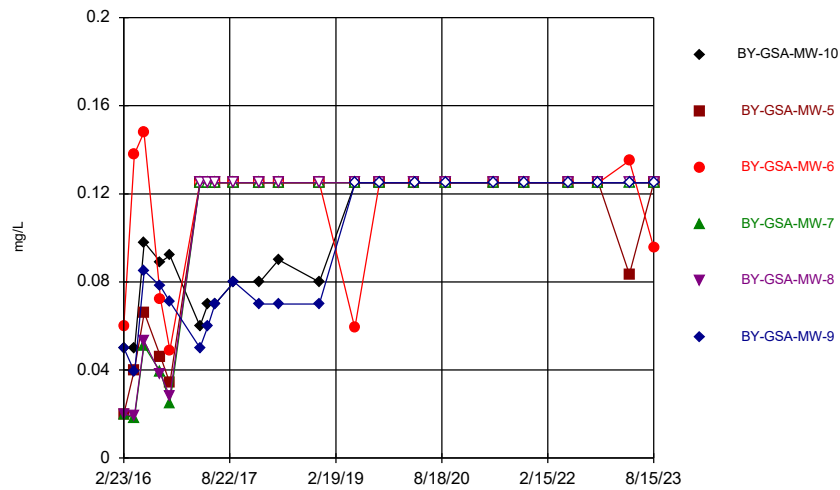
Constituent: Combined Radium 226 + 228 Analysis Run 10/11/2023 4:32 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



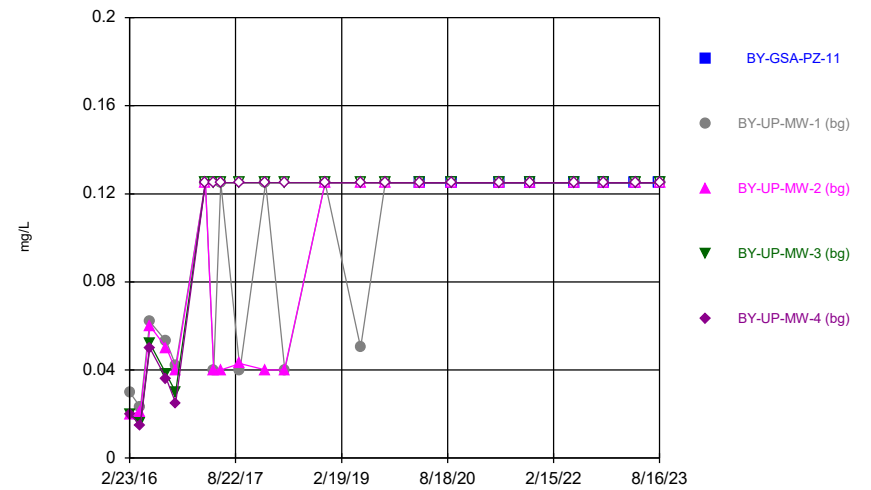
Constituent: Combined Radium 226 + 228 Analysis Run 10/11/2023 4:32 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



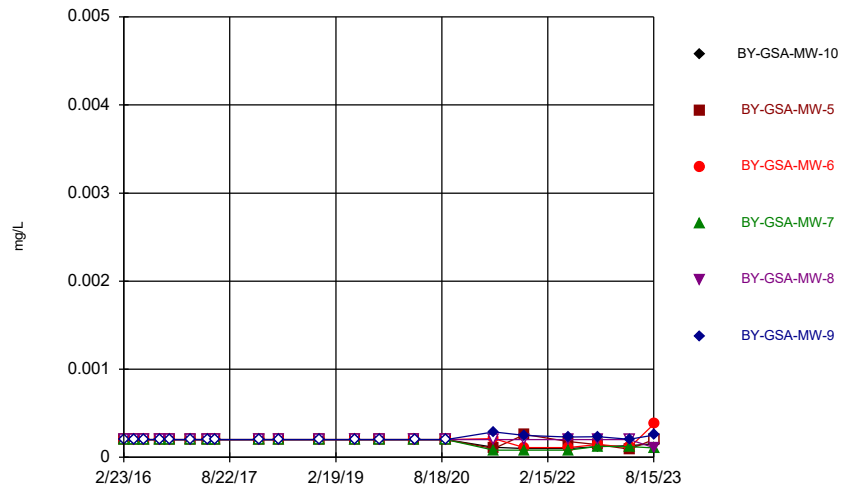
Constituent: Fluoride Analysis Run 10/11/2023 4:32 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



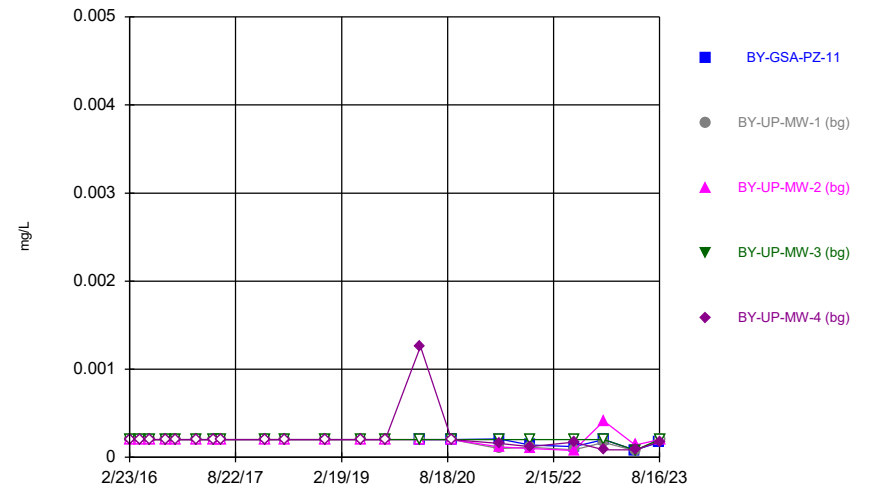
Constituent: Fluoride Analysis Run 10/11/2023 4:32 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



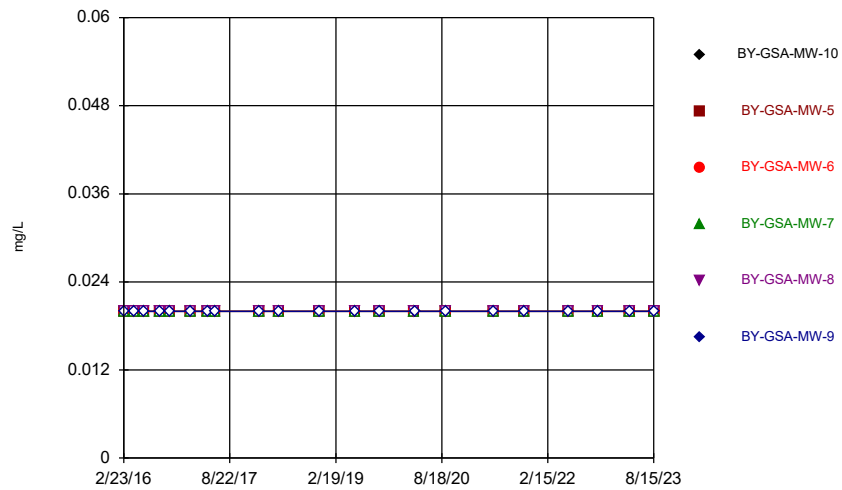
Constituent: Lead Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



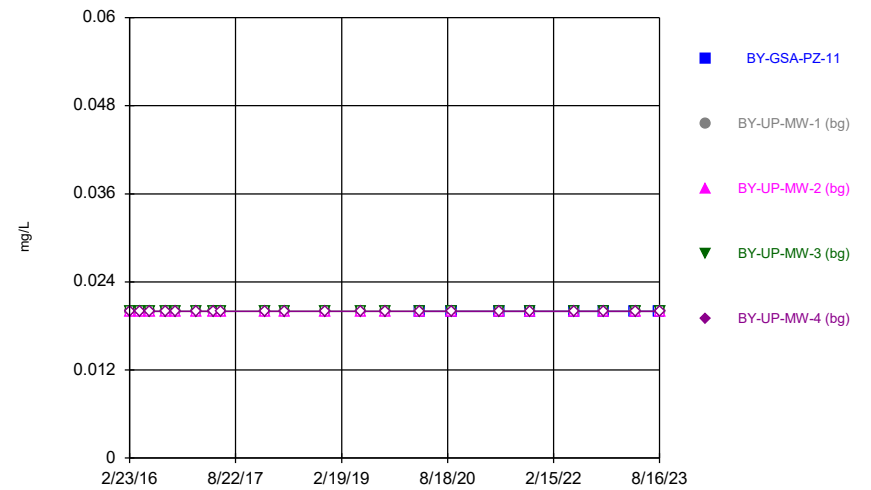
Constituent: Lead Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



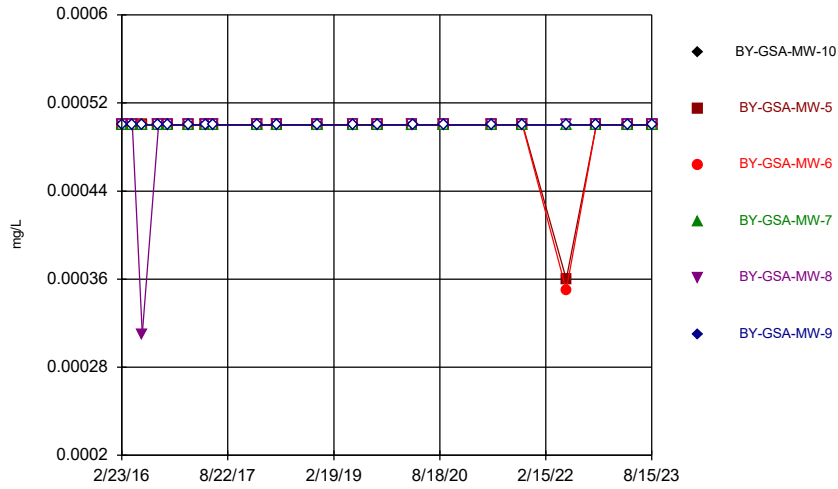
Constituent: Lithium Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



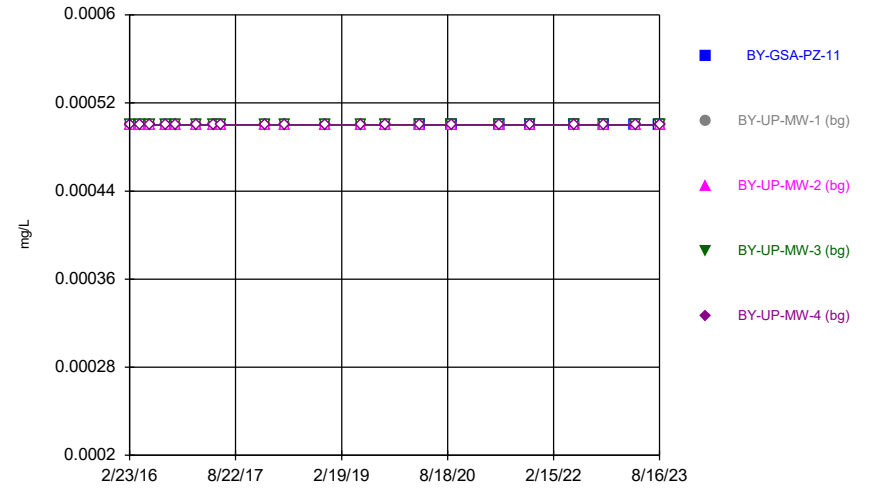
Constituent: Lithium Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



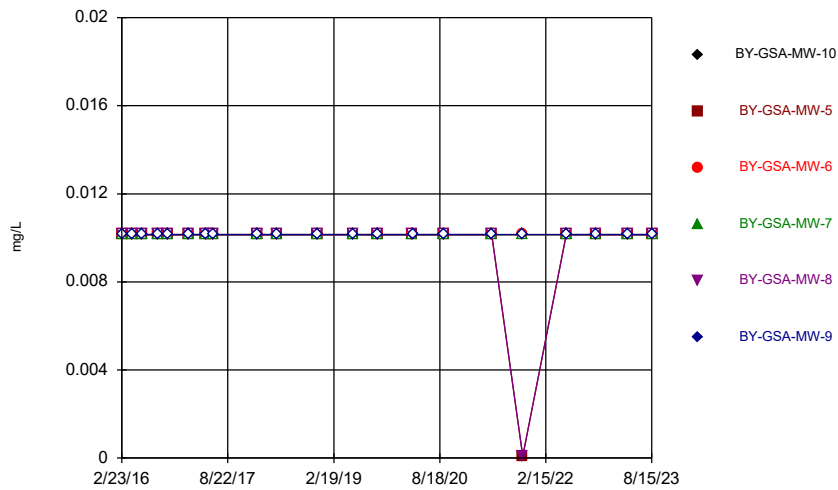
Constituent: Mercury Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



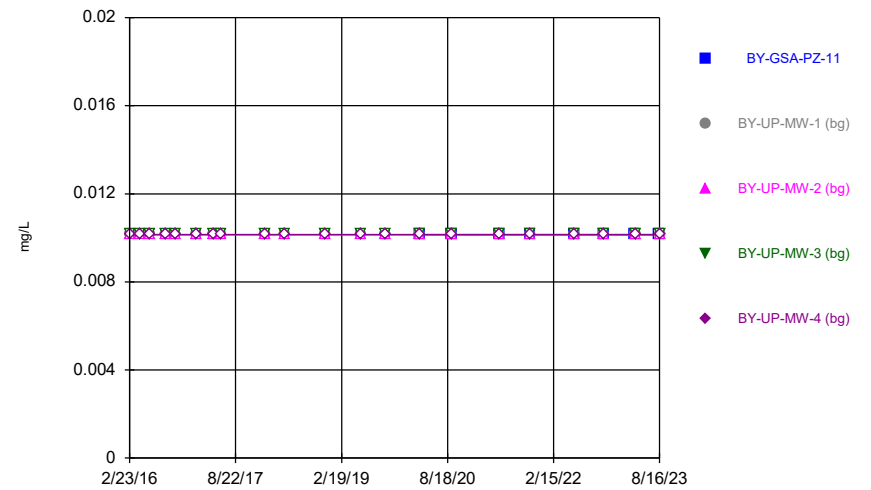
Constituent: Mercury Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



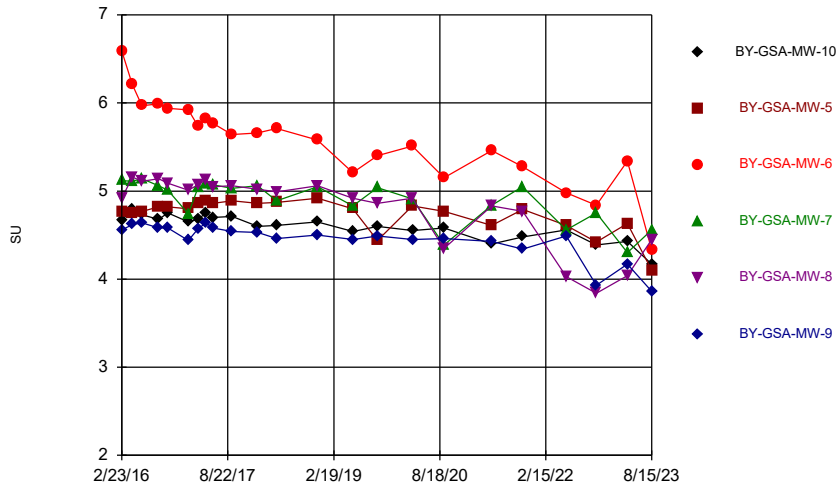
Constituent: Molybdenum Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



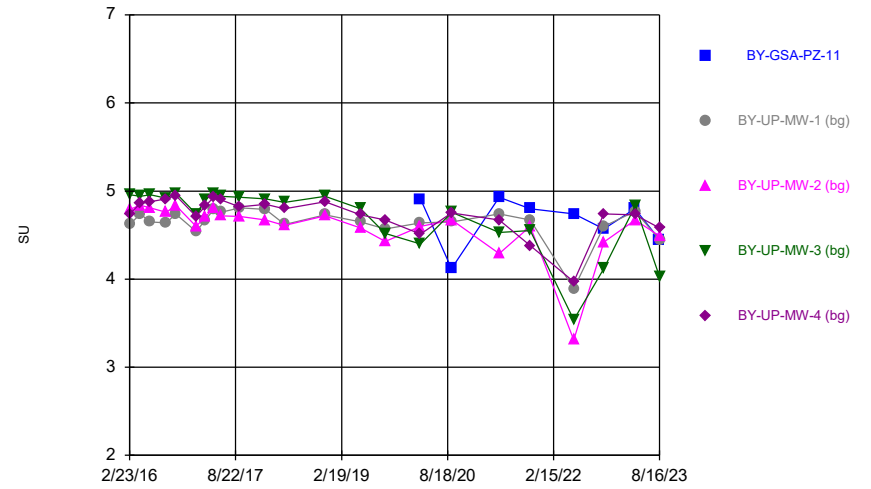
Constituent: Molybdenum Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



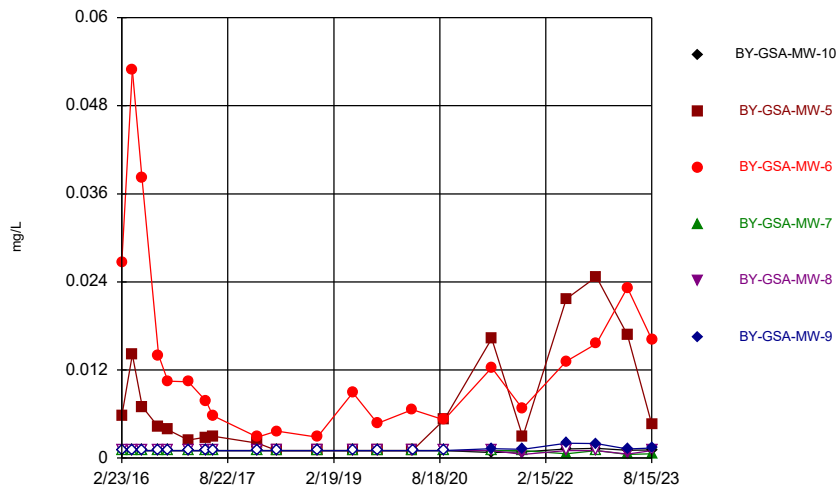
Constituent: pH, Field Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



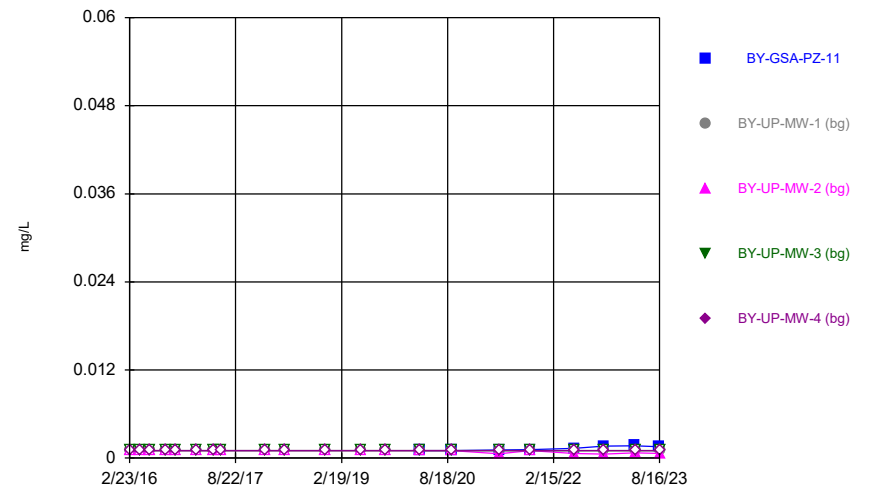
Constituent: pH, Field Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



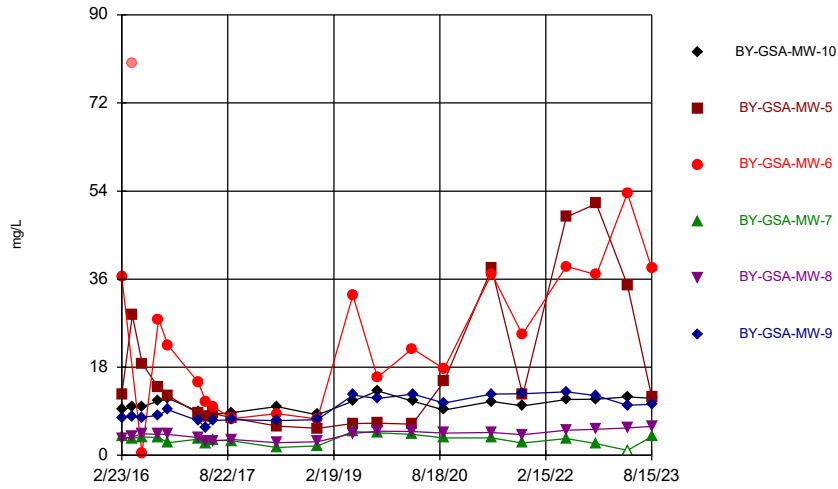
Constituent: Selenium Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



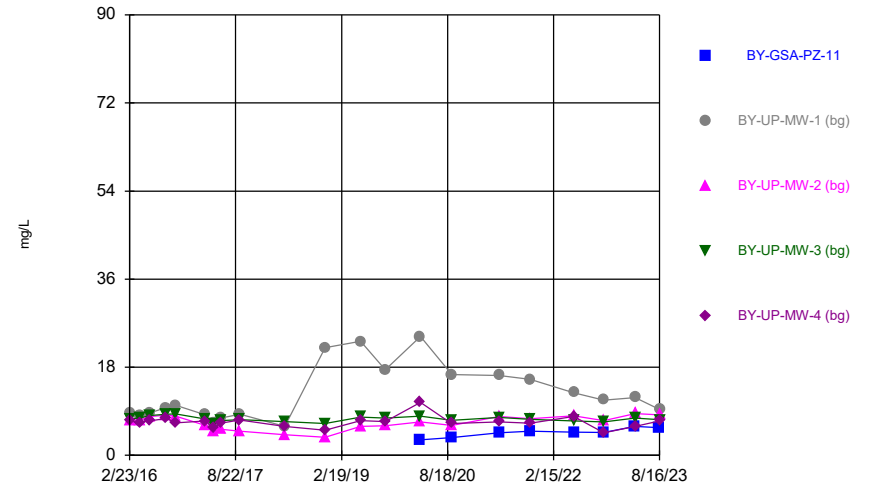
Constituent: Selenium Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



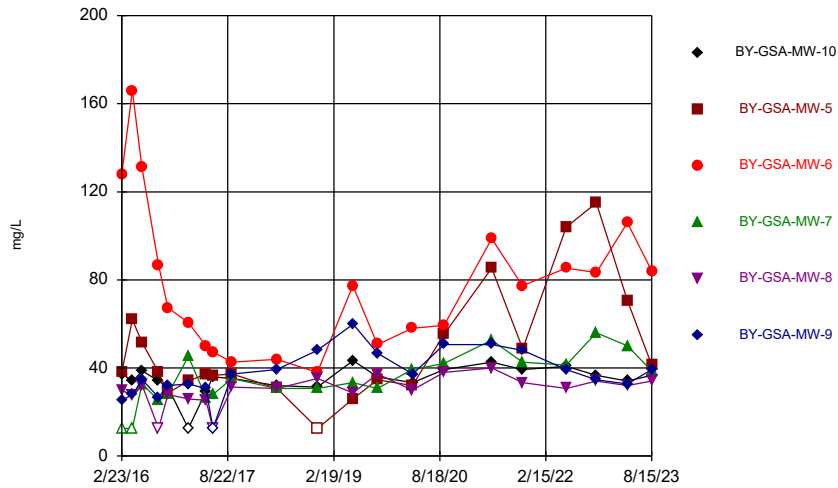
Constituent: Sulfate Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



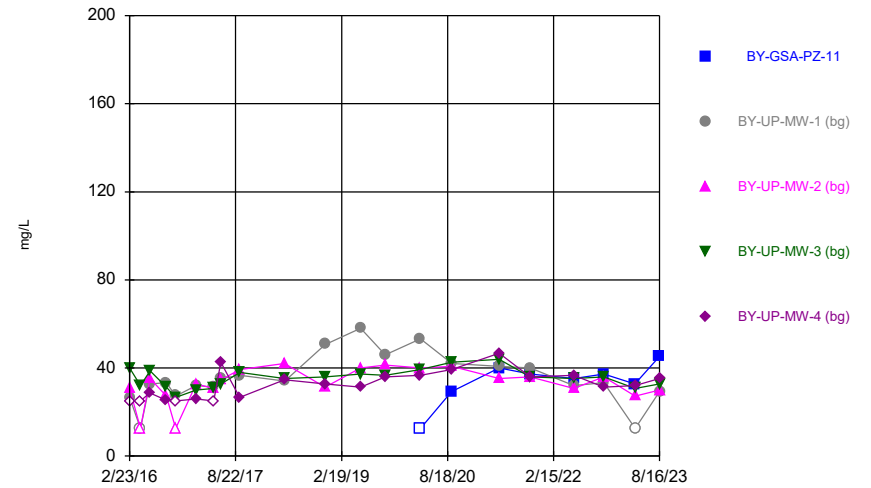
Constituent: Sulfate Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



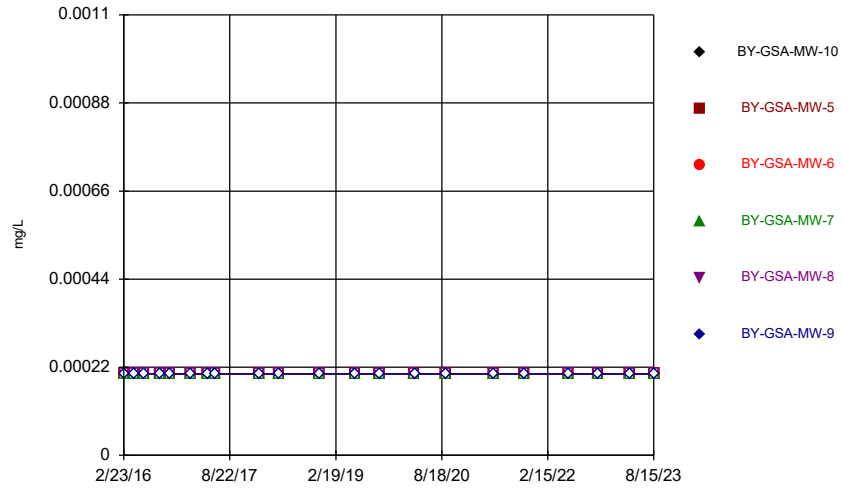
Constituent: TDS Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



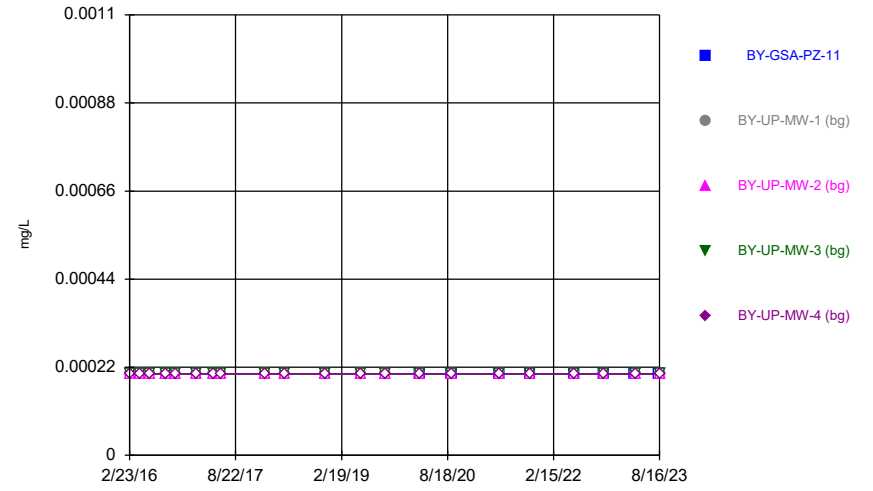
Constituent: TDS Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



Constituent: Thallium Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series



Constituent: Thallium Analysis Run 10/11/2023 4:32 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
4/18/2016		<0.001015	<0.001015	<0.001015	<0.001015	
4/19/2016	<0.001015					<0.001015
6/6/2016			0.000633 (J)	<0.001015		
6/7/2016	<0.001015	<0.001015			<0.001015	<0.001015
8/30/2016	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
10/18/2016	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
1/30/2017	0.000838 (J)			0.00119 (J)		0.000859 (J)
1/31/2017		0.000866 (J)	0.000926 (J)		0.000885 (J)	
5/2/2017	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015			
6/7/2017	<0.001015			<0.001015	<0.001015	<0.001015
1/22/2018			<0.001015	<0.001015		
1/23/2018	<0.001015					<0.001015
1/24/2018		<0.001015			<0.001015	
5/1/2018	<0.001015		<0.001015	<0.001015		<0.001015
5/2/2018		<0.001015			<0.001015	
11/26/2018	<0.001015		<0.001015			<0.001015
11/27/2018		<0.001015		<0.001015	<0.001015	
5/28/2019		<0.001015	<0.001015	<0.001015	<0.001015	
5/29/2019	<0.001015					<0.001015
10/2/2019	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
3/30/2020		<0.001015	<0.001015	<0.001015	<0.001015	
3/31/2020	<0.001015					<0.001015
9/8/2020		<0.001015	<0.001015	<0.001015	<0.001015	
9/9/2020	<0.001015					<0.001015
5/12/2021	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
10/18/2021			<0.001015	<0.001015		
10/19/2021	<0.001015	<0.001015			<0.001015	<0.001015
5/31/2022		<0.001015	<0.001015			
6/1/2022	<0.001015			<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015	<0.001015	<0.001015	0.000586 (J)	<0.001015	<0.001015
4/11/2023	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
8/15/2023	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Antimony (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.001015	<0.001015	<0.001015	0.000606 (J)
4/19/2016		<0.001015	<0.001015	<0.001015	<0.001015
6/6/2016		<0.001015			<0.001015
6/7/2016			<0.001015	<0.001015	
8/30/2016		<0.001015	<0.001015	<0.001015	<0.001015
10/18/2016		<0.001015	<0.001015	<0.001015	<0.001015
1/31/2017		0.000925 (J)	0.000898 (J)	0.000911 (J)	0.000928 (J)
5/2/2017		<0.001015	<0.001015	<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015	<0.001015	<0.001015
1/23/2018		<0.001015	<0.001015	<0.001015	<0.001015
5/1/2018			<0.001015	<0.001015	<0.001015
5/2/2018		<0.001015			
11/26/2018					<0.001015
11/27/2018		<0.001015	<0.001015	<0.001015	
5/28/2019					<0.001015
5/29/2019		<0.001015	<0.001015	<0.001015	
10/2/2019		<0.001015	<0.001015	<0.001015	<0.001015
3/31/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
9/8/2020	<0.001015				<0.001015
9/9/2020		<0.001015	<0.001015	<0.001015	
5/11/2021			<0.001015	<0.001015	<0.001015
5/12/2021	<0.001015	<0.001015			
10/18/2021				<0.001015	<0.001015
10/19/2021	<0.001015	<0.001015	<0.001015		
5/31/2022		<0.001015	<0.001015	<0.001015	<0.001015
6/1/2022	<0.001015				
11/1/2022		<0.001015	<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015				
4/11/2023	<0.001015				
4/12/2023		<0.001015	<0.001015	<0.001015	<0.001015
8/15/2023	<0.001015				
8/16/2023		<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/18/2016		<0.000203	<0.000203	<0.000203	<0.000203	
4/19/2016	<0.000203					<0.000203
6/6/2016			<0.000203	<0.000203		
6/7/2016	<0.000203	<0.000203			<0.000203	<0.000203
8/30/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/30/2017	<0.000203			<0.000203		<0.000203
1/31/2017		<0.000203	<0.000203		<0.000203	
5/2/2017	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203			
6/7/2017	<0.000203			<0.000203	<0.000203	<0.000203
1/22/2018			<0.000203	<0.000203		
1/23/2018	<0.000203					<0.000203
1/24/2018		<0.000203			<0.000203	
5/1/2018	<0.000203		<0.000203	<0.000203		<0.000203
5/2/2018		<0.000203			<0.000203	
11/26/2018	<0.000203		<0.000203			<0.000203
11/27/2018		<0.000203		<0.000203	<0.000203	
5/28/2019		<0.000203	<0.000203	<0.000203	<0.000203	
5/29/2019	<0.000203					<0.000203
10/2/2019	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203	
3/31/2020	<0.000203					<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203	
9/9/2020	<0.000203					<0.000203
5/12/2021	0.000129 (J)	0.000501	0.000821	0.000177 (J)	<0.000203	0.000173 (J)
10/18/2021			0.00032	0.00023		
10/19/2021	0.00013 (J)	0.0002 (J)			0.00016 (J)	<0.000203
5/31/2022		0.00053	0.00052			
6/1/2022	9E-05 (J)			0.00024	<0.000203	0.0001 (J)
11/2/2022	0.000147 (J)	0.000548	0.000429	0.000331	8.3E-05 (J)	0.000146 (J)
4/11/2023	<0.000203	0.000274	0.000738	0.000395	<0.000203	<0.000203
8/15/2023	<0.000203	<0.000203	0.000632	0.000288	<0.000203	<0.000203

Time Series

Constituent: Arsenic (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.000203	<0.000203	<0.000203	<0.000203
4/19/2016		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2016		<0.000203			<0.000203
6/7/2016			<0.000203	<0.000203	
8/30/2016		<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016		<0.000203	<0.000203	<0.000203	<0.000203
1/31/2017		<0.000203	<0.000203	<0.000203	<0.000203
5/2/2017		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203	<0.000203	<0.000203
1/23/2018		<0.000203	<0.000203	<0.000203	<0.000203
5/1/2018			<0.000203	<0.000203	<0.000203
5/2/2018		<0.000203			
11/26/2018					<0.000203
11/27/2018		<0.000203	<0.000203	<0.000203	
5/28/2019					<0.000203
5/29/2019		<0.000203	<0.000203	<0.000203	
10/2/2019		<0.000203	<0.000203	<0.000203	<0.000203
3/31/2020	<0.000203	<0.000203	<0.000203	<0.000203	0.0017 (J)
9/8/2020	<0.000203				<0.000203
9/9/2020		<0.000203	<0.000203	<0.000203	
5/11/2021			0.000136 (J)	<0.000203	0.000217
5/12/2021	0.000111 (J)	0.000336			
10/18/2021				8.69E-05 (J)	0.000193 (J)
10/19/2021	0.00013 (J)	0.000346	0.000122 (J)		
5/31/2022		0.000237	8.79E-05 (J)	<0.000203	0.000203
6/1/2022	<0.000203				
11/1/2022		0.000345	0.000379	<0.000203	0.000115 (J)
11/2/2022	8.5E-05 (J)				
4/11/2023	<0.000203				
4/12/2023		0.00023	0.0002 (J)	<0.000203	0.000114 (J)
8/15/2023	<0.000203				
8/16/2023		0.000134 (J)	<0.000203	<0.000203	0.000209

Time Series

Constituent: Barium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.134	0.109	0.237	0.0546	0.0352	0.121
4/18/2016		0.135	0.263	0.0421	0.0251	
4/19/2016	0.114					0.0926
6/6/2016			0.206	0.0457		
6/7/2016	0.118	0.0892			0.0299	0.0998
8/30/2016	0.126	0.083	0.165	0.0469	0.0287	0.106
10/18/2016	0.127	0.0859	0.148	0.0611	0.0309	0.106
1/30/2017	0.1			0.0801		0.111
1/31/2017		0.0779	0.123		0.0282	
5/2/2017	0.114	0.0799	0.098	0.0388	0.0309	0.111
6/6/2017		0.0788	0.0844			
6/7/2017	0.0991			0.0437	0.0287	0.107
1/22/2018			0.0593	0.0399		
1/23/2018	0.119					0.122
1/24/2018		0.0746			0.0351	
5/1/2018	0.132		0.081	0.04		0.139
5/2/2018		0.085			0.0398	
11/26/2018	0.112		0.0657			0.152
11/27/2018		0.072		0.0427	0.0388	
5/28/2019		0.0684	0.17	0.0524	0.0412	
5/29/2019	0.125					0.155
10/2/2019	0.136	0.0728	0.0985	0.0492	0.0453	0.16
3/30/2020		0.0718	0.142	0.0788	0.0444	
3/31/2020	0.122					0.165
9/8/2020		0.181	0.0981	0.0615	0.0494	
9/9/2020	0.125					0.17
5/12/2021	0.121	0.106	0.159	0.1	0.0488	0.184
10/18/2021			0.146	0.0859		
10/19/2021	0.115	0.0998			0.0452	0.151
5/31/2022		0.226	0.202			
6/1/2022	0.136			0.0803	0.0477	0.142
11/2/2022	0.133	0.146	0.204	0.131	0.055	0.141
4/11/2023	0.127	0.0629	0.267	0.12	0.0481	0.123
8/15/2023	0.12	0.093	0.195	0.0687	0.0486	0.134

Time Series

Constituent: Barium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.117	0.111	0.0862	0.0973
4/19/2016		0.099	0.0875	0.0718	0.0802
6/6/2016		0.107			0.0862
6/7/2016			0.0979	0.0754	
8/30/2016		0.106	0.108	0.0768	0.0841
10/18/2016		0.102	0.103	0.0727	0.0715
1/31/2017		0.0944	0.109	0.0698	0.0825
5/2/2017		0.0868	0.125	0.0723	0.0777
6/6/2017		0.0799	0.108	0.07	0.078
1/23/2018		0.0884	0.153	0.0747	0.0825
5/1/2018			0.167	0.0877	0.102
5/2/2018		0.137			
11/26/2018					0.0994
11/27/2018		0.157	0.158	0.0804	
5/28/2019					0.102
5/29/2019		0.166	0.172	0.0831	
10/2/2019		0.129	0.183	0.089	0.111
3/31/2020	0.0499	0.176	0.171	0.0927	0.129
9/8/2020	0.05				0.125
9/9/2020		0.124	0.172	0.0919	
5/11/2021			0.165	0.0981	0.125
5/12/2021	0.0597	0.123			
10/18/2021				0.0935	0.124
10/19/2021	0.0599	0.103	0.145		
5/31/2022		0.1	0.153	0.0992	0.129
6/1/2022	0.0821				
11/1/2022		0.0804	0.145	0.0963	0.11
11/2/2022	0.0903				
4/11/2023	0.0842				
4/12/2023		0.082	0.138	0.0925	0.116
8/15/2023	0.109				
8/16/2023		0.0689	0.13	0.0912	0.121

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.001015	<0.001015	<0.00102	<0.001015	<0.001015	<0.001015
4/18/2016		<0.001015	0.000681 (J)	<0.001015	<0.001015	
4/19/2016	<0.001015					<0.001015
6/6/2016			<0.00102	<0.001015		
6/7/2016	<0.001015	<0.001015			<0.001015	<0.001015
8/30/2016	<0.001015	<0.001015	<0.00102	<0.001015	<0.001015	<0.001015
10/18/2016	<0.001015	<0.001015	<0.00102	<0.001015	<0.001015	<0.001015
1/30/2017	<0.001015			<0.001015		<0.001015
1/31/2017		<0.001015	<0.00102		<0.001015	
5/2/2017	<0.001015	<0.001015	0.000704 (J)	<0.001015	<0.001015	<0.001015
6/6/2017		<0.001015	<0.00102			
6/7/2017	<0.001015			<0.001015	<0.001015	<0.001015
1/22/2018			<0.00102	<0.001015		
1/23/2018	<0.001015					<0.001015
1/24/2018		<0.001015			<0.001015	
5/1/2018	<0.001015		<0.00102	<0.001015		<0.001015
5/2/2018		<0.001015			<0.001015	
11/26/2018	<0.001015		<0.00102			<0.001015
11/27/2018		<0.001015		<0.001015	<0.001015	
5/28/2019		<0.001015	<0.00102	<0.001015	<0.001015	
5/29/2019	<0.001015					<0.001015
10/2/2019	<0.001015	<0.001015	<0.00102	<0.001015	<0.001015	<0.001015
3/30/2020		<0.001015	<0.00102	<0.001015	<0.001015	
3/31/2020	<0.001015					<0.001015
9/8/2020		<0.001015	<0.00102	<0.001015	<0.001015	
9/9/2020	<0.001015					<0.001015
5/12/2021	<0.001015	0.000575 (J)	0.000763 (J)	0.000464 (J)	<0.001015	<0.001015
10/18/2021			<0.00102	<0.001015		
10/19/2021	<0.001015	<0.001015			<0.001015	<0.001015
5/31/2022		0.00071 (J)	0.00066 (J)			
6/1/2022	<0.001015			<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015	0.000937 (J)	0.000408 (J)	<0.001015	<0.001015	<0.001015
4/11/2023	<0.001015	0.000693 (J)	0.00091 (J)	<0.001015	<0.001015	<0.001015
8/15/2023	<0.001015	<0.001015	0.000592 (J)	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Beryllium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.001015	<0.001015	<0.001015	<0.001015
4/19/2016		<0.001015	<0.001015	<0.001015	<0.001015
6/6/2016		0.000612 (J)			<0.001015
6/7/2016			0.00093 (J)	<0.001015	
8/30/2016		<0.001015	<0.001015	<0.001015	<0.001015
10/18/2016		<0.001015	<0.001015	<0.001015	<0.001015
1/31/2017		<0.001015	<0.001015	<0.001015	<0.001015
5/2/2017		0.00069 (J)	<0.001015	<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015	<0.001015	<0.001015
1/23/2018		<0.001015	<0.001015	<0.001015	<0.001015
5/1/2018			<0.001015	<0.001015	<0.001015
5/2/2018		<0.001015			
11/26/2018					<0.001015
11/27/2018		0.000856 (J)	0.000801 (J)	<0.001015	
5/28/2019					<0.001015
5/29/2019		<0.001015	<0.001015	<0.001015	
10/2/2019		<0.001015	<0.001015	<0.001015	<0.001015
3/31/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
9/8/2020	<0.001015				<0.001015
9/9/2020		<0.001015	<0.001015	<0.001015	
5/11/2021			<0.001015	<0.001015	<0.001015
5/12/2021	<0.001015	0.000694 (J)			
10/18/2021				<0.001015	<0.001015
10/19/2021	<0.001015	<0.001015	<0.001015		
5/31/2022		<0.001015	0.00041 (J)	<0.001015	<0.001015
6/1/2022	<0.001015				
11/1/2022		<0.001015	0.000429 (J)	<0.001015	<0.001015
11/2/2022	<0.001015				
4/11/2023	<0.001015				
4/12/2023		<0.001015	0.000416 (J)	<0.001015	<0.001015
8/15/2023	<0.001015				
8/16/2023		<0.001015	<0.001015	<0.001015	<0.001015

Time Series

Constituent: Boron (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.0294 (J)	0.163	0.638	0.0314 (J)	<0.1015	0.0297 (J)
4/18/2016		0.361	0.908	<0.1015	<0.1015	
4/19/2016	0.0257 (J)					0.0269 (J)
6/6/2016			0.733	<0.1015		
6/7/2016	0.0257 (J)	0.169			<0.1015	0.0271 (J)
8/30/2016	0.0317 (J)	0.0858 (J)	0.448	<0.1015	<0.1015	0.0272 (J)
10/18/2016	<0.1	0.0778 (J)	0.249	<0.1015	0.0207 (J)	<0.1
1/30/2017	0.0243 (J)			<0.1015		0.0269 (J)
1/31/2017		0.077 (J)	0.121		<0.1015	
5/2/2017	0.0259 (J)	0.0602 (J)	0.0695 (J)	<0.1015	<0.1015	0.027 (J)
6/6/2017		0.0442 (J)	0.0509 (J)			
6/7/2017	<0.1			<0.1015	<0.1015	<0.1
9/12/2017			0.0709 (J)	<0.1015		
9/13/2017	0.0394 (J)	0.0411 (J)			<0.1015	0.032 (J)
5/1/2018	0.0338 (J)		0.0365 (J)	<0.1015		0.0302 (J)
5/2/2018		0.0334 (J)			<0.1015	
11/26/2018	0.0484 (J)		0.0836 (J)			0.139
11/27/2018		0.0265 (J)		<0.1015	<0.1015	
5/28/2019		<0.1	0.556	<0.1015	<0.1015	
5/29/2019	0.0669 (J)					0.141
10/2/2019	0.0671 (J)	<0.1	0.186	<0.1015	<0.1015	0.116
3/30/2020		<0.1	0.304	<0.1015	<0.1015	
3/31/2020	0.0442 (J)					0.112
9/8/2020		0.521	0.362	<0.1015	<0.1015	
9/9/2020	0.0509 (J)					0.0873 (J)
5/12/2021	0.0423 (J)	0.511	0.876	<0.1015	<0.1015	0.0834 (J)
10/18/2021			0.987	<0.1015		
10/19/2021	0.0444 (J)	0.243			0.0303 (J)	0.0966 (J)
5/31/2022		0.939	0.685			
6/1/2022	0.0493 (J)			<0.1015	<0.1015	0.0933 (J)
11/2/2022	0.0502 (J)	1.69	0.741	<0.1015	0.0343 (J)	0.0809 (J)
4/11/2023	0.0503 (J)	0.54	0.925	<0.1015	0.0345 (J)	0.0664 (J)
8/15/2023	0.0492 (J)	0.143	0.6	<0.1015	0.04 (J)	0.0622 (J)

Time Series

Constituent: Boron (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.0212 (J)	0.0252 (J)	<0.1015	0.0257 (J)
4/19/2016		<0.1	<0.1015	<0.1015	<0.1015
6/6/2016		<0.1			<0.1015
6/7/2016			0.0202 (J)	<0.1015	
8/30/2016		<0.1	<0.1015	<0.1015	<0.1015
10/18/2016		<0.1	<0.1015	<0.1015	0.022 (J)
1/31/2017		<0.1	<0.1015	<0.1015	<0.1015
5/2/2017		<0.1	<0.1015	<0.1015	<0.1015
6/6/2017		<0.1	<0.1015	<0.1015	<0.1015
9/12/2017					<0.1015
9/13/2017		<0.1	<0.1015	<0.1015	
5/1/2018			<0.1015	<0.1015	<0.1015
5/2/2018		0.0362 (J)			
11/26/2018					<0.1015
11/27/2018		0.11	0.0207 (J)	<0.1015	
5/28/2019					<0.1015
5/29/2019		0.188	<0.1015	<0.1015	
10/2/2019		0.097 (J)	<0.1015	<0.1015	<0.1015
3/31/2020	0.0864 (J)	0.157	<0.1015	<0.1015	<0.1015
9/8/2020	0.0638 (J)				<0.1015
9/9/2020		0.0999 (J)	<0.1015	<0.1015	
5/11/2021			<0.1015	<0.1015	<0.1015
5/12/2021	0.0742 (J)	0.0841 (J)			
10/18/2021				<0.1015	<0.1015
10/19/2021	0.0551 (J)	0.0708 (J)	<0.1015		
5/31/2022		0.0567 (J)	<0.1015	<0.1015	<0.1015
6/1/2022	0.0564 (J)				
11/1/2022		0.0501 (J)	<0.1015	<0.1015	<0.1015
11/2/2022	0.035 (J)				
4/11/2023	0.0507 (J)				
4/12/2023		0.0464 (J)	<0.1015	<0.1015	<0.1015
8/15/2023	0.0341 (J)				
8/16/2023		0.0364 (J)	<0.1015	<0.1015	<0.1015

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/18/2016		<0.000203	<0.000203	<0.000203	<0.000203	
4/19/2016	<0.000203					<0.000203
6/6/2016			<0.000203	<0.000203		
6/7/2016	<0.000203	<0.000203			<0.000203	<0.000203
8/30/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/30/2017	<0.000203			<0.000203		<0.000203
1/31/2017		<0.000203	<0.000203		<0.000203	
5/2/2017	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203			
6/7/2017	<0.000203			<0.000203	<0.000203	<0.000203
1/22/2018			<0.000203	<0.000203		
1/23/2018	<0.000203					<0.000203
1/24/2018		<0.000203			<0.000203	
5/1/2018	<0.000203		<0.000203	<0.000203		<0.000203
5/2/2018		<0.000203			<0.000203	
11/26/2018	<0.000203		<0.000203			<0.000203
11/27/2018		<0.000203		<0.000203	<0.000203	
5/28/2019		<0.000203	<0.000203	<0.000203	<0.000203	
5/29/2019	<0.000203					<0.000203
10/2/2019	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203	
3/31/2020	<0.000203					<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203	
9/9/2020	<0.000203					<0.000203
5/12/2021	<0.000203	8.67E-05 (J)	0.000154 (J)	<0.000203	<0.000203	<0.000203
10/18/2021			0.00011 (J)	<0.000203		
10/19/2021	<0.000203	0.00014 (J)			<0.000203	<0.000203
5/31/2022		0.00012 (J)	0.00023			
6/1/2022	<0.000203			<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203	0.000189 (J)	0.000178 (J)	<0.000203	<0.000203	<0.000203
4/11/2023	<0.000203	0.000133 (J)	0.000185 (J)	<0.000203	<0.000203	<0.000203
8/15/2023	<0.000203	8E-05 (J)	0.000125 (J)	<0.000203	<0.000203	<0.000203

