2020 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE ACTION REPORT

ALABAMA POWER COMPANY

PLANT BARRY

ASH POND

January 31, 2021

Prepared for

Alabama Power Company

Birmingham, Alabama

By

Southern Company Services

Earth Science and Environmental Engineering

Alabama Power

CERTIFICATION STATEMENT

This *Annual Groundwater Monitoring and Corrective Action Report, Alabama Power Company - Plant Barry Ash Pond* has been prepared in accordance with the United States Environmental Protection Agency's coal combustion residual rule (40 CFR Part 257, Subpart D) and ADEM Admin. Code Ch. 335-13-15 under the supervision of a licensed professional engineer in the State of Alabama. As such, I certify that the information contained herein is true and accurate to the best of my knowledge.

1/31/2021

Lauren Parker
Originator

Date

1/31/2021

Gregory Whetstone, PE
AL Registered Professional Engineer No. 27885

Date

EXECUTIVE SUMMARY

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) and the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, this 2020 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2020 semi-annual assessment groundwater monitoring activities at the Plant Barry Ash Pond and to satisfy the requirements of § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual assessment monitoring and associated reporting for Plant Barry Ash Pond is performed in accordance with the monitoring requirements § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

The CCR unit began the monitoring period in assessment monitoring pursuant to § 257.95 and ADEM Admin. Code r. 335-13-15-.06(6). Statistically significant increases (SSIs) of Appendix III constituents over background were identified in the results of the first detection monitoring event and assessment monitoring was initiated in January 2018. Statistically significant levels (SSLs) of Appendix IV parameters above groundwater protection standards were identified while in assessment monitoring. Consequently, an assessment of corrective measures (ACM) was initiated on January 13, 2019 and completed on June 12, 2019 according to the requirements of § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and ADEM Administrative Order AO 18-094-GW.

The following summarizes results and activities for the annual monitoring period of 2020:

- Submitted the Semi-Annual Progress Report for Groundwater Delineation Activities on March 30, 2020.
- Submitted the revised Groundwater Monitoring Plan on April 15, 2020, responded to ADEM comments, and resubmitted the Groundwater Monitoring Plan on August 24, 2020.
- Submitted the Semi-Annual Remedy Selection and Design Progress Report on June 12, 2020.
- Conducted the installation, development, and sampling of Phase II delineation wells and additional site piezometers between March 25 and June 17, 2020.
- Submitted 2020 Semi-Annual Groundwater Monitoring and Corrective Action Report on July 31, 2020.
- Conducted the second semi-annual sampling event August 31 through September 9, 2020.
- Submitted the Semi-Annual Progress Report for Groundwater Delineation Activities Report to ADEM on September 30, 2020.

- Continued the evaluation of monitored natural attenuation (MNA) and geochemical manipulation as potential groundwater remediation technologies for the Site as described in the Semi-Annual Remedy Selection and Design Progress Reports submitted in June and December 2020.
- Submitted the next Semi-Annual Remedy Selection and Design Progress Report on December 12, 2020.
- Pursuant to 40 CFR 257.90(e)(6), a table titled Monitoring Period Summary has been prepared to describe the status of groundwater monitoring and corrective action during the monitoring period for this report.

The CCR unit concluded the monitoring period in assessment monitoring, and Alabama Power Company (APC) is evaluating potential groundwater remedies identified in the ACM report submitted to ADEM in June 2019. The following future actions are planned for the CCR unit:

- Collect additional data to further evaluate remedies that were selected as feasible for the remediation of arsenic and cobalt as described in the ACM.
- Continue to compare site-specific corrective actions to the evaluation criteria in the CCR Rule, with emphasis on deficiencies that could eliminate a corrective action from further consideration.
- Continue to determine how corrective actions could be integrated with pond closure, such as dewatering and associated water treatment systems.
- Develop plans for additional Site investigations and associated laboratory work to determine MNA capacity, rates, and stability; and plans for laboratory treatability and/or field pilot tests to determine the effectiveness of geochemical manipulation as needed.
- Collect additional soil samples and perform associated laboratory work to determine MNA capacity, rates, and stability.
- Perform laboratory treatability studies and implement field pilot tests as needed.
- Prepare a Remedy Selection Report.
- Develop a Corrective Action Groundwater Monitoring Program.
- Submit the next Semi-Annual Progress Report by March 30, 2021.