Time Series

Constituent: Cadmium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.000203	<0.000203	<0.000203	<0.000203
4/19/2016		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2016		<0.000203			<0.000203
6/7/2016			<0.000203	<0.000203	
8/30/2016		<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016		<0.000203	<0.000203	<0.000203	<0.000203
1/31/2017		<0.000203	<0.000203	<0.000203	<0.000203
5/2/2017		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203	<0.000203	<0.000203
1/23/2018		<0.000203	<0.000203	<0.000203	<0.000203
5/1/2018			<0.000203	<0.000203	<0.000203
5/2/2018		<0.000203			
11/26/2018					<0.000203
11/27/2018		<0.000203	<0.000203	<0.000203	
5/28/2019					<0.000203
5/29/2019		<0.000203	<0.000203	<0.000203	
10/2/2019		<0.000203	<0.000203	<0.000203	<0.000203
3/31/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
9/8/2020	<0.000203				<0.000203
9/9/2020		<0.000203	<0.000203	<0.000203	
5/11/2021			<0.000203	<0.000203	<0.000203
5/12/2021	<0.000203	<0.000203			
10/18/2021				7.25E-05 (J)	<0.000203
10/19/2021	<0.000203	<0.000203	<0.000203		
5/31/2022		<0.000203	<0.000203	<0.000203	<0.000203
6/1/2022	<0.000203				
11/1/2022		<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203				
4/11/2023	<0.000203				
4/12/2023		<0.000203	<0.000203	<0.000203	<0.000203
8/15/2023	<0.000203				
8/16/2023		<0.000203	<0.000203	<0.000203	<0.000203

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.795	2.42	18.3	1.4	0.618	1.15
4/18/2016		4.65	23.2	1.2	0.505	
4/19/2016	0.761					1.04
6/6/2016			19.7	1.48		
6/7/2016	0.799	3.1			0.587	1.22
8/30/2016	0.788	2.19	10.9	1.13	0.495 (J)	1.18
10/18/2016	0.788	1.97	8.74	1.45	0.503	1.12
1/30/2017	0.755			1.95		1.23
1/31/2017		1.73	7.89		0.554	
5/2/2017	0.763	1.74	5.81	0.908	0.548	1.2
6/6/2017		1.66	4.72			
6/7/2017	0.706			1.29	0.545	1.17
9/12/2017			4.39	1.44		
9/13/2017	0.873	1.61			0.723	1.25
5/1/2018	1.05		4.66	0.695		1.25
5/2/2018		1.44			0.751	
11/26/2018	0.922		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	1.07					1.8
10/2/2019	1.32	1.33	4.94	0.929	0.882	1.85
3/30/2020		1.26	7.56	1.32	0.841	
3/31/2020	0.98					1.67
9/8/2020		3.24	6.38	1.12	0.981	
9/9/2020	1.1					1.79
5/12/2021	1.06	7	13.5	1.63	1.02	1.82
10/18/2021			9.06	1.53		
10/19/2021	0.977	2.75			1.01	1.75
5/31/2022		8.52	9.98			
6/1/2022	1.04			1.27	0.94	1.55
11/2/2022	1.15	10.9	7.78	1.96	1.04	1.67
4/11/2023	1.16	6.62	10.9	1.82	0.971	1.49
8/15/2023	1.08	2.46	7.55	0.941	0.903	1.58

Time Series

Constituent: Calcium, total (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		1.28	1.11	1.77	1.42
4/19/2016		1.19	1.09	1.68	1.31
6/6/2016		1.19			1.35
6/7/2016			1.16	1.68	
8/30/2016		1.11	1.08	1.62	1.31
10/18/2016		1.04	1.03	1.53	1.22
1/31/2017		1.19	1.23	1.65	1.36
5/2/2017		1.05	1.28	1.58	1.24
6/6/2017		0.978	1.25	1.55	1.28
9/12/2017					1.47
9/13/2017		1.14	1.6	1.71	
5/1/2018			1.58	1.76	1.47
5/2/2018		1.64			
11/26/2018					1.52
11/27/2018		2.01	1.49	1.69	
5/28/2019					1.6
5/29/2019		1.85	1.59	1.74	
10/2/2019		1.55	1.7	1.86	1.7
3/31/2020	0.663	1.96	1.43	1.92	1.78
9/8/2020	0.724				1.94
9/9/2020		1.43	1.5	1.97	
5/11/2021			1.39	2.06	1.93
5/12/2021	0.861	1.34			
10/18/2021				2.1	2.01
10/19/2021	0.941	1.17	1.32		
5/31/2022		1.14	1.24	1.95	2.02
6/1/2022	1.13				
11/1/2022		1.01	1.23	1.94	1.59
11/2/2022	1.31				
4/11/2023	1.31				
4/12/2023		1.02	1.16	1.83	1.76
8/15/2023	1.54				
8/16/2023		0.816	1.03	1.77	1.71

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	3.57	3.86	6.06	4.08	4.47	4.1
4/18/2016		4.46	6.13	4.14	4.74	
4/19/2016	3.12					3.11
6/6/2016			5.52	4.09		
6/7/2016	3.14	3.74			4.52	3.72
8/30/2016	2.93	3.5	5.35	4.6	4.71	4.8
10/18/2016	2.96	3.5	4.55	8.32	4.73	4.71
3/21/2017	4.4	2.8	3.5	5.6	4.9	5.3
5/2/2017	3.7	3.9	4.8	4.8	5.7	6.6
6/6/2017		3.4	3.6			
6/7/2017	3.3			6.3	4.1	5.2
9/12/2017			4.3	8.5		
9/13/2017	5.1	<2 (U*)			4.9	6.5
5/1/2018	4		3.8	4		5.7
5/2/2018		3.5			4.1	
11/26/2018	3.8		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	4.34					8.56
10/2/2019	4.34	3.49	4.13	5.02	4.32	8.48
3/30/2020		3.45	4.95	10.5	4.38	
3/31/2020	3.89					6.87
9/8/2020		6.23	5.71	8.74	4.61	
9/9/2020	4.11					7.94
5/12/2021	3.94	5.89	7.77	17.2	5.25	8.77
10/18/2021			10	16.8		
10/19/2021	3.79	4.81			5.34	6.33
5/31/2022		7.83	7.22			
6/1/2022	3.35			14.7	5.38	4.29
11/2/2022	3.07	8.44	6.58	22.700001	5.08	3.14
4/11/2023	3.17	5.21	7.94	22.6	5.2	4.32
8/15/2023	2.98	3.72	5.49	7.69	4.57	5.16

Time Series

Constituent: Chloride, total (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
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		4	4.3	3.9	
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	4.13	3.17	2.72	3.47	3.34
9/8/2020	3.96				3.29
9/9/2020		2.92	2.32	3.47	
5/11/2021			2.16	3.42	3.33
5/12/2021	4.89	2.18			
10/18/2021				3.45	3.32
10/19/2021	5.02	2.37	2.08		
5/31/2022		1.93	2.17	3.39	3.31
6/1/2022	7.97				
11/1/2022		2.37	2.22	3.09	3.3
11/2/2022	7.81				
4/11/2023	7.33				
4/12/2023		2.31	2.25	3.11	3.42
8/15/2023	11.5				
8/16/2023		2.61	2.01	2.94	3.12

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.00102	<0.00102	0.00209 (J)	<0.00102	<0.00102	<0.00102
4/18/2016		<0.00102	0.00324 (J)	<0.00102	0.00201 (J)	
4/19/2016	<0.00102					<0.00102
6/6/2016			0.0031 (J)	<0.00102		
6/7/2016	<0.00102	<0.00102			<0.00102	<0.00102
8/30/2016	<0.00102	<0.00102	0.00227 (J)	<0.00102	0.00205 (J)	<0.00102
10/18/2016	<0.00102	<0.00102	<0.00102	<0.00102	0.00218 (J)	<0.00102
1/30/2017	<0.00102			<0.00102		<0.00102
1/31/2017		<0.00102	<0.00102		<0.00102	
5/2/2017	<0.00102	<0.00102	<0.00102	<0.00102	0.00208 (J)	<0.00102
6/6/2017		<0.00102	<0.00102			
6/7/2017	<0.00102			<0.00102	0.0022 (J)	<0.00102
1/22/2018			<0.00102	<0.00102		
1/23/2018	<0.00102					<0.00102
1/24/2018		<0.00102			0.00258 (J)	
5/1/2018	<0.00102		<0.00102	<0.00102		<0.00102
5/2/2018		<0.00102			0.00202 (J)	
11/26/2018	<0.00102		<0.00102			<0.00102
11/27/2018		<0.00102		<0.00102	<0.00102	
5/28/2019		<0.00102	0.00223 (J)	<0.00102	0.00209 (J)	
5/29/2019	<0.00102					<0.00102
10/2/2019	<0.00102	<0.00102	<0.00102	<0.00102	0.00223 (J)	<0.00102
3/30/2020		<0.00102	0.00273 (J)	<0.00102	0.00275 (J)	
3/31/2020	<0.00102					<0.00102
9/8/2020		0.00221 (J)	0.00237 (J)	<0.00102	0.00224 (J)	
9/9/2020	<0.00102					<0.00102
5/12/2021	0.000695 (J)	0.00232	0.0034	0.00139	0.00218	0.000783 (J)
10/18/2021			0.00335	0.00131		
10/19/2021	0.00079 (J)	0.00268			0.00246	0.00081 (J)
5/31/2022		0.00281	0.00412			
6/1/2022	0.00089 (J)			0.00157	0.00226	0.00104
11/2/2022	0.000663 (J)	0.00259	0.00344	0.00144	0.00209	0.000918 (J)
4/11/2023	0.000659 (J)	0.00199	0.0046	0.00143	0.00201	0.000839 (J)
8/15/2023	0.000926 (J)	0.00155	0.00467	0.00173	0.00228	0.00087 (J)

Time Series

Constituent: Chromium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.00102	<0.00102	<0.00102	<0.00102
4/19/2016		<0.00102	<0.00102	<0.00102	<0.00102
6/6/2016		<0.00102			<0.00102
6/7/2016			<0.00102	<0.00102	
8/30/2016		<0.00102	<0.00102	<0.00102	<0.00102
10/18/2016		<0.00102	<0.00102	<0.00102	<0.00102
1/31/2017		<0.00102	<0.00102	<0.00102	<0.00102
5/2/2017		<0.00102	<0.00102	<0.00102	<0.00102
6/6/2017		<0.00102	<0.00102	<0.00102	<0.00102
1/23/2018		<0.00102	0.00596 (J)	0.00229 (J)	<0.00102
5/1/2018			<0.00102	<0.00102	<0.00102
5/2/2018		<0.00102			
11/26/2018					<0.00102
11/27/2018		<0.00102	<0.00102	<0.00102	
5/28/2019					<0.00102
5/29/2019		<0.00102	<0.00102	<0.00102	
10/2/2019		<0.00102	<0.00102	<0.00102	<0.00102
3/31/2020	0.00249 (J)	<0.00102	<0.00102	<0.00102	0.00604 (J)
9/8/2020	0.00253 (J)				<0.00102
9/9/2020		<0.00102	<0.00102	<0.00102	
5/11/2021			0.00136	0.00146	0.00159
5/12/2021	0.00281	0.000296 (J)			
10/18/2021				0.0013	0.00146
10/19/2021	0.00336	0.000301 (J)	0.00135		
5/31/2022		0.000334 (J)	0.0012	0.00139	0.00156
6/1/2022	0.00292				
11/1/2022		0.000212 (J)	0.00209	0.0012	0.00111
11/2/2022	0.00276				
4/11/2023	0.00301				
4/12/2023		0.000215 (J)	0.00152	0.00138	0.00128
8/15/2023	0.00323				
8/16/2023		0.000205 (J)	0.00111	0.00126	0.00158

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.00247 (J)	<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	0.00241 (J)					<0.005
6/6/2016			0.00361 (J)	<0.005		
6/7/2016	0.00247 (J)	<0.005			<0.005	<0.005
8/30/2016	0.00251 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
10/18/2016	0.00272 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
1/30/2017	<0.005			<0.005		<0.005
1/31/2017		<0.005	<0.005		<0.005	
5/2/2017	0.00205 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2017		<0.005	<0.005			
6/7/2017	0.00201 (J)			<0.005	<0.005	<0.005
1/22/2018			<0.005	<0.005		
1/23/2018	0.00229 (J)					<0.005
1/24/2018		<0.005			<0.005	
5/1/2018	0.00216 (J)		<0.005	<0.005		<0.005
5/2/2018		<0.005			<0.005	
11/26/2018	0.00205 (J)		<0.005			<0.005
11/27/2018		<0.005		<0.005	<0.005	
5/28/2019		<0.005	0.00301 (J)	<0.005	<0.005	
5/29/2019	0.00261 (J)					<0.005
10/2/2019	0.00262 (J)	<0.005	<0.005	<0.005	<0.005	<0.005
3/30/2020		<0.005	0.0031 (J)	<0.005	<0.005	
3/31/2020	0.00238 (J)					<0.005
9/8/2020		0.00227 (J)	0.00296 (J)	<0.005	<0.005	
9/9/2020	0.00241 (J)					<0.005
5/12/2021	0.00237	0.0046	0.0054	0.00192	0.000437	0.00177
10/18/2021			0.00552	0.00164		
10/19/2021	0.00238	0.00217			0.00049	0.00156
5/31/2022		0.00606	0.00724			
6/1/2022	0.0027			0.00162	0.00048	0.00131
11/2/2022	0.00249	0.00667	0.00684	0.00228	0.000514	0.00118
4/11/2023	0.00265	0.00397	0.0079	0.00215	0.000338	0.000888
8/15/2023	0.00251	0.0017	0.00804	0.00115	0.000504	0.00117

Time Series

Constituent: Cobalt (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.0035 (J)	<0.005	<0.005	<0.005
4/19/2016		0.0038 (J)	<0.005	<0.005	<0.005
6/6/2016		0.00427 (J)			<0.005
6/7/2016			<0.005	<0.005	
8/30/2016		0.00348 (J)	<0.005	<0.005	<0.005
10/18/2016		0.00338 (J)	<0.005	<0.005	<0.005
1/31/2017		0.00308 (J)	<0.005	<0.005	<0.005
5/2/2017		0.00314 (J)	<0.005	<0.005	<0.005
6/6/2017		0.0036 (J)	<0.005	<0.005	<0.005
1/23/2018		0.00586 (J)	0.0021 (J)	<0.005	<0.005
5/1/2018			<0.005	<0.005	<0.005
5/2/2018		0.00702 (J)			
11/26/2018					<0.005
11/27/2018		0.0157	0.00209 (J)	<0.005	
5/28/2019					<0.005
5/29/2019		0.0109	0.00248 (J)	<0.005	
10/2/2019		0.0129	0.00244 (J)	<0.005	<0.005
3/31/2020	<0.005	0.0123	0.00224 (J)	<0.005	<0.005
9/8/2020	<0.005				<0.005
9/9/2020		0.00697	0.00219 (J)	<0.005	
5/11/2021			0.00194	0.00142	0.00137
5/12/2021	0.00101	0.00611			
10/18/2021				0.00146	0.00139
10/19/2021	0.00117	0.00517	0.00192		
5/31/2022		0.00487	0.00194	0.00149	0.0015
6/1/2022	0.00143				
11/1/2022		0.00394	0.0016	0.00143	0.00169
11/2/2022	0.00144				
4/11/2023	0.00139				
4/12/2023		0.00398	0.00157	0.0013	0.00127
8/15/2023	0.00184				
8/16/2023		0.0034	0.00157	0.00133	0.00161

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	3 (U)	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)					3.81872
6/6/2016			1.47	0.427		
6/7/2016	1.03	1.03			0.69	0.941
8/30/2016	1.05	0.696	1.91	0.869	0.687	0.98
10/18/2016	1.36	0.966	0.966	0.927	0.62	1.06
1/30/2017	0.847			0.649		1.15
1/31/2017		0.724	1.01		0.266 (U)	
5/2/2017	0.649	0.587	1.41	0.804	0.853	1.31
6/6/2017		0.591	0.476			
6/7/2017	1.4			0.136 (U)	0.477	1.12
1/22/2018			0.814 (U)	0.726 (U)		
1/23/2018	1.36 (U)					1.16 (U)
1/24/2018		0.566 (U)			0.411 (U)	
5/1/2018	1.03		0.931	0.63		0.961
5/2/2018		0.401			0.718	
11/26/2018	1.04		0.815			1.72
11/27/2018		0.611		0.109 (U)	0.691	
5/28/2019		0.391 (U)	2.08	-0.428 (U)	0.311 (U)	
5/29/2019	0.548 (U)					2.2
10/2/2019	2.19	0.954	0.836	0.43 (U)	0.969	2
3/30/2020		0.525	1.54	0.939	0.397 (U)	
3/31/2020	1.01					1.88
9/8/2020		0.845	0.402 (U)	1.13	0.0249 (U)	
9/9/2020	1.32					2.11
5/12/2021	2.02	0.465 (U)	2.47	1.09	1.29	1.94
10/18/2021			2.03	0.69 (U)		
10/19/2021	1.6 (V)	0.719 (U)			1.54	3.15
5/31/2022		2.31	2.22			
6/1/2022	2.27			0.99	1.37	2.05
11/2/2022	1.34	1.24	1.7	1.09	1.06	1.93
4/11/2023	1.87	1.24	3.05	1.96	1.6	1.98
8/15/2023	1.2 (U)	1.29	1.71	1.18 (U)	0.8 (U)	0.994 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		2.8971 (U)	3 (U)	3 (U)	2.1138
4/19/2016		3 (U)	3 (U)	3 (U)	3 (U)
6/6/2016		0.841			0.757
6/7/2016			0.652	0.342 (U)	
8/30/2016		1.74	0.411 (U)	0.702	0.992
10/18/2016		1.47	1	0.791	0.905
1/31/2017		0.952	0.398 (U)	0.0613 (U)	1.08
5/2/2017		0.768	0.66	0.974	1.18
6/6/2017		1.04	0.639	0.748	1.1
1/23/2018		0.513 (U)	0.669 (U)	0.558 (U)	1.32 (U)
5/1/2018			1.06	0.296 (U)	1.19
5/2/2018		0.916			
11/26/2018					0.863
11/27/2018		1.37	0.636	0.357 (U)	
5/28/2019					0.474 (U)
5/29/2019		1.57	0.579 (U)	0.275 (U)	
10/2/2019		0.905	1.33	0.458 (U)	0.624 (U)
3/31/2020	0.968	1.77	0.814	0.941	1.09
9/8/2020	0.468 (U)				1.27
9/9/2020		1.77	0.653 (U)	1.05	
5/11/2021			0.945 (U)	0.521 (U)	0.969 (U)
5/12/2021	0.515 (U)	0.639 (U)			
10/18/2021				1.75	2.19
10/19/2021	0.87 (U)	1.77	1.85		
5/31/2022		1.34	1.38	1.67	1.47
6/1/2022	1.13				
11/1/2022		1.11	1	0.53 (U)	1.36
11/2/2022	0.625 (U)				
4/11/2023	1.05				
4/12/2023		1.03 (U)	1.07	1.28	1.17
8/15/2023	1.26 (U)				
8/16/2023		0.516 (U)	0.389 (U)	1.1 (U)	1.56

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	0.05 (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	0.05 (J)					0.039 (J)
6/6/2016			0.148 (J)	0.051 (J)		
6/7/2016	0.098 (J)	0.066 (J)			0.053 (J)	0.085 (J)
8/30/2016	0.089 (J)	0.046 (J)	0.072 (J)	0.039 (J)	0.038 (J)	0.078 (J)
10/18/2016	0.092 (J)	0.034 (J)	0.049 (J)	0.025 (J)	0.028 (J)	0.071 (J)
3/21/2017	0.06 (J)	<0.125	<0.125	<0.125	<0.125	0.05 (J)
5/2/2017	0.07 (J)	<0.125	<0.125	<0.125	<0.125	0.06 (J)
6/6/2017		<0.125	<0.125			
6/7/2017	0.07 (J)			<0.125	<0.125	0.07 (J)
9/12/2017			<0.125	<0.125		
9/13/2017	0.08 (J)	<0.125			<0.125	0.08 (J)
1/22/2018			<0.125	<0.125		
1/23/2018	0.08 (J)					0.07 (J)
1/24/2018		<0.125			<0.125	
5/1/2018	0.09 (J)		<0.125	<0.125		0.07 (J)
5/2/2018		<0.125			<0.125	
11/26/2018	0.08 (J)		<0.125			0.07 (J)
11/27/2018		<0.125		<0.125	<0.125	
5/28/2019		<0.125	0.0591 (J)	<0.125	<0.125	
5/29/2019	<0.125					<0.125
10/2/2019	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
3/30/2020		<0.125	<0.125	<0.125	<0.125	
3/31/2020	<0.125					<0.125
9/8/2020		<0.125	<0.125	<0.125	<0.125	
9/9/2020	<0.125					<0.125
5/12/2021	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
10/18/2021			<0.125	<0.125		
10/19/2021	<0.125	<0.125			<0.125	<0.125
5/31/2022		<0.125	<0.125			
6/1/2022	<0.125			<0.125	<0.125	<0.125
11/2/2022	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
4/11/2023	<0.125	0.0834 (J)	0.135	<0.125	<0.125	<0.125
8/15/2023	<0.125	<0.125	0.0957 (J)	<0.125	<0.125	<0.125

Time Series

Constituent: Fluoride (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		0.03 (J)	0.02 (J)	0.02 (J)	0.02 (J)
4/19/2016		0.023 (J)	0.021 (J)	0.016 (J)	0.015 (J)
6/6/2016		0.062 (J)			0.05 (J)
6/7/2016			0.06 (J)	0.052 (J)	
8/30/2016		0.053 (J)	0.05 (J)	0.038 (J)	0.036 (J)
10/18/2016		0.042 (J)	0.04 (J)	0.03 (J)	0.025 (J)
3/20/2017		<0.125	<0.125	<0.125	<0.125
5/2/2017		0.04 (J)	0.04 (J)	<0.125	<0.125
6/6/2017		<0.125	0.04 (J)	<0.125	<0.125
9/12/2017					<0.125
9/13/2017		0.04 (J)	0.043 (J)	<0.125	
1/23/2018		<0.125	0.04 (J)	<0.125	<0.125
5/1/2018			0.04 (J)	<0.125	<0.125
5/2/2018		0.04 (J)			
11/26/2018					<0.125
11/27/2018		<0.125	<0.125	<0.125	
5/28/2019					<0.125
5/29/2019		0.0502 (J)	<0.125	<0.125	
10/2/2019		<0.125	<0.125	<0.125	<0.125
3/31/2020	<0.125	<0.125	<0.125	<0.125	<0.125
9/8/2020	<0.125				<0.125
9/9/2020		<0.125	<0.125	<0.125	
5/11/2021			<0.125	<0.125	<0.125
5/12/2021	<0.125	<0.125			
10/18/2021				<0.125	<0.125
10/19/2021	<0.125	<0.125	<0.125		
5/31/2022		<0.125	<0.125	<0.125	<0.125
6/1/2022	<0.125				
11/1/2022		<0.125	<0.125	<0.125	<0.125
11/2/2022	<0.125				
4/11/2023	<0.125				
4/12/2023		<0.125	<0.125	<0.125	<0.125
8/15/2023	<0.125				
8/16/2023		<0.125	<0.125	<0.125	<0.125

Time Series

Constituent: Lead (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/18/2016		<0.000203	<0.000203	<0.000203	<0.000203	
4/19/2016	<0.000203					<0.000203
6/6/2016			<0.000203	<0.000203		
6/7/2016	<0.000203	<0.000203			<0.000203	<0.000203
8/30/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/30/2017	<0.000203			<0.000203		<0.000203
1/31/2017		<0.000203	<0.000203		<0.000203	
5/2/2017	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203			
6/7/2017	<0.000203			<0.000203	<0.000203	<0.000203
1/22/2018			<0.000203	<0.000203		
1/23/2018	<0.000203					<0.000203
1/24/2018		<0.000203			<0.000203	
5/1/2018	<0.000203		<0.000203	<0.000203		<0.000203
5/2/2018		<0.000203			<0.000203	
11/26/2018	<0.000203		<0.000203			<0.000203
11/27/2018		<0.000203		<0.000203	<0.000203	
5/28/2019		<0.000203	<0.000203	<0.000203	<0.000203	
5/29/2019	<0.000203					<0.000203
10/2/2019	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203	
3/31/2020	<0.000203					<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203	
9/9/2020	<0.000203					<0.000203
5/12/2021	0.000113 (J)	9.94E-05 (J)	0.000213	7.98E-05 (J)	<0.000203	0.000288
10/18/2021			0.00011 (J)	8E-05 (J)		
10/19/2021	0.0001 (J)	0.00026			<0.000203	0.00025
5/31/2022		0.00018 (J)	0.00011 (J)			
6/1/2022	0.0001 (J)			8E-05 (J)	<0.000203	0.00023
11/2/2022	0.000122 (J)	0.000144 (J)	0.000146 (J)	0.000125 (J)	<0.000203	0.000233
4/11/2023	0.000131 (J)	9.4E-05 (J)	0.000112 (J)	0.000123 (J)	<0.000203	0.000204
8/15/2023	0.000153 (J)	<0.000203	0.000377	0.000107 (J)	0.000109 (J)	0.000253

Time Series

Constituent: Lead (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.000203	<0.000203	<0.000203	<0.000203
4/19/2016		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2016		<0.000203			<0.000203
6/7/2016			<0.000203	<0.000203	
8/30/2016		<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016		<0.000203	<0.000203	<0.000203	<0.000203
1/31/2017		<0.000203	<0.000203	<0.000203	<0.000203
5/2/2017		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203	<0.000203	<0.000203
1/23/2018		<0.000203	<0.000203	<0.000203	<0.000203
5/1/2018			<0.000203	<0.000203	<0.000203
5/2/2018		<0.000203			
11/26/2018					<0.000203
11/27/2018		<0.000203	<0.000203	<0.000203	
5/28/2019					<0.000203
5/29/2019		<0.000203	<0.000203	<0.000203	
10/2/2019		<0.000203	<0.000203	<0.000203	<0.000203
3/31/2020	<0.000203	<0.000203	<0.000203	<0.000203	0.00126 (J)
9/8/2020	<0.000203				<0.000203
9/9/2020		<0.000203	<0.000203	<0.000203	
5/11/2021			0.000118 (J)	<0.000203	0.000159 (J)
5/12/2021	0.000208	9.79E-05 (J)			
10/18/2021				<0.000203	0.00012 (J)
10/19/2021	0.00014 (J)	0.000115 (J)	0.0001 (J)		
5/31/2022		8.38E-05 (J)	7.81E-05 (J)	<0.000203	0.000173 (J)
6/1/2022	0.00012 (J)				
11/1/2022		0.00017 (J)	0.000411	<0.000203	8.6E-05 (J)
11/2/2022	<0.000203				
4/11/2023	8.2E-05 (J)				
4/12/2023		7.57E-05 (J)	0.00014 (J)	8.25E-05 (J)	8.65E-05 (J)
8/15/2023	0.000171 (J)				
8/16/2023		<0.000203	<0.000203	<0.000203	0.000177 (J)

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<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
6/6/2016			<0.02	<0.02		
6/7/2016	<0.02	<0.02			<0.02	<0.02
8/30/2016	<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
1/30/2017	<0.02			<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	<0.02
6/6/2017		<0.02	<0.02			
6/7/2017	<0.02			<0.02	<0.02	<0.02
1/22/2018			<0.02	<0.02		
1/23/2018	<0.02					<0.02
1/24/2018		<0.02			<0.02	
5/1/2018	<0.02		<0.02	<0.02		<0.02
5/2/2018		<0.02			<0.02	
11/26/2018	<0.02		<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					<0.02
10/2/2019	<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
9/8/2020		<0.02	<0.02	<0.02	<0.02	
9/9/2020	<0.02					<0.02
5/12/2021	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10/18/2021			<0.02	<0.02		
10/19/2021	<0.02	<0.02			<0.02	<0.02
5/31/2022		<0.02	<0.02			
6/1/2022	<0.02			<0.02	<0.02	<0.02
11/2/2022	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4/11/2023	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
8/15/2023	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.02	<0.02	<0.02	<0.02
4/19/2016		<0.02	<0.02	<0.02	<0.02
6/6/2016		<0.02			<0.02
6/7/2016			<0.02	<0.02	
8/30/2016		<0.02	<0.02	<0.02	<0.02
10/18/2016		<0.02	<0.02	<0.02	<0.02
1/31/2017		<0.02	<0.02	<0.02	<0.02
5/2/2017		<0.02	<0.02	<0.02	<0.02
6/6/2017		<0.02	<0.02	<0.02	<0.02
1/23/2018		<0.02	<0.02	<0.02	<0.02
5/1/2018			<0.02	<0.02	<0.02
5/2/2018		<0.02			
11/26/2018					<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	
10/2/2019		<0.02	<0.02	<0.02	<0.02
3/31/2020	<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	
5/11/2021			<0.02	<0.02	<0.02
5/12/2021	<0.02	<0.02			
10/18/2021				<0.02	<0.02
10/19/2021	<0.02	<0.02	<0.02		
5/31/2022		<0.02	<0.02	<0.02	<0.02
6/1/2022	<0.02				
11/1/2022		<0.02	<0.02	<0.02	<0.02
11/2/2022	<0.02				
4/11/2023	<0.02				
4/12/2023		<0.02	<0.02	<0.02	<0.02
8/15/2023	<0.02				
8/16/2023		<0.02	<0.02	<0.02	<0.02

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<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
6/6/2016			<0.0005	<0.0005		
6/7/2016	<0.0005	<0.0005			0.00031 (J)	<0.0005
8/30/2016	<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
1/30/2017	<0.0005			<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	<0.0005
6/6/2017		<0.0005	<0.0005			
6/7/2017	<0.0005			<0.0005	<0.0005	<0.0005
1/22/2018			<0.0005	<0.0005		
1/23/2018	<0.0005					<0.0005
1/24/2018		<0.0005			<0.0005	
5/1/2018	<0.0005		<0.0005	<0.0005		<0.0005
5/2/2018		<0.0005			<0.0005	
11/26/2018	<0.0005		<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					<0.0005
10/2/2019	<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
9/8/2020		<0.0005	<0.0005	<0.0005	<0.0005	
9/9/2020	<0.0005					<0.0005
5/12/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10/18/2021			<0.0005	<0.0005		
10/19/2021	<0.0005	<0.0005			<0.0005	<0.0005
5/31/2022		0.00036 (J)	0.00035 (J)			
6/1/2022	<0.0005			<0.0005	<0.0005	<0.0005
11/2/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/11/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/15/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.0005	<0.0005	<0.0005	<0.0005
4/19/2016		<0.0005	<0.0005	<0.0005	<0.0005
6/6/2016		<0.0005			<0.0005
6/7/2016			<0.0005	<0.0005	
8/30/2016		<0.0005	<0.0005	<0.0005	<0.0005
10/18/2016		<0.0005	<0.0005	<0.0005	<0.0005
1/31/2017		<0.0005	<0.0005	<0.0005	<0.0005
5/2/2017		<0.0005	<0.0005	<0.0005	<0.0005
6/6/2017		<0.0005	<0.0005	<0.0005	<0.0005
1/23/2018		<0.0005	<0.0005	<0.0005	<0.0005
5/1/2018			<0.0005	<0.0005	<0.0005
5/2/2018		<0.0005			
11/26/2018					<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	
10/2/2019		<0.0005	<0.0005	<0.0005	<0.0005
3/31/2020	<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	
5/11/2021			<0.0005	<0.0005	<0.0005
5/12/2021	<0.0005	<0.0005			
10/18/2021				<0.0005	<0.0005
10/19/2021	<0.0005	<0.0005	<0.0005		
5/31/2022		<0.0005	<0.0005	<0.0005	<0.0005
6/1/2022	<0.0005				
11/1/2022		<0.0005	<0.0005	<0.0005	<0.0005
11/2/2022	<0.0005				
4/11/2023	<0.0005				
4/12/2023		<0.0005	<0.0005	<0.0005	<0.0005
8/15/2023	<0.0005				
8/16/2023		<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
4/18/2016		<0.01015	<0.01015	<0.01015	<0.01015	
4/19/2016	<0.01015					<0.01015
6/6/2016			<0.01015	<0.01015		
6/7/2016	<0.01015	<0.01015			<0.01015	<0.01015
8/30/2016	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
10/18/2016	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
1/30/2017	<0.01015			<0.01015		<0.01015
1/31/2017		<0.01015	<0.01015		<0.01015	
5/2/2017	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
6/6/2017		<0.01015	<0.01015			
6/7/2017	<0.01015			<0.01015	<0.01015	<0.01015
1/22/2018			<0.01015	<0.01015		
1/23/2018	<0.01015					<0.01015
1/24/2018		<0.01015			<0.01015	
5/1/2018	<0.01015		<0.01015	<0.01015		<0.01015
5/2/2018		<0.01015			<0.01015	
11/26/2018	<0.01015		<0.01015			<0.01015
11/27/2018		<0.01015		<0.01015	<0.01015	
5/28/2019		<0.01015	<0.01015	<0.01015	<0.01015	
5/29/2019	<0.01015					<0.01015
10/2/2019	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
3/30/2020		<0.01015	<0.01015	<0.01015	<0.01015	
3/31/2020	<0.01015					<0.01015
9/8/2020		<0.01015	<0.01015	<0.01015	<0.01015	
9/9/2020	<0.01015					<0.01015
5/12/2021	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
10/18/2021			<0.01015	<0.01015		
10/19/2021	<0.01015	0.0001 (J)			8E-05 (J)	<0.01015
5/31/2022		<0.01015	<0.01015			
6/1/2022	<0.01015			<0.01015	<0.01015	<0.01015
11/2/2022	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
4/11/2023	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
8/15/2023	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.01015	<0.01015	<0.01015	<0.01015
4/19/2016		<0.01015	<0.01015	<0.01015	<0.01015
6/6/2016		<0.01015			<0.01015
6/7/2016			<0.01015	<0.01015	
8/30/2016		<0.01015	<0.01015	<0.01015	<0.01015
10/18/2016		<0.01015	<0.01015	<0.01015	<0.01015
1/31/2017		<0.01015	<0.01015	<0.01015	<0.01015
5/2/2017		<0.01015	<0.01015	<0.01015	<0.01015
6/6/2017		<0.01015	<0.01015	<0.01015	<0.01015
1/23/2018		<0.01015	<0.01015	<0.01015	<0.01015
5/1/2018			<0.01015	<0.01015	<0.01015
5/2/2018		<0.01015			
11/26/2018					<0.01015
11/27/2018		<0.01015	<0.01015	<0.01015	
5/28/2019					<0.01015
5/29/2019		<0.01015	<0.01015	<0.01015	
10/2/2019		<0.01015	<0.01015	<0.01015	<0.01015
3/31/2020	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
9/8/2020	<0.01015				<0.01015
9/9/2020		<0.01015	<0.01015	<0.01015	
5/11/2021			<0.01015	<0.01015	<0.01015
5/12/2021	<0.01015	<0.01015			
10/18/2021				<0.01015	<0.01015
10/19/2021	<0.01015	<0.01015	<0.01015		
5/31/2022		<0.01015	<0.01015	<0.01015	<0.01015
6/1/2022	<0.01015				
11/1/2022		<0.01015	<0.01015	<0.01015	<0.01015
11/2/2022	<0.01015				
4/11/2023	<0.01015				
4/12/2023		<0.01015	<0.01015	<0.01015	<0.01015
8/15/2023	<0.01015				
8/16/2023		<0.01015	<0.01015	<0.01015	<0.01015

Time Series

Constituent: pH, Field (SU) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	4.67	4.76	6.59	5.12	4.92	4.56
4/18/2016		4.75	6.21	5.11	5.16	
4/19/2016	4.79					4.62
6/6/2016			5.97	5.14		
6/7/2016	4.73	4.77			5.11	4.64
8/30/2016	4.68	4.82	5.99	5.06	5.14	4.58
10/18/2016	4.75	4.82	5.94	5.01	5.09	4.58
1/30/2017	4.65			4.74		4.44
1/31/2017		4.8	5.92		5.01	
3/21/2017	4.68	4.86	5.74	5.04	5.07	4.57
5/2/2017	4.75	4.89	5.82	5.08	5.13	4.64
6/6/2017		4.86	5.77			
6/7/2017	4.7			5.07	5.05	4.58
9/12/2017			5.64	5.03		
9/13/2017	4.71	4.89			5.06	4.54
1/22/2018			5.66	5.06		
1/23/2018	4.6					4.53
1/24/2018		4.86			5.02	
5/1/2018	4.61		5.71	4.89		4.46
5/2/2018		4.87			4.99	
11/26/2018	4.65		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	4.54					4.45
10/2/2019	4.6	4.44	5.4	5.04	4.86	4.49
3/30/2020		4.83	5.51	4.91	4.92	
3/31/2020	4.55					4.45
9/8/2020		4.77	5.15	4.39	4.35	
9/9/2020	4.58					4.46
5/12/2021	4.4	4.61	5.46	4.84	4.83	4.43
10/18/2021			5.28	5.05		
10/19/2021	4.48	4.79			4.77	4.34
5/31/2022		4.61	4.98			
6/1/2022	4.56			4.56	4.03	4.49
11/2/2022	4.39	4.42	4.84	4.75	3.84	3.93
4/11/2023	4.43	4.63	5.34	4.3	4.04	4.17
8/15/2023	4.17	4.1	4.33	4.56	4.45	3.86 (E)

Time Series

Constituent: pH, Field (SU) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		4.62	4.79	4.96	4.74
4/19/2016		4.74	4.84	4.94	4.86
6/6/2016		4.65			4.88
6/7/2016			4.81	4.96	
8/30/2016		4.64	4.76	4.92	4.91
10/18/2016		4.74	4.84	4.98	4.95
1/31/2017		4.54	4.6	4.74	4.71
3/20/2017		4.67	4.71	4.9	4.83
5/2/2017		4.79	4.8	4.98	4.93
6/6/2017		4.76	4.72	4.94	4.9
9/12/2017					4.82
9/13/2017		4.81	4.71	4.93	
1/23/2018		4.79	4.67	4.91	4.85
5/1/2018			4.61	4.87	4.8
5/2/2018		4.62			
11/26/2018					4.88
11/27/2018		4.73	4.72	4.94	
5/28/2019					4.73
5/29/2019		4.65	4.58	4.8	
10/2/2019		4.57	4.43	4.52	4.67
3/31/2020	4.91	4.64	4.6	4.4	4.51
9/8/2020	4.12				4.75
9/9/2020		4.65	4.67	4.76	
5/11/2021			4.29	4.53	4.67
5/12/2021	4.93	4.74			
10/18/2021				4.55	4.38
10/19/2021	4.8	4.67	4.6		
5/31/2022		3.89	3.31	3.54	3.97
6/1/2022	4.74				
11/1/2022		4.6	4.42	4.12	4.74
11/2/2022	4.57				
4/11/2023	4.8				
4/12/2023		4.77	4.67	4.83	4.73
8/15/2023	4.45				
8/16/2023		4.45	4.49	4.03	4.58

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.001015	0.00572 (J)	0.0266	<0.001015	<0.001015	<0.001015
4/18/2016		0.0141	0.0529	<0.001015	<0.001015	
4/19/2016	<0.001015					<0.001015
6/6/2016			0.0382	<0.001015		
6/7/2016	<0.001015	0.00698 (J)			<0.001015	<0.001015
8/30/2016	<0.001015	0.0042 (J)	0.014	<0.001015	<0.001015	<0.001015
10/18/2016	<0.001015	0.00386 (J)	0.0105	<0.001015	<0.001015	<0.001015
1/30/2017	<0.001015			<0.001015		<0.001015
1/31/2017		0.00247 (J)	0.0104		<0.001015	
5/2/2017	<0.001015	0.00284 (J)	0.00778 (J)	<0.001015	<0.001015	<0.001015
6/6/2017		0.003 (J)	0.00576 (J)			
6/7/2017	<0.001015			<0.001015	<0.001015	<0.001015
1/22/2018			0.00287 (J)	<0.001015		
1/23/2018	<0.001015					<0.001015
1/24/2018		0.00201 (J)			<0.001015	
5/1/2018	<0.001015		0.00367 (J)	<0.001015		<0.001015
5/2/2018		<0.001015			<0.001015	
11/26/2018	<0.001015		0.00286 (J)			<0.001015
11/27/2018		<0.001015		<0.001015	<0.001015	
5/28/2019		<0.001015	0.0089 (J)	<0.001015	<0.001015	
5/29/2019	<0.001015					<0.001015
10/2/2019	<0.001015	<0.001015	0.00472 (J)	<0.001015	<0.001015	<0.001015
3/30/2020		<0.001015	0.00658 (J)	<0.001015	<0.001015	
3/31/2020	<0.001015					<0.001015
9/8/2020		0.0052 (J)	0.0052 (J)	<0.001015	<0.001015	
9/9/2020	<0.001015					<0.001015
5/12/2021	0.000778 (J)	0.0163	0.0123	<0.001015	<0.001015	0.00128
10/18/2021			0.00672	<0.001015		
10/19/2021	0.00083 (J)	0.0029			0.00052 (J)	0.00118
5/31/2022		0.0217	0.0132			
6/1/2022	0.00125			0.00058 (J)	<0.001015	0.00204
11/2/2022	0.00133	0.0247	0.0156	<0.001015	<0.001015	0.00198
4/11/2023	0.00108	0.0168	0.0232	0.000519 (J)	0.00055 (J)	0.00123
8/15/2023	0.0011	0.00465	0.0162	0.000571 (J)	<0.001015	0.00137

Time Series

Constituent: Selenium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.001015	<0.001015	<0.001015	<0.001015
4/19/2016		<0.001015	<0.001015	<0.001015	<0.001015
6/6/2016		<0.001015			<0.001015
6/7/2016			<0.001015	<0.001015	
8/30/2016		<0.001015	<0.001015	<0.001015	<0.001015
10/18/2016		<0.001015	<0.001015	<0.001015	<0.001015
1/31/2017		<0.001015	<0.001015	<0.001015	<0.001015
5/2/2017		<0.001015	<0.001015	<0.001015	<0.001015
6/6/2017		<0.001015	<0.001015	<0.001015	<0.001015
1/23/2018		<0.001015	<0.001015	<0.001015	<0.001015
5/1/2018			<0.001015	<0.001015	<0.001015
5/2/2018		<0.001015			
11/26/2018					<0.001015
11/27/2018		<0.001015	<0.001015	<0.001015	
5/28/2019					<0.001015
5/29/2019		<0.001015	<0.001015	<0.001015	
10/2/2019		<0.001015	<0.001015	<0.001015	<0.001015
3/31/2020	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
9/8/2020	<0.001015				<0.001015
9/9/2020		<0.001015	<0.001015	<0.001015	
5/11/2021			0.000602 (J)	<0.001015	<0.001015
5/12/2021	0.00111	<0.001015			
10/18/2021				<0.001015	<0.001015
10/19/2021	0.00114	<0.001015	<0.001015		
5/31/2022		<0.001015	0.000633 (J)	<0.001015	<0.001015
6/1/2022	0.00132				
11/1/2022		<0.001015	0.000558 (J)	<0.001015	<0.001015
11/2/2022	0.00163				
4/11/2023	0.00168				
4/12/2023		<0.001015	0.000702 (J)	<0.001015	<0.001015
8/15/2023	0.00154				
8/16/2023		<0.001015	0.000614 (J)	<0.001015	<0.001015

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	9.29	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	9.92					7.85
6/6/2016			0.498 (J)	3.76		
6/7/2016	10	18.7			4.44	7.76
8/30/2016	11.1	13.8	27.8	3.62	4.29	8.22
10/18/2016	11.7	12.2	22.5	2.58	4.27	9.29
3/21/2017	9	8.6	15	3.3 (J)	3.6 (J)	7.1
5/2/2017	7.9	8	11	2.5 (J)	2.9 (J)	5.7
6/6/2017		8.6	10			
6/7/2017	8.4			3.1 (J)	2.9 (J)	7.1
9/12/2017			7.5	3 (J)		
9/13/2017	8.7	7.6			3.2 (J)	7.3
5/1/2018	10		8.5	1.6 (J)		7.1
5/2/2018		6			2.6 (J)	
11/26/2018	8.3		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	11.1					12.3
10/2/2019	13.2	6.55	15.9	4.6	4.96	11.6
3/30/2020		6.34	21.8	4.29	4.84	
3/31/2020	11.1					12.5
9/8/2020		15.1	17.7	3.59	4.56	
9/9/2020	9.28					10.7
5/12/2021	11	38.2	37.1	3.58	4.7	12.5
10/18/2021			24.7	2.54		
10/19/2021	10.1	12.3			4.2	12.6
5/31/2022		48.7	38.6			
6/1/2022	11.4			3.4	5.11	13
11/2/2022	11.5	51.400002	36.900002	2.35	5.34	12.2
4/11/2023	11.9	34.799999	53.599998	<2	5.57	10.2
8/15/2023	11.7	11.9	38.200001	3.85	5.94	10.4

Time Series

Constituent: Sulfate (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		8.59	7.2	7.44	7.04
4/19/2016		8.27	7.22	7.66	6.74
6/6/2016		8.66			7.04
6/7/2016			7.92	8.16	
8/30/2016		9.74	8.17	8.43	7.57
10/18/2016		10.2	7.99	8.47	6.62
3/20/2017		8.3	6.1	7.4	7
5/2/2017		6.6	5	6.3	5.6
6/6/2017		7.6	5.3	7.1	6.6
9/12/2017					7.2
9/13/2017		8.4	4.9 (J)	7.3	
5/1/2018			4.2 (J)	6.9	5.9
5/2/2018		5.9			
11/26/2018					5.1
11/27/2018		22	3.7 (J)	6.5	
5/28/2019					7.1
5/29/2019		23.3	5.94	7.81	
10/2/2019		17.5	6.04	7.62	6.88
3/31/2020	3.16	24.3	6.83	7.98	10.8
9/8/2020	3.61				6.52
9/9/2020		16.5	6.08	7.13	
5/11/2021			7.92	7.73	6.8
5/12/2021	4.62	16.3			
10/18/2021				7.36	6.58
10/19/2021	4.92	15.5	7.48		
5/31/2022		12.8	8.09	7.02	7.94
6/1/2022	4.75				
11/1/2022		11.3	7.11	6.83	4.59
11/2/2022	4.65				
4/11/2023	5.92				
4/12/2023		11.8	8.54	7.59	5.93
8/15/2023	5.65				
8/16/2023		9.38	8.28	7.26	7.05

Time Series

Constituent: TDS (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	37.3	38	128	<25	30	25.3
4/18/2016		62	166	<25	27.3	
4/19/2016	34					28
6/6/2016			131	32.7		
6/7/2016	38.7	51.3			32	34.7
8/30/2016	34	38	86.7	25.3	<25	26.7
10/18/2016	31.3	28.7	67.3	28	28	32
1/30/2017	<25			45.3		32.7
1/31/2017		34	60.7		26	
5/2/2017	29.3	37.3	50	26.7	25.3	30.7
6/6/2017		36.7	47.3			
6/7/2017	36			28	<25	<25
9/12/2017			42.7	35.3		
9/13/2017	35.3	37.3			31.3	37.3
5/1/2018	32		44	30.7		39.3
5/2/2018		30.7			30.7	
11/26/2018	31.3		38			48
11/27/2018		<25		30.7	35.3	
5/28/2019		26	77.3	33.3	28.7	
5/29/2019	43.3					60
10/2/2019	36	34.7	50.7	30.7	37.3	46.7
3/30/2020		32	58	39.3	30	
3/31/2020	33.3					37.3
9/8/2020		55.3	59.3	42	38	
9/9/2020	39.3					50.7
5/12/2021	42.7	85.3	98.7	52.7	40	50.7
10/18/2021			77.3	42.7		
10/19/2021	39.3	48.7			33.3	48
5/31/2022		104	85.3			
6/1/2022	40.7			41.3	30.7	39.3
11/2/2022	36.700001	115	83.300003	56	34	34.700001
4/11/2023	34	70.699997	106	50	32	32.700001
8/15/2023	36.700001	41.299999	84	38.700001	34	39.299999

Time Series

Constituent: TDS (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		26.7	30.7	40	<25
4/19/2016		<25	<25	32	<25
6/6/2016		32.7			28.7
6/7/2016			35.3	38.7	
8/30/2016		33.3	27.3	31.3	25.3
10/18/2016		27.3	<25	26.7	<25
1/31/2017		32	32.7	30	26
5/2/2017		31.3	30.7	30.7	<25
6/6/2017		35.3	34.7	32.7	42.7
9/12/2017					26.7
9/13/2017		36.7	39.3	38	
5/1/2018			42	35.3	34.7
5/2/2018		34			
11/26/2018					32.7
11/27/2018		50.7	31.3	36	
5/28/2019					31.3
5/29/2019		58	40	37.3	
10/2/2019		46	41.3	36.7	36
3/31/2020	<25	53.3	40	39.3	36.7
9/8/2020	29.3				39.3
9/9/2020		42	40.7	42.7	
5/11/2021			35.3	44	46.7
5/12/2021	40	40.7			
10/18/2021				36	36
10/19/2021	37.3	40	36		
5/31/2022		32	30.7	35.3	36.7
6/1/2022	35.3				
11/1/2022		33.299999	36	36	31.299999
11/2/2022	37.299999				
4/11/2023	32.700001				
4/12/2023		<25	27.299999	30.700001	32
8/15/2023	45.299999				
8/16/2023		29.299999	30	32.700001	35.299999

Time Series

Constituent: Thallium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9
2/23/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/18/2016		<0.000203	<0.000203	<0.000203	<0.000203	
4/19/2016	<0.000203					<0.000203
6/6/2016			<0.000203	<0.000203		
6/7/2016	<0.000203	<0.000203			<0.000203	<0.000203
8/30/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
1/30/2017	<0.000203			<0.000203		<0.000203
1/31/2017		<0.000203	<0.000203		<0.000203	
5/2/2017	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203			
6/7/2017	<0.000203			<0.000203	<0.000203	<0.000203
1/22/2018			<0.000203	<0.000203		
1/23/2018	<0.000203					<0.000203
1/24/2018		<0.000203			<0.000203	
5/1/2018	<0.000203		<0.000203	<0.000203		<0.000203
5/2/2018		<0.000203			<0.000203	
11/26/2018	<0.000203		<0.000203			<0.000203
11/27/2018		<0.000203		<0.000203	<0.000203	
5/28/2019		<0.000203	<0.000203	<0.000203	<0.000203	
5/29/2019	<0.000203					<0.000203
10/2/2019	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203	
3/31/2020	<0.000203					<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203	
9/9/2020	<0.000203					<0.000203
5/12/2021	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2021			<0.000203	<0.000203		
10/19/2021	<0.000203	<0.000203			<0.000203	<0.000203
5/31/2022		<0.000203	<0.000203			
6/1/2022	<0.000203			<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/11/2023	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
8/15/2023	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203

Time Series

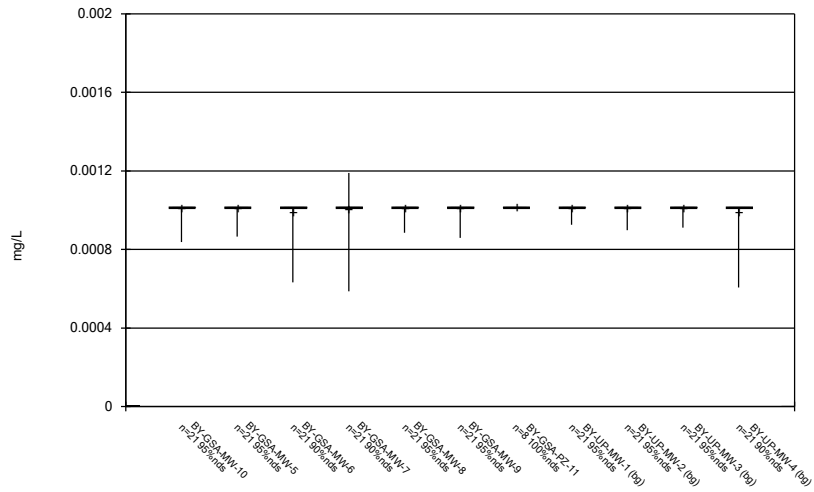
Constituent: Thallium (mg/L) Analysis Run 10/11/2023 4:33 PM View: Descriptive

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-PZ-11	BY-UP-MW-1 (bg)	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-4 (bg)
2/23/2016		<0.000203	<0.000203	<0.000203	<0.000203
4/19/2016		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2016		<0.000203			<0.000203
6/7/2016			<0.000203	<0.000203	
8/30/2016		<0.000203	<0.000203	<0.000203	<0.000203
10/18/2016		<0.000203	<0.000203	<0.000203	<0.000203
1/31/2017		<0.000203	<0.000203	<0.000203	<0.000203
5/2/2017		<0.000203	<0.000203	<0.000203	<0.000203
6/6/2017		<0.000203	<0.000203	<0.000203	<0.000203
1/23/2018		<0.000203	<0.000203	<0.000203	<0.000203
5/1/2018			<0.000203	<0.000203	<0.000203
5/2/2018		<0.000203			
11/26/2018					<0.000203
11/27/2018		<0.000203	<0.000203	<0.000203	
5/28/2019					<0.000203
5/29/2019		<0.000203	<0.000203	<0.000203	
10/2/2019		<0.000203	<0.000203	<0.000203	<0.000203
3/31/2020	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
9/8/2020	<0.000203				<0.000203
9/9/2020		<0.000203	<0.000203	<0.000203	
5/11/2021			<0.000203	<0.000203	<0.000203
5/12/2021	<0.000203	<0.000203			
10/18/2021				<0.000203	<0.000203
10/19/2021	<0.000203	<0.000203	<0.000203		
5/31/2022		<0.000203	<0.000203	<0.000203	<0.000203
6/1/2022	<0.000203				
11/1/2022		<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203				
4/11/2023	<0.000203				
4/12/2023		<0.000203	<0.000203	<0.000203	<0.000203
8/15/2023	<0.000203				
8/16/2023		<0.000203	<0.000203	<0.000203	<0.000203

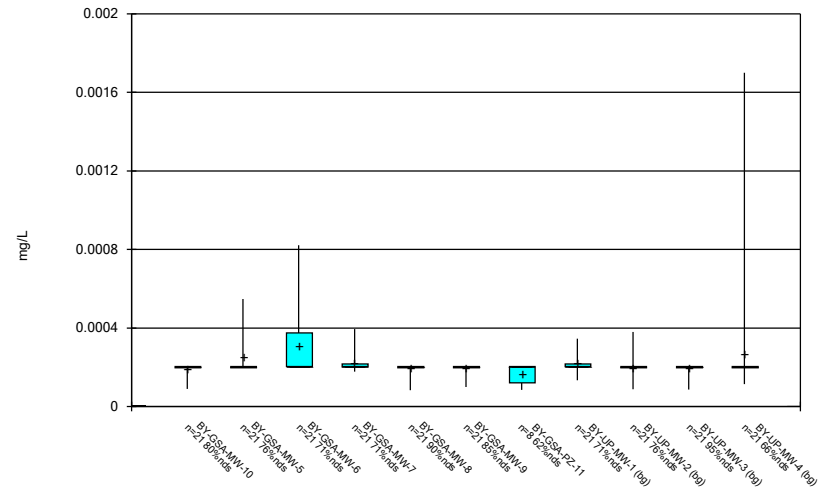
FIGURE B.

Box & Whiskers Plot



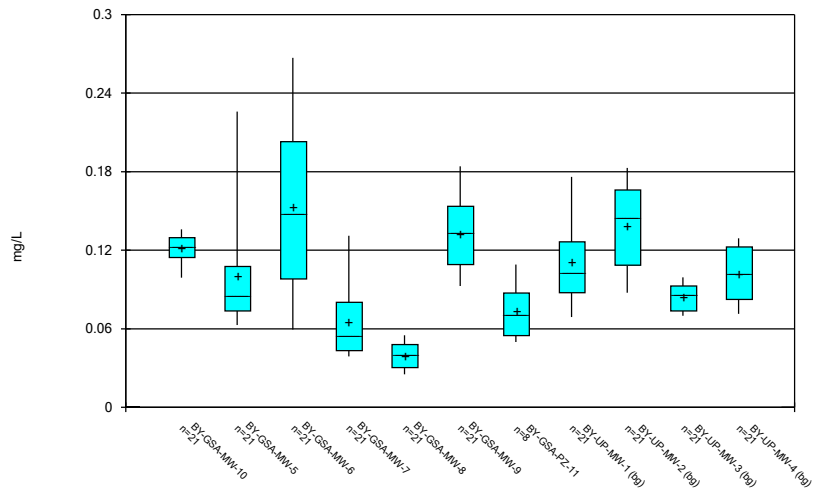
Constituent: Antimony Analysis Run 10/11/2023 4:33 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



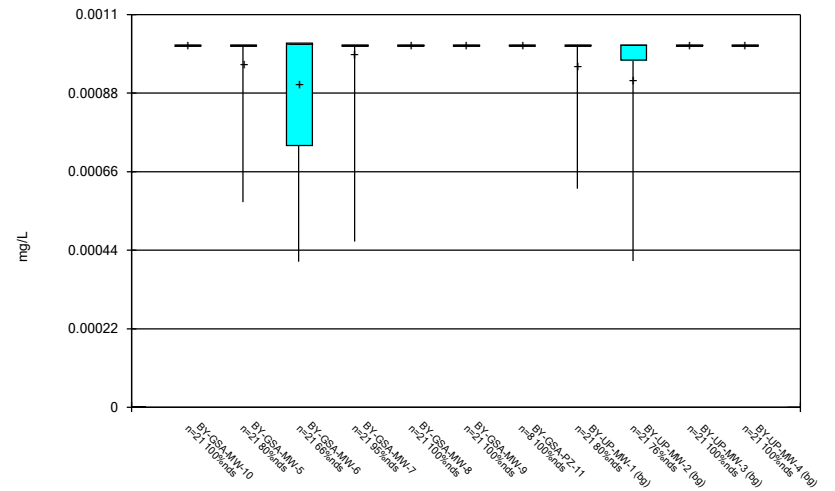
Constituent: Arsenic Analysis Run 10/11/2023 4:33 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



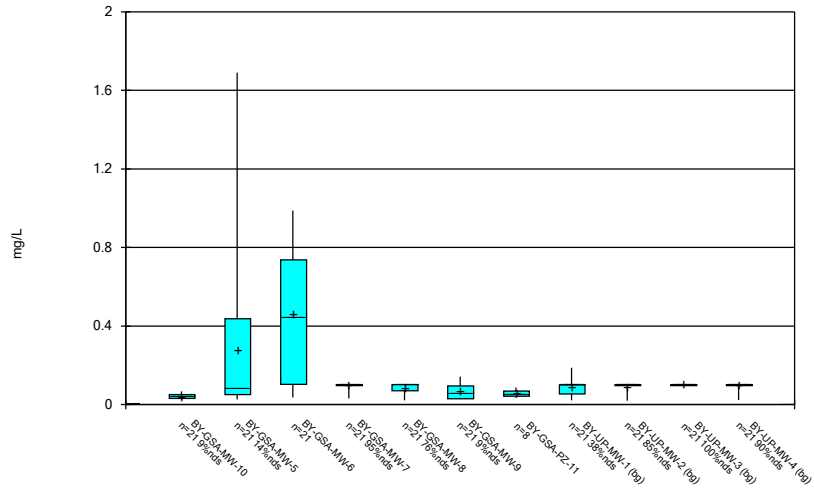
Constituent: Barium Analysis Run 10/11/2023 4:33 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



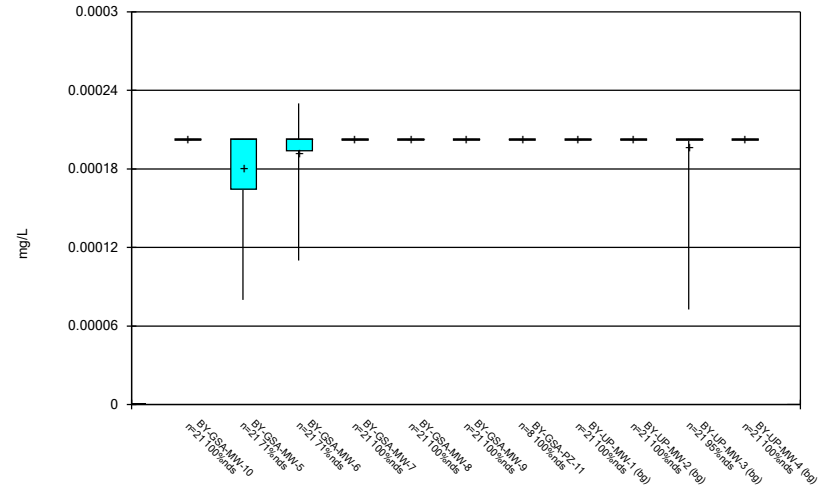
Constituent: Beryllium Analysis Run 10/11/2023 4:33 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



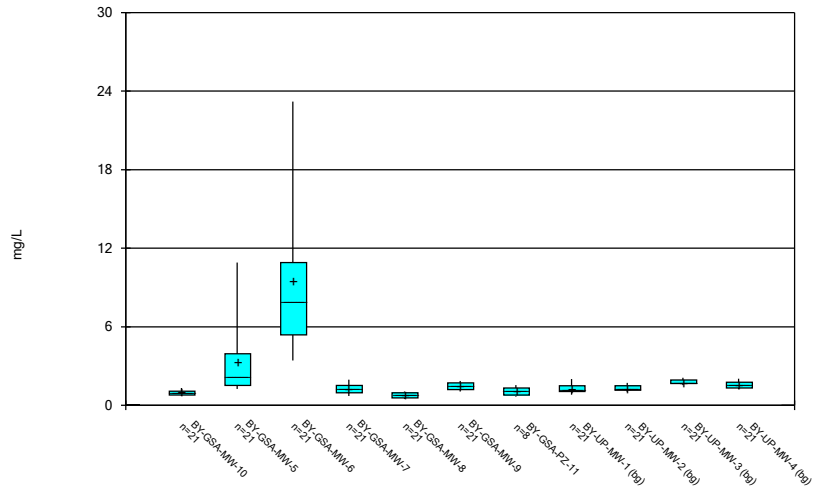
Constituent: Boron Analysis Run 10/11/2023 4:33 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



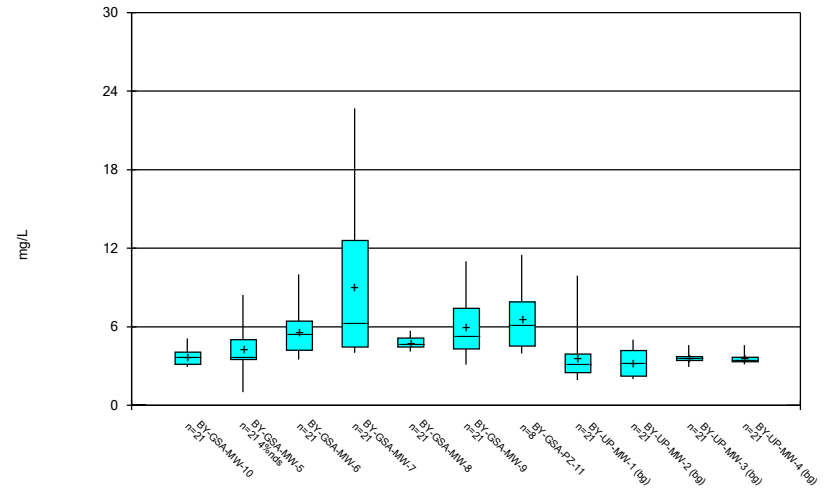
Constituent: Cadmium Analysis Run 10/11/2023 4:33 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



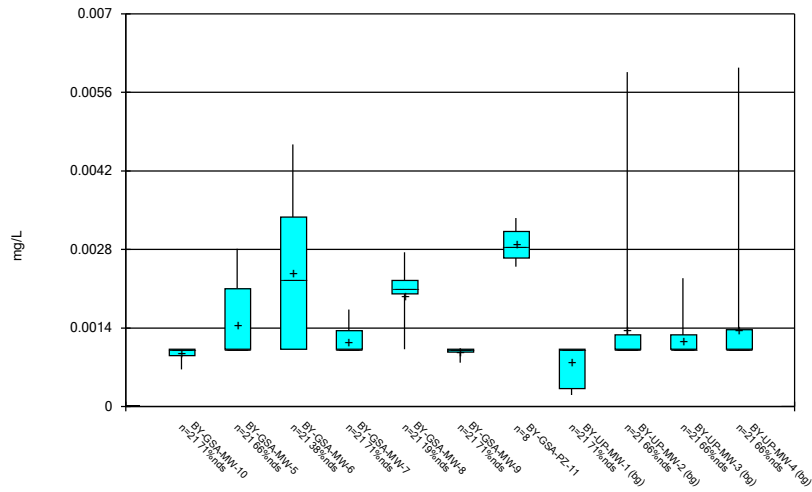
Constituent: Calcium, total Analysis Run 10/11/2023 4:33 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



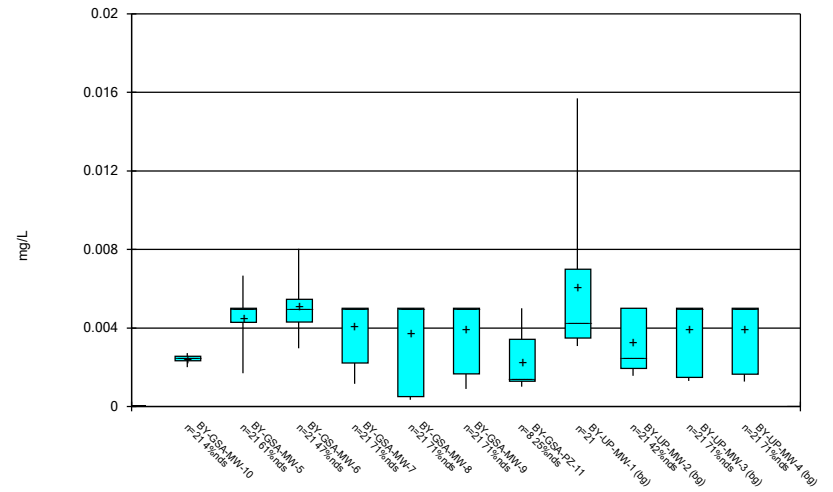
Constituent: Chloride, total Analysis Run 10/11/2023 4:33 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



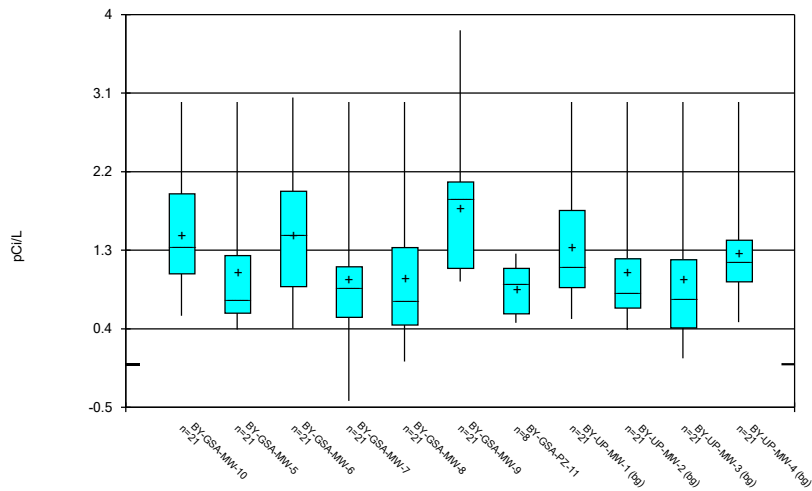
Constituent: Chromium Analysis Run 10/11/2023 4:34 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



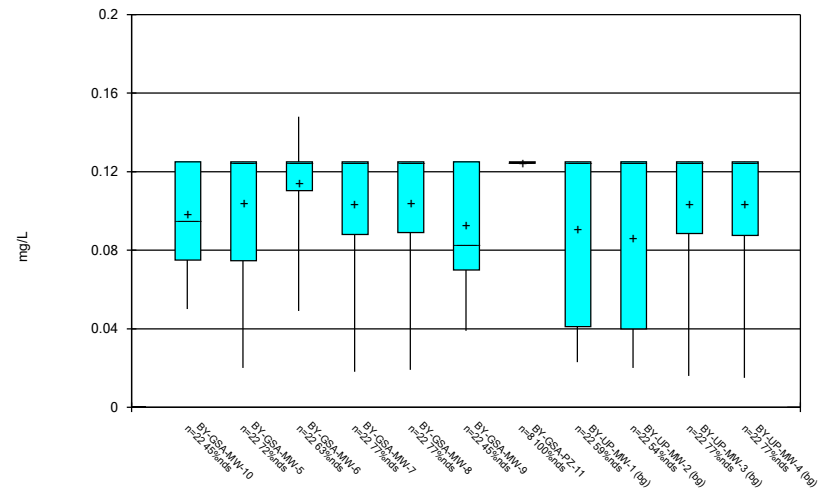
Constituent: Cobalt Analysis Run 10/11/2023 4:34 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



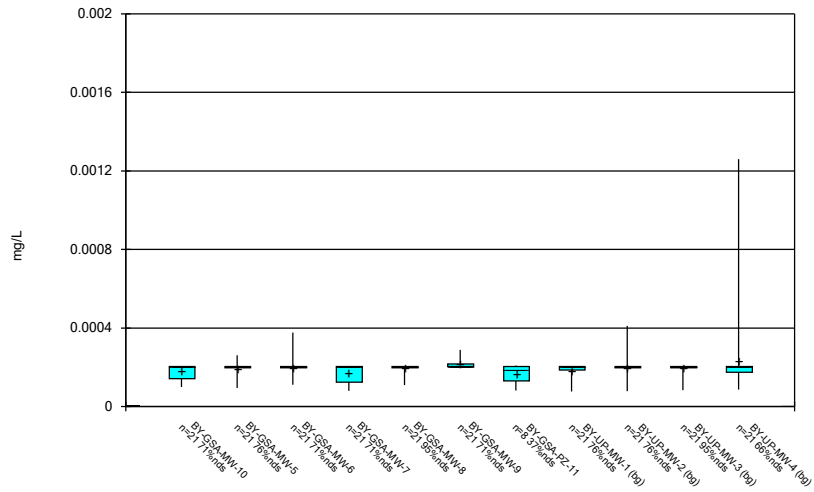
Constituent: Combined Radium 226 + 228 Analysis Run 10/11/2023 4:34 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



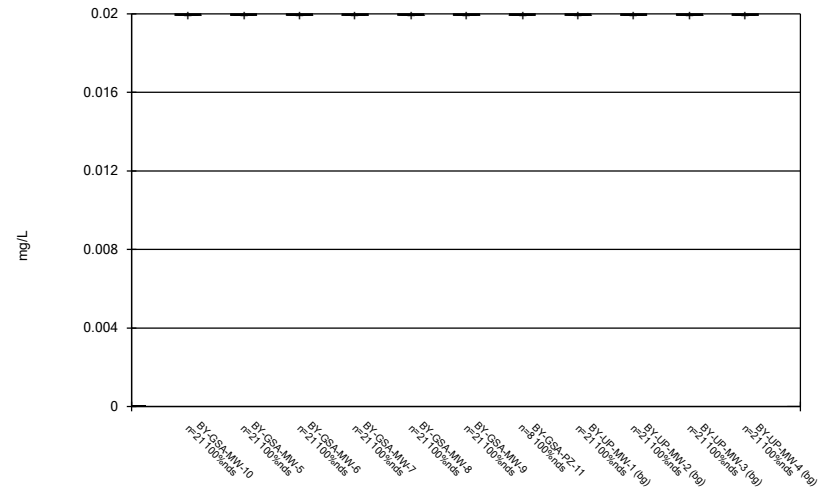
Constituent: Fluoride Analysis Run 10/11/2023 4:34 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



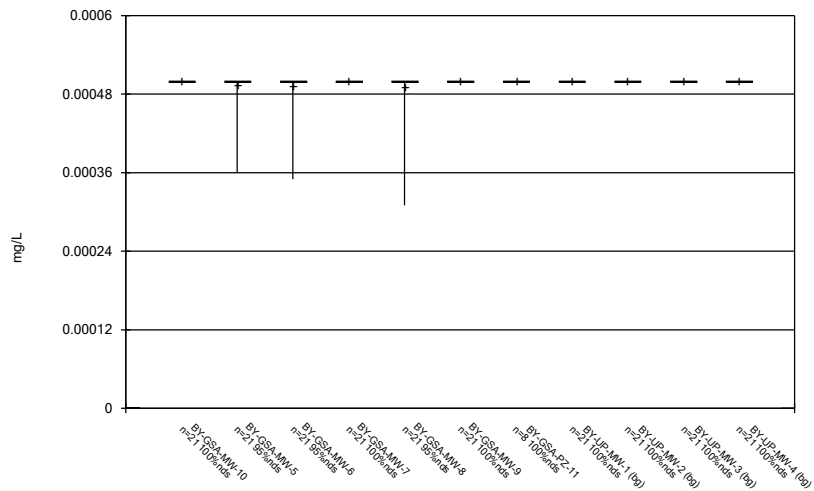
Constituent: Lead Analysis Run 10/11/2023 4:34 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



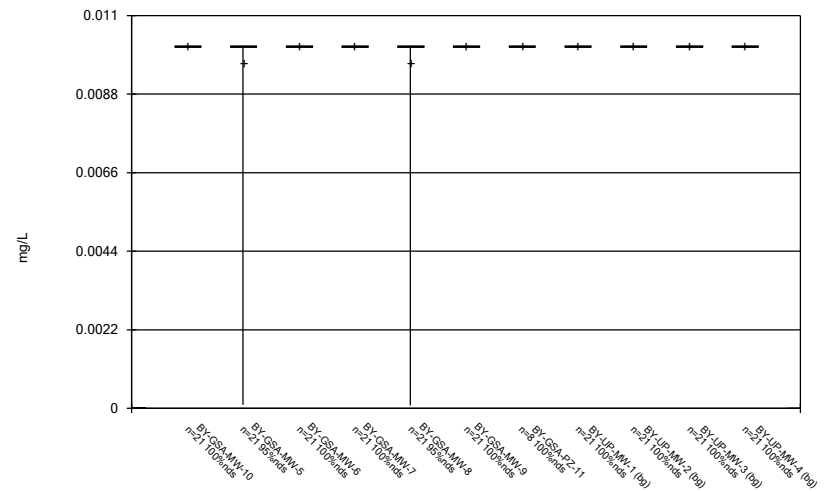
Constituent: Lithium Analysis Run 10/11/2023 4:34 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



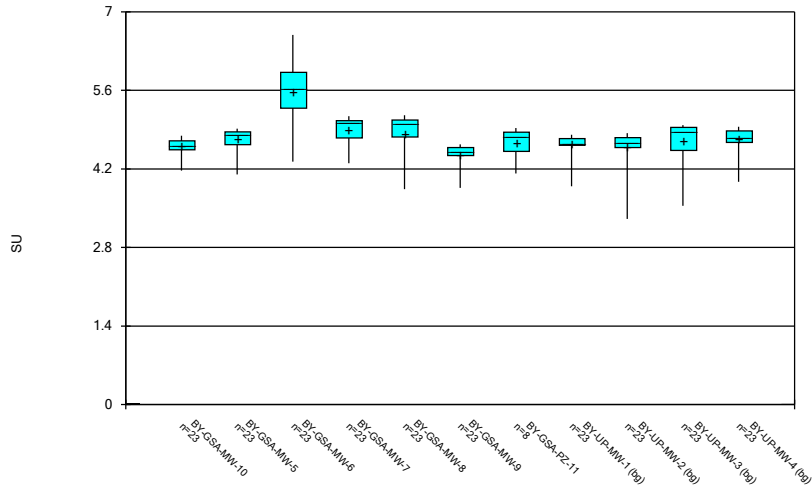
Constituent: Mercury Analysis Run 10/11/2023 4:34 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



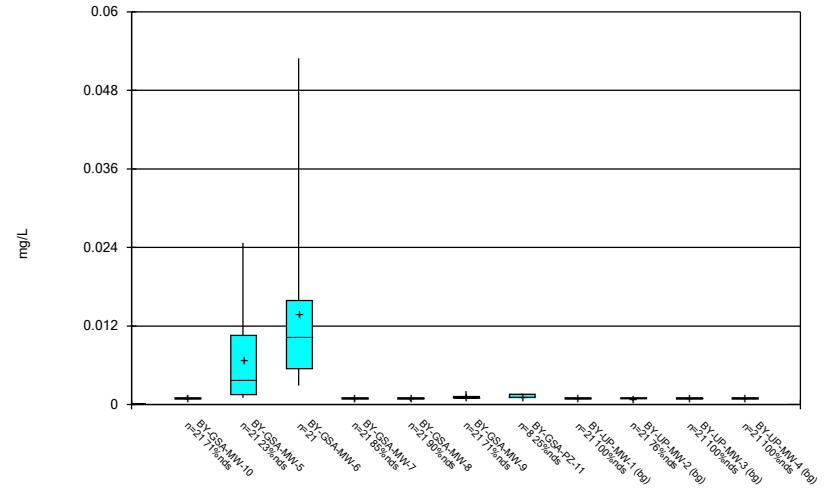
Constituent: Molybdenum Analysis Run 10/11/2023 4:34 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



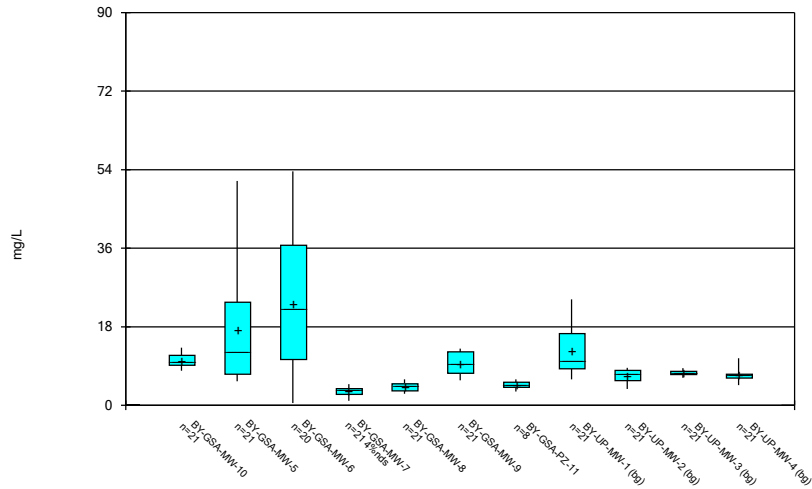
Constituent: pH, Field Analysis Run 10/11/2023 4:34 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



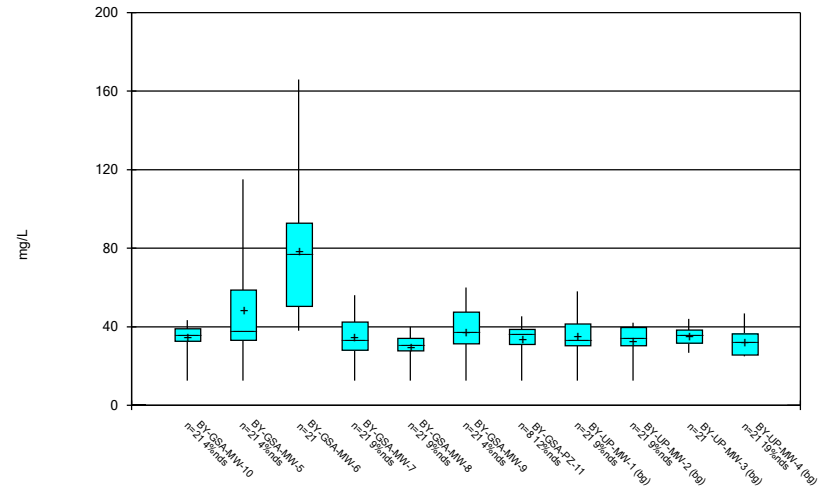
Constituent: Selenium Analysis Run 10/11/2023 4:34 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



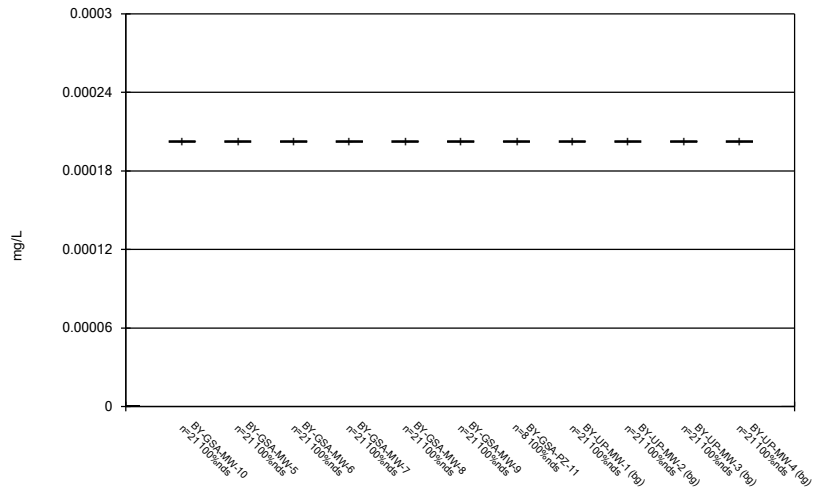
Constituent: Sulfate Analysis Run 10/11/2023 4:34 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



Constituent: TDS Analysis Run 10/11/2023 4:34 PM View: Descriptive
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Box & Whiskers Plot



Constituent: Thallium Analysis Run 10/11/2023 4:34 PM View: Descriptive
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE C.

Outlier Summary

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/12/2023, 4:34 PM

BY-GSA-MW-6 Sulfate (mg/L)

4/18/2016

80.2 (O)

Tukey's Outlier Test - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 2:50 PM

<u>Constituent</u>	<u>Well</u>	<u>Outlier</u>	<u>Value(s)</u>	<u>Method</u>	<u>Alpha</u>	<u>N</u>	<u>Mean</u>	<u>Std. Dev.</u>	<u>Distribution</u>	<u>Normality Test</u>
Sulfate (mg/L)	BY-UP-MW-4 (bg)	Yes	10.8	NP	NaN	20	6.778	1.241	In(x)	ShapiroWilk

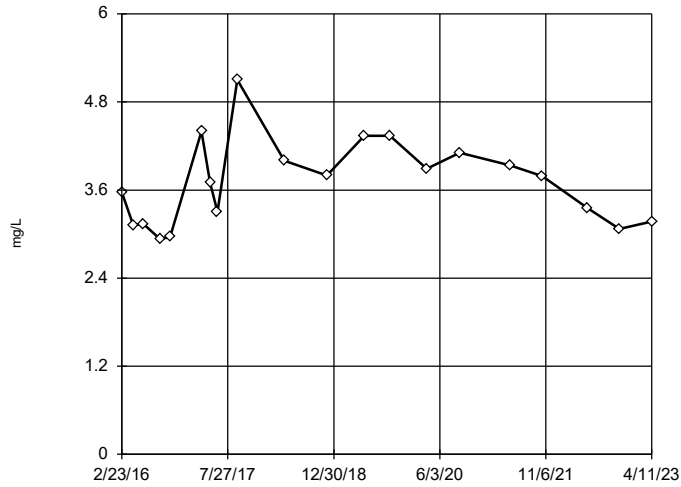
Tukey's Outlier Test - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 2:50 PM

Constituent	Well	Outlier	Value(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Chloride, total (mg/L)	BY-GSA-MW-10	No	n/a	NP	NaN	20	3.701	0.5807	ln(x)	ShapiroWilk
Chloride, total (mg/L)	BY-GSA-MW-5	No	n/a	NP	NaN	20	4.32	1.711	sqrt(x)	ShapiroWilk
Chloride, total (mg/L)	BY-GSA-MW-6	No	n/a	NP	NaN	20	5.584	1.72	ln(x)	ShapiroWilk
Chloride, total (mg/L)	BY-GSA-MW-7	No	n/a	NP	NaN	20	9.081	6.266	ln(x)	ShapiroWilk
Chloride, total (mg/L)	BY-GSA-MW-8	No	n/a	NP	NaN	20	4.788	0.4395	ln(x)	ShapiroWilk
Chloride, total (mg/L)	BY-GSA-MW-9	No	n/a	NP	NaN	20	5.972	2.128	ln(x)	ShapiroWilk
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	No	n/a	NP	NaN	20	3.625	1.716	ln(x)	ShapiroWilk
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	No	n/a	NP	NaN	20	3.334	0.9458	x^2	ShapiroWilk
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	No	n/a	NP	NaN	20	3.618	0.3318	ln(x)	ShapiroWilk
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	No	n/a	NP	NaN	20	3.598	0.3412	ln(x)	ShapiroWilk
Sulfate (mg/L)	BY-GSA-MW-10	No	n/a	NP	NaN	20	10.24	1.414	sqrt(x)	ShapiroWilk
Sulfate (mg/L)	BY-GSA-MW-5	No	n/a	NP	NaN	20	17.5	14.62	ln(x)	ShapiroWilk
Sulfate (mg/L)	BY-GSA-MW-6	No	n/a	NP	NaN	20	25.29	18.78	sqrt(x)	ShapiroWilk
Sulfate (mg/L)	BY-GSA-MW-7	No	n/a	NP	NaN	20	3.144	0.9817	normal	ShapiroWilk
Sulfate (mg/L)	BY-GSA-MW-8	No	n/a	NP	NaN	20	4.093	0.9024	x^2	ShapiroWilk
Sulfate (mg/L)	BY-GSA-MW-9	No	n/a	NP	NaN	20	9.502	2.443	ln(x)	ShapiroWilk
Sulfate (mg/L)	BY-UP-MW-1 (bg)	No	n/a	NP	NaN	20	12.68	5.664	ln(x)	ShapiroWilk
Sulfate (mg/L)	BY-UP-MW-2 (bg)	No	n/a	NP	NaN	20	6.587	1.419	x^2	ShapiroWilk
Sulfate (mg/L)	BY-UP-MW-3 (bg)	No	n/a	NP	NaN	20	7.437	0.5821	normal	ShapiroWilk
Sulfate (mg/L)	BY-UP-MW-4 (bg)	Yes	10.8	NP	NaN	20	6.778	1.241	ln(x)	ShapiroWilk

Tukey's Outlier Screening

BY-GSA-MW-10



n = 20

No outliers found. Tukey's method selected by user.

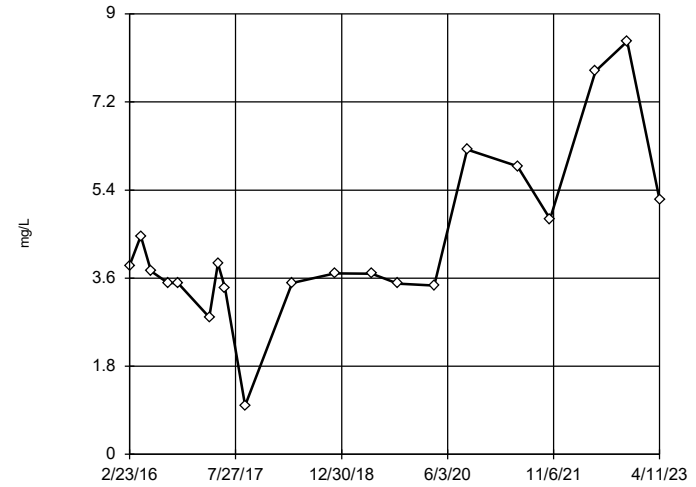
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 8.606, low cutoff = 1.486, based on IQR multiplier of 3.

Constituent: Chloride, total Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-GSA-MW-5



n = 20

No outliers found. Tukey's method selected by user.

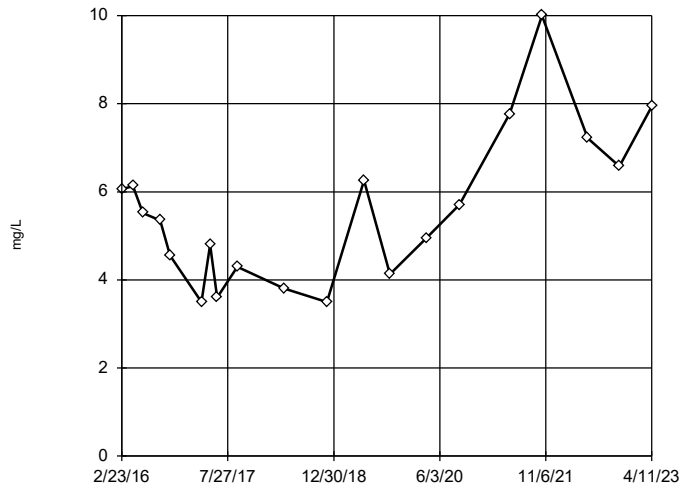
Data were square root transformed to achieve best W statistic (graph shown in original units).

High cutoff = 11.18, low cutoff = 0.5843, based on IQR multiplier of 3.

Constituent: Chloride, total Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-GSA-MW-6



n = 20

No outliers found. Tukey's method selected by user.

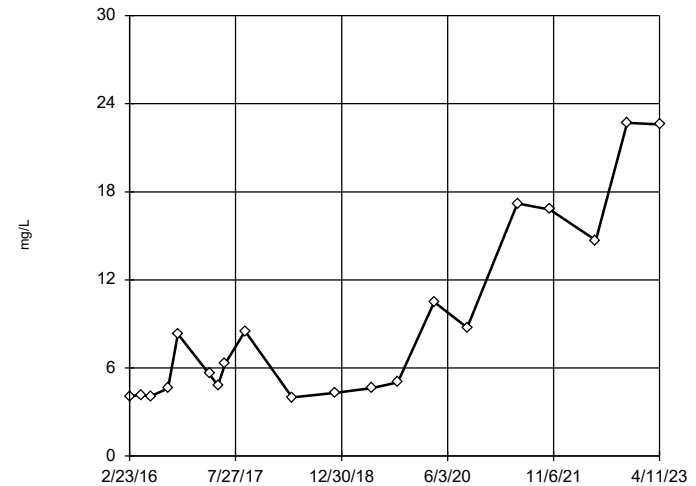
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 22.67, low cutoff = 1.193, based on IQR multiplier of 3.

Constituent: Chloride, total Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-GSA-MW-7



n = 20

No outliers found. Tukey's method selected by user.

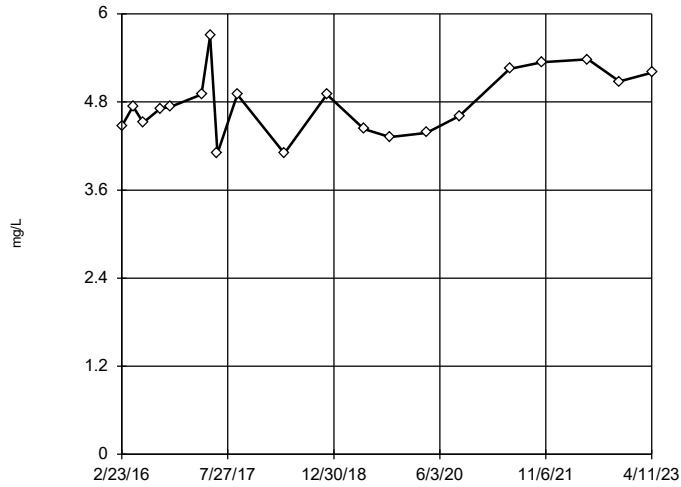
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 270.8, low cutoff = 0.204, based on IQR multiplier of 3.

Constituent: Chloride, total Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-GSA-MW-8



n = 20

No outliers found. Tukey's method selected by user.

Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 7.919, low cutoff = 2.888, based on IQR multiplier of 3.

Constituent: Chloride, total Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-GSA-MW-9



n = 20

No outliers found. Tukey's method selected by user.

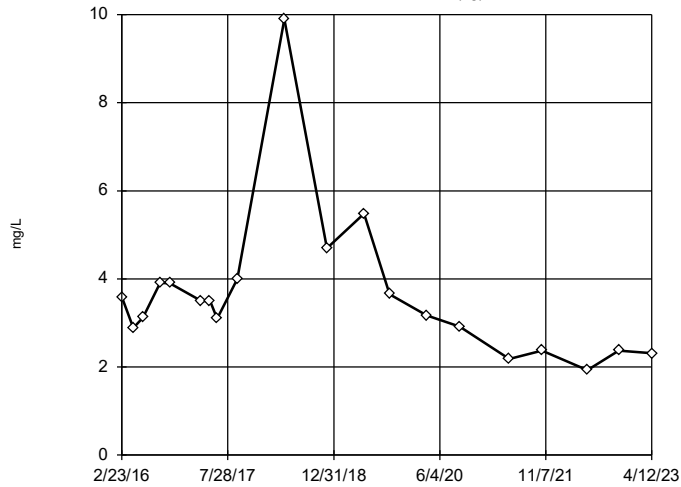
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 37.29, low cutoff = 0.8525, based on IQR multiplier of 3.

Constituent: Chloride, total Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-UP-MW-1 (bg)



n = 20

No outliers found. Tukey's method selected by user.

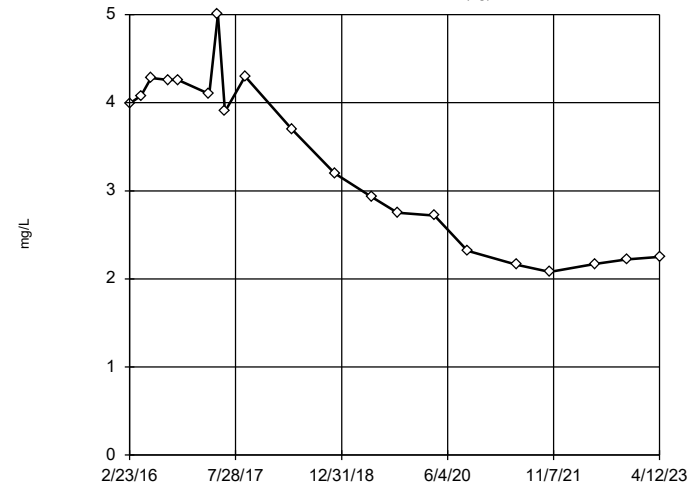
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 12.97, low cutoff = 0.7878, based on IQR multiplier of 3.

Constituent: Chloride, total Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-UP-MW-2 (bg)



n = 20

No outliers found. Tukey's method selected by user.

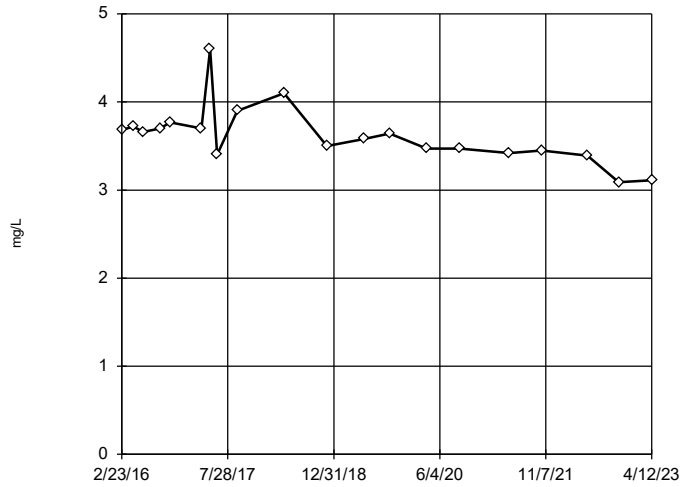
Data were square transformed to achieve best W statistic (graph shown in original units).

High cutoff = 7.365, low cutoff = -5.617, based on IQR multiplier of 3.

Constituent: Chloride, total Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-UP-MW-3 (bg)



n = 20

No outliers found.
Tukey's method selected by user.

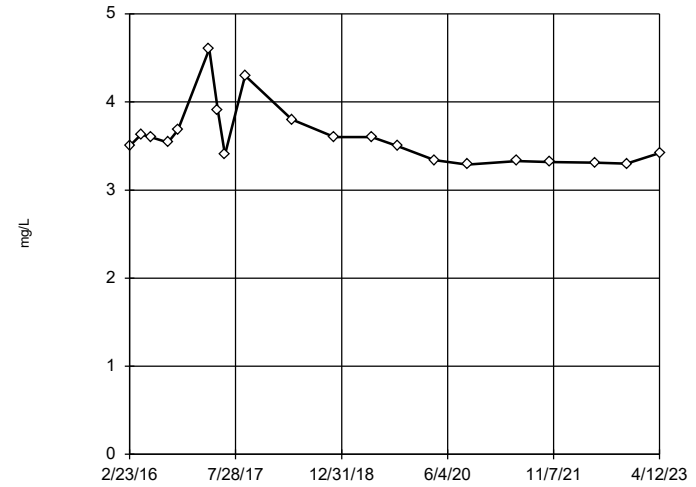
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 4.674, low cutoff = 2.726, based on IQR multiplier of 3.

Constituent: Chloride, total Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-UP-MW-4 (bg)



n = 20

No outliers found.
Tukey's method selected by user.

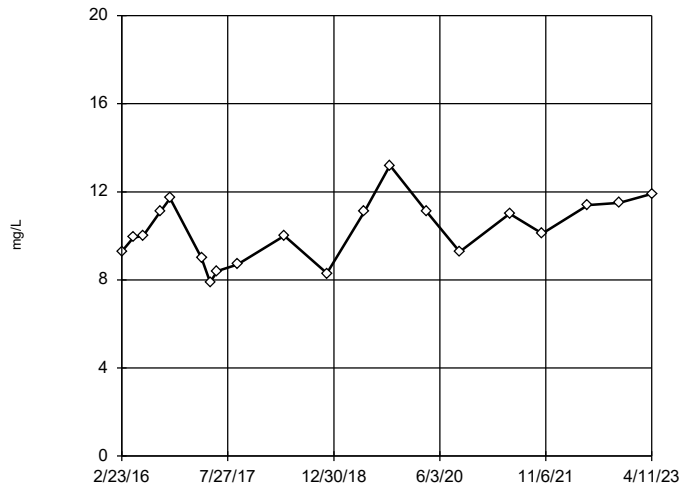
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 4.811, low cutoff = 2.534, based on IQR multiplier of 3.

Constituent: Chloride, total Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

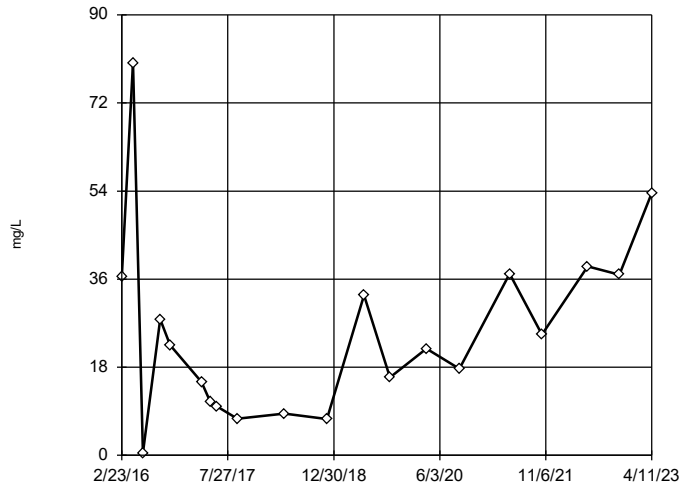
Tukey's Outlier Screening

BY-GSA-MW-10



Tukey's Outlier Screening

BY-GSA-MW-6



n = 20

No outliers found. Tukey's method selected by user.

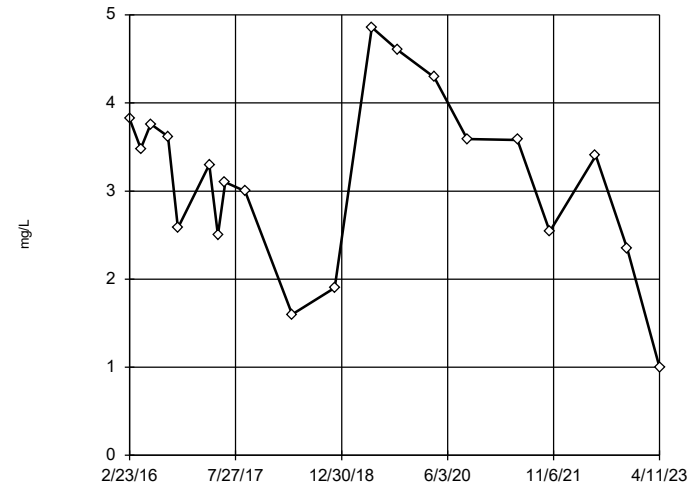
Data were square root transformed to achieve best W statistic (graph shown in original units).

High cutoff = 210.6, low cutoff = -27.21, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-GSA-MW-7



n = 20

No outliers found. Tukey's method selected by user.

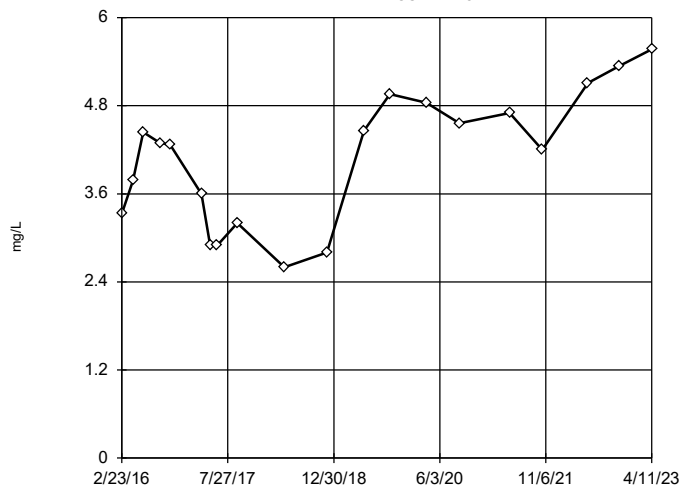
Ladder of Powers transformations did not improve normality; analysis run on raw data.

High cutoff = 7.2, low cutoff = -0.99, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-GSA-MW-8



n = 20

No outliers found. Tukey's method selected by user.

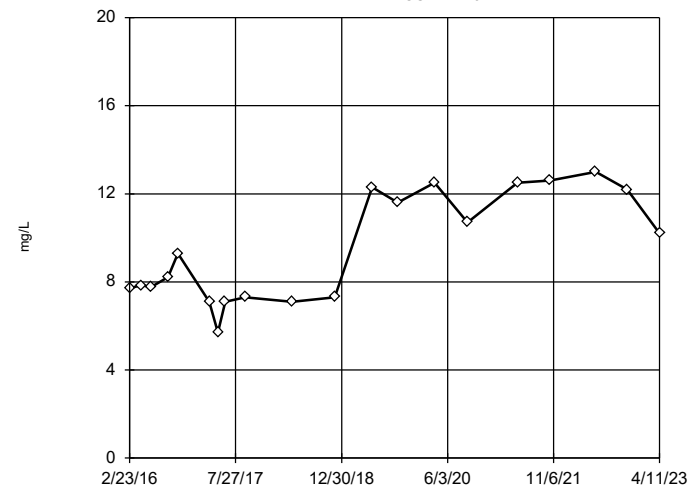
Data were square transformed to achieve best W statistic (graph shown in original units).

High cutoff = 7.684, low cutoff = -5.061, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-GSA-MW-9



n = 20

No outliers found. Tukey's method selected by user.

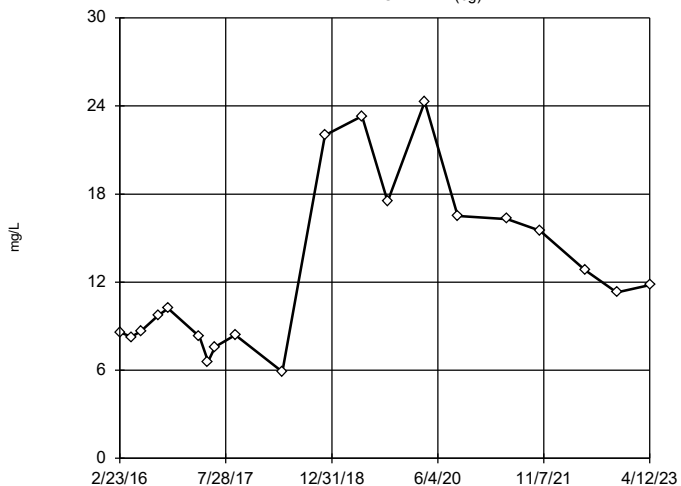
Data were natural log transformed to achieve best W statistic (graph shown in original units).

High cutoff = 57.88, low cutoff = 1.545, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 10/11/2023 2:48 PM View: Screening
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-UP-MW-1 (bg)

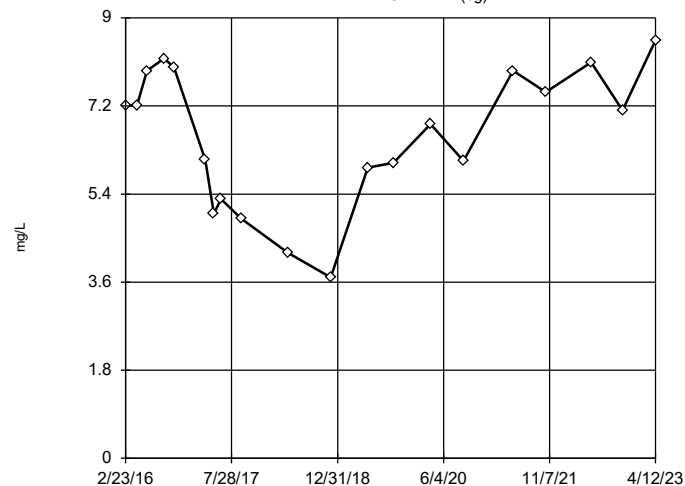


n = 20
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 124.3, low cutoff = 1.102, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 10/11/2023 2:48 PM View: Screening
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-UP-MW-2 (bg)

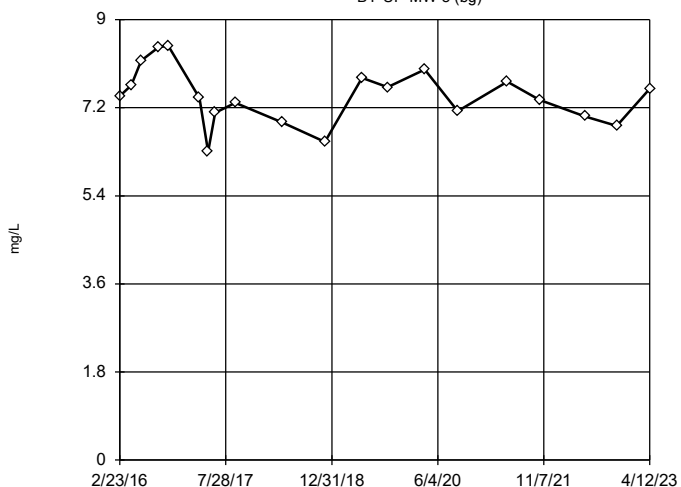


n = 20
 No outliers found.
 Tukey's method selected by user.
 Data were square transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 12.48, low cutoff = -7.838, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 10/11/2023 2:48 PM View: Screening
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-UP-MW-3 (bg)

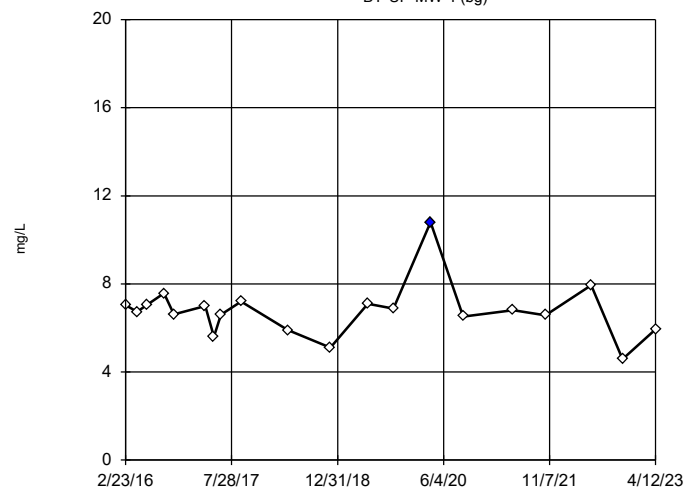


n = 20
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 High cutoff = 9.9, low cutoff = 4.93, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 10/11/2023 2:48 PM View: Screening
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening

BY-UP-MW-4 (bg)



n = 20
 Outlier is drawn as solid.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 10.39, low cutoff = 4.23, based on IQR multiplier of 3.

Constituent: Sulfate Analysis Run 10/11/2023 2:48 PM View: Screening
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Test - Upgradient Wells - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/13/2023, 10:08 AM

Constituent	Well	Outlier	Value(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Chromium (mg/L)	BY-UP-MW-1,BY-UP-...	Yes	0.000296,0.000301,0.00...	NP	NaN	84	0.001181	0.0008215	In(x)	ShapiroFrancia
TDS (mg/L)	BY-UP-MW-1,BY-UP-...	Yes	58	NP	NaN	84	33.29	8.977	x^2	ShapiroFrancia

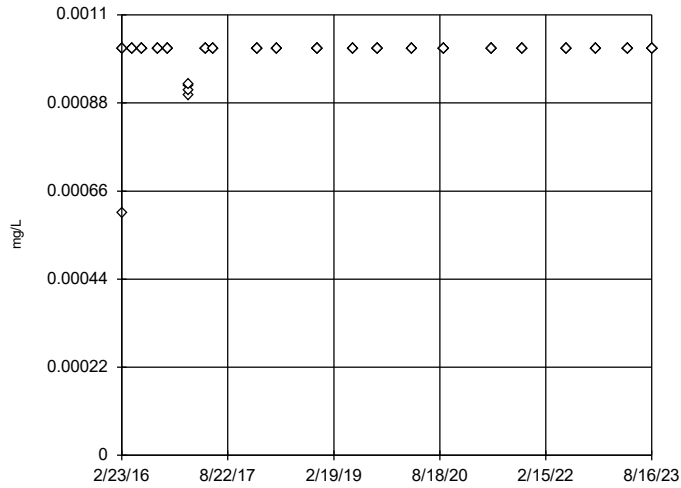
Tukey's Outlier Test - Upgradient Wells - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/13/2023, 10:08 AM

Constituent	Well	Outlier	Value(s)	Method	Alpha	N	Mean	Std. Dev.	Distribution	Normality Test
Antimony (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.001005	0.00004905	unknown	ShapiroFrancia
Arsenic (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0002213	0.0001687	unknown	ShapiroFrancia
Barium (mg/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	84	0.1087	0.03021	ln(x)	ShapiroFrancia
Beryllium (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0009758	0.0001293	unknown	ShapiroFrancia
Boron (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.09365	0.02697	unknown	ShapiroFrancia
Cadmium (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0002014	0.00001424	unknown	ShapiroFrancia
Calcium, total (mg/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	84	1.487	0.3175	sqrt(x)	ShapiroFrancia
Chromium (mg/L)	BY-UP-MW-1,BY-UP-...	Yes	0.000296,0.000301,0.00...	NP	NaN	84	0.001181	0.0008215	ln(x)	ShapiroFrancia
Cobalt (mg/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	84	0.00433	0.002506	ln(x)	ShapiroFrancia
Combined Radium 226 + 228 (pCi/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	84	1.156	0.7072	x^(1/3)	ShapiroFrancia
Fluoride (mg/L)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	88	0.09604	0.0422	ln(x)	ShapiroFrancia
Lead (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0002016	0.0001252	unknown	ShapiroFrancia
Lithium (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.02	0	unknown	ShapiroFrancia
Mercury (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0005	0	unknown	ShapiroFrancia
Molybdenum (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.01015	0	unknown	ShapiroFrancia
pH, Field (SU)	BY-UP-MW-1,BY-UP-...	No	n/a	NP	NaN	92	4.665	0.2817	x^6	ShapiroFrancia
Selenium (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.0009916	0.0000943	unknown	ShapiroFrancia
TDS (mg/L)	BY-UP-MW-1,BY-UP-...	Yes	58	NP	NaN	84	33.29	8.977	x^2	ShapiroFrancia
Thallium (mg/L)	BY-UP-MW-1,BY-UP-...	n/a	n/a	NP	NaN	84	0.000203	0	unknown	ShapiroFrancia

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

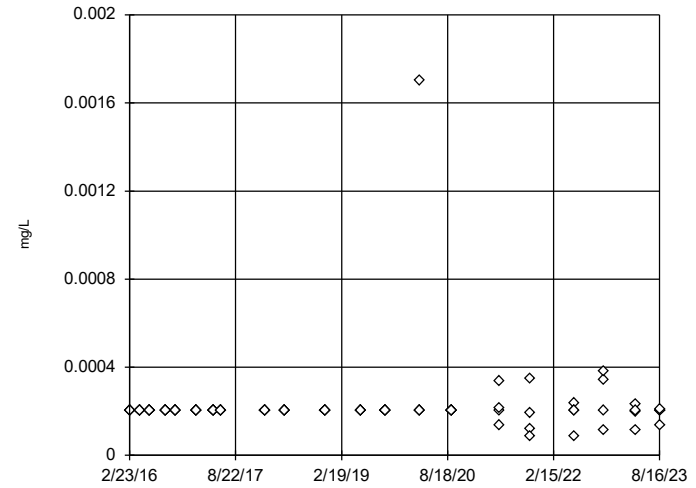


n = 84
 No outliers found. Tukey's method selected by user.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Antimony Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

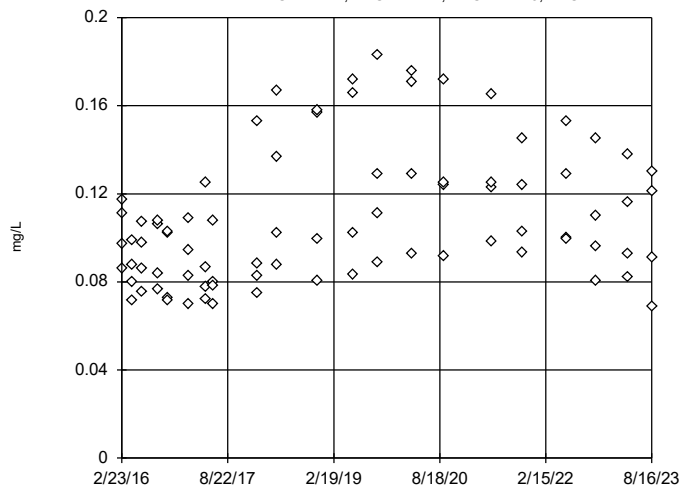


n = 84
 No outliers found. Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Arsenic Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

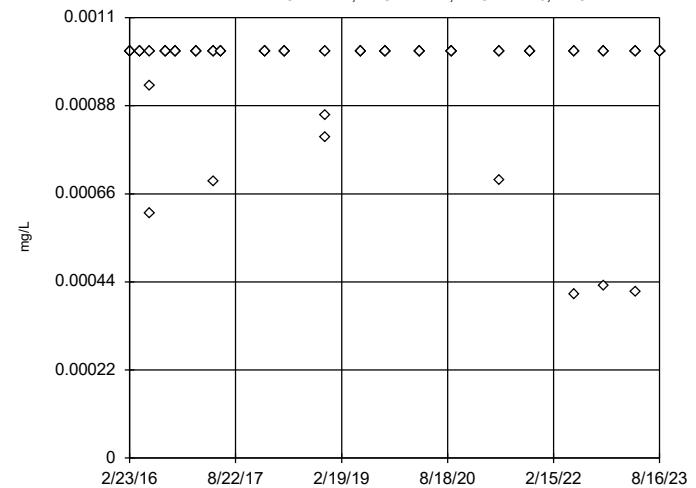


n = 84
 No outliers found. Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.3955, low cutoff = 0.02691, based on IQR multiplier of 3.

Constituent: Barium Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

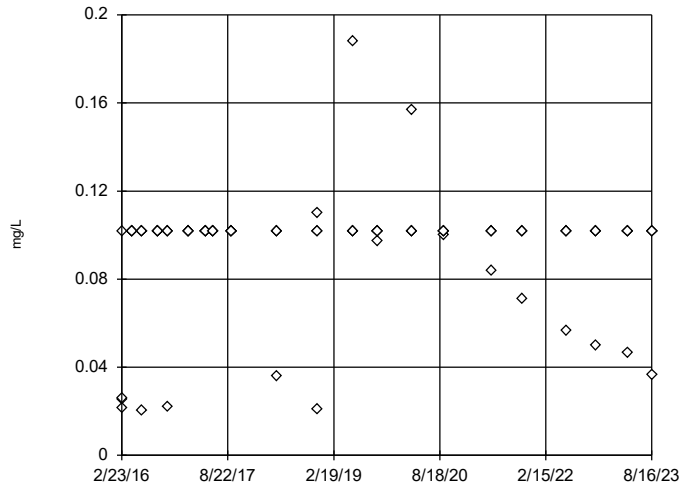


n = 84
 No outliers found. Tukey's method selected by user.
 Data were cube transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Beryllium Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

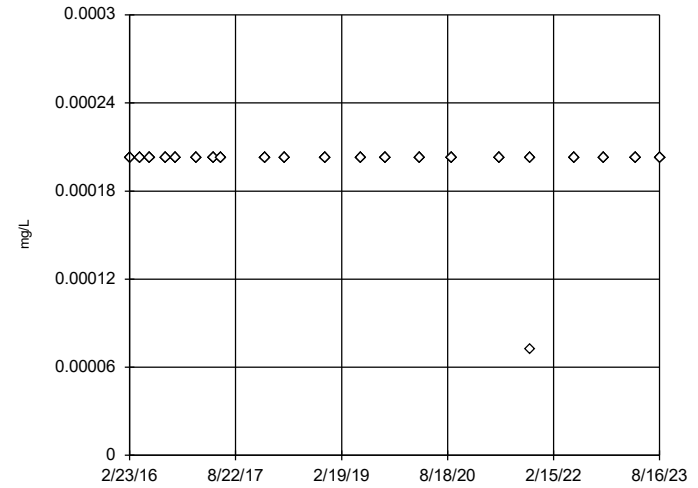


n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Boron Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

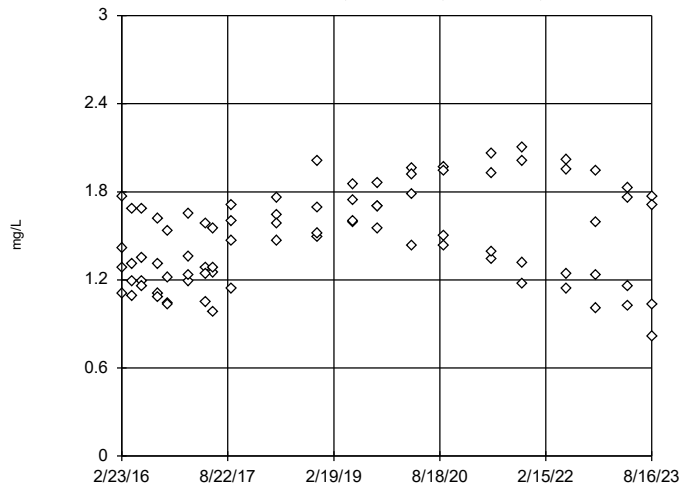


n = 84
 No outliers found.
 Tukey's method selected by user.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Cadmium Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

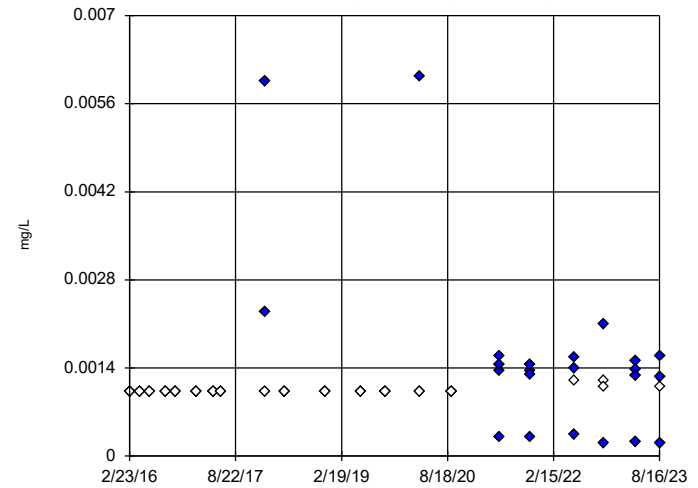


n = 84
 No outliers found.
 Tukey's method selected by user.
 Data were square root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 3.737, low cutoff = 0.2372, based on IQR multiplier of 3.

Constituent: Calcium, total Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

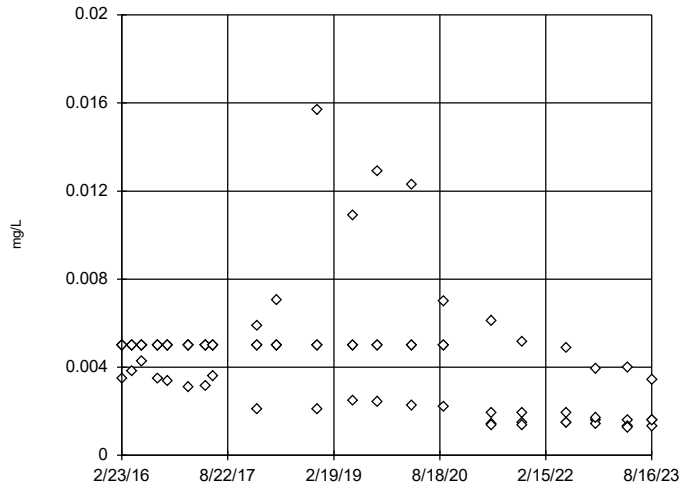


n = 84
 Outliers are drawn as solid.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.001208, low cutoff = 0.0008985, based on IQR multiplier of 3.

Constituent: Chromium Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

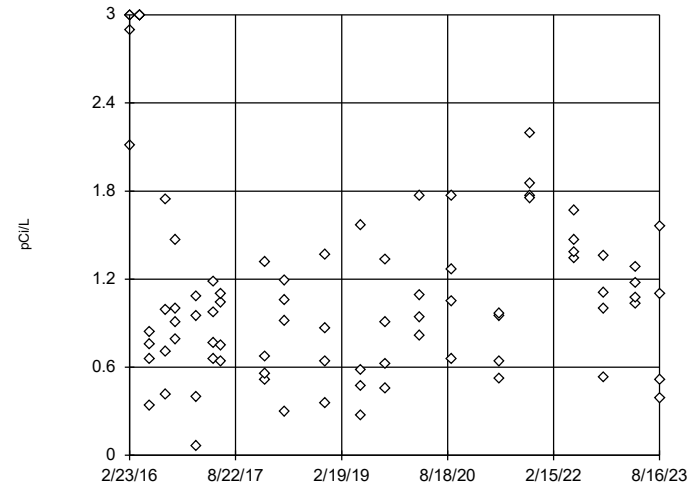


n = 84
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 0.05752, low cutoff = 0.0001925, based on IQR multiplier of 3.

Constituent: Cobalt Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

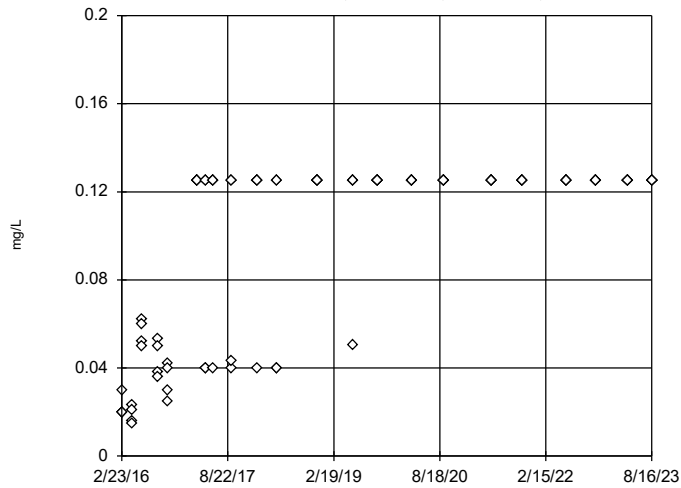


n = 84
 No outliers found.
 Tukey's method selected by user.
 Data were cube root transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 6.29, low cutoff = 0.002375, based on IQR multiplier of 3.

Constituent: Combined Radium 226 + 228 Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

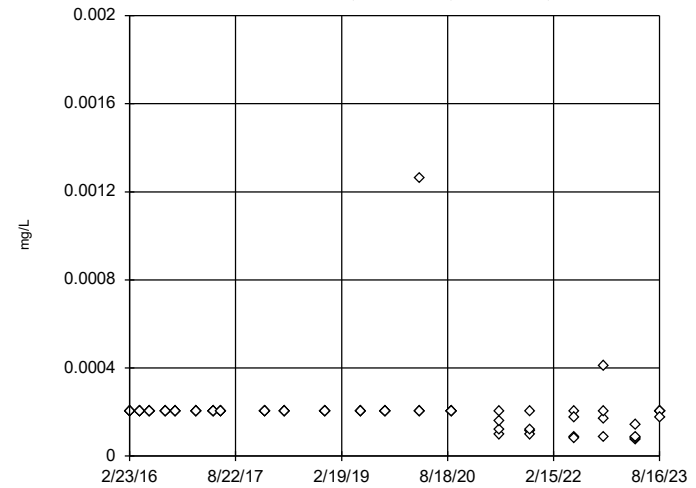


n = 88
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 2.449, low cutoff = 0.002367, based on IQR multiplier of 3.

Constituent: Fluoride Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

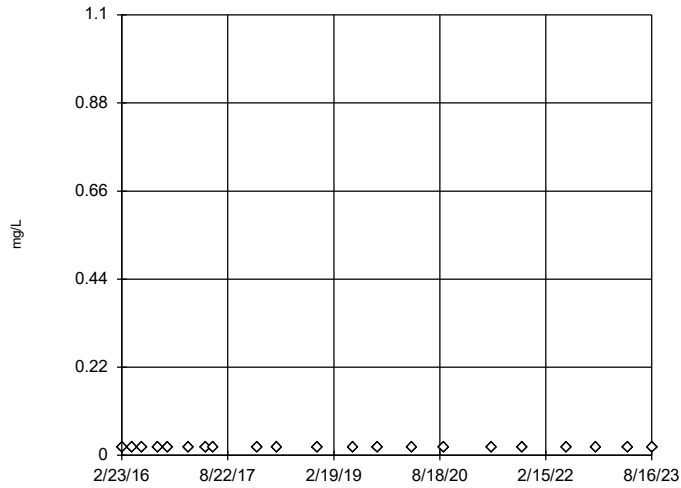


n = 84
 No outliers found.
 Tukey's method selected by user.
 Data were natural log transformed to achieve best W statistic (graph shown in original units).
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lead Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

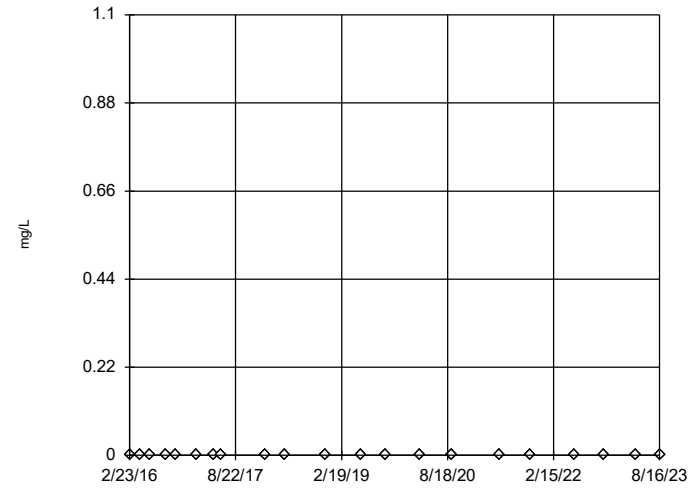


n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Lithium Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

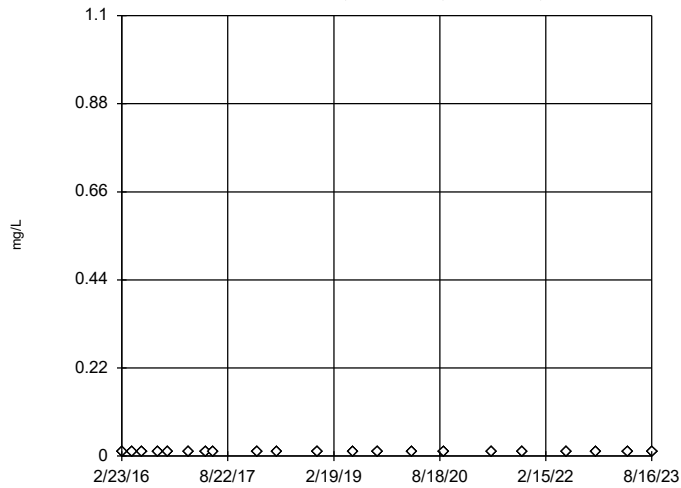


n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Mercury Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

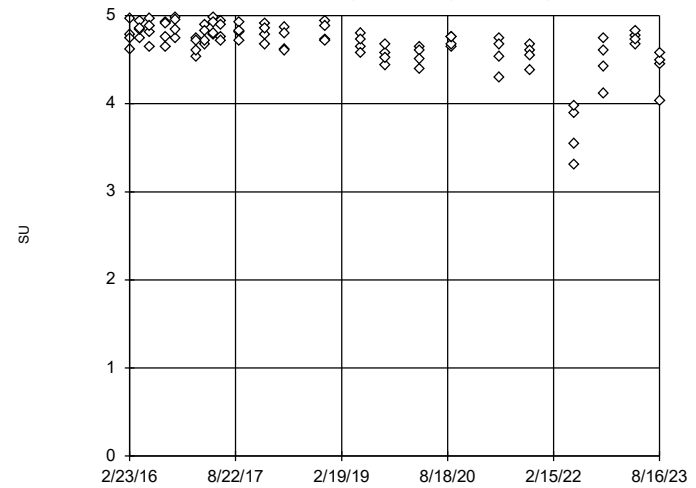


n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Molybdenum Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

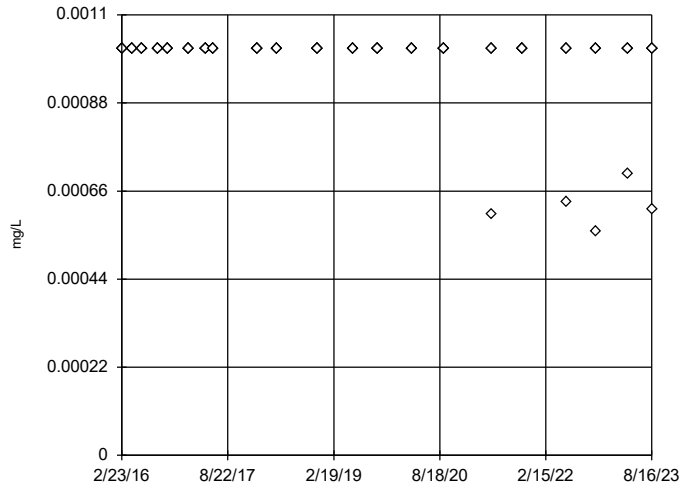


n = 92
 No outliers found.
 Tukey's method selected by user.
 Data were x^6 transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 5.308, low cutoff = -2.402, based on IQR multiplier of 3.

Constituent: pH, Field Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

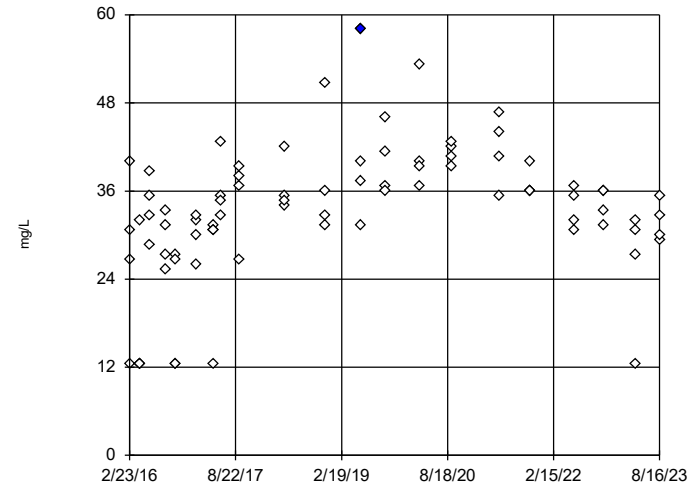


n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Selenium Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...

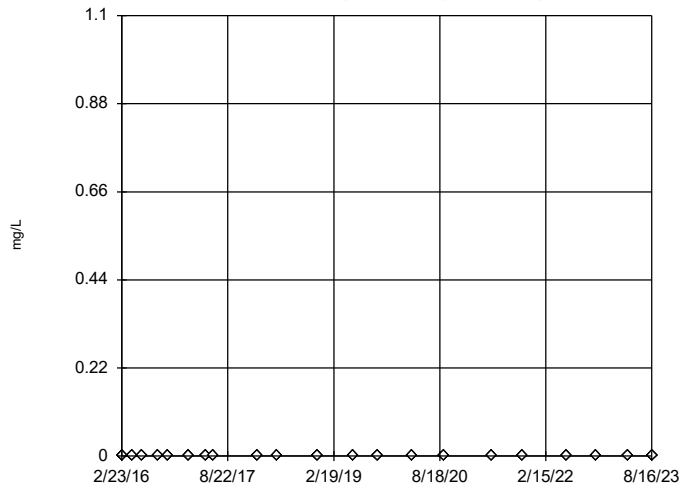


n = 84
 Outlier is drawn as solid.
 Tukey's method selected by user.
 Data were square transformed to achieve best W statistic (graph shown in original units).
 High cutoff = 55.28, low cutoff = -25.35, based on IQR multiplier of 3.

Constituent: TDS Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tukey's Outlier Screening, Pooled Background

BY-UP-MW-1,BY-UP-MW-2,BY-UP-MW-3,BY-U...



n = 84
 No outliers found.
 Tukey's method selected by user.
 Ladder of Powers transformations did not improve normality; analysis run on raw data.
 The results were invalidated, because the lower and upper quartiles are equal.

Constituent: Thallium Analysis Run 10/13/2023 9:55 AM View: Outlier Testing
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE D.

Welch's t-test/Mann-Whitney - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/13/2023, 10:14 AM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Sig.</u>	<u>Method</u>
Chloride, total (mg/L)	BY-GSA-MW-5	2.602	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-6	2.789	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-7	2.787	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-2.79	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-2.789	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-2.884	Yes	0.01	Yes	Mann-W

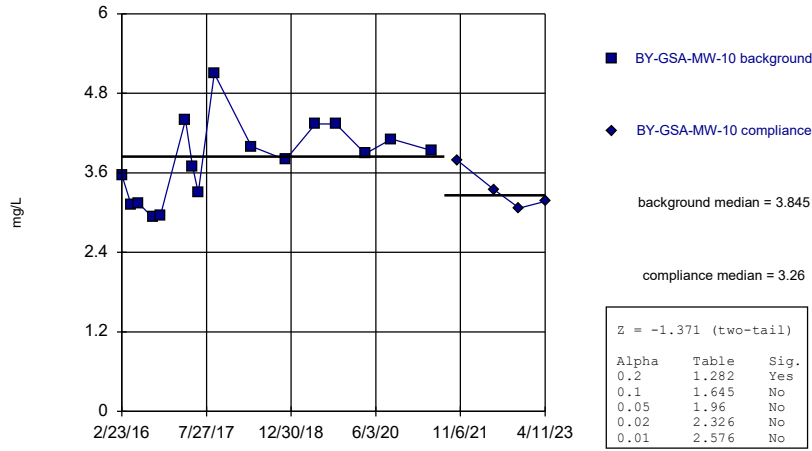
Welch's t-test/Mann-Whitney - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/13/2023, 10:14 AM

<u>Constituent</u>	<u>Well</u>	<u>Calc.</u>	<u>0.01</u>	<u>Alpha</u>	<u>Sig.</u>	<u>Method</u>
Chloride, total (mg/L)	BY-GSA-MW-10	-1.371	No	0.01	No	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-5	2.602	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-6	2.789	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-7	2.787	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-8	2.414	No	0.01	No	Mann-W
Chloride, total (mg/L)	BY-GSA-MW-9	-1.654	No	0.01	No	Mann-W
Chloride, total (mg/L)	BY-UP-MW-1 (bg)	-2.79	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-2 (bg)	-2.789	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-3 (bg)	-2.884	Yes	0.01	Yes	Mann-W
Chloride, total (mg/L)	BY-UP-MW-4 (bg)	-2.414	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-10	1.941	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-5	2.316	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-6	2.45	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-7	-1.937	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-8	2.221	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-GSA-MW-9	2.226	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-UP-MW-1 (bg)	0.7087	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-UP-MW-2 (bg)	1.938	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-UP-MW-3 (bg)	-1.276	No	0.01	No	Mann-W
Sulfate (mg/L)	BY-UP-MW-4 (bg)	-0.9925	No	0.01	No	Mann-W

Mann-Whitney (Wilcoxon Rank Sum)

BY-GSA-MW-10

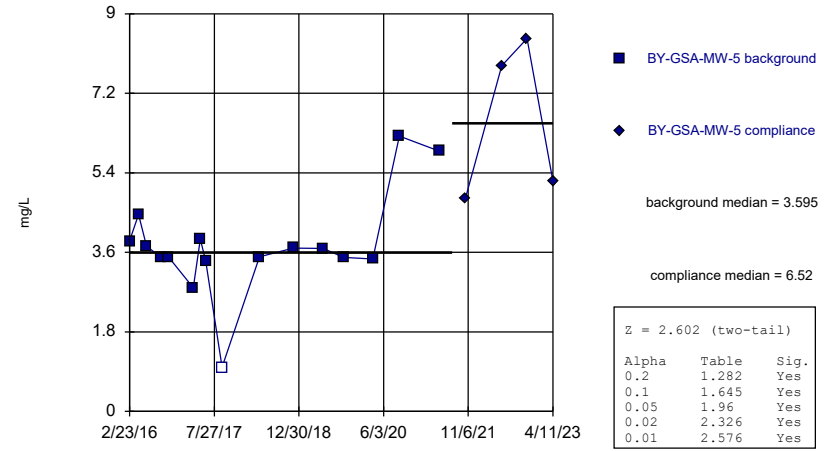


Constituent: Chloride, total Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)

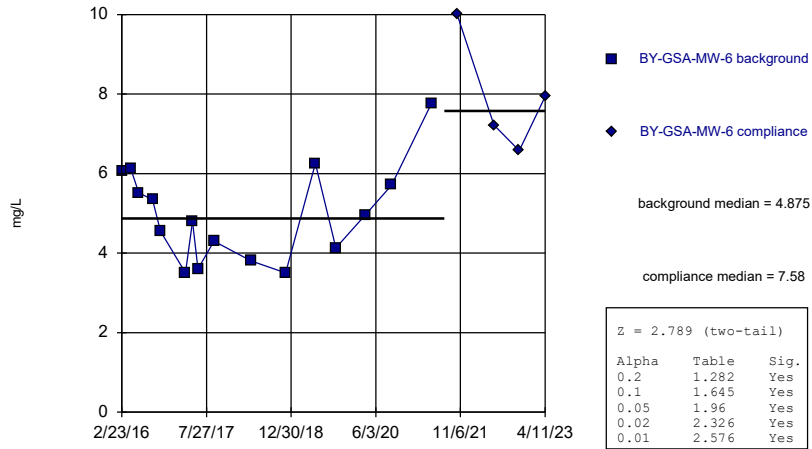
BY-GSA-MW-5



Constituent: Chloride, total Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

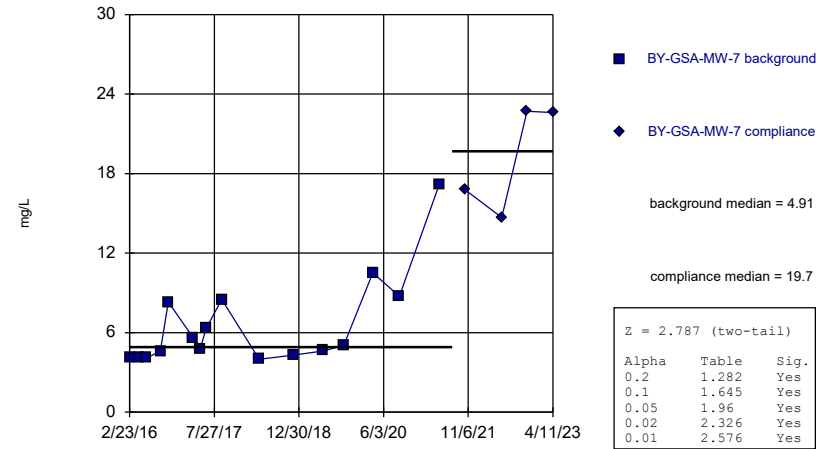
BY-GSA-MW-6



Constituent: Chloride, total Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

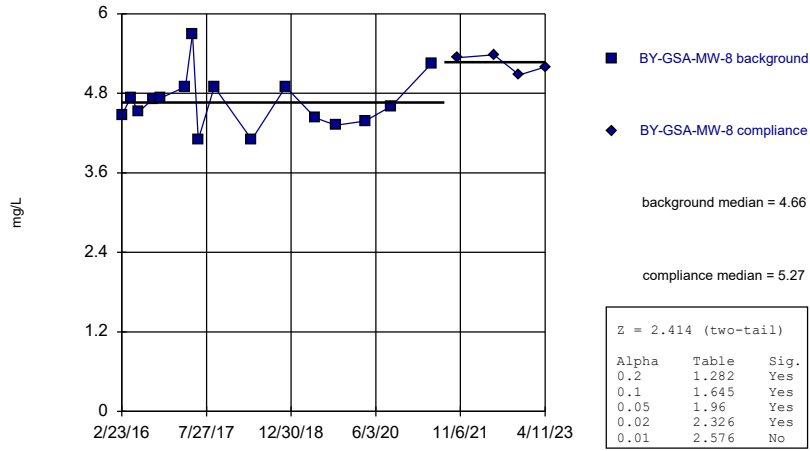
BY-GSA-MW-7



Constituent: Chloride, total Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

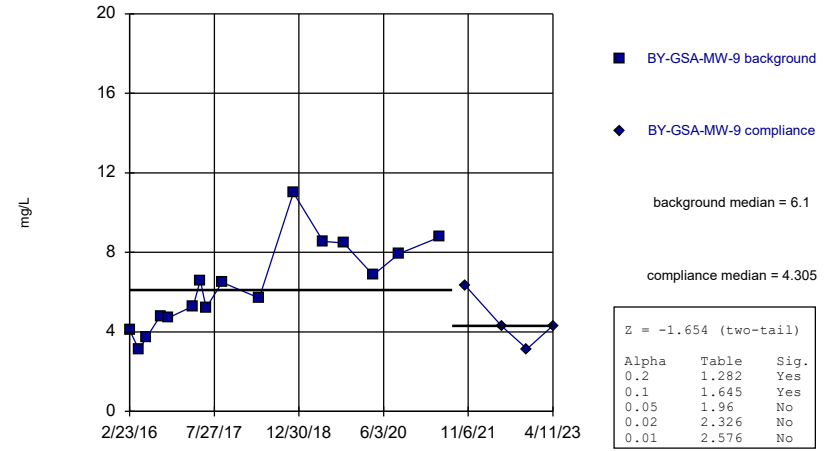
BY-GSA-MW-8



Constituent: Chloride, total Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

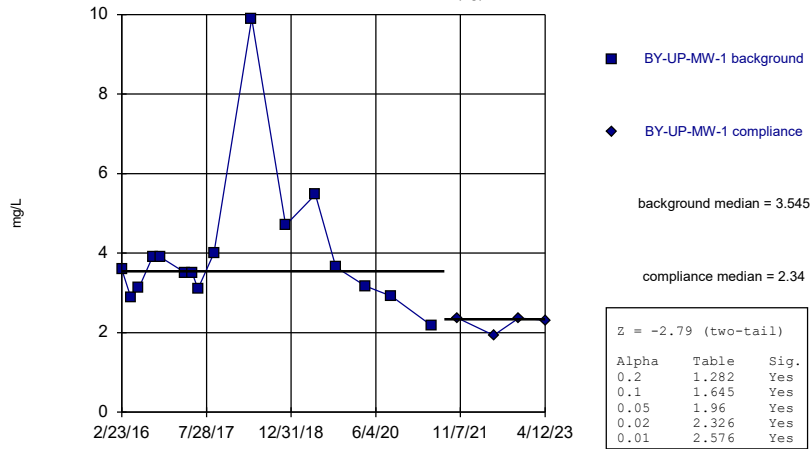
BY-GSA-MW-9



Constituent: Chloride, total Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

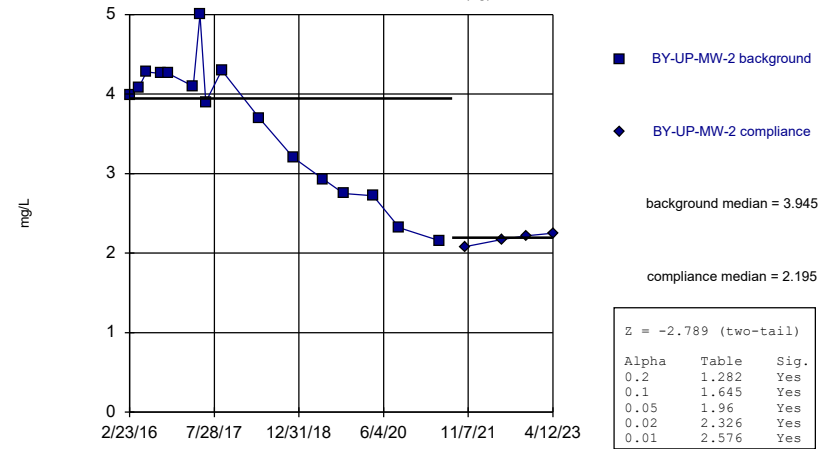
BY-UP-MW-1 (bg)



Constituent: Chloride, total Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

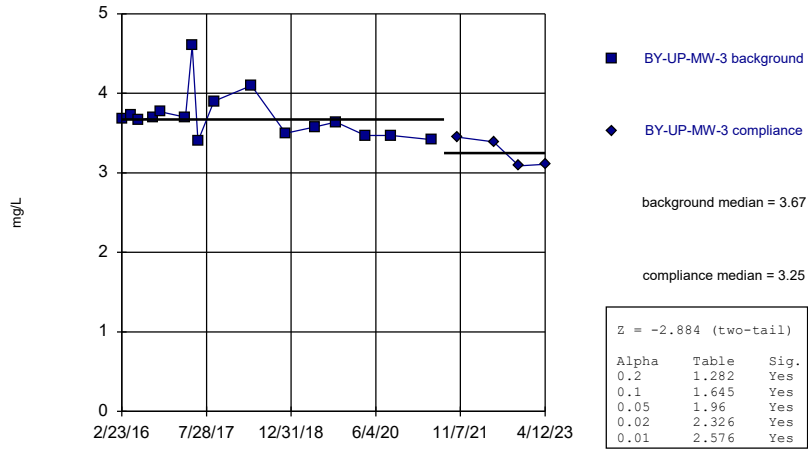
BY-UP-MW-2 (bg)



Constituent: Chloride, total Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

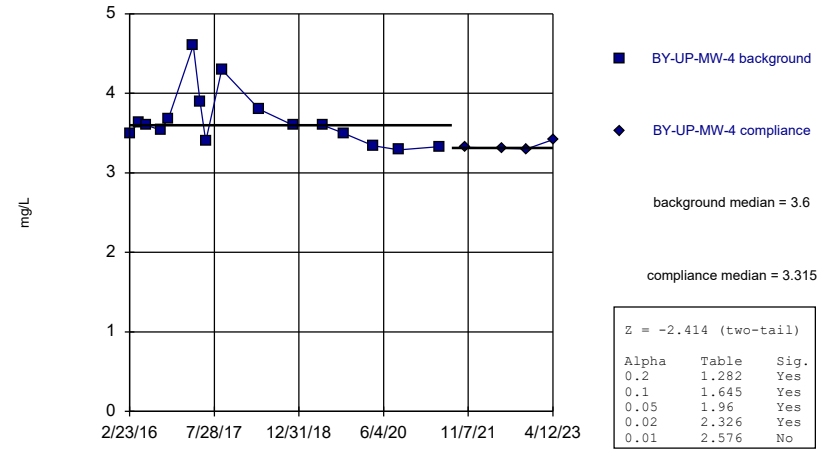
BY-UP-MW-3 (bg)



Constituent: Chloride, total Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

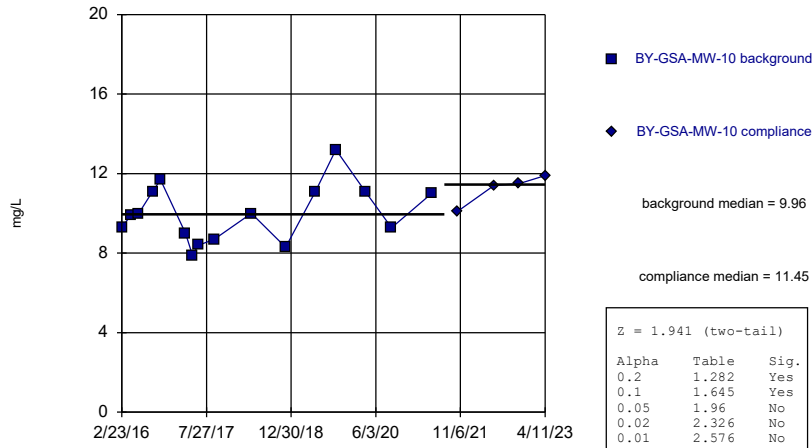
BY-UP-MW-4 (bg)



Constituent: Chloride, total Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

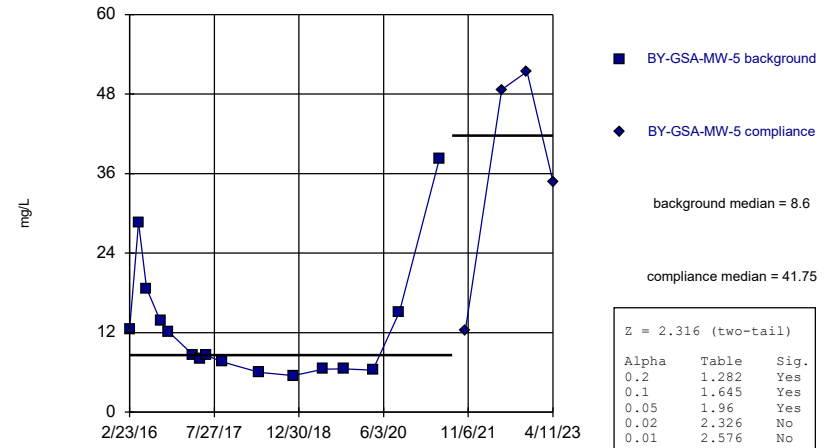
BY-GSA-MW-10



Constituent: Sulfate Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

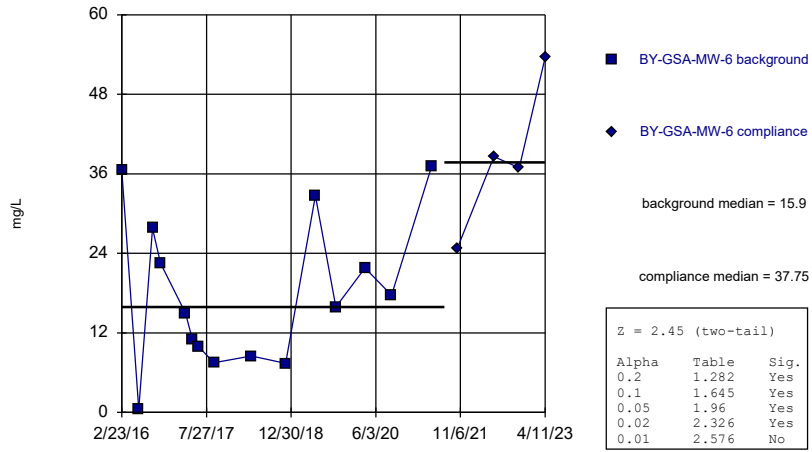
BY-GSA-MW-5



Constituent: Sulfate Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

BY-GSA-MW-6

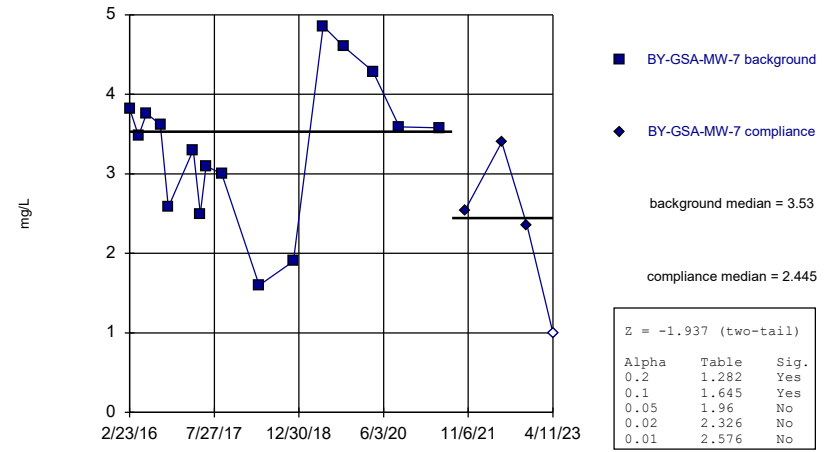


Constituent: Sulfate Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Hollow symbols indicate censored values.

Mann-Whitney (Wilcoxon Rank Sum)

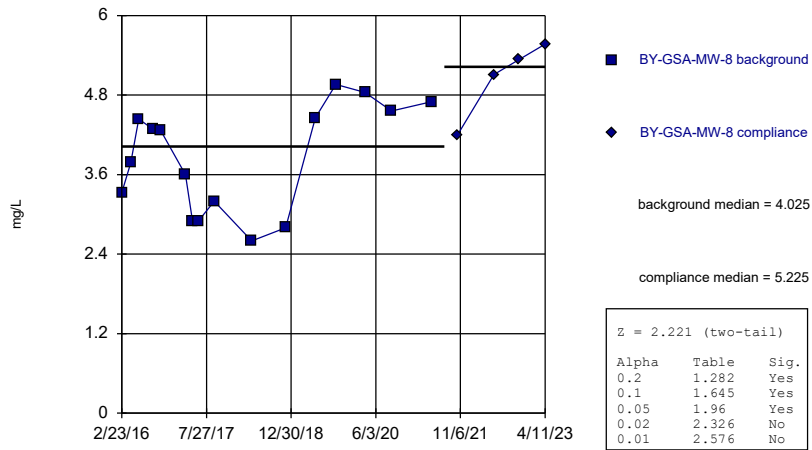
BY-GSA-MW-7



Constituent: Sulfate Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

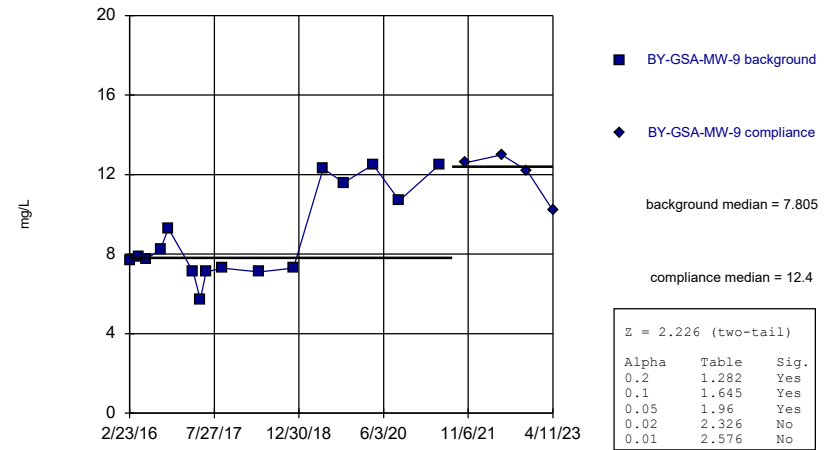
BY-GSA-MW-8



Constituent: Sulfate Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

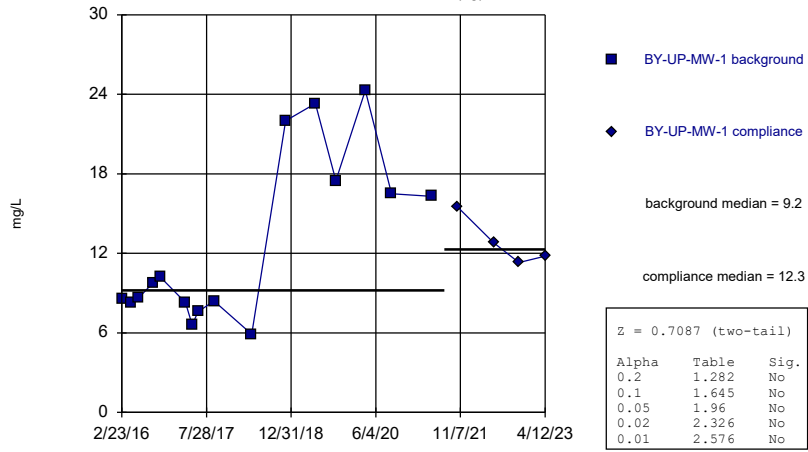
BY-GSA-MW-9



Constituent: Sulfate Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

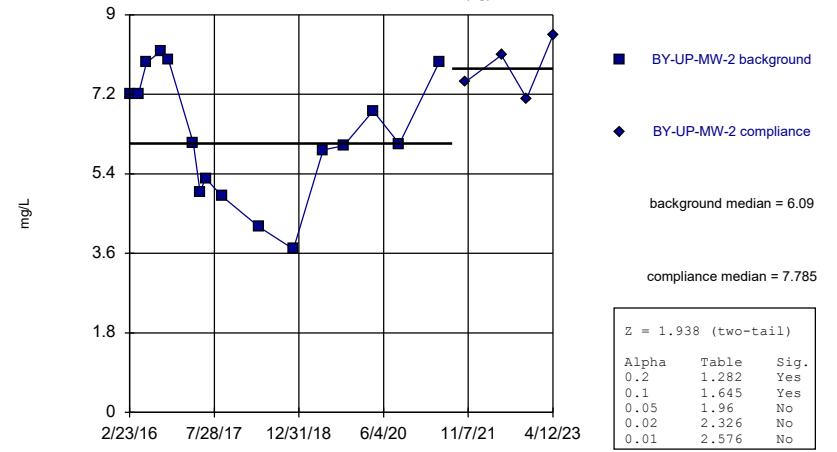
BY-UP-MW-1 (bg)



Constituent: Sulfate Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

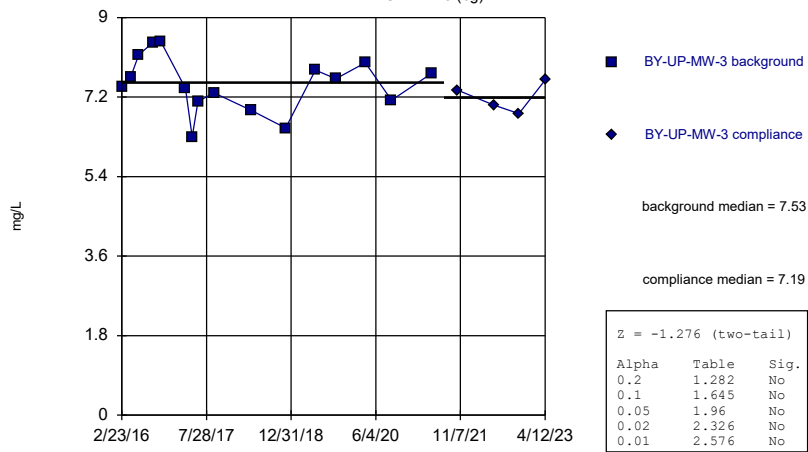
BY-UP-MW-2 (bg)



Constituent: Sulfate Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

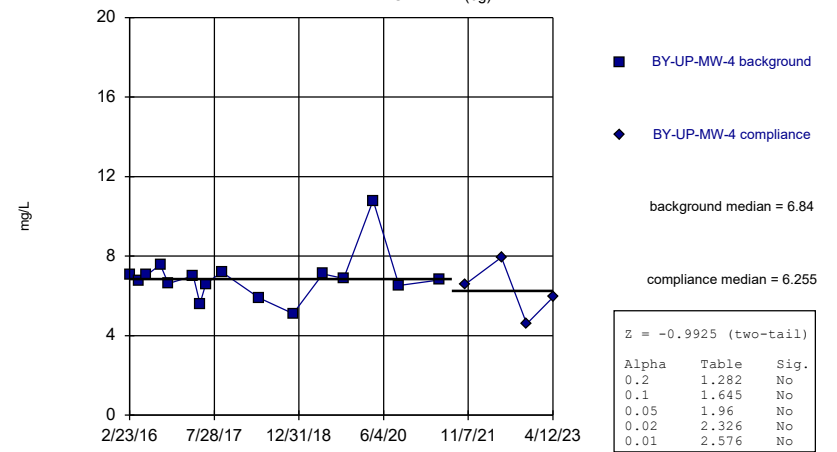
BY-UP-MW-3 (bg)



Constituent: Sulfate Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

BY-UP-MW-4 (bg)



Constituent: Sulfate Analysis Run 10/13/2023 10:12 AM View: Mann Whitney
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride, total (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	3.57	
4/19/2016	3.12	
6/7/2016	3.14	
8/30/2016	2.93	
10/18/2016	2.96	
3/21/2017	4.4	
5/2/2017	3.7	
6/7/2017	3.3	
9/13/2017	5.1	
5/1/2018	4	
11/26/2018	3.8	
5/29/2019	4.34	
10/2/2019	4.34	
3/31/2020	3.89	
9/9/2020	4.11	
5/12/2021	3.94	
10/19/2021		3.79
6/1/2022		3.35
11/2/2022		3.07
4/11/2023		3.17

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride, total (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	3.86	
4/18/2016	4.46	
6/7/2016	3.74	
8/30/2016	3.5	
10/18/2016	3.5	
3/21/2017	2.8	
5/2/2017	3.9	
6/6/2017	3.4	
9/13/2017	<2 (U*)	
5/2/2018	3.5	
11/27/2018	3.7	
5/28/2019	3.69	
10/2/2019	3.49	
3/30/2020	3.45	
9/8/2020	6.23	
5/12/2021	5.89	
10/19/2021		4.81
5/31/2022		7.83
11/2/2022		8.44
4/11/2023		5.21

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride, total (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	6.06	
4/18/2016	6.13	
6/6/2016	5.52	
8/30/2016	5.35	
10/18/2016	4.55	
3/21/2017	3.5	
5/2/2017	4.8	
6/6/2017	3.6	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.5	
5/28/2019	6.26	
10/2/2019	4.13	
3/30/2020	4.95	
9/8/2020	5.71	
5/12/2021	7.77	
10/18/2021		10
5/31/2022		7.22
11/2/2022		6.58
4/11/2023		7.94

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride, total (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	4.08	
4/18/2016	4.14	
6/6/2016	4.09	
8/30/2016	4.6	
10/18/2016	8.32	
3/21/2017	5.6	
5/2/2017	4.8	
6/7/2017	6.3	
9/12/2017	8.5	
5/1/2018	4	
11/27/2018	4.3	
5/28/2019	4.63	
10/2/2019	5.02	
3/30/2020	10.5	
9/8/2020	8.74	
5/12/2021	17.2	
10/18/2021		16.8
6/1/2022		14.7
11/2/2022		22.700001
4/11/2023		22.6

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride, total (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	4.47	
4/18/2016	4.74	
6/7/2016	4.52	
8/30/2016	4.71	
10/18/2016	4.73	
3/21/2017	4.9	
5/2/2017	5.7	
6/7/2017	4.1	
9/13/2017	4.9	
5/2/2018	4.1	
11/27/2018	4.9	
5/28/2019	4.43	
10/2/2019	4.32	
3/30/2020	4.38	
9/8/2020	4.61	
5/12/2021	5.25	
10/19/2021		5.34
6/1/2022		5.38
11/2/2022		5.08
4/11/2023		5.2

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride, total (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	4.1	
4/19/2016	3.11	
6/7/2016	3.72	
8/30/2016	4.8	
10/18/2016	4.71	
3/21/2017	5.3	
5/2/2017	6.6	
6/7/2017	5.2	
9/13/2017	6.5	
5/1/2018	5.7	
11/26/2018	11	
5/29/2019	8.56	
10/2/2019	8.48	
3/31/2020	6.87	
9/9/2020	7.94	
5/12/2021	8.77	
10/19/2021		6.33
6/1/2022		4.29
11/2/2022		3.14
4/11/2023		4.32

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride, total (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	3.59	
4/19/2016	2.89	
6/6/2016	3.12	
8/30/2016	3.91	
10/18/2016	3.9	
3/20/2017	3.5	
5/2/2017	3.5	
6/6/2017	3.1	
9/13/2017	4	
5/2/2018	9.9	
11/27/2018	4.7	
5/29/2019	5.48	
10/2/2019	3.65	
3/31/2020	3.17	
9/9/2020	2.92	
5/12/2021	2.18	
10/19/2021		2.37
5/31/2022		1.93
11/1/2022		2.37
4/12/2023		2.31

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride, total (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	3.99	
4/19/2016	4.08	
6/7/2016	4.28	
8/30/2016	4.26	
10/18/2016	4.26	
3/20/2017	4.1	
5/2/2017	5	
6/6/2017	3.9	
9/13/2017	4.3	
5/1/2018	3.7	
11/27/2018	3.2	
5/29/2019	2.93	
10/2/2019	2.75	
3/31/2020	2.72	
9/9/2020	2.32	
5/11/2021	2.16	
10/19/2021		2.08
5/31/2022		2.17
11/1/2022		2.22
4/12/2023		2.25

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride, total (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	3.68	
4/19/2016	3.72	
6/7/2016	3.66	
8/30/2016	3.7	
10/18/2016	3.77	
3/20/2017	3.7	
5/2/2017	4.6	
6/6/2017	3.4	
9/13/2017	3.9	
5/1/2018	4.1	
11/27/2018	3.5	
5/29/2019	3.58	
10/2/2019	3.64	
3/31/2020	3.47	
9/9/2020	3.47	
5/11/2021	3.42	
10/18/2021		3.45
5/31/2022		3.39
11/1/2022		3.09
4/12/2023		3.11

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Chloride, total (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	3.5	
4/19/2016	3.63	
6/6/2016	3.6	
8/30/2016	3.54	
10/18/2016	3.68	
3/20/2017	4.6	
5/2/2017	3.9	
6/6/2017	3.4	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.6	
5/28/2019	3.6	
10/2/2019	3.5	
3/31/2020	3.34	
9/8/2020	3.29	
5/11/2021	3.33	
10/18/2021		3.32
5/31/2022		3.31
11/1/2022		3.3
4/12/2023		3.42

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	9.29	
4/19/2016	9.92	
6/7/2016	10	
8/30/2016	11.1	
10/18/2016	11.7	
3/21/2017	9	
5/2/2017	7.9	
6/7/2017	8.4	
9/13/2017	8.7	
5/1/2018	10	
11/26/2018	8.3	
5/29/2019	11.1	
10/2/2019	13.2	
3/31/2020	11.1	
9/9/2020	9.28	
5/12/2021	11	
10/19/2021		10.1
6/1/2022		11.4
11/2/2022		11.5
4/11/2023		11.9

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	12.5	
4/18/2016	28.6	
6/7/2016	18.7	
8/30/2016	13.8	
10/18/2016	12.2	
3/21/2017	8.6	
5/2/2017	8	
6/6/2017	8.6	
9/13/2017	7.6	
5/2/2018	6	
11/27/2018	5.5	
5/28/2019	6.5	
10/2/2019	6.55	
3/30/2020	6.34	
9/8/2020	15.1	
5/12/2021	38.2	
10/19/2021		12.3
5/31/2022		48.7
11/2/2022		51.400002
4/11/2023		34.799999

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	36.5	
4/18/2016	80.2 (O)	
6/6/2016	0.498 (J)	
8/30/2016	27.8	
10/18/2016	22.5	
3/21/2017	15	
5/2/2017	11	
6/6/2017	10	
9/12/2017	7.5	
5/1/2018	8.5	
11/26/2018	7.4	
5/28/2019	32.7	
10/2/2019	15.9	
3/30/2020	21.8	
9/8/2020	17.7	
5/12/2021	37.1	
10/18/2021		24.7
5/31/2022		38.6
11/2/2022		36.900002
4/11/2023		53.599998

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	3.82	
4/18/2016	3.48	
6/6/2016	3.76	
8/30/2016	3.62	
10/18/2016	2.58	
3/21/2017	3.3 (J)	
5/2/2017	2.5 (J)	
6/7/2017	3.1 (J)	
9/12/2017	3 (J)	
5/1/2018	1.6 (J)	
11/27/2018	1.9 (J)	
5/28/2019	4.86	
10/2/2019	4.6	
3/30/2020	4.29	
9/8/2020	3.59	
5/12/2021	3.58	
10/18/2021		2.54
6/1/2022		3.4
11/2/2022		2.35
4/11/2023		<2

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	3.33	
4/18/2016	3.78	
6/7/2016	4.44	
8/30/2016	4.29	
10/18/2016	4.27	
3/21/2017	3.6 (J)	
5/2/2017	2.9 (J)	
6/7/2017	2.9 (J)	
9/13/2017	3.2 (J)	
5/2/2018	2.6 (J)	
11/27/2018	2.8 (J)	
5/28/2019	4.46	
10/2/2019	4.96	
3/30/2020	4.84	
9/8/2020	4.56	
5/12/2021	4.7	
10/19/2021		4.2
6/1/2022		5.11
11/2/2022		5.34
4/11/2023		5.57

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	7.71	
4/19/2016	7.85	
6/7/2016	7.76	
8/30/2016	8.22	
10/18/2016	9.29	
3/21/2017	7.1	
5/2/2017	5.7	
6/7/2017	7.1	
9/13/2017	7.3	
5/1/2018	7.1	
11/26/2018	7.3	
5/29/2019	12.3	
10/2/2019	11.6	
3/31/2020	12.5	
9/9/2020	10.7	
5/12/2021	12.5	
10/19/2021		12.6
6/1/2022		13
11/2/2022		12.2
4/11/2023		10.2

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	8.59	
4/19/2016	8.27	
6/6/2016	8.66	
8/30/2016	9.74	
10/18/2016	10.2	
3/20/2017	8.3	
5/2/2017	6.6	
6/6/2017	7.6	
9/13/2017	8.4	
5/2/2018	5.9	
11/27/2018	22	
5/29/2019	23.3	
10/2/2019	17.5	
3/31/2020	24.3	
9/9/2020	16.5	
5/12/2021	16.3	
10/19/2021		15.5
5/31/2022		12.8
11/1/2022		11.3
4/12/2023		11.8

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	7.2	
4/19/2016	7.22	
6/7/2016	7.92	
8/30/2016	8.17	
10/18/2016	7.99	
3/20/2017	6.1	
5/2/2017	5	
6/6/2017	5.3	
9/13/2017	4.9 (J)	
5/1/2018	4.2 (J)	
11/27/2018	3.7 (J)	
5/29/2019	5.94	
10/2/2019	6.04	
3/31/2020	6.83	
9/9/2020	6.08	
5/11/2021	7.92	
10/19/2021		7.48
5/31/2022		8.09
11/1/2022		7.11
4/12/2023		8.54

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	7.44	
4/19/2016	7.66	
6/7/2016	8.16	
8/30/2016	8.43	
10/18/2016	8.47	
3/20/2017	7.4	
5/2/2017	6.3	
6/6/2017	7.1	
9/13/2017	7.3	
5/1/2018	6.9	
11/27/2018	6.5	
5/29/2019	7.81	
10/2/2019	7.62	
3/31/2020	7.98	
9/9/2020	7.13	
5/11/2021	7.73	
10/18/2021		7.36
5/31/2022		7.02
11/1/2022		6.83
4/12/2023		7.59

Mann-Whitney (Wilcoxon Rank Sum)

Constituent: Sulfate (mg/L) Analysis Run 10/13/2023 10:14 AM View: Mann Whitney
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	7.04	
4/19/2016	6.74	
6/6/2016	7.04	
8/30/2016	7.57	
10/18/2016	6.62	
3/20/2017	7	
5/2/2017	5.6	
6/6/2017	6.6	
9/12/2017	7.2	
5/1/2018	5.9	
11/26/2018	5.1	
5/28/2019	7.1	
10/2/2019	6.88	
3/31/2020	10.8	
9/8/2020	6.52	
5/11/2021	6.8	
10/18/2021		6.58
5/31/2022		7.94
11/1/2022		4.59
4/12/2023		5.93

FIGURE E.

Trend Tests - Upgradient Wells - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/13/2023, 10:19 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-2 (bg)	-0.05214	-154	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-3 (bg)	-0.08243	-154	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-4 (bg)	-0.03972	-127	-98	Yes	23	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

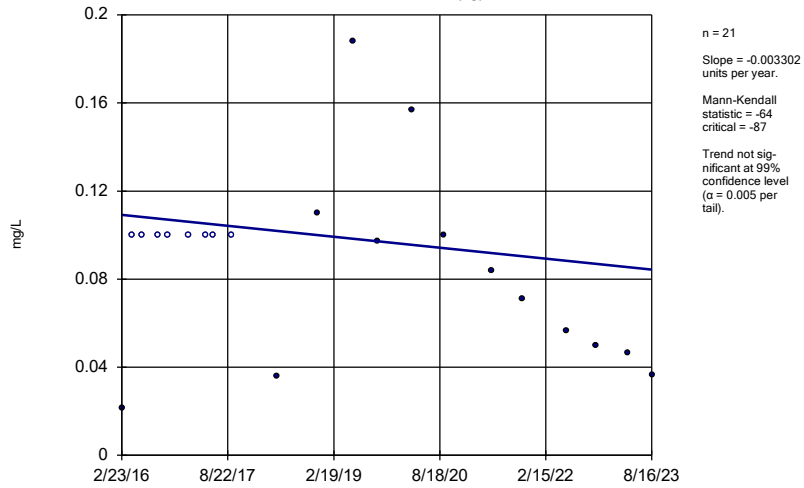
Trend Tests - Upgradient Wells - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/13/2023, 10:19 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-UP-MW-1 (bg)	-0.003302	-64	-87	No	21	38.1	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	35	87	No	21	85.71	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	31	87	No	21	90.48	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.02191	-32	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.01469	21	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-1 (bg)	0.008753	100	92	Yes	22	59.09	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-2 (bg)	0.01319	115	92	Yes	22	54.55	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-3 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-UP-MW-4 (bg)	0	87	92	No	22	77.27	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-1 (bg)	-0.007802	-33	-98	No	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-2 (bg)	-0.05214	-154	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-3 (bg)	-0.08243	-154	-98	Yes	23	0	n/a	n/a	0.01	NP
pH, Field (SU)	BY-UP-MW-4 (bg)	-0.03972	-127	-98	Yes	23	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.366	39	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.5823	36	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.5158	24	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Sen's Slope Estimator

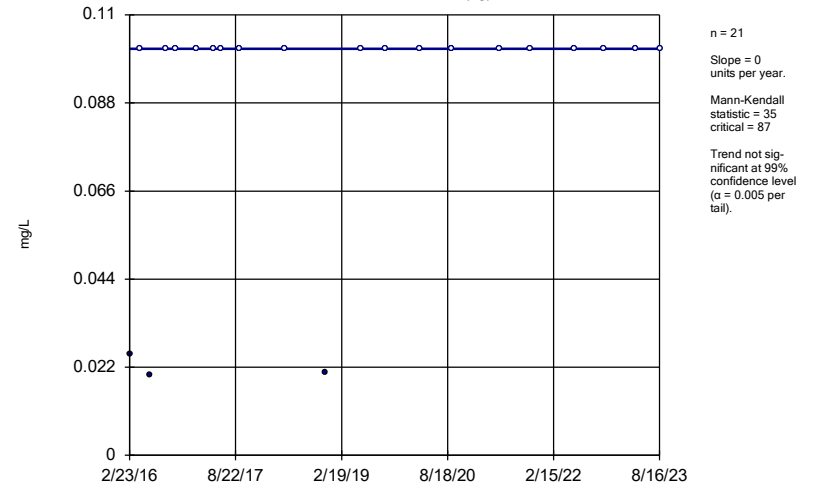
BY-UP-MW-1 (bg)



Constituent: Boron Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

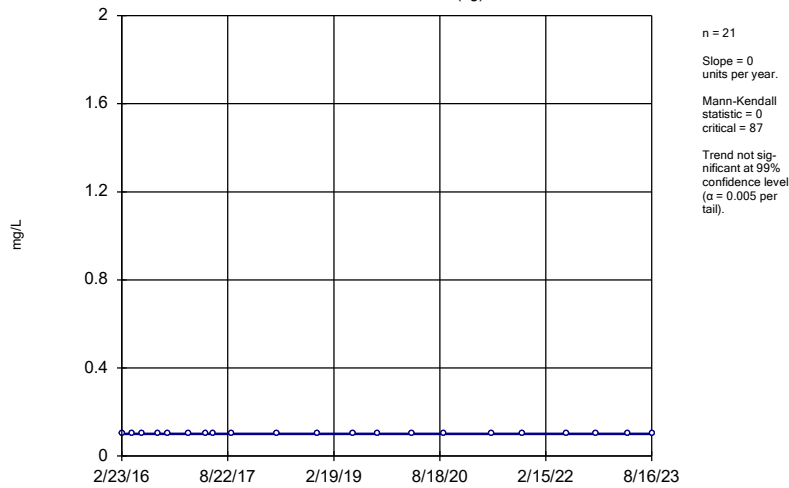
BY-UP-MW-2 (bg)



Constituent: Boron Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

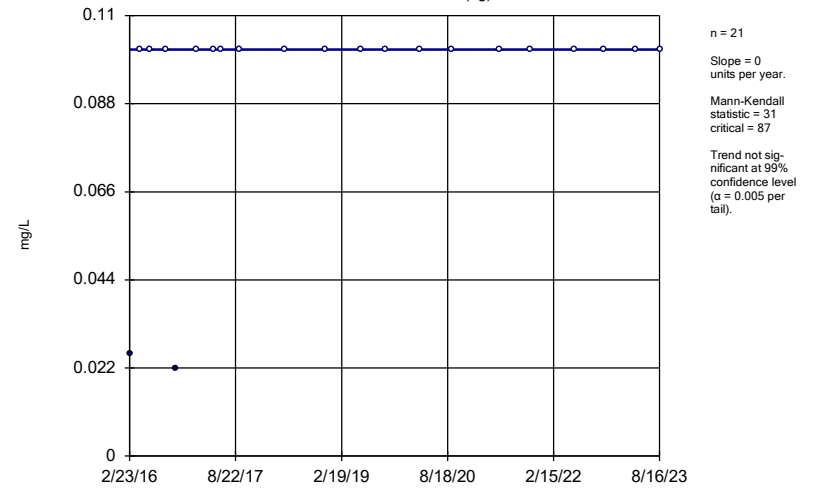
BY-UP-MW-3 (bg)



Constituent: Boron Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

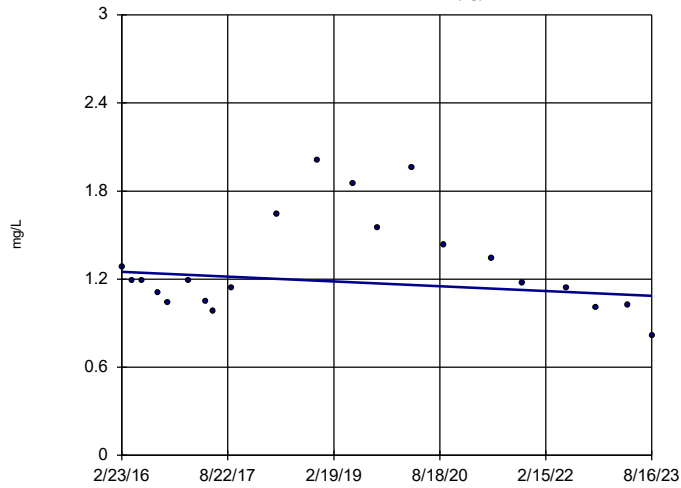
BY-UP-MW-4 (bg)



Constituent: Boron Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

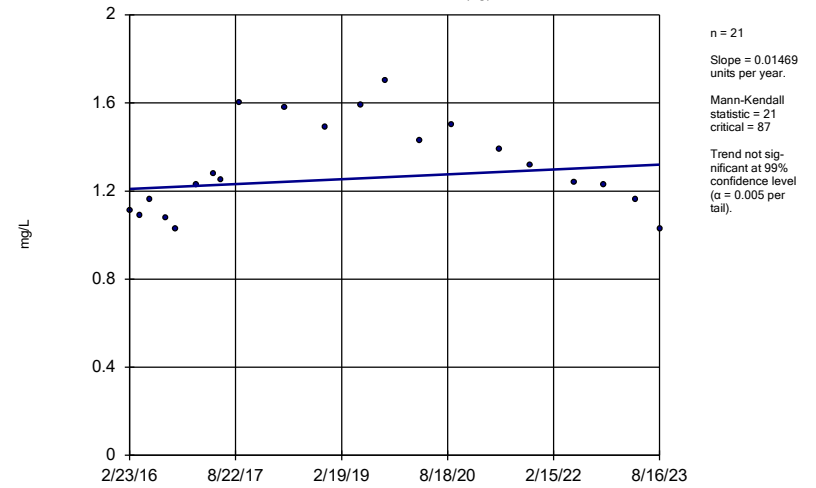
BY-UP-MW-1 (bg)



Constituent: Calcium, total Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

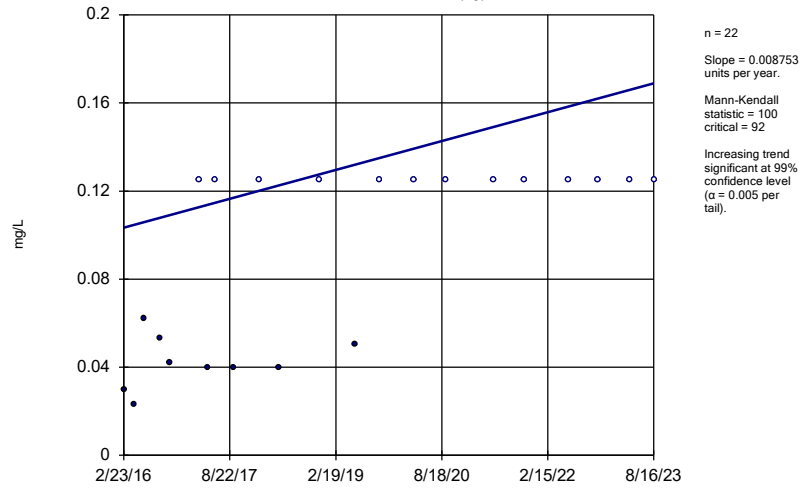
Sen's Slope Estimator

BY-UP-MW-2 (bg)



Sen's Slope Estimator

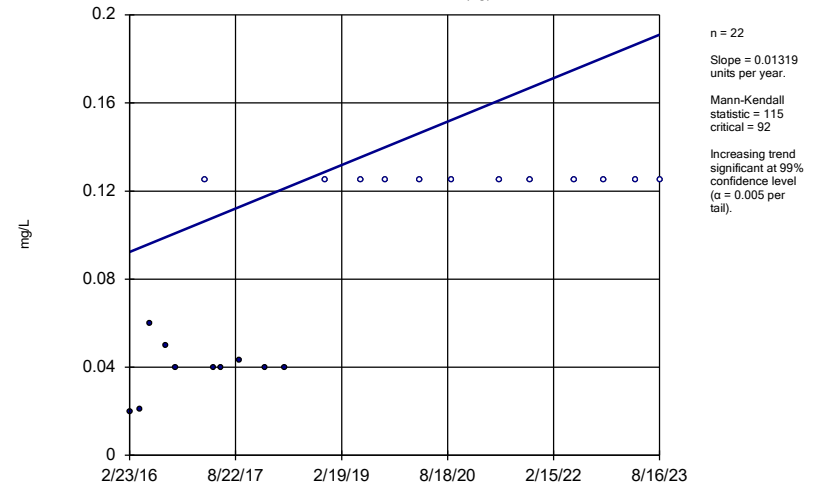
BY-UP-MW-1 (bg)



Constituent: Fluoride Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

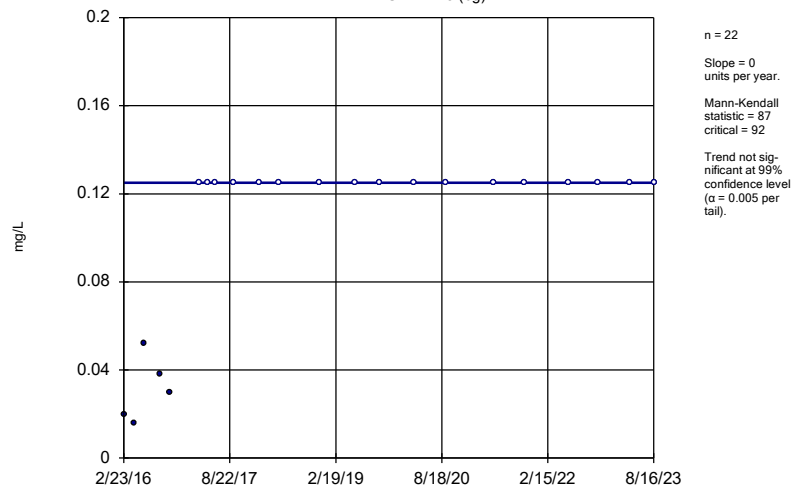
BY-UP-MW-2 (bg)



Constituent: Fluoride Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

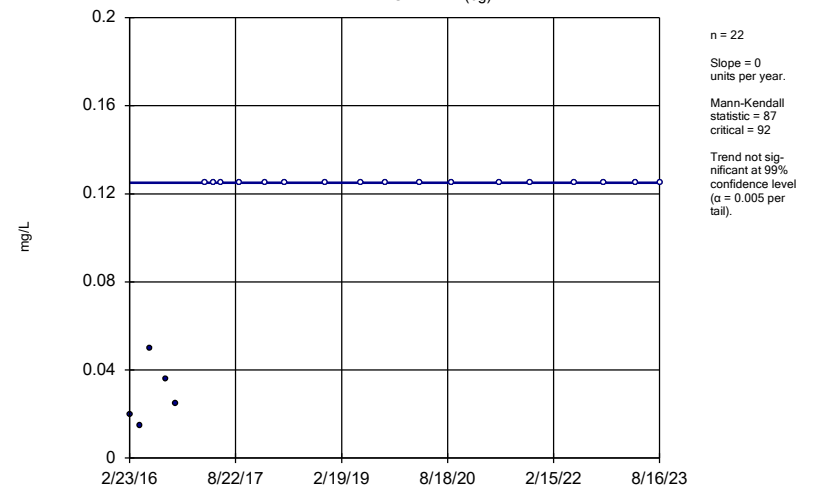
BY-UP-MW-3 (bg)



Constituent: Fluoride Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

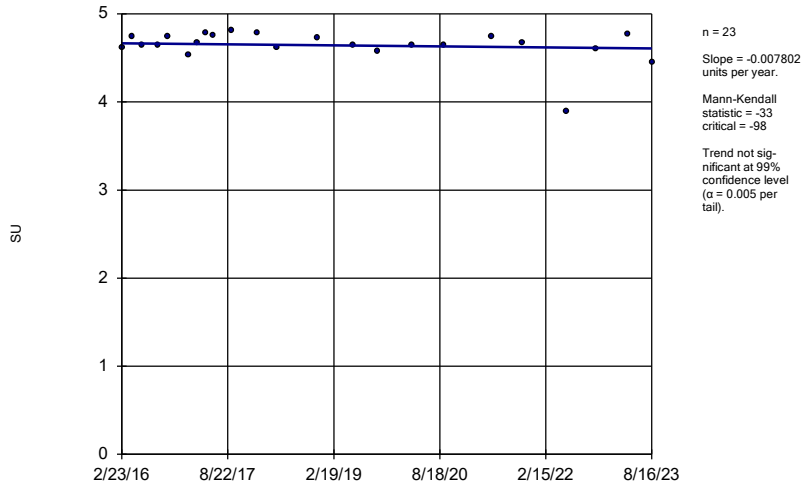
BY-UP-MW-4 (bg)



Constituent: Fluoride Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

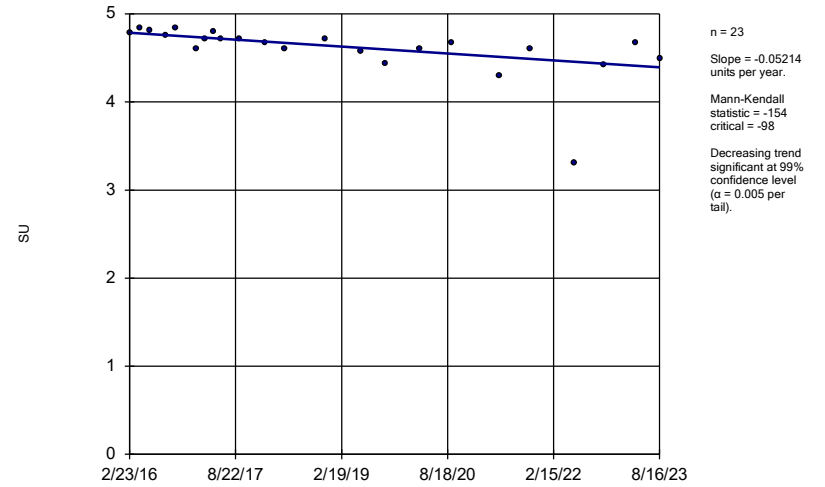
BY-UP-MW-1 (bg)



Constituent: pH, Field Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

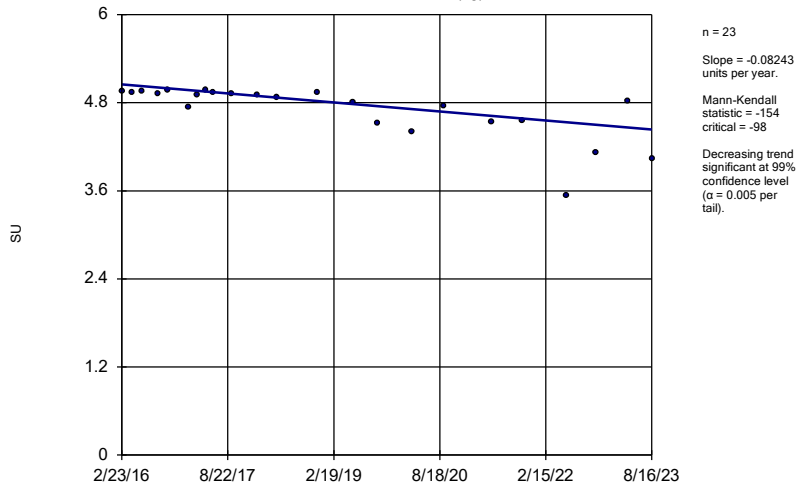
BY-UP-MW-2 (bg)



Constituent: pH, Field Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

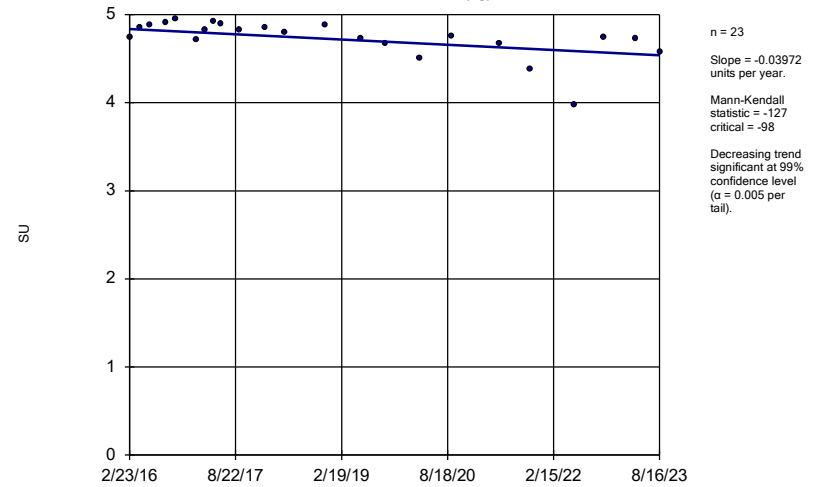
BY-UP-MW-3 (bg)



Constituent: pH, Field Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

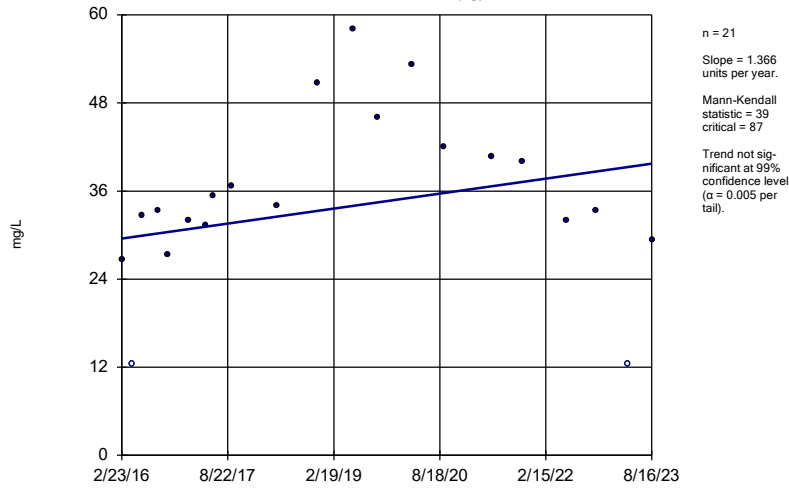
BY-UP-MW-4 (bg)



Constituent: pH, Field Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

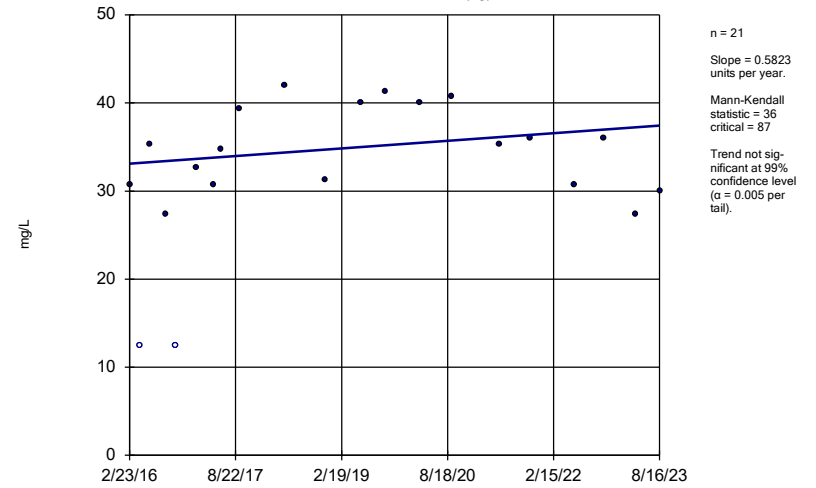
BY-UP-MW-1 (bg)



Constituent: TDS Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

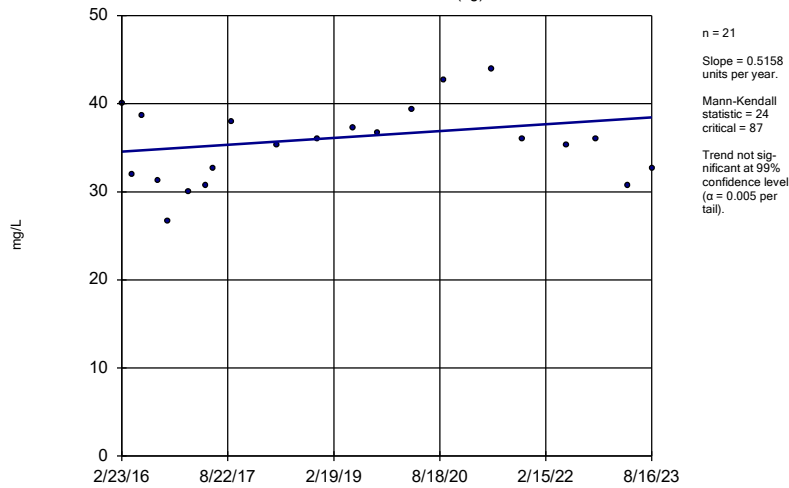
BY-UP-MW-2 (bg)



Constituent: TDS Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

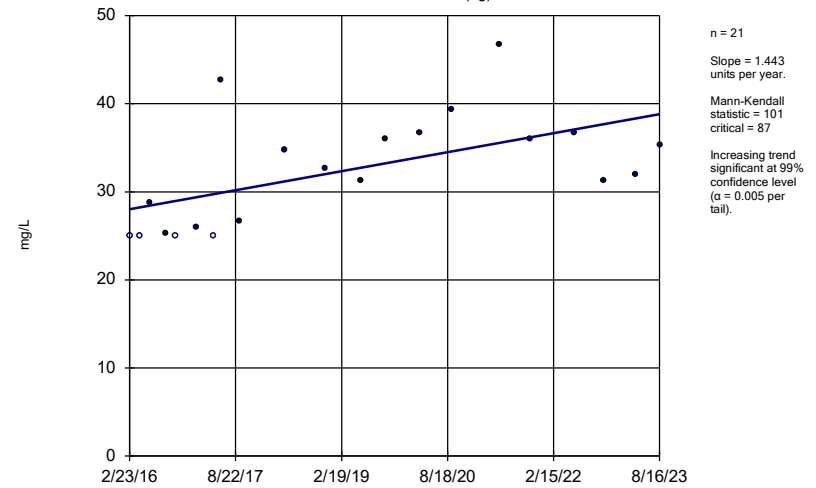
BY-UP-MW-3 (bg)



Constituent: TDS Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)



Constituent: TDS Analysis Run 10/13/2023 10:15 AM View: Trend Tests - Upgradient Wells
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE F.

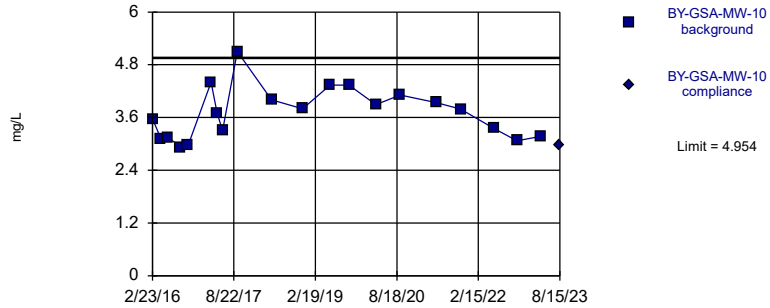
Intrawell Prediction Limit - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/16/2023, 2:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Chloride, total (mg/L)	BY-GSA-MW-10	4.954	n/a	8/15/2023	2.98	No	20	3.701	0.5807	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-5	8.012	n/a	8/15/2023	3.72	No	20	4.32	1.711	5	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-6	9.295	n/a	8/15/2023	5.49	No	20	5.584	1.72	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-7	16.61	n/a	8/15/2023	7.69	No	13	2.602	0.6135	0	None	sqrt(x)	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-8	5.736	n/a	8/15/2023	4.57	No	20	4.788	0.4395	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-GSA-MW-9	10.56	n/a	8/15/2023	5.16	No	20	5.972	2.128	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-1	7.421	n/a	8/16/2023	2.61	No	20	1.214	0.3661	0	None	ln(x)	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-2	5.375	n/a	8/16/2023	2.01	No	20	3.334	0.9458	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-3	4.334	n/a	8/16/2023	2.94	No	20	3.618	0.3318	0	None	No	0.001075	Param Intra 1 of 2
Chloride, total (mg/L)	BY-UP-MW-4	4.6	n/a	8/16/2023	3.12	No	20	n/a	n/a	0	n/a	n/a	0.004291	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-GSA-MW-10	13.3	n/a	8/15/2023	11.7	No	20	10.24	1.414	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-5	64.49	n/a	8/15/2023	11.9	No	20	2.584	0.7333	0	None	ln(x)	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-6	52.96	n/a	8/15/2023	38.2	No	19	22.41	13.99	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-7	5.262	n/a	8/15/2023	3.85	No	20	3.144	0.9817	5	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-8	6.04	n/a	8/15/2023	5.94	No	20	4.093	0.9024	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-9	14.77	n/a	8/15/2023	10.4	No	20	9.502	2.443	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-1	24.9	n/a	8/16/2023	9.38	No	20	12.68	5.664	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-2	9.649	n/a	8/16/2023	8.28	No	20	6.587	1.419	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-3	8.693	n/a	8/16/2023	7.26	No	20	7.437	0.5821	0	None	No	0.001075	Param Intra 1 of 2
Sulfate (mg/L)	BY-UP-MW-4	9.544	n/a	8/16/2023	7.05	No	20	2.594	0.2297	0	None	sqrt(x)	0.001075	Param Intra 1 of 2

Within Limit

Prediction Limit
Intrawell Parametric

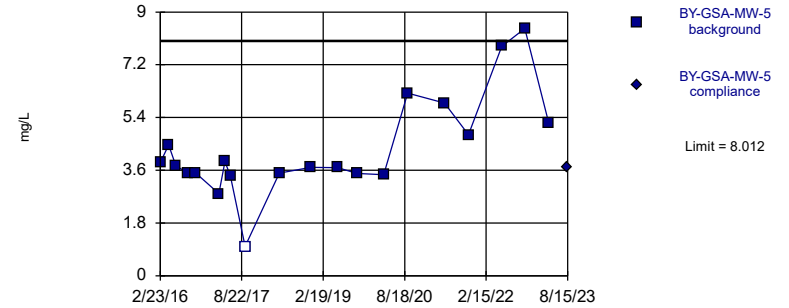


Background Data Summary: Mean=3.701, Std. Dev.=0.5807, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9432, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride, total Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

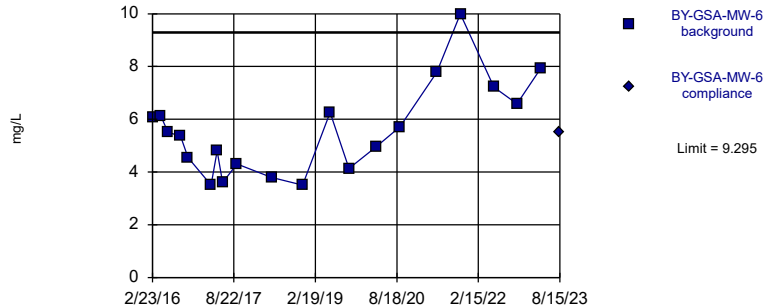


Background Data Summary: Mean=4.32, Std. Dev.=1.711, n=20, 5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8737, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride, total Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

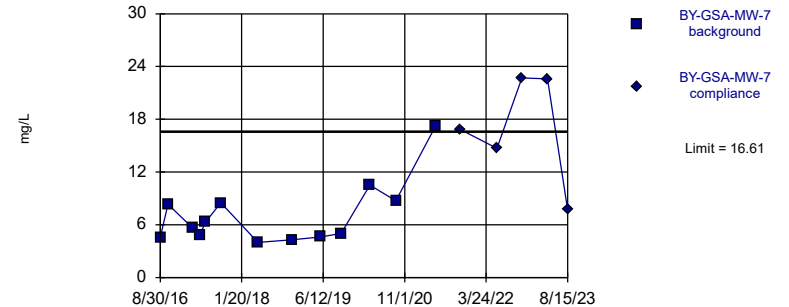


Background Data Summary: Mean=5.584, Std. Dev.=1.72, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9336, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride, total Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

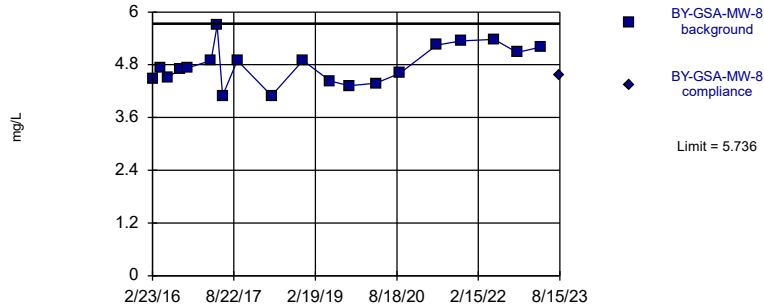


Background Data Summary (based on square root transformation): Mean=2.602, Std. Dev.=0.6135, n=13. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8468, critical = 0.814. Kappa = 2.402 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride, total Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

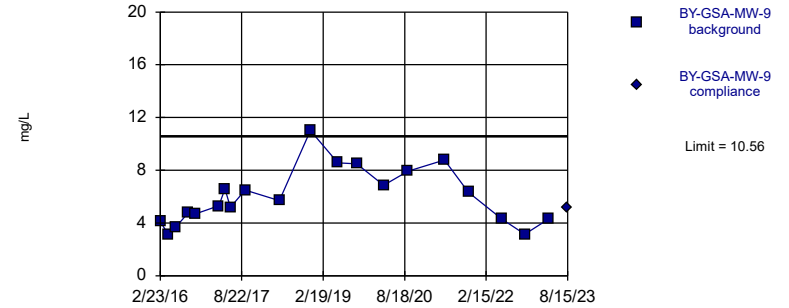


Background Data Summary: Mean=4.788, Std. Dev.=0.4395, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9733, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride, total Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

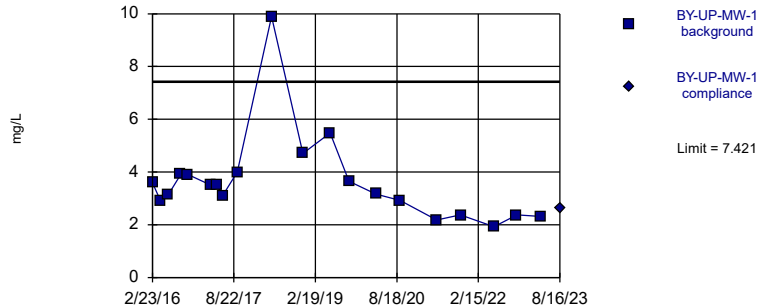


Background Data Summary: Mean=5.972, Std. Dev.=2.128, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9457, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride, total Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

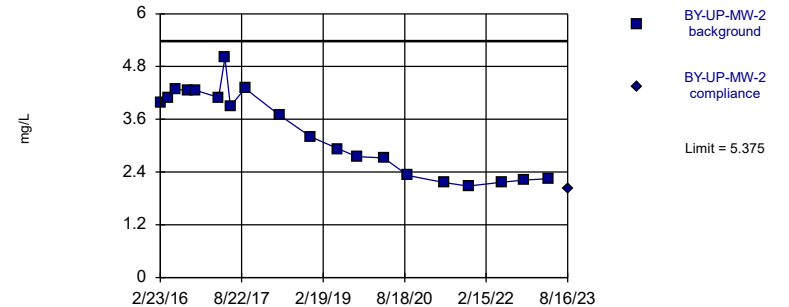


Background Data Summary (based on natural log transformation): Mean=1.214, Std. Dev.=0.3661, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9134, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride, total Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

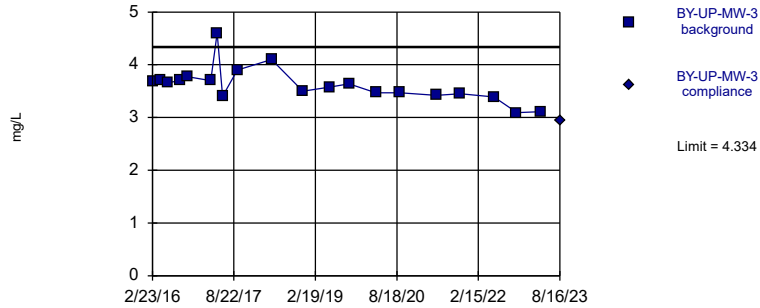


Background Data Summary: Mean=3.334, Std. Dev.=0.9458, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8886, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Chloride, total Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

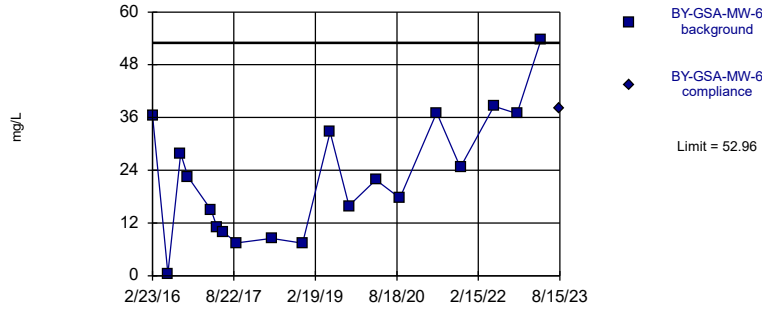
Within Limit

Prediction Limit
Intrawell Parametric



Within Limit

Prediction Limit
Intrawell Parametric

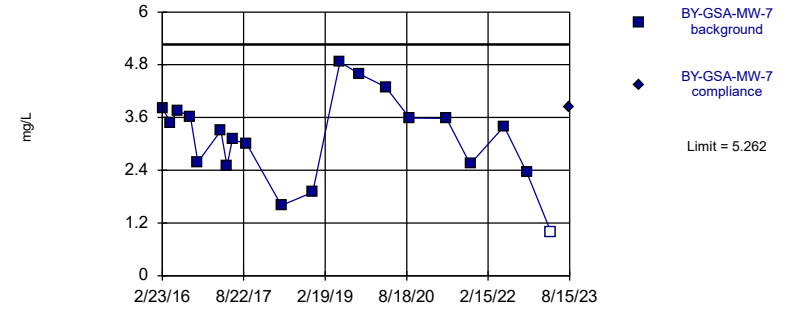


Background Data Summary: Mean=22.41, Std. Dev.=13.99, n=19. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9553, critical = 0.863. Kappa = 2.184 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

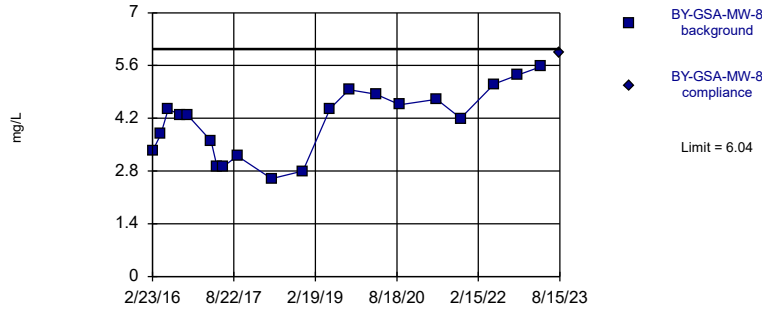


Background Data Summary: Mean=3.144, Std. Dev.=0.9817, n=20, 5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.976, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

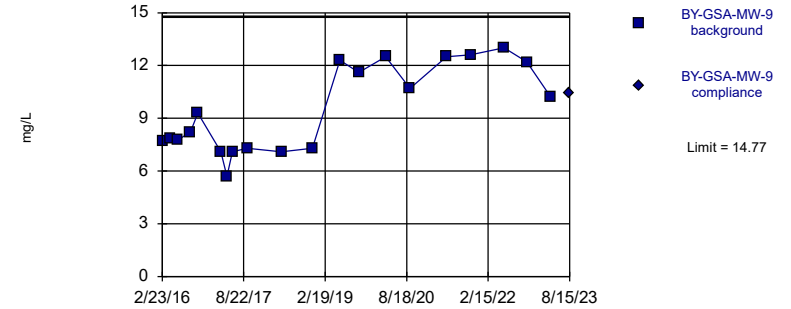


Background Data Summary: Mean=4.093, Std. Dev.=0.9024, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9497, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

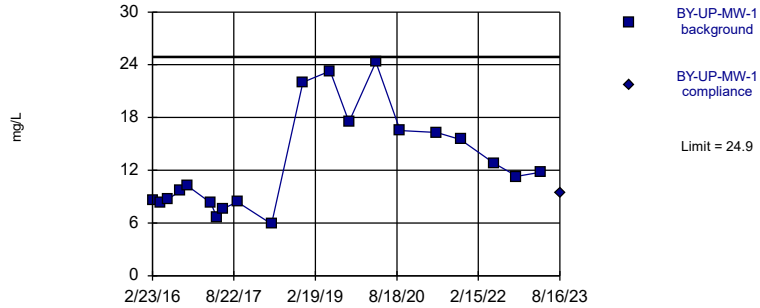


Background Data Summary: Mean=9.502, Std. Dev.=2.443, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8727, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

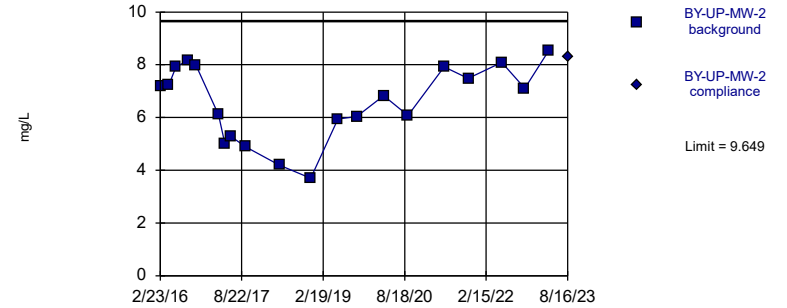


Background Data Summary: Mean=12.68, Std. Dev.=5.664, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8847, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

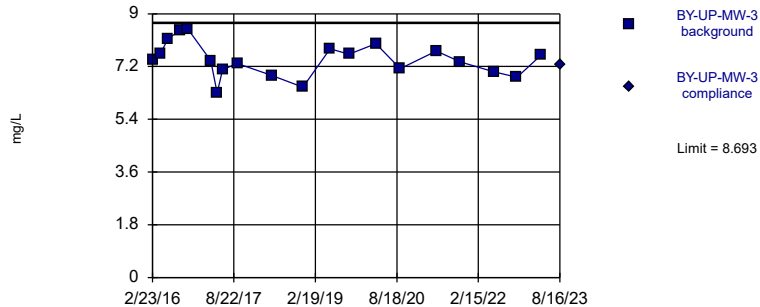


Background Data Summary: Mean=6.587, Std. Dev.=1.419, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9377, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric

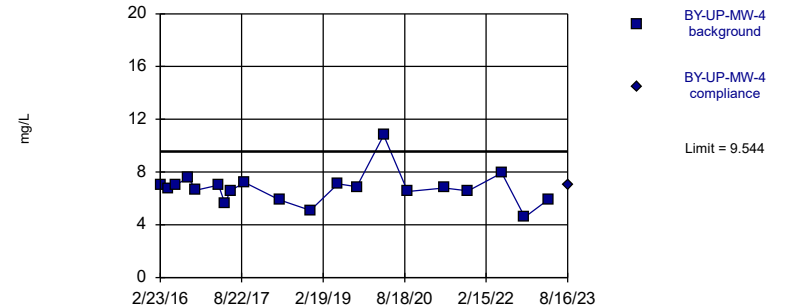


Background Data Summary: Mean=7.437, Std. Dev.=0.5821, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9843, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on square root transformation): Mean=2.594, Std. Dev.=0.2297, n=20. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8846, critical = 0.868. Kappa = 2.158 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.001075.

Constituent: Sulfate Analysis Run 10/16/2023 2:25 PM View: PLs - Intrawell
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	3.57	
4/19/2016	3.12	
6/7/2016	3.14	
8/30/2016	2.93	
10/18/2016	2.96	
3/21/2017	4.4	
5/2/2017	3.7	
6/7/2017	3.3	
9/13/2017	5.1	
5/1/2018	4	
11/26/2018	3.8	
5/29/2019	4.34	
10/2/2019	4.34	
3/31/2020	3.89	
9/9/2020	4.11	
5/12/2021	3.94	
10/19/2021	3.79	
6/1/2022	3.35	
11/2/2022	3.07	
4/11/2023	3.17	
8/15/2023		2.98

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	3.86	
4/18/2016	4.46	
6/7/2016	3.74	
8/30/2016	3.5	
10/18/2016	3.5	
3/21/2017	2.8	
5/2/2017	3.9	
6/6/2017	3.4	
9/13/2017	<2 (U*)	
5/2/2018	3.5	
11/27/2018	3.7	
5/28/2019	3.69	
10/2/2019	3.49	
3/30/2020	3.45	
9/8/2020	6.23	
5/12/2021	5.89	
10/19/2021	4.81	
5/31/2022	7.83	
11/2/2022	8.44	
4/11/2023	5.21	
8/15/2023		3.72

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	6.06	
4/18/2016	6.13	
6/6/2016	5.52	
8/30/2016	5.35	
10/18/2016	4.55	
3/21/2017	3.5	
5/2/2017	4.8	
6/6/2017	3.6	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.5	
5/28/2019	6.26	
10/2/2019	4.13	
3/30/2020	4.95	
9/8/2020	5.71	
5/12/2021	7.77	
10/18/2021	10	
5/31/2022	7.22	
11/2/2022	6.58	
4/11/2023	7.94	
8/15/2023		5.49

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	4.08	
4/18/2016	4.14	
6/6/2016	4.09	
8/30/2016	4.6	
10/18/2016	8.32	
3/21/2017	5.6	
5/2/2017	4.8	
6/7/2017	6.3	
9/12/2017	8.5	
5/1/2018	4	
11/27/2018	4.3	
5/28/2019	4.63	
10/2/2019	5.02	
3/30/2020	10.5	
9/8/2020	8.74	
5/12/2021	17.2	
10/18/2021		16.8
6/1/2022		14.7
11/2/2022		22.700001
4/11/2023		22.6
8/15/2023		7.69

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	4.47	
4/18/2016	4.74	
6/7/2016	4.52	
8/30/2016	4.71	
10/18/2016	4.73	
3/21/2017	4.9	
5/2/2017	5.7	
6/7/2017	4.1	
9/13/2017	4.9	
5/2/2018	4.1	
11/27/2018	4.9	
5/28/2019	4.43	
10/2/2019	4.32	
3/30/2020	4.38	
9/8/2020	4.61	
5/12/2021	5.25	
10/19/2021	5.34	
6/1/2022	5.38	
11/2/2022	5.08	
4/11/2023	5.2	
8/15/2023		4.57

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	4.1	
4/19/2016	3.11	
6/7/2016	3.72	
8/30/2016	4.8	
10/18/2016	4.71	
3/21/2017	5.3	
5/2/2017	6.6	
6/7/2017	5.2	
9/13/2017	6.5	
5/1/2018	5.7	
11/26/2018	11	
5/29/2019	8.56	
10/2/2019	8.48	
3/31/2020	6.87	
9/9/2020	7.94	
5/12/2021	8.77	
10/19/2021	6.33	
6/1/2022	4.29	
11/2/2022	3.14	
4/11/2023	4.32	
8/15/2023		5.16

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	3.59	
4/19/2016	2.89	
6/6/2016	3.12	
8/30/2016	3.91	
10/18/2016	3.9	
3/20/2017	3.5	
5/2/2017	3.5	
6/6/2017	3.1	
9/13/2017	4	
5/2/2018	9.9	
11/27/2018	4.7	
5/29/2019	5.48	
10/2/2019	3.65	
3/31/2020	3.17	
9/9/2020	2.92	
5/12/2021	2.18	
10/19/2021	2.37	
5/31/2022	1.93	
11/1/2022	2.37	
4/12/2023	2.31	
8/16/2023		2.61

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	3.99	
4/19/2016	4.08	
6/7/2016	4.28	
8/30/2016	4.26	
10/18/2016	4.26	
3/20/2017	4.1	
5/2/2017	5	
6/6/2017	3.9	
9/13/2017	4.3	
5/1/2018	3.7	
11/27/2018	3.2	
5/29/2019	2.93	
10/2/2019	2.75	
3/31/2020	2.72	
9/9/2020	2.32	
5/11/2021	2.16	
10/19/2021	2.08	
5/31/2022	2.17	
11/1/2022	2.22	
4/12/2023	2.25	
8/16/2023		2.01

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	3.68	
4/19/2016	3.72	
6/7/2016	3.66	
8/30/2016	3.7	
10/18/2016	3.77	
3/20/2017	3.7	
5/2/2017	4.6	
6/6/2017	3.4	
9/13/2017	3.9	
5/1/2018	4.1	
11/27/2018	3.5	
5/29/2019	3.58	
10/2/2019	3.64	
3/31/2020	3.47	
9/9/2020	3.47	
5/11/2021	3.42	
10/18/2021	3.45	
5/31/2022	3.39	
11/1/2022	3.09	
4/12/2023	3.11	
8/16/2023		2.94

Prediction Limit

Constituent: Chloride, total (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	3.5	
4/19/2016	3.63	
6/6/2016	3.6	
8/30/2016	3.54	
10/18/2016	3.68	
3/20/2017	4.6	
5/2/2017	3.9	
6/6/2017	3.4	
9/12/2017	4.3	
5/1/2018	3.8	
11/26/2018	3.6	
5/28/2019	3.6	
10/2/2019	3.5	
3/31/2020	3.34	
9/8/2020	3.29	
5/11/2021	3.33	
10/18/2021	3.32	
5/31/2022	3.31	
11/1/2022	3.3	
4/12/2023	3.42	
8/16/2023		3.12

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - IntraWell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-10
2/23/2016	9.29	
4/19/2016	9.92	
6/7/2016	10	
8/30/2016	11.1	
10/18/2016	11.7	
3/21/2017	9	
5/2/2017	7.9	
6/7/2017	8.4	
9/13/2017	8.7	
5/1/2018	10	
11/26/2018	8.3	
5/29/2019	11.1	
10/2/2019	13.2	
3/31/2020	11.1	
9/9/2020	9.28	
5/12/2021	11	
10/19/2021	10.1	
6/1/2022	11.4	
11/2/2022	11.5	
4/11/2023	11.9	
8/15/2023		11.7

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - Intrawell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-5	BY-GSA-MW-5
2/23/2016	12.5	
4/18/2016	28.6	
6/7/2016	18.7	
8/30/2016	13.8	
10/18/2016	12.2	
3/21/2017	8.6	
5/2/2017	8	
6/6/2017	8.6	
9/13/2017	7.6	
5/2/2018	6	
11/27/2018	5.5	
5/28/2019	6.5	
10/2/2019	6.55	
3/30/2020	6.34	
9/8/2020	15.1	
5/12/2021	38.2	
10/19/2021	12.3	
5/31/2022	48.7	
11/2/2022	51.400002	
4/11/2023	34.799999	
8/15/2023		11.9

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - IntraWell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-6	BY-GSA-MW-6
2/23/2016	36.5	
4/18/2016	80.2 (O)	
6/6/2016	0.498 (J)	
8/30/2016	27.8	
10/18/2016	22.5	
3/21/2017	15	
5/2/2017	11	
6/6/2017	10	
9/12/2017	7.5	
5/1/2018	8.5	
11/26/2018	7.4	
5/28/2019	32.7	
10/2/2019	15.9	
3/30/2020	21.8	
9/8/2020	17.7	
5/12/2021	37.1	
10/18/2021	24.7	
5/31/2022	38.6	
11/2/2022	36.900002	
4/11/2023	53.599998	
8/15/2023		38.200001

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - IntraWell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-7	BY-GSA-MW-7
2/23/2016	3.82	
4/18/2016	3.48	
6/6/2016	3.76	
8/30/2016	3.62	
10/18/2016	2.58	
3/21/2017	3.3 (J)	
5/2/2017	2.5 (J)	
6/7/2017	3.1 (J)	
9/12/2017	3 (J)	
5/1/2018	1.6 (J)	
11/27/2018	1.9 (J)	
5/28/2019	4.86	
10/2/2019	4.6	
3/30/2020	4.29	
9/8/2020	3.59	
5/12/2021	3.58	
10/18/2021	2.54	
6/1/2022	3.4	
11/2/2022	2.35	
4/11/2023	<2	
8/15/2023		3.85

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - IntraWell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-8	BY-GSA-MW-8
2/23/2016	3.33	
4/18/2016	3.78	
6/7/2016	4.44	
8/30/2016	4.29	
10/18/2016	4.27	
3/21/2017	3.6 (J)	
5/2/2017	2.9 (J)	
6/7/2017	2.9 (J)	
9/13/2017	3.2 (J)	
5/2/2018	2.6 (J)	
11/27/2018	2.8 (J)	
5/28/2019	4.46	
10/2/2019	4.96	
3/30/2020	4.84	
9/8/2020	4.56	
5/12/2021	4.7	
10/19/2021	4.2	
6/1/2022	5.11	
11/2/2022	5.34	
4/11/2023	5.57	
8/15/2023		5.94

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - IntraWell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-9	BY-GSA-MW-9
2/23/2016	7.71	
4/19/2016	7.85	
6/7/2016	7.76	
8/30/2016	8.22	
10/18/2016	9.29	
3/21/2017	7.1	
5/2/2017	5.7	
6/7/2017	7.1	
9/13/2017	7.3	
5/1/2018	7.1	
11/26/2018	7.3	
5/29/2019	12.3	
10/2/2019	11.6	
3/31/2020	12.5	
9/9/2020	10.7	
5/12/2021	12.5	
10/19/2021	12.6	
6/1/2022	13	
11/2/2022	12.2	
4/11/2023	10.2	
8/15/2023		10.4

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - IntraWell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-1	BY-UP-MW-1
2/23/2016	8.59	
4/19/2016	8.27	
6/6/2016	8.66	
8/30/2016	9.74	
10/18/2016	10.2	
3/20/2017	8.3	
5/2/2017	6.6	
6/6/2017	7.6	
9/13/2017	8.4	
5/2/2018	5.9	
11/27/2018	22	
5/29/2019	23.3	
10/2/2019	17.5	
3/31/2020	24.3	
9/9/2020	16.5	
5/12/2021	16.3	
10/19/2021	15.5	
5/31/2022	12.8	
11/1/2022	11.3	
4/12/2023	11.8	
8/16/2023		9.38

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - IntraWell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-2	BY-UP-MW-2
2/23/2016	7.2	
4/19/2016	7.22	
6/7/2016	7.92	
8/30/2016	8.17	
10/18/2016	7.99	
3/20/2017	6.1	
5/2/2017	5	
6/6/2017	5.3	
9/13/2017	4.9 (J)	
5/1/2018	4.2 (J)	
11/27/2018	3.7 (J)	
5/29/2019	5.94	
10/2/2019	6.04	
3/31/2020	6.83	
9/9/2020	6.08	
5/11/2021	7.92	
10/19/2021	7.48	
5/31/2022	8.09	
11/1/2022	7.11	
4/12/2023	8.54	
8/16/2023		8.28

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - IntraWell
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-3	BY-UP-MW-3
2/23/2016	7.44	
4/19/2016	7.66	
6/7/2016	8.16	
8/30/2016	8.43	
10/18/2016	8.47	
3/20/2017	7.4	
5/2/2017	6.3	
6/6/2017	7.1	
9/13/2017	7.3	
5/1/2018	6.9	
11/27/2018	6.5	
5/29/2019	7.81	
10/2/2019	7.62	
3/31/2020	7.98	
9/9/2020	7.13	
5/11/2021	7.73	
10/18/2021	7.36	
5/31/2022	7.02	
11/1/2022	6.83	
4/12/2023	7.59	
8/16/2023		7.26

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 10/16/2023 2:28 PM View: PLs - IntraWell

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-UP-MW-4	BY-UP-MW-4
2/23/2016	7.04	
4/19/2016	6.74	
6/6/2016	7.04	
8/30/2016	7.57	
10/18/2016	6.62	
3/20/2017	7	
5/2/2017	5.6	
6/6/2017	6.6	
9/12/2017	7.2	
5/1/2018	5.9	
11/26/2018	5.1	
5/28/2019	7.1	
10/2/2019	6.88	
3/31/2020	10.8	
9/8/2020	6.52	
5/11/2021	6.8	
10/18/2021	6.58	
5/31/2022	7.94	
11/1/2022	4.59	
4/12/2023	5.93	
8/16/2023		7.05

FIGURE G.

Interwell Prediction Limits - Significant Results

Plant Barry Data: Barry Gypsum Pond Printed 1/23/2024, 11:27 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-6	0.188	n/a	8/15/2023	0.6	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002738 NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.088	n/a	8/15/2023	2.46	Yes	84	1.487	0.3175	0	None	No	0.001075 Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.088	n/a	8/15/2023	7.55	Yes	84	1.487	0.3175	0	None	No	0.001075 Param Inter 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	8/15/2023	84	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002738 NP Inter (normality) 1 of 2

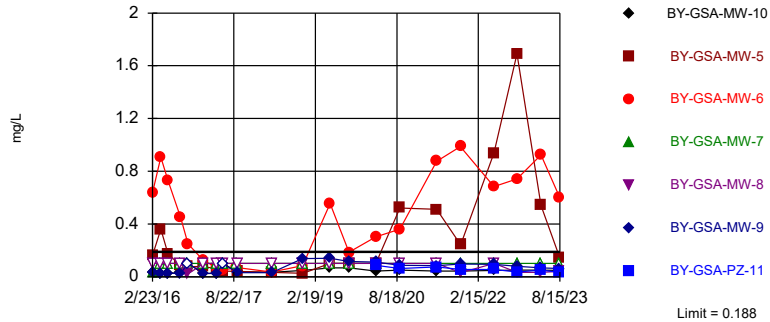
Interwell Prediction Limits - All Results

Plant Barry Data: Barry Gypsum Pond Printed 1/23/2024, 11:27 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	8/15/2023	0.0492J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-5	0.188	n/a	8/15/2023	0.143	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-6	0.188	n/a	8/15/2023	0.6	Yes	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-7	0.188	n/a	8/15/2023	0.1015ND	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-8	0.188	n/a	8/15/2023	0.04J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-MW-9	0.188	n/a	8/15/2023	0.0622J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-GSA-PZ-11	0.188	n/a	8/15/2023	0.0341J	No	84	n/a	n/a	78.57	n/a	n/a	0.0002738	NP Inter (NDs) 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-10	2.088	n/a	8/15/2023	1.08	No	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-5	2.088	n/a	8/15/2023	2.46	Yes	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-6	2.088	n/a	8/15/2023	7.55	Yes	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-7	2.088	n/a	8/15/2023	0.941	No	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-8	2.088	n/a	8/15/2023	0.903	No	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-MW-9	2.088	n/a	8/15/2023	1.58	No	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Calcium, total (mg/L)	BY-GSA-PZ-11	2.088	n/a	8/15/2023	1.54	No	84	1.487	0.3175	0	None	No	0.001075	Param Inter 1 of 2
Fluoride (mg/L)	BY-GSA-MW-10	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-5	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-6	0.125	n/a	8/15/2023	0.0957J	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-7	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-8	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-MW-9	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
Fluoride (mg/L)	BY-GSA-PZ-11	0.125	n/a	8/15/2023	0.125ND	No	88	n/a	n/a	67.05	n/a	n/a	0.0002493	NP Inter (NDs) 1 of 2
pH, Field (SU)	BY-GSA-MW-10	4.98	3.31	8/15/2023	4.17	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-5	4.98	3.31	8/15/2023	4.1	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-6	4.98	3.31	8/15/2023	4.33	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-7	4.98	3.31	8/15/2023	4.56	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-8	4.98	3.31	8/15/2023	4.45	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-MW-9	4.98	3.31	8/15/2023	3.86	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
pH, Field (SU)	BY-GSA-PZ-11	4.98	3.31	8/15/2023	4.45	No	92	n/a	n/a	0	n/a	n/a	0.0004565	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-10	58	n/a	8/15/2023	36.7	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-5	58	n/a	8/15/2023	41.3	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-6	58	n/a	8/15/2023	84	Yes	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-7	58	n/a	8/15/2023	38.7	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-8	58	n/a	8/15/2023	34	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-MW-9	58	n/a	8/15/2023	39.3	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-GSA-PZ-11	58	n/a	8/15/2023	45.3	No	84	n/a	n/a	9.524	n/a	n/a	0.0002738	NP Inter (normality) 1 of 2

Exceeds Limit: BY-GSA-MW-6

Prediction Limit
Interwell Non-parametric

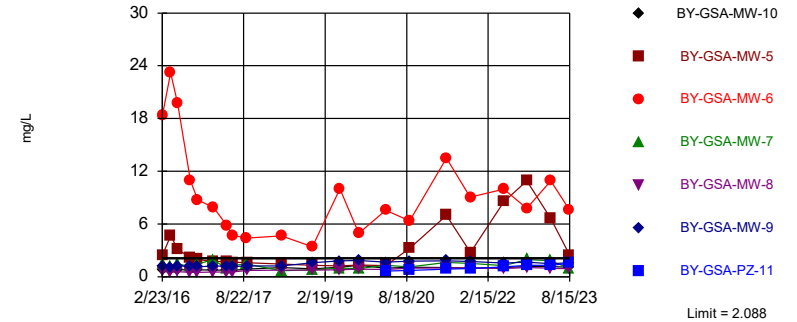


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 84 background values. 78.57% NDs. Annual per-constituent alpha = 0.003827. Individual comparison alpha = 0.0002738 (1 of 2). Comparing 7 points to limit.

Constituent: Boron Analysis Run 1/23/2024 11:27 AM View: Interwell
Plant Barry Data: Barry Gypsum Pond

Exceeds Limit: BY-GSA-MW-5, BY-GSA-MW-6

Prediction Limit
Interwell Parametric

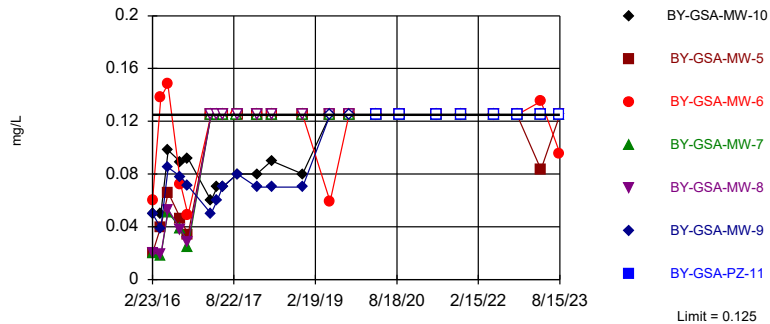


Background Data Summary: Mean=1.487, Std. Dev.=0.3175, n=84. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9775, critical = 0.96. Kappa = 1.891 (c=7, w=7, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.001075. Comparing 7 points to limit.

Constituent: Calcium, total Analysis Run 1/23/2024 11:27 AM View: Interwell
Plant Barry Data: Barry Gypsum Pond

Within Limit

Prediction Limit
Interwell Non-parametric

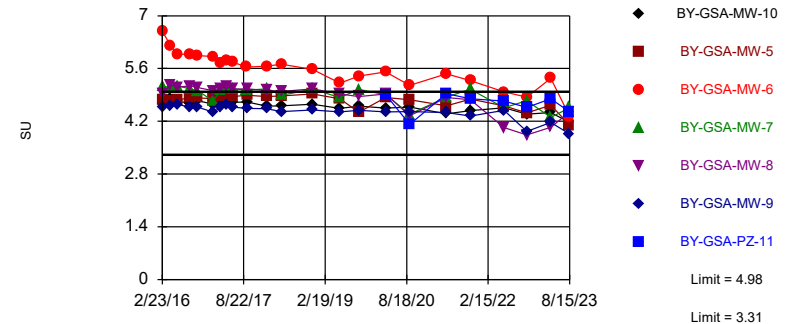


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 88 background values. 67.05% NDs. Annual per-constituent alpha = 0.003485. Individual comparison alpha = 0.0002493 (1 of 2). Comparing 7 points to limit.

Constituent: Fluoride Analysis Run 1/23/2024 11:27 AM View: Interwell
Plant Barry Data: Barry Gypsum Pond

Within Limits

Prediction Limit
Interwell Non-parametric

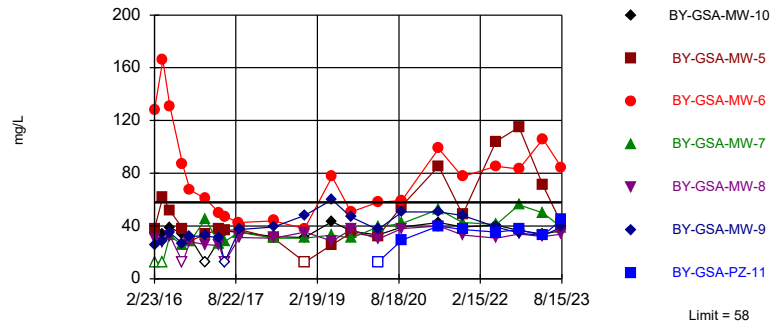


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 92 background values. Annual per-constituent alpha = 0.006382. Individual comparison alpha = 0.0004565 (1 of 2). Comparing 7 points to limit.

Constituent: pH, Field Analysis Run 1/23/2024 11:27 AM View: Interwell
Plant Barry Data: Barry Gypsum Pond

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 84 background values. 9.524% NDs. Annual per-constituent alpha = 0.003827. Individual comparison alpha = 0.0002738 (1 of 2). Comparing 7 points to limit.

Constituent: TDS Analysis Run 1/23/2024 11:27 AM View: Interwell
Plant Barry Data: Barry Gypsum Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/23/2024 11:27 AM View: Interwell

Plant Barry Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-MW-5	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-1 (bg)	BY-GSA-MW-6
2/23/2016	0.0294 (J)	0.0314 (J)	<0.1015	0.0297 (J)	0.163	0.0252 (J)	<0.1015	0.0212 (J)	0.638
4/18/2016		<0.1015	<0.1015		0.361				0.908
4/19/2016	0.0257 (J)			0.0269 (J)		<0.1015	<0.1015	<0.1015	
6/6/2016		<0.1015						<0.1015	0.733
6/7/2016	0.0257 (J)		<0.1015	0.0271 (J)	0.169	0.0202 (J)	<0.1015		
8/30/2016	0.0317 (J)	<0.1015	<0.1015	0.0272 (J)	0.0858 (J)	<0.1015	<0.1015	<0.1015	0.448
10/18/2016	<0.1015	<0.1015	0.0207 (J)	<0.1015	0.0778 (J)	<0.1015	<0.1015	<0.1015	0.249
1/30/2017	0.0243 (J)	<0.1015		0.0269 (J)					
1/31/2017			<0.1015		0.077 (J)	<0.1015	<0.1015	<0.1015	0.121
5/2/2017	0.0259 (J)	<0.1015	<0.1015	0.027 (J)	0.0602 (J)	<0.1015	<0.1015	<0.1015	0.0695 (J)
6/6/2017					0.0442 (J)	<0.1015	<0.1015	<0.1015	0.0509 (J)
6/7/2017	<0.1015	<0.1015	<0.1015	<0.1015					
9/12/2017		<0.1015							0.0709 (J)
9/13/2017	0.0394 (J)		<0.1015	0.032 (J)	0.0411 (J)	<0.1015	<0.1015	<0.1015	
5/1/2018	0.0338 (J)	<0.1015		0.0302 (J)		<0.1015	<0.1015		0.0365 (J)
5/2/2018			<0.1015		0.0334 (J)			0.0362 (J)	
11/26/2018	0.0484 (J)			0.139					0.0836 (J)
11/27/2018		<0.1015	<0.1015		0.0265 (J)	0.0207 (J)	<0.1015	0.11	
5/28/2019		<0.1015	<0.1015		<0.1015				0.556
5/29/2019	0.0669 (J)			0.141		<0.1015	<0.1015	0.188	
10/2/2019	0.0671 (J)	<0.1015	<0.1015	0.116	<0.1015	<0.1015	<0.1015	0.097 (J)	0.186
3/30/2020		<0.1015	<0.1015		<0.1015				0.304
3/31/2020	0.0442 (J)			0.112		<0.1015	<0.1015	0.157	
9/8/2020		<0.1015	<0.1015		0.521				0.362
9/9/2020	0.0509 (J)			0.0873 (J)		<0.1015	<0.1015	0.0999 (J)	
5/11/2021						<0.1015	<0.1015		
5/12/2021	0.0423 (J)	<0.1015	<0.1015	0.0834 (J)	0.511			0.0841 (J)	0.876
10/18/2021		<0.1015					<0.1015		0.987
10/19/2021	0.0444 (J)		0.0303 (J)	0.0966 (J)	0.243	<0.1015		0.0708 (J)	
5/31/2022					0.939	<0.1015	<0.1015	0.0567 (J)	0.685
6/1/2022	0.0493 (J)	<0.1015	<0.1015	0.0933 (J)					
11/1/2022						<0.1015	<0.1015	0.0501 (J)	
11/2/2022	0.0502 (J)	<0.1015	0.0343 (J)	0.0809 (J)	1.69				0.741
4/11/2023	0.0503 (J)	<0.1015	0.0345 (J)	0.0664 (J)	0.54				0.925
4/12/2023						<0.1015	<0.1015	0.0464 (J)	
8/15/2023	0.0492 (J)	<0.1015	0.04 (J)	0.0622 (J)	0.143				0.6
8/16/2023						<0.1015	<0.1015	0.0364 (J)	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/23/2024 11:27 AM View: Interwell
Plant Barry Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)	BY-GSA-PZ-11
2/23/2016	0.0257 (J)	
4/18/2016		
4/19/2016	<0.1015	
6/6/2016	<0.1015	
6/7/2016		
8/30/2016	<0.1015	
10/18/2016	0.022 (J)	
1/30/2017		
1/31/2017	<0.1015	
5/2/2017	<0.1015	
6/6/2017	<0.1015	
6/7/2017		
9/12/2017	<0.1015	
9/13/2017		
5/1/2018	<0.1015	
5/2/2018		
11/26/2018	<0.1015	
11/27/2018		
5/28/2019	<0.1015	
5/29/2019		
10/2/2019	<0.1015	
3/30/2020		
3/31/2020	<0.1015	0.0864 (J)
9/8/2020	<0.1015	0.0638 (J)
9/9/2020		
5/11/2021	<0.1015	
5/12/2021		0.0742 (J)
10/18/2021	<0.1015	
10/19/2021		0.0551 (J)
5/31/2022	<0.1015	
6/1/2022		0.0564 (J)
11/1/2022	<0.1015	
11/2/2022		0.035 (J)
4/11/2023		0.0507 (J)
4/12/2023	<0.1015	
8/15/2023		0.0341 (J)
8/16/2023	<0.1015	

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 1/23/2024 11:27 AM View: Interwell

Plant Barry Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-MW-5	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-1 (bg)	BY-GSA-MW-6
2/23/2016	0.795	1.4	0.618	1.15	2.42	1.11	1.77	1.28	18.3
4/18/2016		1.2	0.505		4.65				23.2
4/19/2016	0.761			1.04		1.09	1.68	1.19	
6/6/2016		1.48						1.19	19.7
6/7/2016	0.799		0.587	1.22	3.1	1.16	1.68		
8/30/2016	0.788	1.13	0.495 (J)	1.18	2.19	1.08	1.62	1.11	10.9
10/18/2016	0.788	1.45	0.503	1.12	1.97	1.03	1.53	1.04	8.74
1/30/2017	0.755	1.95		1.23					
1/31/2017			0.554		1.73	1.23	1.65	1.19	7.89
5/2/2017	0.763	0.908	0.548	1.2	1.74	1.28	1.58	1.05	5.81
6/6/2017					1.66	1.25	1.55	0.978	4.72
6/7/2017	0.706	1.29	0.545	1.17					
9/12/2017		1.44							4.39
9/13/2017	0.873		0.723	1.25	1.61	1.6	1.71	1.14	
5/1/2018	1.05	0.695		1.25		1.58	1.76		4.66
5/2/2018			0.751		1.44			1.64	
11/26/2018	0.922			1.61					3.41
11/27/2018		0.798	0.743		1.3	1.49	1.69	2.01	
5/28/2019		0.973	0.789		1.25				10
5/29/2019	1.07			1.8		1.59	1.74	1.85	
10/2/2019	1.32	0.929	0.882	1.85	1.33	1.7	1.86	1.55	4.94
3/30/2020		1.32	0.841		1.26				7.56
3/31/2020	0.98			1.67		1.43	1.92	1.96	
9/8/2020		1.12	0.981		3.24				6.38
9/9/2020	1.1			1.79		1.5	1.97	1.43	
5/11/2021						1.39	2.06		
5/12/2021	1.06	1.63	1.02	1.82	7			1.34	13.5
10/18/2021		1.53					2.1		9.06
10/19/2021	0.977		1.01	1.75	2.75	1.32		1.17	
5/31/2022					8.52	1.24	1.95	1.14	9.98
6/1/2022	1.04	1.27	0.94	1.55					
11/1/2022						1.23	1.94	1.01	
11/2/2022	1.15	1.96	1.04	1.67	10.9				7.78
4/11/2023	1.16	1.82	0.971	1.49	6.62				10.9
4/12/2023						1.16	1.83	1.02	
8/15/2023	1.08	0.941	0.903	1.58	2.46				7.55
8/16/2023						1.03	1.77	0.816	

Prediction Limit

Constituent: Calcium, total (mg/L) Analysis Run 1/23/2024 11:27 AM View: Interwell
Plant Barry Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)	BY-GSA-PZ-11
2/23/2016	1.42	
4/18/2016		
4/19/2016	1.31	
6/6/2016	1.35	
6/7/2016		
8/30/2016	1.31	
10/18/2016	1.22	
1/30/2017		
1/31/2017	1.36	
5/2/2017	1.24	
6/6/2017	1.28	
6/7/2017		
9/12/2017	1.47	
9/13/2017		
5/1/2018	1.47	
5/2/2018		
11/26/2018	1.52	
11/27/2018		
5/28/2019	1.6	
5/29/2019		
10/2/2019	1.7	
3/30/2020		
3/31/2020	1.78	0.663
9/8/2020	1.94	0.724
9/9/2020		
5/11/2021	1.93	
5/12/2021		0.861
10/18/2021	2.01	
10/19/2021		0.941
5/31/2022	2.02	
6/1/2022		1.13
11/1/2022	1.59	
11/2/2022		1.31
4/11/2023		1.31
4/12/2023	1.76	
8/15/2023		1.54
8/16/2023	1.71	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 11:27 AM View: Interwell

Plant Barry Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-5	BY-GSA-MW-9	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-1 (bg)	BY-GSA-MW-6
2/23/2016	0.05 (J)	0.02 (J)	0.02 (J)	0.02 (J)	0.05 (J)	0.02 (J)	0.02 (J)	0.03 (J)	0.06 (J)
4/18/2016		0.018 (J)	0.019 (J)	0.04 (J)					0.138 (J)
4/19/2016	0.05 (J)				0.039 (J)	0.021 (J)	0.016 (J)	0.023 (J)	
6/6/2016		0.051 (J)						0.062 (J)	0.148 (J)
6/7/2016	0.098 (J)		0.053 (J)	0.066 (J)	0.085 (J)	0.06 (J)	0.052 (J)		
8/30/2016	0.089 (J)	0.039 (J)	0.038 (J)	0.046 (J)	0.078 (J)	0.05 (J)	0.038 (J)	0.053 (J)	0.072 (J)
10/18/2016	0.092 (J)	0.025 (J)	0.028 (J)	0.034 (J)	0.071 (J)	0.04 (J)	0.03 (J)	0.042 (J)	0.049 (J)
3/20/2017						<0.125	<0.125	<0.125	
3/21/2017	0.06 (J)	<0.125	<0.125	<0.125	0.05 (J)				<0.125
5/2/2017	0.07 (J)	<0.125	<0.125	<0.125	0.06 (J)	0.04 (J)	<0.125	0.04 (J)	<0.125
6/6/2017				<0.125		0.04 (J)	<0.125	<0.125	<0.125
6/7/2017	0.07 (J)	<0.125	<0.125		0.07 (J)				
9/12/2017		<0.125							<0.125
9/13/2017	0.08 (J)		<0.125	<0.125	0.08 (J)	0.043 (J)	<0.125	0.04 (J)	
1/22/2018		<0.125							<0.125
1/23/2018	0.08 (J)				0.07 (J)	0.04 (J)	<0.125	<0.125	
1/24/2018			<0.125	<0.125					
5/1/2018	0.09 (J)	<0.125			0.07 (J)	0.04 (J)	<0.125		<0.125
5/2/2018			<0.125	<0.125				0.04 (J)	
11/26/2018	0.08 (J)				0.07 (J)				<0.125
11/27/2018		<0.125	<0.125	<0.125		<0.125	<0.125	<0.125	
5/28/2019		<0.125	<0.125	<0.125					0.0591 (J)
5/29/2019	<0.125				<0.125	<0.125	<0.125	0.0502 (J)	
10/2/2019	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
3/30/2020		<0.125	<0.125	<0.125					<0.125
3/31/2020	<0.125				<0.125	<0.125	<0.125	<0.125	
9/8/2020		<0.125	<0.125	<0.125					<0.125
9/9/2020	<0.125				<0.125	<0.125	<0.125	<0.125	
5/11/2021						<0.125	<0.125		
5/12/2021	<0.125	<0.125	<0.125	<0.125	<0.125			<0.125	<0.125
10/18/2021		<0.125					<0.125		<0.125
10/19/2021	<0.125		<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	
5/31/2022				<0.125		<0.125	<0.125	<0.125	<0.125
6/1/2022	<0.125	<0.125	<0.125		<0.125				
11/1/2022						<0.125	<0.125	<0.125	
11/2/2022	<0.125	<0.125	<0.125	<0.125	<0.125				<0.125
4/11/2023	<0.125	<0.125	<0.125	0.0834 (J)	<0.125				0.135
4/12/2023						<0.125	<0.125	<0.125	
8/15/2023	<0.125	<0.125	<0.125	<0.125	<0.125				0.0957 (J)
8/16/2023						<0.125	<0.125	<0.125	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/23/2024 11:27 AM View: Interwell
Plant Barry Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)	BY-GSA-PZ-11
2/23/2016	0.02 (J)	
4/18/2016		
4/19/2016	0.015 (J)	
6/6/2016	0.05 (J)	
6/7/2016		
8/30/2016	0.036 (J)	
10/18/2016	0.025 (J)	
3/20/2017	<0.125	
3/21/2017		
5/2/2017	<0.125	
6/6/2017	<0.125	
6/7/2017		
9/12/2017	<0.125	
9/13/2017		
1/22/2018		
1/23/2018	<0.125	
1/24/2018		
5/1/2018	<0.125	
5/2/2018		
11/26/2018	<0.125	
11/27/2018		
5/28/2019	<0.125	
5/29/2019		
10/2/2019	<0.125	
3/30/2020		
3/31/2020	<0.125	<0.125
9/8/2020	<0.125	<0.125
9/9/2020		
5/11/2021	<0.125	
5/12/2021		<0.125
10/18/2021	<0.125	
10/19/2021		<0.125
5/31/2022	<0.125	
6/1/2022		<0.125
11/1/2022	<0.125	
11/2/2022		<0.125
4/11/2023		<0.125
4/12/2023	<0.125	
8/15/2023		<0.125
8/16/2023	<0.125	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 1/23/2024 11:27 AM View: Interwell

Plant Barry Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-5	BY-GSA-MW-9	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-1 (bg)	BY-GSA-MW-6
2/23/2016	4.67	5.12	4.92	4.76	4.56	4.79	4.96	4.62	6.59
4/18/2016		5.11	5.16	4.75					6.21
4/19/2016	4.79				4.62	4.84	4.94	4.74	
6/6/2016		5.14						4.65	5.97
6/7/2016	4.73		5.11	4.77	4.64	4.81	4.96		
8/30/2016	4.68	5.06	5.14	4.82	4.58	4.76	4.92	4.64	5.99
10/18/2016	4.75	5.01	5.09	4.82	4.58	4.84	4.98	4.74	5.94
1/30/2017	4.65	4.74			4.44				
1/31/2017			5.01	4.8		4.6	4.74	4.54	5.92
3/20/2017						4.71	4.9	4.67	
3/21/2017	4.68	5.04	5.07	4.86	4.57				5.74
5/2/2017	4.75	5.08	5.13	4.89	4.64	4.8	4.98	4.79	5.82
6/6/2017				4.86		4.72	4.94	4.76	5.77
6/7/2017	4.7	5.07	5.05		4.58				
9/12/2017		5.03							5.64
9/13/2017	4.71		5.06	4.89	4.54	4.71	4.93	4.81	
1/22/2018		5.06							5.66
1/23/2018	4.6				4.53	4.67	4.91	4.79	
1/24/2018			5.02	4.86					
5/1/2018	4.61	4.89			4.46	4.61	4.87		5.71
5/2/2018			4.99	4.87				4.62	
11/26/2018	4.65				4.5				5.58
11/27/2018		5.05	5.06	4.92		4.72	4.94	4.73	
5/28/2019		4.83	4.92	4.8					5.21
5/29/2019	4.54				4.45	4.58	4.8	4.65	
10/2/2019	4.6	5.04	4.86	4.44	4.49	4.43	4.52	4.57	5.4
3/30/2020		4.91	4.92	4.83					5.51
3/31/2020	4.55				4.45	4.6	4.4	4.64	
9/8/2020		4.39	4.35	4.77					5.15
9/9/2020	4.58				4.46	4.67	4.76	4.65	
5/11/2021						4.29	4.53		
5/12/2021	4.4	4.84	4.83	4.61	4.43			4.74	5.46
10/18/2021		5.05					4.55		5.28
10/19/2021	4.48		4.77	4.79	4.34	4.6		4.67	
5/31/2022				4.61		3.31	3.54	3.89	4.98
6/1/2022	4.56	4.56	4.03		4.49				
11/1/2022						4.42	4.12	4.6	
11/2/2022	4.39	4.75	3.84	4.42	3.93				4.84
4/11/2023	4.43	4.3	4.04	4.63	4.17				5.34
4/12/2023						4.67	4.83	4.77	
8/15/2023	4.17	4.56	4.45	4.1	3.86 (E)				4.33
8/16/2023						4.49	4.03	4.45	

Prediction Limit

Constituent: pH, Field (SU) Analysis Run 1/23/2024 11:27 AM View: Interwell
Plant Barry Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)	BY-GSA-PZ-11
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	4.91
9/8/2020	4.75	4.12
9/9/2020		
5/11/2021	4.67	
5/12/2021		4.93
10/18/2021	4.38	
10/19/2021		4.8
5/31/2022	3.97	
6/1/2022		4.74
11/1/2022	4.74	
11/2/2022		4.57
4/11/2023		4.8
4/12/2023	4.73	
8/15/2023		4.45
8/16/2023	4.58	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 1/23/2024 11:27 AM View: Interwell

Plant Barry Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-MW-5	BY-UP-MW-2 (bg)	BY-UP-MW-3 (bg)	BY-UP-MW-1 (bg)	BY-GSA-MW-6
2/23/2016	37.3	<25	30	25.3	38	30.7	40	26.7	128
4/18/2016		<25	27.3		62				166
4/19/2016	34			28		<25	32	<25	
6/6/2016		32.7						32.7	131
6/7/2016	38.7		32	34.7	51.3	35.3	38.7		
8/30/2016	34	25.3	<25	26.7	38	27.3	31.3	33.3	86.7
10/18/2016	31.3	28	28	32	28.7	<25	26.7	27.3	67.3
1/30/2017	<25	45.3		32.7					
1/31/2017			26		34	32.7	30	32	60.7
5/2/2017	29.3	26.7	25.3	30.7	37.3	30.7	30.7	31.3	50
6/6/2017					36.7	34.7	32.7	35.3	47.3
6/7/2017	36	28	<25	<25					
9/12/2017		35.3							42.7
9/13/2017	35.3		31.3	37.3	37.3	39.3	38	36.7	
5/1/2018	32	30.7		39.3		42	35.3		44
5/2/2018			30.7		30.7			34	
11/26/2018	31.3			48					38
11/27/2018		30.7	35.3		<25	31.3	36	50.7	
5/28/2019		33.3	28.7		26				77.3
5/29/2019	43.3			60		40	37.3	58	
10/2/2019	36	30.7	37.3	46.7	34.7	41.3	36.7	46	50.7
3/30/2020		39.3	30		32				58
3/31/2020	33.3			37.3		40	39.3	53.3	
9/8/2020		42	38		55.3				59.3
9/9/2020	39.3			50.7		40.7	42.7	42	
5/11/2021						35.3	44		
5/12/2021	42.7	52.7	40	50.7	85.3			40.7	98.7
10/18/2021		42.7					36		77.3
10/19/2021	39.3		33.3	48	48.7	36		40	
5/31/2022					104	30.7	35.3	32	85.3
6/1/2022	40.7	41.3	30.7	39.3					
11/1/2022						36	36	33.299999	
11/2/2022	36.700001	56	34	34.700001	115				83.300003
4/11/2023	34	50	32	32.700001	70.699997				106
4/12/2023						27.299999	30.700001	<25	
8/15/2023	36.700001	38.700001	34	39.299999	41.299999				84
8/16/2023						30	32.700001	29.299999	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 1/23/2024 11:27 AM View: Interwell
Plant Barry Data: Barry Gypsum Pond

	BY-UP-MW-4 (bg)	BY-GSA-PZ-11
2/23/2016	<25	
4/18/2016		
4/19/2016	<25	
6/6/2016	28.7	
6/7/2016		
8/30/2016	25.3	
10/18/2016	<25	
1/30/2017		
1/31/2017	26	
5/2/2017	<25	
6/6/2017	42.7	
6/7/2017		
9/12/2017	26.7	
9/13/2017		
5/1/2018	34.7	
5/2/2018		
11/26/2018	32.7	
11/27/2018		
5/28/2019	31.3	
5/29/2019		
10/2/2019	36	
3/30/2020		
3/31/2020	36.7	<25
9/8/2020	39.3	29.3
9/9/2020		
5/11/2021	46.7	
5/12/2021		40
10/18/2021	36	
10/19/2021		37.3
5/31/2022	36.7	
6/1/2022		35.3
11/1/2022	31.299999	
11/2/2022		37.299999
4/11/2023		32.700001
4/12/2023	32	
8/15/2023		45.299999
8/16/2023	35.299999	

FIGURE H.

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 4:03 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

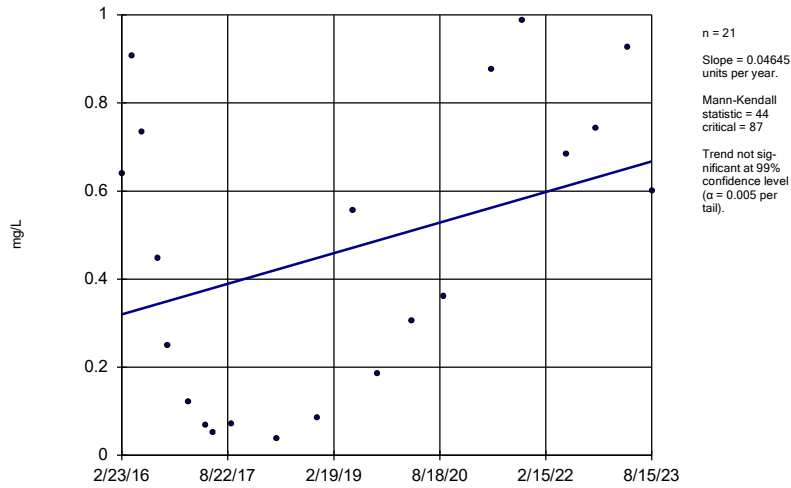
Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 4:03 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-GSA-MW-6	0.04645	44	87	No	21	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-1 (bg)	-0.003302	-64	-87	No	21	38.1	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-2 (bg)	0	35	87	No	21	85.71	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-3 (bg)	0	0	87	No	21	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-UP-MW-4 (bg)	0	31	87	No	21	90.48	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-5	0.03711	8	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-GSA-MW-6	-0.45	-33	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-1 (bg)	-0.02191	-32	-87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-2 (bg)	0.01469	21	87	No	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-3 (bg)	0.04639	104	87	Yes	21	0	n/a	n/a	0.01	NP
Calcium, total (mg/L)	BY-UP-MW-4 (bg)	0.09578	132	87	Yes	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-6	-0.3156	-3	-87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-1 (bg)	1.366	39	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-2 (bg)	0.5823	36	87	No	21	9.524	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-3 (bg)	0.5158	24	87	No	21	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-UP-MW-4 (bg)	1.443	101	87	Yes	21	19.05	n/a	n/a	0.01	NP

Sen's Slope Estimator

BY-GSA-MW-6

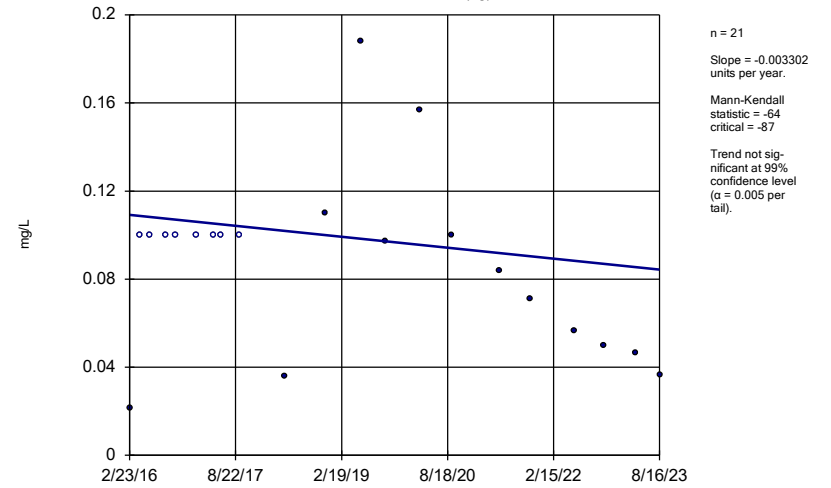


Constituent: Boron Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-1 (bg)

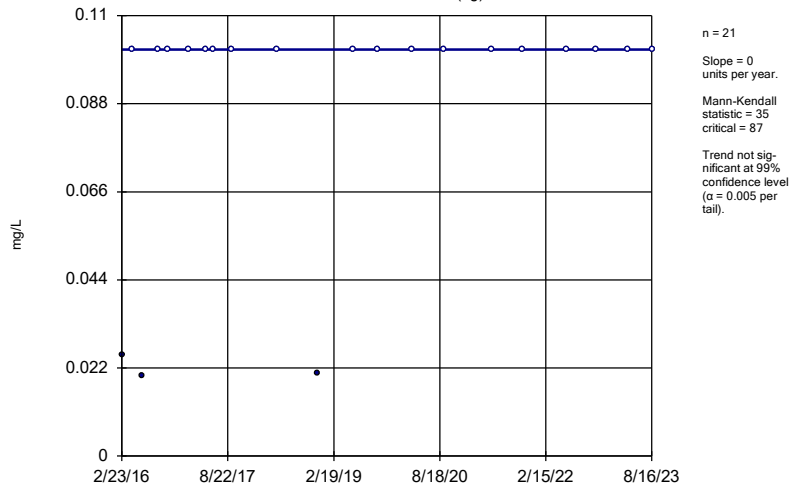


Constituent: Boron Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-UP-MW-2 (bg)

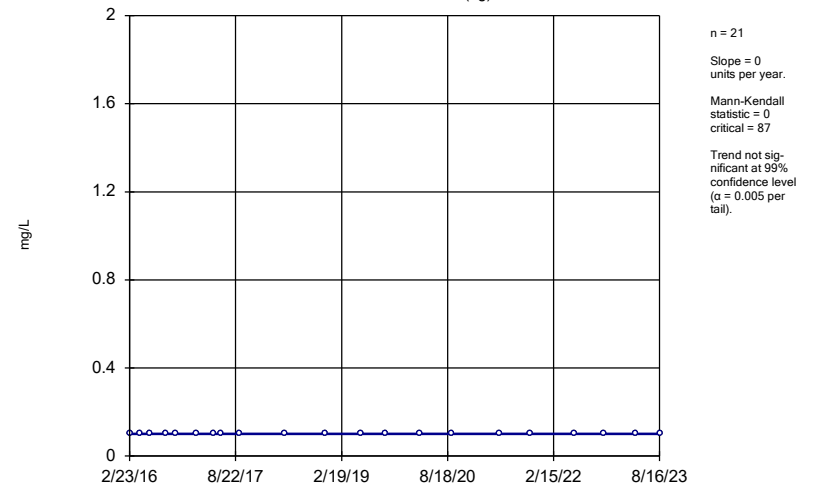


Constituent: Boron Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Hollow symbols indicate censored values.

Sen's Slope Estimator

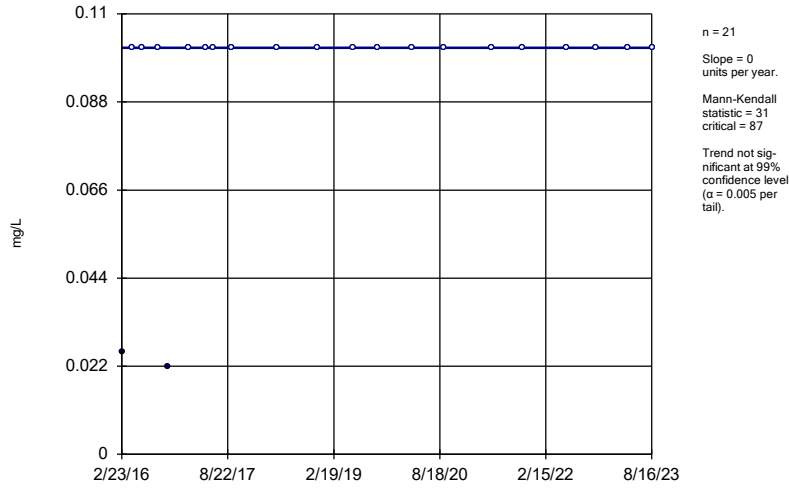
BY-UP-MW-3 (bg)



Constituent: Boron Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

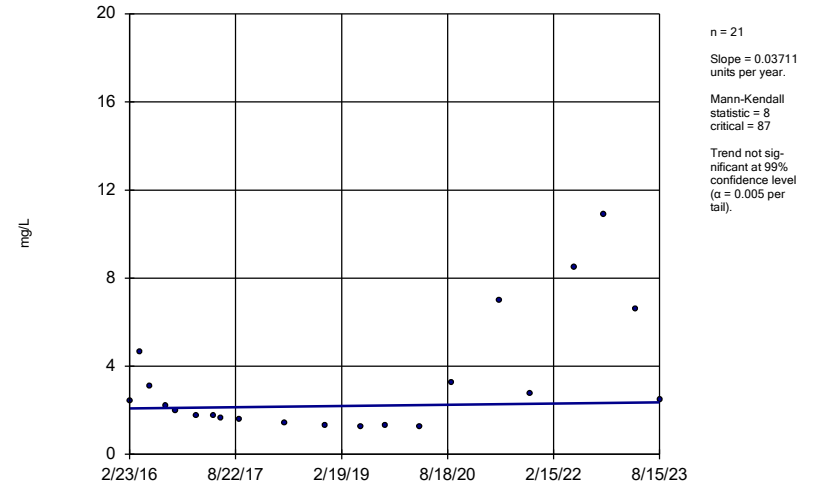
BY-UP-MW-4 (bg)



Constituent: Boron Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

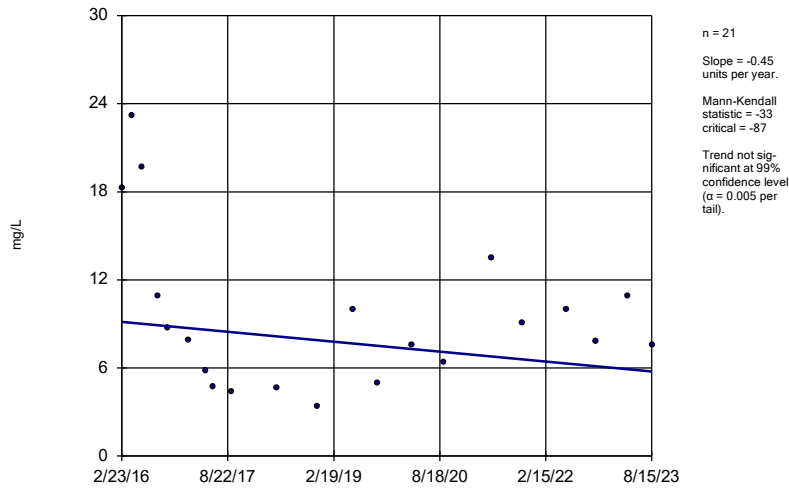
BY-GSA-MW-5



Constituent: Calcium, total Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

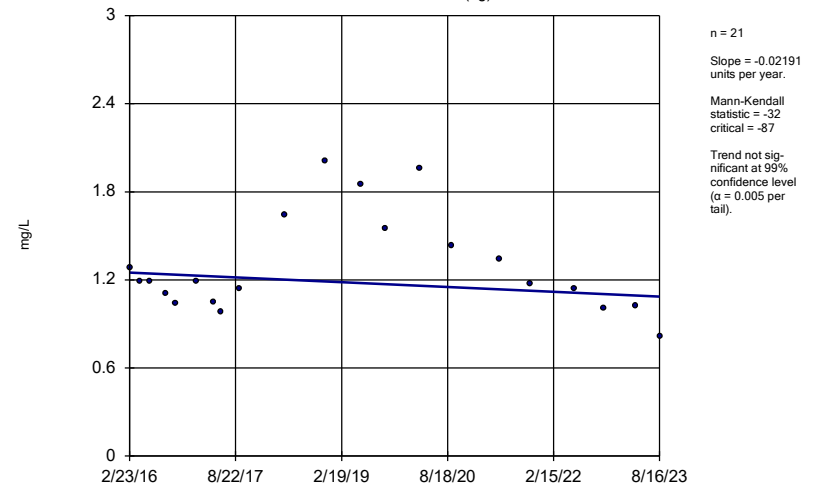
BY-GSA-MW-6



Constituent: Calcium, total Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

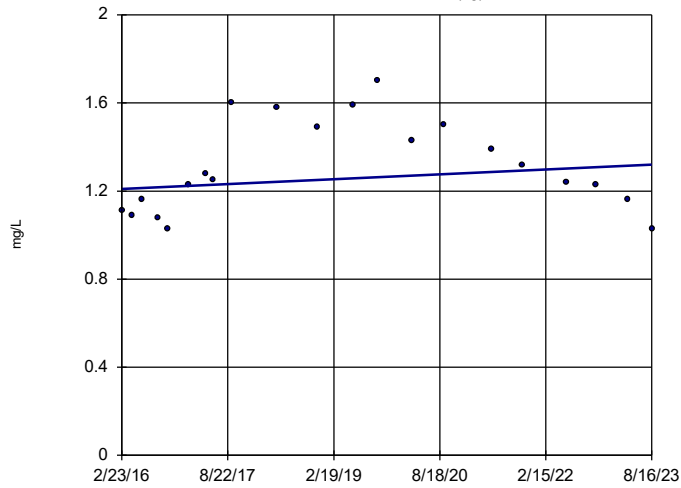
BY-UP-MW-1 (bg)



Constituent: Calcium, total Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-2 (bg)

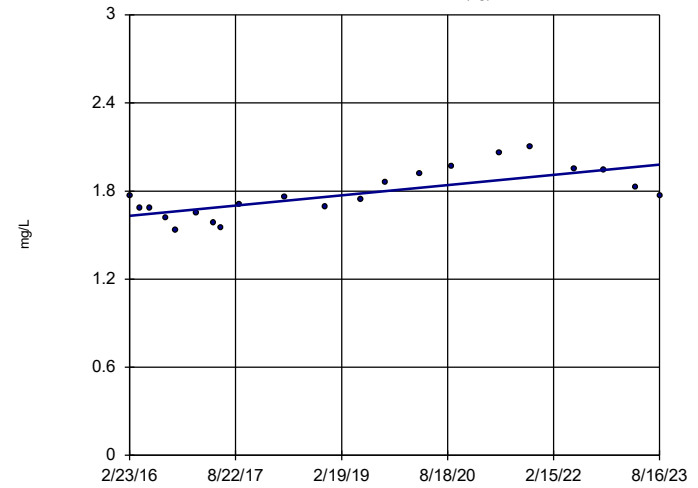


n = 21
 Slope = 0.01469
 units per year.
 Mann-Kendall
 statistic = 21
 critical = 87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-3 (bg)

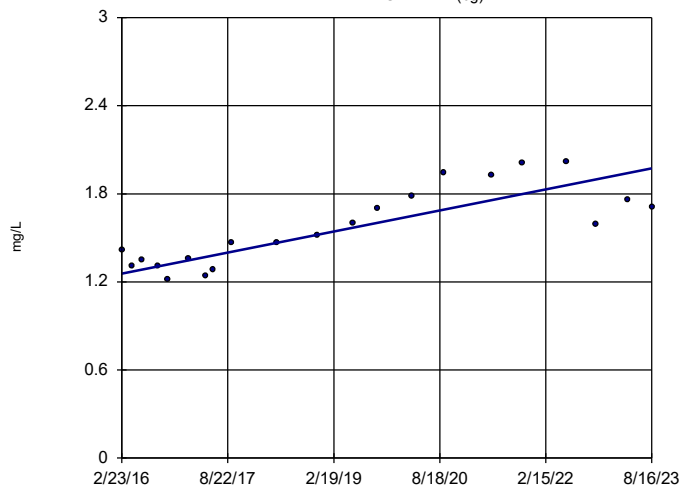


n = 21
 Slope = 0.04639
 units per year.
 Mann-Kendall
 statistic = 104
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)

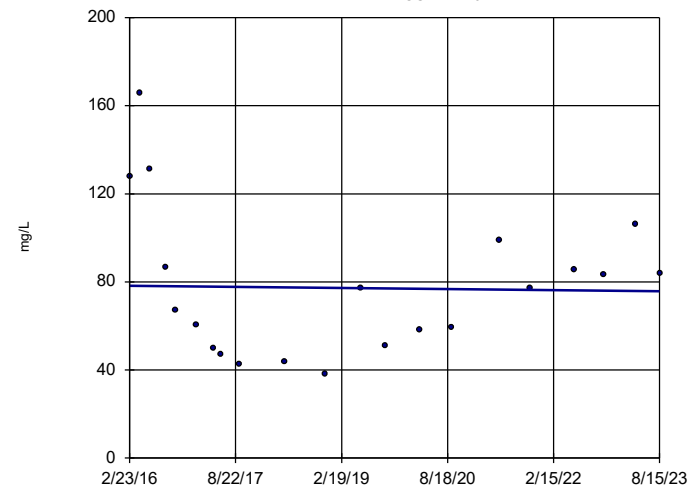


n = 21
 Slope = 0.09578
 units per year.
 Mann-Kendall
 statistic = 132
 critical = 87
 Increasing trend
 significant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: Calcium, total Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-GSA-MW-6

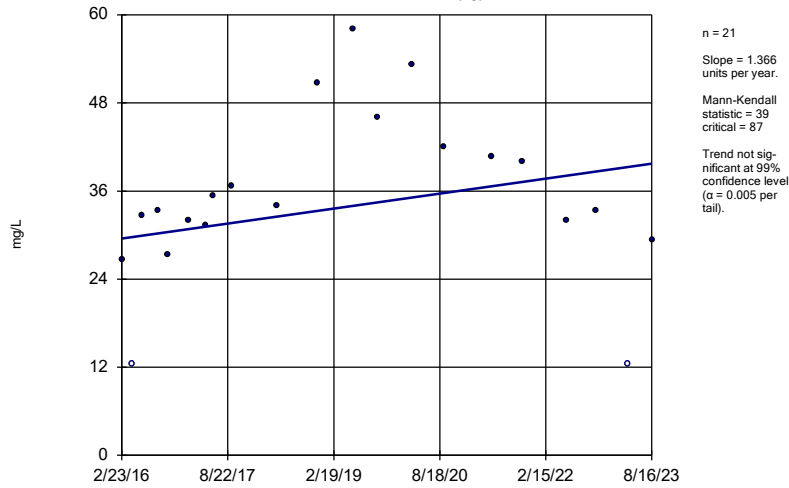


n = 21
 Slope = -0.3156
 units per year.
 Mann-Kendall
 statistic = -3
 critical = -87
 Trend not sig-
 nificant at 99%
 confidence level
 ($\alpha = 0.005$ per
 tail).

Constituent: TDS Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

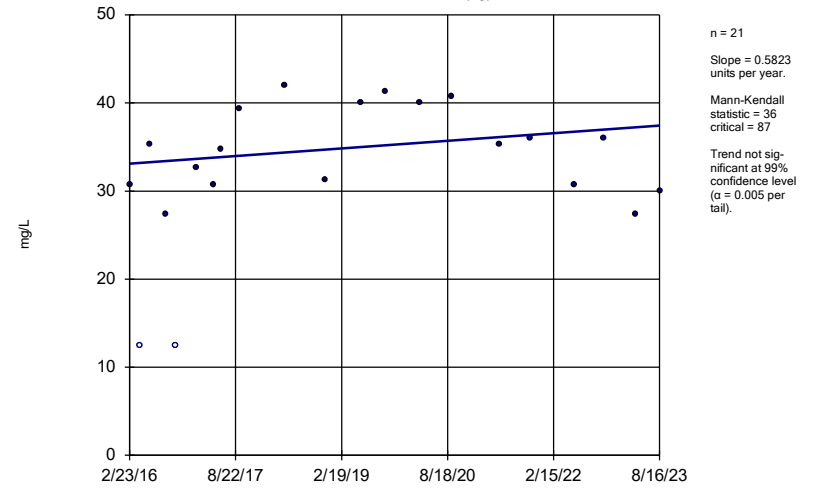
BY-UP-MW-1 (bg)



Constituent: TDS Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

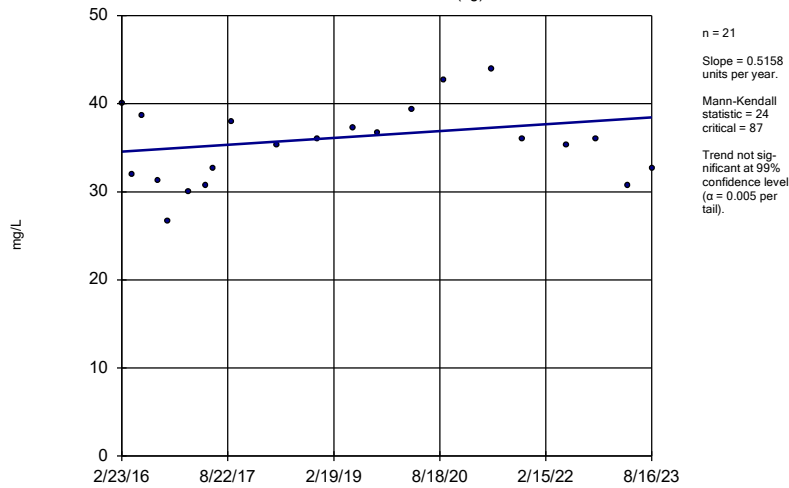
BY-UP-MW-2 (bg)



Constituent: TDS Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

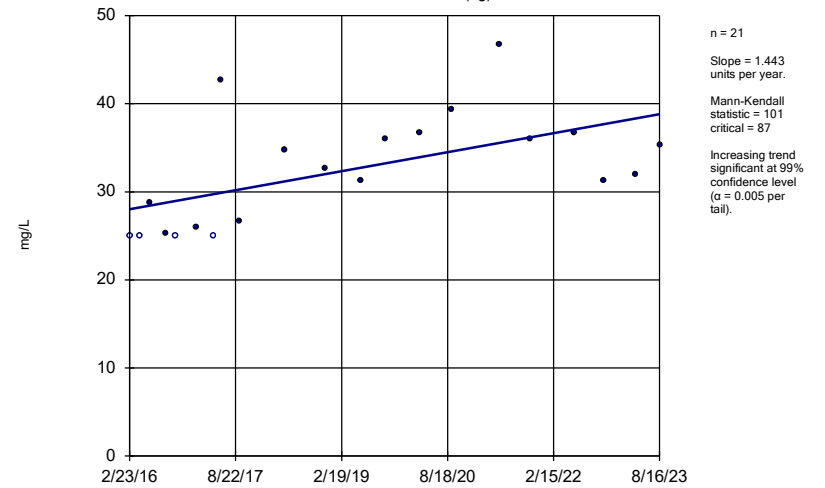
BY-UP-MW-3 (bg)



Constituent: TDS Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Sen's Slope Estimator

BY-UP-MW-4 (bg)



Constituent: TDS Analysis Run 10/11/2023 4:01 PM View: Trend Tests - PL Exceedances
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

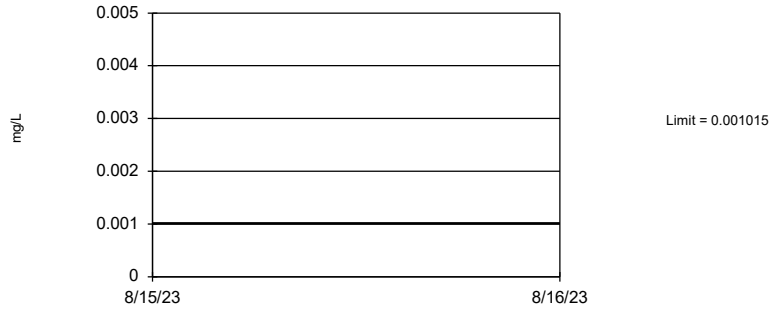
FIGURE I.

Upper Tolerance Limits

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 4:12 PM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.001015	84	n/a	n/a	94.05	n/a	n/a	0.01345	NP Inter
Arsenic (mg/L)	0.0017	84	n/a	n/a	77.38	n/a	n/a	0.01345	NP Inter
Barium (mg/L)	0.183	84	n/a	n/a	0	n/a	n/a	0.01345	NP Inter
Beryllium (mg/L)	0.001015	84	n/a	n/a	89.29	n/a	n/a	0.01345	NP Inter
Cadmium (mg/L)	0.000203	84	n/a	n/a	98.81	n/a	n/a	0.01345	NP Inter
Chromium (mg/L)	0.00604	84	n/a	n/a	67.86	n/a	n/a	0.01345	NP Inter
Cobalt (mg/L)	0.0157	84	n/a	n/a	46.43	n/a	n/a	0.01345	NP Inter
Combined Radium 226 + 228 (pCi/L)	3	84	n/a	n/a	0	n/a	n/a	0.01345	NP Inter
Fluoride (mg/L)	0.125	88	n/a	n/a	67.05	n/a	n/a	0.01096	NP Inter
Lead (mg/L)	0.00126	84	n/a	n/a	78.57	n/a	n/a	0.01345	NP Inter
Lithium (mg/L)	0.02	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Mercury (mg/L)	0.0005	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Molybdenum (mg/L)	0.01015	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter
Selenium (mg/L)	0.001015	84	n/a	n/a	94.05	n/a	n/a	0.01345	NP Inter
Thallium (mg/L)	0.000203	84	n/a	n/a	100	n/a	n/a	0.01345	NP Inter

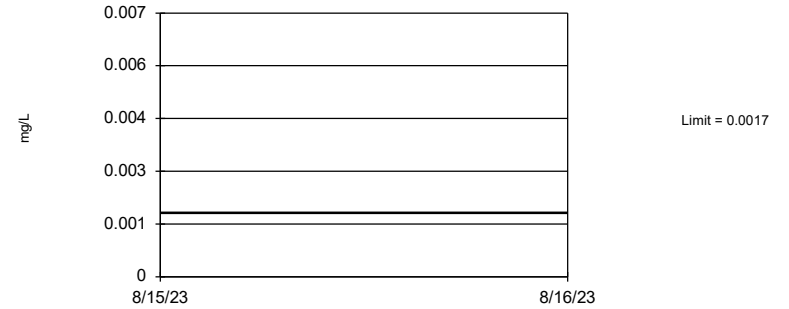
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 94.05% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Antimony Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

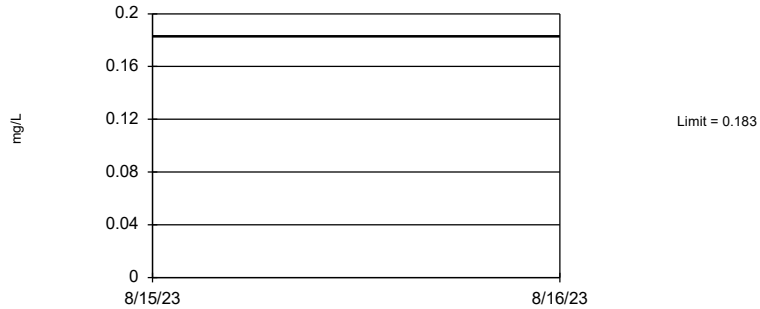
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 77.38% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Arsenic Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Barium Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

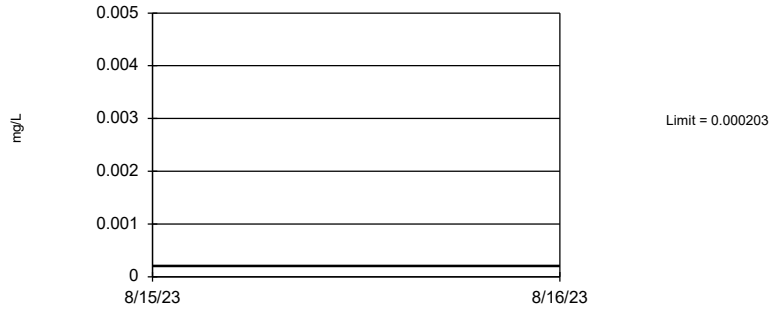
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 89.29% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Beryllium Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

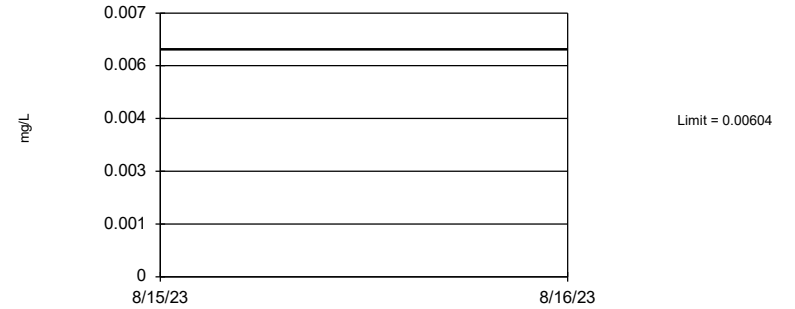
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 98.81% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Cadmium Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 67.86% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Chromium Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 46.43% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Cobalt Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

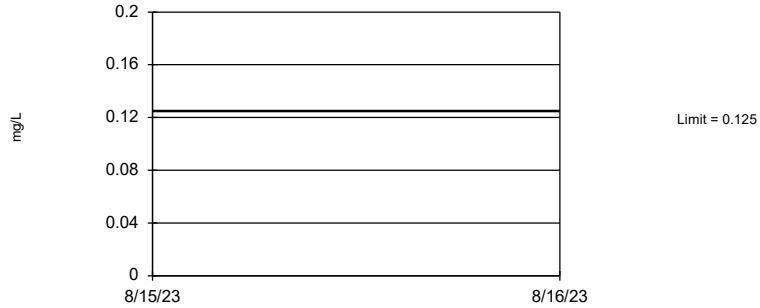
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Combined Radium 226 + 228 Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

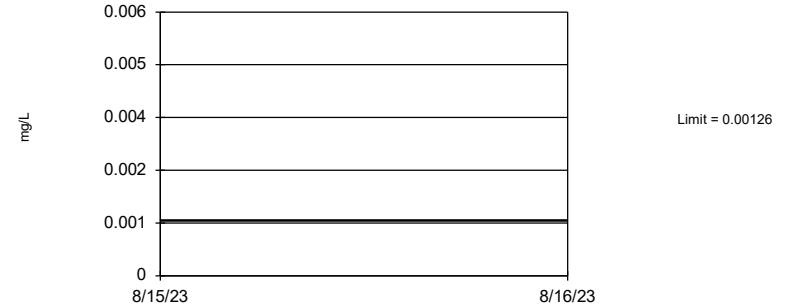
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 88 background values. 67.05% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01096.

Constituent: Fluoride Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 78.57% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Lead Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

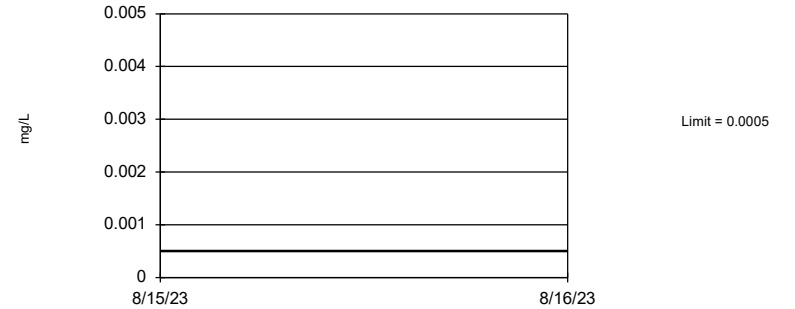
Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Lithium Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

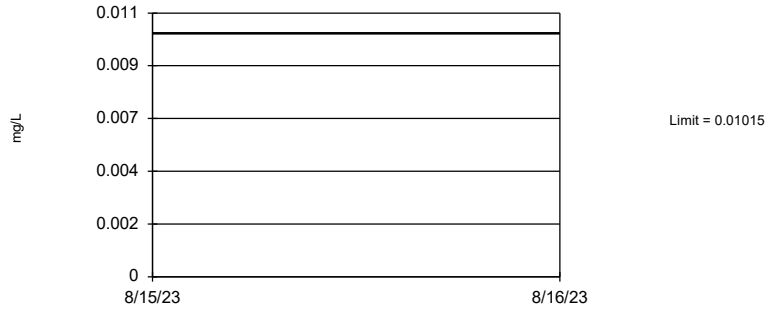
Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Mercury Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

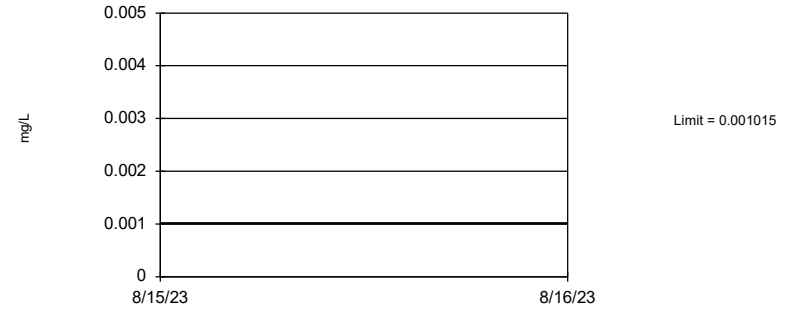
Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Molybdenum Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

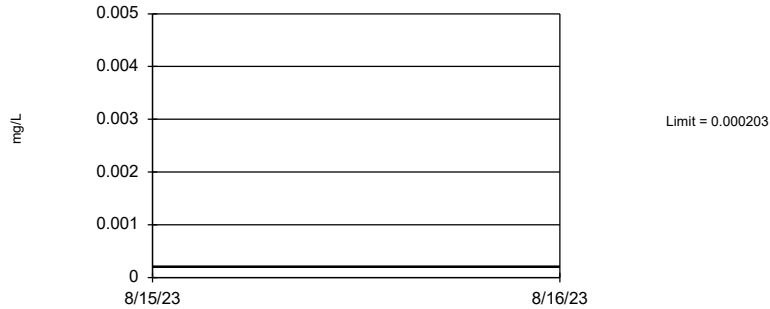
Tolerance Limit Interwell Non-parametric



NP test selected by user. Limit is highest of 84 background values. 94.05% NDs. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Selenium Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Tolerance Limit Interwell Non-parametric



NP test selected by user. All background values were censored; limit is most recent reporting limit. 94.73% coverage at alpha=0.01; 96.68% coverage at alpha=0.05; 99.02% coverage at alpha=0.5. Report alpha = 0.01345.

Constituent: Thallium Analysis Run 10/11/2023 4:11 PM View: UTLs
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

FIGURE J.

BARRY GYPSUM POND GWPS			
Analyte	Units	Background	GWPS
Antimony	mg/L	0.001015	0.006
Arsenic	mg/L	0.0017	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.001015	0.004
Cadmium	mg/L	0.000203	0.005
Chromium	mg/L	0.00604	0.1
Cobalt	mg/L	0.0157	0.0157
Combined Radium-226/228	pCi/L	3	5
Fluoride	mg/L	0.125	4
Lead	mg/L	0.00126	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01015	0.1
Selenium	mg/L	0.001015	0.05
Thallium	mg/L	0.000203	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 2023.

FIGURE K.

Confidence Interval Summary Table - All Results (No Significant)

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 4:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BY-GSA-MW-10	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-5	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-6	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-7	0.001015	0.000586	0.006	No 8	0.0009614	0.0001517	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-8	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-MW-9	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-GSA-PZ-11	0.001015	0.001015	0.006	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-10	0.000203	0.00009	0.01	No 8	0.0001635	0.00004508	50	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-5	0.000548	0.0002	0.01	No 8	0.0003328	0.0001626	37.5	None	No	0.004	NP (normality)
Arsenic (mg/L)	BY-GSA-MW-6	0.000717	0.0002495	0.01	No 8	0.0004833	0.0002358	25	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	BY-GSA-MW-7	0.0003318	0.0001719	0.01	No 8	0.0002584	0.00007437	25	Kaplan-Meier	No	0.01	Param.
Arsenic (mg/L)	BY-GSA-MW-8	0.000203	0.000083	0.01	No 8	0.0001826	0.00004297	75	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-MW-9	0.000203	0.0001	0.01	No 8	0.0001793	0.00003826	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Arsenic (mg/L)	BY-GSA-PZ-11	0.000203	0.000085	0.01	No 8	0.0001676	0.00005029	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Barium (mg/L)	BY-GSA-MW-10	0.1322	0.1175	2	No 8	0.1249	0.006958	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-5	0.1834	0.06327	2	No 8	0.1233	0.05665	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-6	0.2311	0.1221	2	No 8	0.1766	0.05143	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-7	0.1167	0.06488	2	No 8	0.09078	0.02443	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-8	0.05179	0.04501	2	No 8	0.0484	0.003198	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-MW-9	0.1728	0.1297	2	No 8	0.1513	0.02035	0	None	No	0.01	Param.
Barium (mg/L)	BY-GSA-PZ-11	0.09585	0.05042	2	No 8	0.07314	0.02143	0	None	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-10	0.001015	0.001015	0.004	No 8	0.001015	0	100	None	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-5	0.001015	0.000575	0.004	No 8	0.0008719	0.0001823	50	None	No	0.004	NP (normality)
Beryllium (mg/L)	BY-GSA-MW-6	0.0008446	0.0004886	0.004	No 8	0.0007991	0.0002315	37.5	Kaplan-Meier	No	0.01	Param.
Beryllium (mg/L)	BY-GSA-MW-7	0.001015	0.000464	0.004	No 8	0.0009461	0.0001948	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-8	0.001015	0.001015	0.004	No 8	0.001015	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-MW-9	0.001015	0.001015	0.004	No 8	0.001015	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-GSA-PZ-11	0.001015	0.001015	0.004	No 8	0.001015	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-10	0.000203	0.000203	0.005	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-5	0.0001632	0.00008632	0.005	No 8	0.0001443	0.00004939	25	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	BY-GSA-MW-6	0.0002005	0.0001202	0.005	No 8	0.0001735	0.00004114	25	Kaplan-Meier	No	0.01	Param.
Cadmium (mg/L)	BY-GSA-MW-7	0.000203	0.000203	0.005	No 8	0.000203	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-8	0.000203	0.000203	0.005	No 8	0.000203	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-MW-9	0.000203	0.000203	0.005	No 8	0.000203	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-GSA-PZ-11	0.000203	0.000203	0.005	No 8	0.000203	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Chromium (mg/L)	BY-GSA-MW-10	0.0008838	0.0006572	0.1	No 8	0.0008329	0.0001521	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-5	0.002882	0.001283	0.1	No 8	0.002082	0.0007542	12.5	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-6	0.004464	0.002706	0.1	No 8	0.003585	0.0008291	0	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-7	0.001609	0.001119	0.1	No 8	0.001364	0.0002469	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-8	0.002529	0.002039	0.1	No 8	0.002284	0.0002312	0	None	No	0.01	Param.
Chromium (mg/L)	BY-GSA-MW-9	0.0009515	0.0007855	0.1	No 8	0.0009125	0.0001027	25	Kaplan-Meier	No	0.01	Param.
Chromium (mg/L)	BY-GSA-PZ-11	0.003215	0.002562	0.1	No 8	0.002889	0.0003081	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-10	0.002621	0.002352	0.006	No 8	0.002486	0.0001282	0	None	x^(1/3)	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-5	0.005749	0.001736	0.006	No 8	0.003742	0.001893	12.5	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-6	0.008	0.00375	0.006	No 8	0.005875	0.002005	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-7	0.002225	0.001377	0.006	No 8	0.002595	0.001525	25	Kaplan-Meier	ln(x)	0.01	Param.
Cobalt (mg/L)	BY-GSA-MW-8	0.005	0.000338	0.006	No 8	0.001595	0.002102	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-MW-9	0.005	0.000888	0.006	No 8	0.002235	0.001727	25	None	No	0.004	NP (normality)
Cobalt (mg/L)	BY-GSA-PZ-11	0.005	0.00101	0.006	No 8	0.002285	0.001693	25	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-10	2.044	1.113	5	No 8	1.579	0.4389	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-5	1.71	0.4484	5	No 8	1.079	0.5952	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-6	2.713	1.068	5	No 8	1.89	0.776	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-7	1.5	0.7802	5	No 8	1.134	0.3673	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-8	1.608	0.412	5	No 8	1.01	0.5644	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-GSA-MW-9	3.15	0.994	5	No 8	2.004	0.5822	0	None	No	0.004	NP (normality)

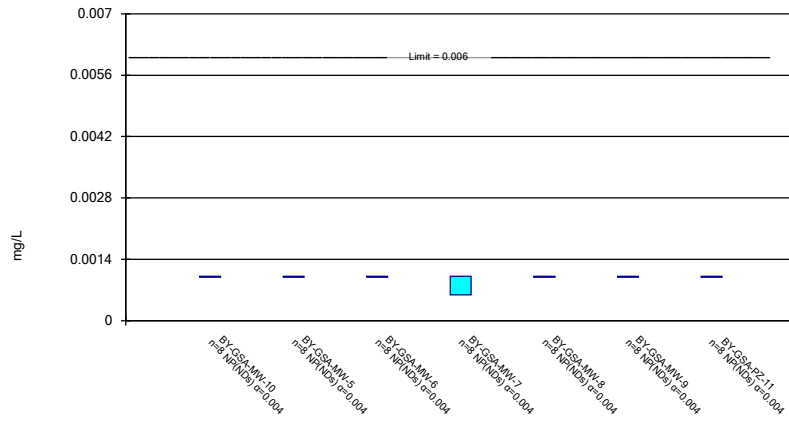
Confidence Interval Summary Table - All Results (No Significant) Page 2

Plant Barry Client: Southern Company Data: Barry Gypsum Pond Printed 10/11/2023, 4:28 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Combined Radium 226 + 228 (pCi/L)	BY-GSA-PZ-11	1.173	0.5482	5	No 8	0.8608	0.2949	0	None	No	0.01	Param.
Fluoride (mg/L)	BY-GSA-MW-10	0.125	0.125	4	No 8	0.125	0	100	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-5	0.125	0.0834	4	No 8	0.1198	0.01471	87.5	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-6	0.135	0.0957	4	No 8	0.1226	0.01141	75	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-7	0.125	0.125	4	No 8	0.125	0	100	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-8	0.125	0.125	4	No 8	0.125	0	100	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-MW-9	0.125	0.125	4	No 8	0.125	0	100	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-GSA-PZ-11	0.125	0.125	4	No 8	0.125	0	100	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-10	0.0001392	0.0001006	0.015	No 8	0.0001406	0.00004215	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Lead (mg/L)	BY-GSA-MW-5	0.0002032	0.00008816	0.015	No 8	0.0001733	0.00005709	37.5	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	BY-GSA-MW-6	0.000238	0.00008977	0.015	No 8	0.0001843	0.00008975	25	Kaplan-Meier	x^(1/3)	0.01	Param.
Lead (mg/L)	BY-GSA-MW-7	0.000203	0.0000798	0.015	No 8	0.0001251	0.00005153	25	None	No	0.004	NP (normality)
Lead (mg/L)	BY-GSA-MW-8	0.000203	0.000109	0.015	No 8	0.0001913	0.00003323	87.5	None	No	0.004	NP (NDs)
Lead (mg/L)	BY-GSA-MW-9	0.0002629	0.0002031	0.015	No 8	0.000233	0.00003015	25	Kaplan-Meier	No	0.01	Param.
Lead (mg/L)	BY-GSA-PZ-11	0.000208	0.000082	0.015	No 8	0.0001663	0.00004742	37.5	None	No	0.004	NP (normality)
Lithium (mg/L)	BY-GSA-MW-10	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-5	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-6	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-7	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-8	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-MW-9	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-GSA-PZ-11	0.02	0.02	0.04	No 8	0.02	0	100	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-10	0.0005	0.0005	0.002	No 8	0.0005	0	100	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-5	0.0005	0.00036	0.002	No 8	0.0004825	0.0000495	87.5	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-6	0.0005	0.00035	0.002	No 8	0.0004813	0.00005303	87.5	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-7	0.0005	0.0005	0.002	No 8	0.0005	0	100	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-8	0.0005	0.0005	0.002	No 8	0.0005	0	100	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-MW-9	0.0005	0.0005	0.002	No 8	0.0005	0	100	None	No	0.004	NP (NDs)
Mercury (mg/L)	BY-GSA-PZ-11	0.0005	0.0005	0.002	No 8	0.0005	0	100	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-10	0.01015	0.01015	0.1	No 8	0.01015	0	100	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-5	0.01015	0.0001	0.1	No 8	0.008894	0.003553	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-6	0.01015	0.01015	0.1	No 8	0.01015	0	100	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-7	0.01015	0.01015	0.1	No 8	0.01015	0	100	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-8	0.01015	0.00008	0.1	No 8	0.008891	0.00356	87.5	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-MW-9	0.01015	0.01015	0.1	No 8	0.01015	0	100	None	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-GSA-PZ-11	0.01015	0.01015	0.1	No 8	0.01015	0	100	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-10	0.001217	0.0007772	0.05	No 8	0.00105	0.0001877	25	Kaplan-Meier	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-5	0.0215	0.001694	0.05	No 8	0.01159	0.009341	12.5	None	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-6	0.01883	0.005916	0.05	No 8	0.01238	0.006094	0	None	No	0.01	Param.
Selenium (mg/L)	BY-GSA-MW-7	0.001015	0.000519	0.05	No 8	0.0008431	0.0002379	62.5	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-8	0.001015	0.00052	0.05	No 8	0.000895	0.0002223	75	None	No	0.004	NP (NDs)
Selenium (mg/L)	BY-GSA-MW-9	0.001755	0.001028	0.05	No 8	0.001389	0.0004025	25	Kaplan-Meier	ln(x)	0.01	Param.
Selenium (mg/L)	BY-GSA-PZ-11	0.00158	0.001032	0.05	No 8	0.001306	0.0002765	25	Kaplan-Meier	No	0.01	Param.
Thallium (mg/L)	BY-GSA-MW-10	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-5	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-6	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-7	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-8	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-MW-9	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-GSA-PZ-11	0.000203	0.000203	0.002	No 8	0.000203	0	100	None	No	0.004	NP (NDs)

Non-Parametric Confidence Interval

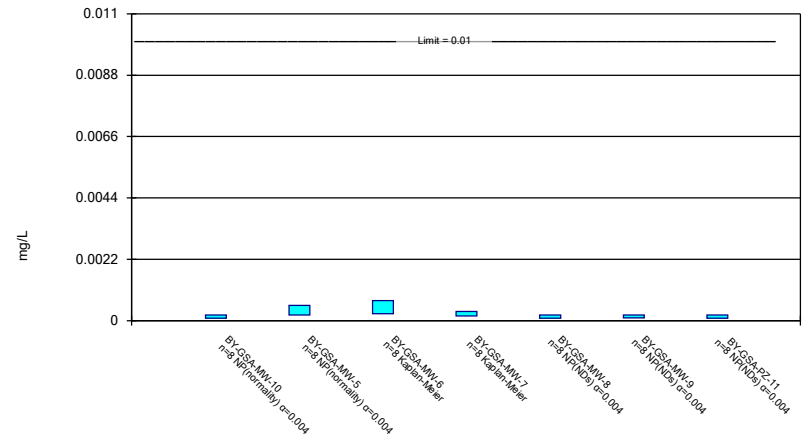
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

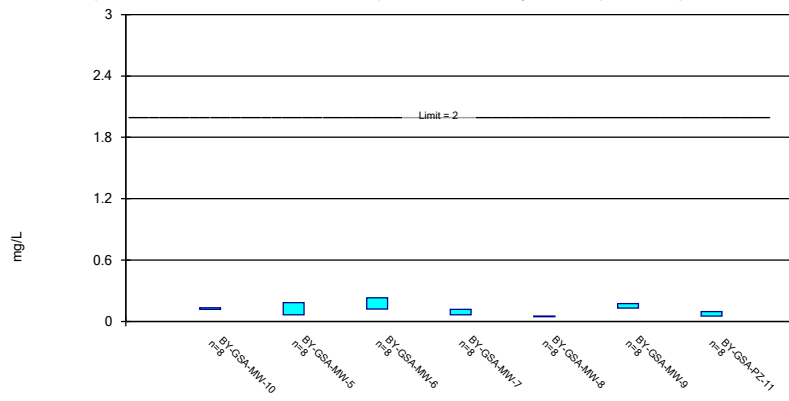
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric Confidence Interval

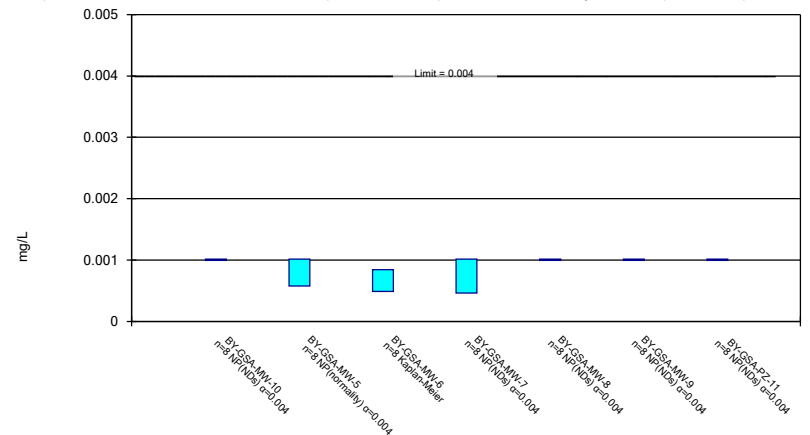
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Constituent: Barium Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

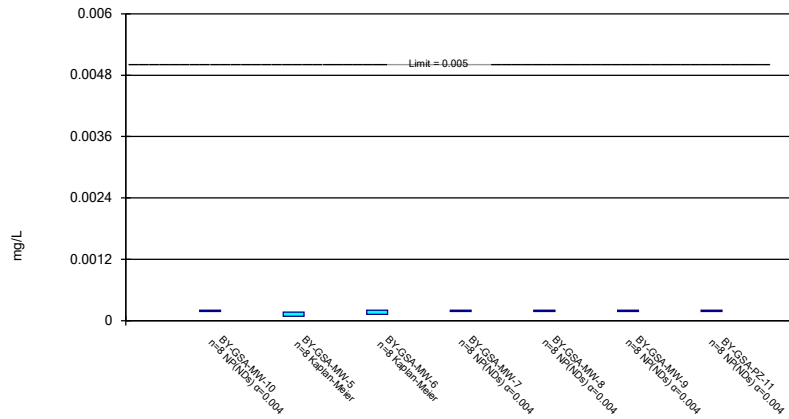
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Constituent: Beryllium Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

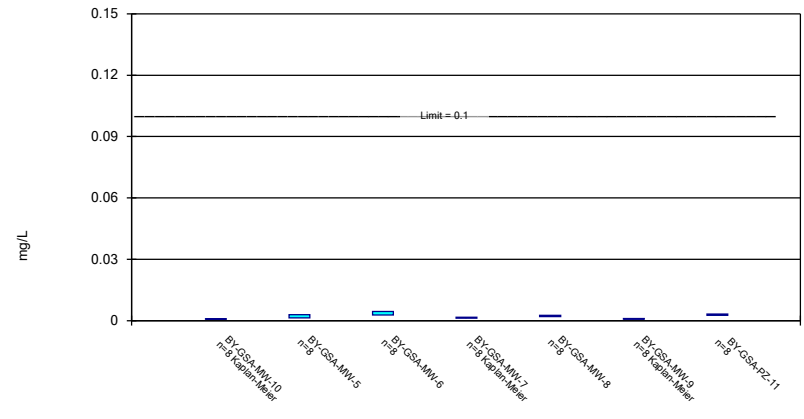
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric Confidence Interval

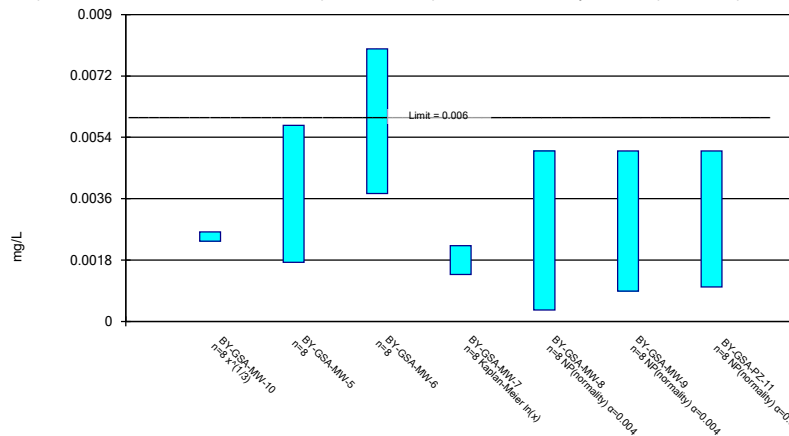
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

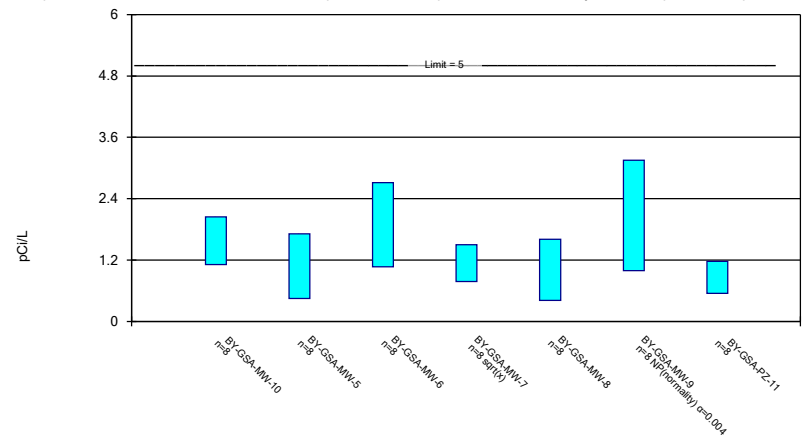
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

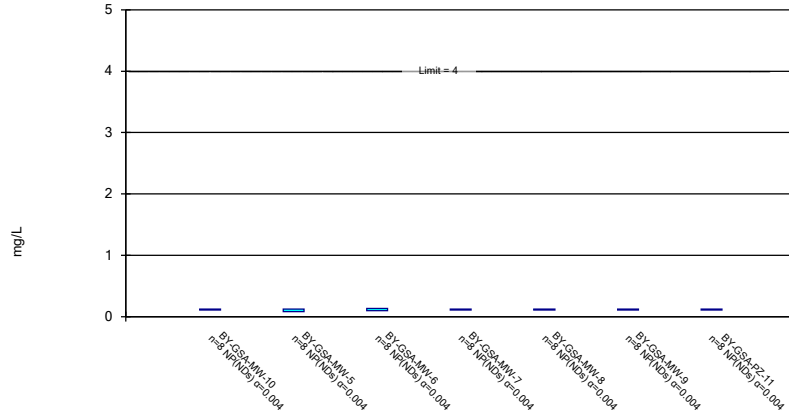
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

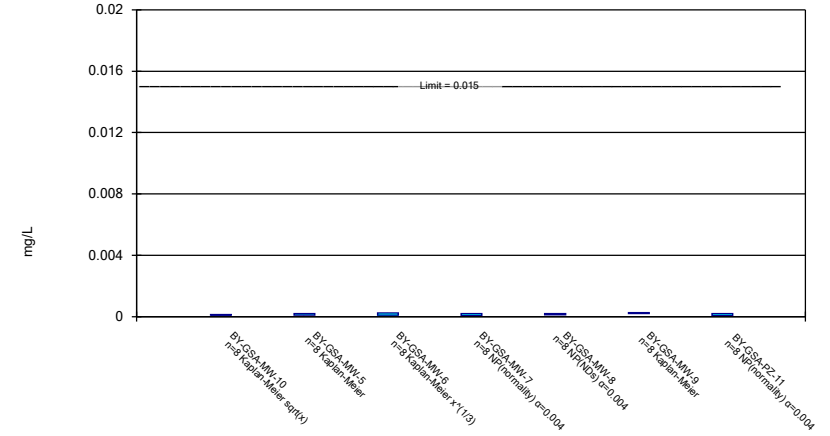
Compliance Limit is not exceeded.



Constituent: Fluoride Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

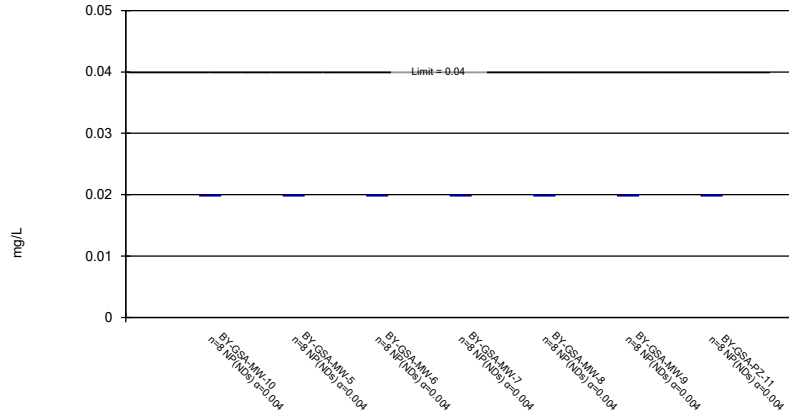
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lead Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

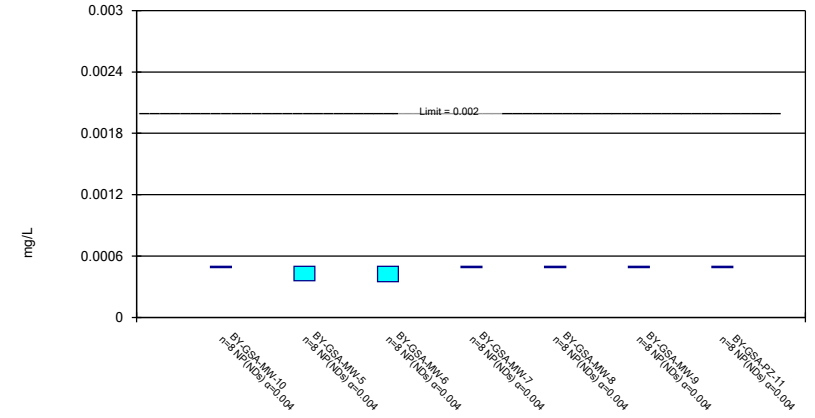
Compliance Limit is not exceeded.



Constituent: Lithium Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

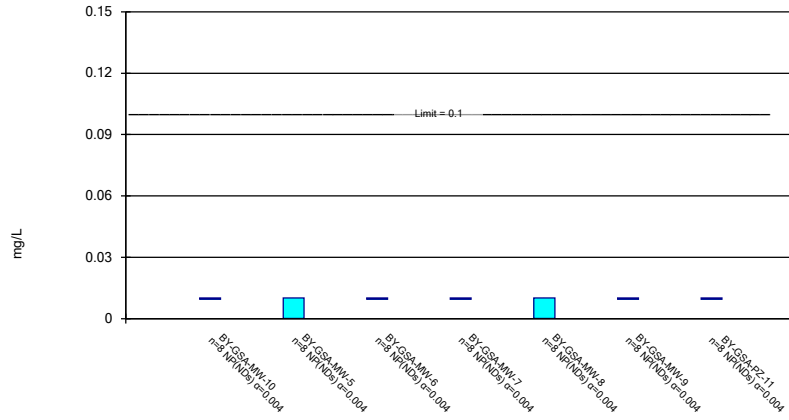
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

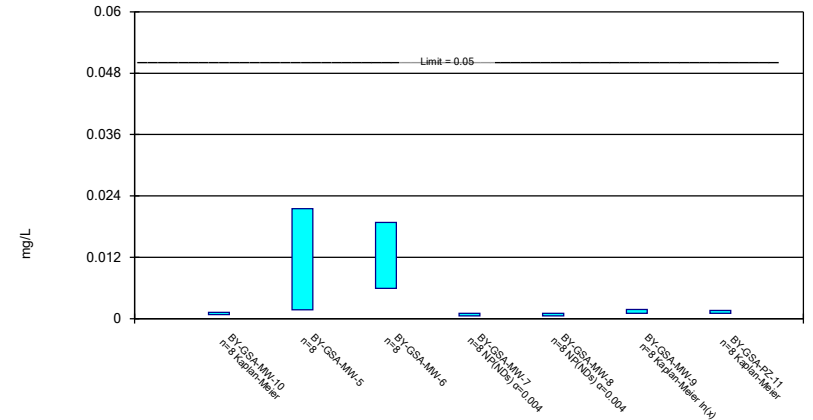
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Parametric and Non-Parametric (NP) Confidence Interval

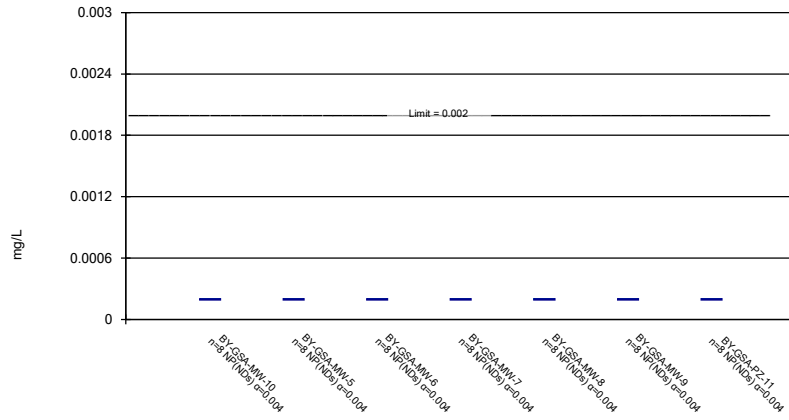
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Selenium Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 10/11/2023 4:26 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.001015	<0.001015	<0.001015	<0.001015		
3/31/2020	<0.001015					<0.001015	<0.001015
9/8/2020		<0.001015	<0.001015	<0.001015	<0.001015		<0.001015
9/9/2020	<0.001015					<0.001015	
5/12/2021	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
10/18/2021			<0.001015	<0.001015			
10/19/2021	<0.001015	<0.001015			<0.001015	<0.001015	<0.001015
5/31/2022		<0.001015	<0.001015				
6/1/2022	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015	<0.001015	<0.001015	0.000586 (J)	<0.001015	<0.001015	<0.001015
4/11/2023	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
8/15/2023	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015	<0.001015
Mean	0.001015	0.001015	0.001015	0.0009614	0.001015	0.001015	0.001015
Std. Dev.	0	0	0	0.0001517	0	0	0
Upper Lim.	0.001015	0.001015	0.001015	0.001015	0.001015	0.001015	0.001015
Lower Lim.	0.001015	0.001015	0.001015	0.000586	0.001015	0.001015	0.001015

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203		
3/31/2020	<0.000203					<0.000203	<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203		<0.000203
9/9/2020	<0.000203					<0.000203	
5/12/2021	0.000129 (J)	0.000501	0.000821	0.000177 (J)	<0.000203	0.000173 (J)	0.000111 (J)
10/18/2021			0.00032	0.00023			
10/19/2021	0.00013 (J)	0.0002 (J)			0.00016 (J)	<0.000203	0.00013 (J)
5/31/2022		0.00053	0.00052				
6/1/2022	9E-05 (J)			0.00024	<0.000203	0.0001 (J)	<0.000203
11/2/2022	0.000147 (J)	0.000548	0.000429	0.000331	8.3E-05 (J)	0.000146 (J)	8.5E-05 (J)
4/11/2023	<0.000203	0.000274	0.000738	0.000395	<0.000203	<0.000203	<0.000203
8/15/2023	<0.000203	<0.000203	0.000632	0.000288	<0.000203	<0.000203	<0.000203
Mean	0.0001635	0.0003328	0.0004833	0.0002584	0.0001826	0.0001793	0.0001676
Std. Dev.	4.508E-05	0.0001626	0.0002358	7.437E-05	4.297E-05	3.826E-05	5.029E-05
Upper Lim.	0.000203	0.000548	0.000717	0.0003318	0.000203	0.000203	0.000203
Lower Lim.	9E-05	0.0002	0.0002495	0.0001719	8.3E-05	0.0001	8.5E-05

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		0.0718	0.142	0.0788	0.0444		
3/31/2020	0.122					0.165	0.0499
9/8/2020		0.181	0.0981	0.0615	0.0494		0.05
9/9/2020	0.125					0.17	
5/12/2021	0.121	0.106	0.159	0.1	0.0488	0.184	0.0597
10/18/2021			0.146	0.0859			
10/19/2021	0.115	0.0998			0.0452	0.151	0.0599
5/31/2022		0.226	0.202				
6/1/2022	0.136			0.0803	0.0477	0.142	0.0821
11/2/2022	0.133	0.146	0.204	0.131	0.055	0.141	0.0903
4/11/2023	0.127	0.0629	0.267	0.12	0.0481	0.123	0.0842
8/15/2023	0.12	0.093	0.195	0.0687	0.0486	0.134	0.109
Mean	0.1249	0.1233	0.1766	0.09078	0.0484	0.1513	0.07314
Std. Dev.	0.006958	0.05665	0.05143	0.02443	0.003198	0.02035	0.02143
Upper Lim.	0.1322	0.1834	0.2311	0.1167	0.05179	0.1728	0.09585
Lower Lim.	0.1175	0.06327	0.1221	0.06488	0.04501	0.1297	0.05042

Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.001015	<0.00102	<0.001015	<0.001015		
3/31/2020	<0.001015					<0.001015	<0.001015
9/8/2020		<0.001015	<0.00102	<0.001015	<0.001015		<0.001015
9/9/2020	<0.001015					<0.001015	
5/12/2021	<0.001015	0.000575 (J)	0.000763 (J)	0.000464 (J)	<0.001015	<0.001015	<0.001015
10/18/2021			<0.00102	<0.001015			
10/19/2021	<0.001015	<0.001015			<0.001015	<0.001015	<0.001015
5/31/2022		0.00071 (J)	0.00066 (J)				
6/1/2022	<0.001015			<0.001015	<0.001015	<0.001015	<0.001015
11/2/2022	<0.001015	0.000937 (J)	0.000408 (J)	<0.001015	<0.001015	<0.001015	<0.001015
4/11/2023	<0.001015	0.000693 (J)	0.00091 (J)	<0.001015	<0.001015	<0.001015	<0.001015
8/15/2023	<0.001015	<0.001015	0.000592 (J)	<0.001015	<0.001015	<0.001015	<0.001015
Mean	0.001015	0.0008719	0.0007991	0.0009461	0.001015	0.001015	0.001015
Std. Dev.	0	0.0001823	0.0002315	0.0001948	0	0	0
Upper Lim.	0.001015	0.001015	0.0008446	0.001015	0.001015	0.001015	0.001015
Lower Lim.	0.001015	0.000575	0.0004886	0.000464	0.001015	0.001015	0.001015

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203		
3/31/2020	<0.000203					<0.000203	<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203		<0.000203
9/9/2020	<0.000203					<0.000203	
5/12/2021	<0.000203	8.67E-05 (J)	0.000154 (J)	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2021			0.00011 (J)	<0.000203			
10/19/2021	<0.000203	0.00014 (J)			<0.000203	<0.000203	<0.000203
5/31/2022		0.00012 (J)	0.00023				
6/1/2022	<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203	0.000189 (J)	0.000178 (J)	<0.000203	<0.000203	<0.000203	<0.000203
4/11/2023	<0.000203	0.000133 (J)	0.000185 (J)	<0.000203	<0.000203	<0.000203	<0.000203
8/15/2023	<0.000203	8E-05 (J)	0.000125 (J)	<0.000203	<0.000203	<0.000203	<0.000203
Mean	0.000203	0.0001443	0.0001735	0.000203	0.000203	0.000203	0.000203
Std. Dev.	0	4.939E-05	4.114E-05	0	0	0	0
Upper Lim.	0.000203	0.0001632	0.0002005	0.000203	0.000203	0.000203	0.000203
Lower Lim.	0.000203	8.632E-05	0.0001202	0.000203	0.000203	0.000203	0.000203

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.00102	0.00273 (J)	<0.00102	0.00275 (J)		
3/31/2020	<0.00102					<0.00102	0.00249 (J)
9/8/2020		0.00221 (J)	0.00237 (J)	<0.00102	0.00224 (J)		0.00253 (J)
9/9/2020	<0.00102					<0.00102	
5/12/2021	0.000695 (J)	0.00232	0.0034	0.00139	0.00218	0.000783 (J)	0.00281
10/18/2021			0.00335	0.00131			
10/19/2021	0.00079 (J)	0.00268			0.00246	0.00081 (J)	0.00336
5/31/2022		0.00281	0.00412				
6/1/2022	0.00089 (J)			0.00157	0.00226	0.00104	0.00292
11/2/2022	0.000663 (J)	0.00259	0.00344	0.00144	0.00209	0.000918 (J)	0.00276
4/11/2023	0.000659 (J)	0.00199	0.0046	0.00143	0.00201	0.000839 (J)	0.00301
8/15/2023	0.000926 (J)	0.00155	0.00467	0.00173	0.00228	0.00087 (J)	0.00323
Mean	0.0008329	0.002082	0.003585	0.001364	0.002284	0.0009125	0.002889
Std. Dev.	0.0001521	0.0007542	0.0008291	0.0002469	0.0002312	0.0001027	0.0003081
Upper Lim.	0.0008838	0.002882	0.004464	0.001609	0.002529	0.0009515	0.003215
Lower Lim.	0.0006572	0.001283	0.002706	0.001119	0.002039	0.0007855	0.002562

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.005	0.0031 (J)	<0.005	<0.005		
3/31/2020	0.00238 (J)					<0.005	<0.005
9/8/2020		0.00227 (J)	0.00296 (J)	<0.005	<0.005		<0.005
9/9/2020	0.00241 (J)					<0.005	
5/12/2021	0.00237	0.0046	0.0054	0.00192	0.000437	0.00177	0.00101
10/18/2021			0.00552	0.00164			
10/19/2021	0.00238	0.00217			0.00049	0.00156	0.00117
5/31/2022		0.00606	0.00724				
6/1/2022	0.0027			0.00162	0.00048	0.00131	0.00143
11/2/2022	0.00249	0.00667	0.00684	0.00228	0.000514	0.00118	0.00144
4/11/2023	0.00265	0.00397	0.0079	0.00215	0.000338	0.000888	0.00139
8/15/2023	0.00251	0.0017	0.00804	0.00115	0.000504	0.00117	0.00184
Mean	0.002486	0.003742	0.005875	0.002595	0.001595	0.002235	0.002285
Std. Dev.	0.0001282	0.001893	0.002005	0.001525	0.002102	0.001727	0.001693
Upper Lim.	0.002621	0.005749	0.008	0.002225	0.005	0.005	0.005
Lower Lim.	0.002352	0.001736	0.00375	0.001377	0.000338	0.000888	0.00101

Confidence Interval

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		0.525	1.54	0.939	0.397 (U)		
3/31/2020	1.01					1.88	0.968
9/8/2020		0.845	0.402 (U)	1.13	0.0249 (U)		0.468 (U)
9/9/2020	1.32					2.11	
5/12/2021	2.02	0.465 (U)	2.47	1.09	1.29	1.94	0.515 (U)
10/18/2021			2.03	0.69 (U)			
10/19/2021	1.6 (V)	0.719 (U)			1.54	3.15	0.87 (U)
5/31/2022		2.31	2.22				
6/1/2022	2.27			0.99	1.37	2.05	1.13
11/2/2022	1.34	1.24	1.7	1.09	1.06	1.93	0.625 (U)
4/11/2023	1.87	1.24	3.05	1.96	1.6	1.98	1.05
8/15/2023	1.2 (U)	1.29	1.71	1.18 (U)	0.8 (U)	0.994 (U)	1.26 (U)
Mean	1.579	1.079	1.89	1.134	1.01	2.004	0.8608
Std. Dev.	0.4389	0.5952	0.776	0.3673	0.5644	0.5822	0.2949
Upper Lim.	2.044	1.71	2.713	1.5	1.608	3.15	1.173
Lower Lim.	1.113	0.4484	1.068	0.7802	0.412	0.994	0.5482

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.125	<0.125	<0.125	<0.125		
3/31/2020	<0.125					<0.125	<0.125
9/8/2020		<0.125	<0.125	<0.125	<0.125		<0.125
9/9/2020	<0.125					<0.125	
5/12/2021	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
10/18/2021			<0.125	<0.125			
10/19/2021	<0.125	<0.125			<0.125	<0.125	<0.125
5/31/2022		<0.125	<0.125				
6/1/2022	<0.125			<0.125	<0.125	<0.125	<0.125
11/2/2022	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125	<0.125
4/11/2023	<0.125	0.0834 (J)	0.135	<0.125	<0.125	<0.125	<0.125
8/15/2023	<0.125	<0.125	0.0957 (J)	<0.125	<0.125	<0.125	<0.125
Mean	0.125	0.1198	0.1226	0.125	0.125	0.125	0.125
Std. Dev.	0	0.01471	0.01141	0	0	0	0
Upper Lim.	0.125	0.125	0.135	0.125	0.125	0.125	0.125
Lower Lim.	0.125	0.0834	0.0957	0.125	0.125	0.125	0.125

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203		
3/31/2020	<0.000203					<0.000203	<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203		<0.000203
9/9/2020	<0.000203					<0.000203	
5/12/2021	0.000113 (J)	9.94E-05 (J)	0.000213	7.98E-05 (J)	<0.000203	0.000288	0.000208
10/18/2021			0.00011 (J)	8E-05 (J)			
10/19/2021	0.0001 (J)	0.00026			<0.000203	0.00025	0.00014 (J)
5/31/2022		0.00018 (J)	0.00011 (J)				
6/1/2022	0.0001 (J)			8E-05 (J)	<0.000203	0.00023	0.00012 (J)
11/2/2022	0.000122 (J)	0.000144 (J)	0.000146 (J)	0.000125 (J)	<0.000203	0.000233	<0.000203
4/11/2023	0.000131 (J)	9.4E-05 (J)	0.000112 (J)	0.000123 (J)	<0.000203	0.000204	8.2E-05 (J)
8/15/2023	0.000153 (J)	<0.000203	0.000377	0.000107 (J)	0.000109 (J)	0.000253	0.000171 (J)
Mean	0.0001406	0.0001733	0.0001843	0.0001251	0.0001913	0.000233	0.0001663
Std. Dev.	4.215E-05	5.709E-05	8.975E-05	5.153E-05	3.323E-05	3.015E-05	4.742E-05
Upper Lim.	0.0001392	0.0002032	0.000238	0.000203	0.000203	0.0002629	0.000208
Lower Lim.	0.0001006	8.816E-05	8.977E-05	7.98E-05	0.000109	0.0002031	8.2E-05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.02	<0.02	<0.02	<0.02		
3/31/2020	<0.02					<0.02	<0.02
9/8/2020		<0.02	<0.02	<0.02	<0.02		<0.02
9/9/2020	<0.02					<0.02	
5/12/2021	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
10/18/2021			<0.02	<0.02			
10/19/2021	<0.02	<0.02			<0.02	<0.02	<0.02
5/31/2022		<0.02	<0.02				
6/1/2022	<0.02			<0.02	<0.02	<0.02	<0.02
11/2/2022	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
4/11/2023	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
8/15/2023	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
Mean	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Std. Dev.	0	0	0	0	0	0	0
Upper Lim.	0.02	0.02	0.02	0.02	0.02	0.02	0.02
Lower Lim.	0.02	0.02	0.02	0.02	0.02	0.02	0.02

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals
 Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.0005	<0.0005	<0.0005	<0.0005		
3/31/2020	<0.0005					<0.0005	<0.0005
9/8/2020		<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
9/9/2020	<0.0005					<0.0005	
5/12/2021	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
10/18/2021			<0.0005	<0.0005			
10/19/2021	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005
5/31/2022		0.00036 (J)	0.00035 (J)				
6/1/2022	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005
11/2/2022	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
4/11/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
8/15/2023	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Mean	0.0005	0.0004825	0.0004813	0.0005	0.0005	0.0005	0.0005
Std. Dev.	0	4.95E-05	5.303E-05	0	0	0	0
Upper Lim.	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005	0.0005
Lower Lim.	0.0005	0.00036	0.00035	0.0005	0.0005	0.0005	0.0005

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.01015	<0.01015	<0.01015	<0.01015		
3/31/2020	<0.01015					<0.01015	<0.01015
9/8/2020		<0.01015	<0.01015	<0.01015	<0.01015		<0.01015
9/9/2020	<0.01015					<0.01015	
5/12/2021	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
10/18/2021			<0.01015	<0.01015			
10/19/2021	<0.01015	0.0001 (J)			8E-05 (J)	<0.01015	<0.01015
5/31/2022		<0.01015	<0.01015				
6/1/2022	<0.01015			<0.01015	<0.01015	<0.01015	<0.01015
11/2/2022	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
4/11/2023	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
8/15/2023	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015	<0.01015
Mean	0.01015	0.008894	0.01015	0.01015	0.008891	0.01015	0.01015
Std. Dev.	0	0.003553	0	0	0.00356	0	0
Upper Lim.	0.01015	0.01015	0.01015	0.01015	0.01015	0.01015	0.01015
Lower Lim.	0.01015	0.0001	0.01015	0.01015	8E-05	0.01015	0.01015

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.001015	0.00658 (J)	<0.001015	<0.001015		
3/31/2020	<0.001015					<0.001015	<0.001015
9/8/2020		0.0052 (J)	0.0052 (J)	<0.001015	<0.001015		<0.001015
9/9/2020	<0.001015					<0.001015	
5/12/2021	0.000778 (J)	0.0163	0.0123	<0.001015	<0.001015	0.00128	0.00111
10/18/2021			0.00672	<0.001015			
10/19/2021	0.00083 (J)	0.0029			0.00052 (J)	0.00118	0.00114
5/31/2022		0.0217	0.0132				
6/1/2022	0.00125			0.00058 (J)	<0.001015	0.00204	0.00132
11/2/2022	0.00133	0.0247	0.0156	<0.001015	<0.001015	0.00198	0.00163
4/11/2023	0.00108	0.0168	0.0232	0.000519 (J)	0.00055 (J)	0.00123	0.00168
8/15/2023	0.0011	0.00465	0.0162	0.000571 (J)	<0.001015	0.00137	0.00154
Mean	0.00105	0.01159	0.01238	0.0008431	0.000895	0.001389	0.001306
Std. Dev.	0.0001877	0.009341	0.006094	0.0002379	0.0002223	0.0004025	0.0002765
Upper Lim.	0.001217	0.0215	0.01883	0.001015	0.001015	0.001755	0.00158
Lower Lim.	0.0007772	0.001694	0.005916	0.000519	0.00052	0.001028	0.001032

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 10/11/2023 4:28 PM View: Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Gypsum Pond

	BY-GSA-MW-10	BY-GSA-MW-5	BY-GSA-MW-6	BY-GSA-MW-7	BY-GSA-MW-8	BY-GSA-MW-9	BY-GSA-PZ-11
3/30/2020		<0.000203	<0.000203	<0.000203	<0.000203		
3/31/2020	<0.000203					<0.000203	<0.000203
9/8/2020		<0.000203	<0.000203	<0.000203	<0.000203		<0.000203
9/9/2020	<0.000203					<0.000203	
5/12/2021	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
10/18/2021			<0.000203	<0.000203			
10/19/2021	<0.000203	<0.000203			<0.000203	<0.000203	<0.000203
5/31/2022		<0.000203	<0.000203				
6/1/2022	<0.000203			<0.000203	<0.000203	<0.000203	<0.000203
11/2/2022	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
4/11/2023	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
8/15/2023	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203	<0.000203
Mean	0.000203	0.000203	0.000203	0.000203	0.000203	0.000203	0.000203
Std. Dev.	0	0	0	0	0	0	0
Upper Lim.	0.000203	0.000203	0.000203	0.000203	0.000203	0.000203	0.000203
Lower Lim.	0.000203	0.000203	0.000203	0.000203	0.000203	0.000203	0.000203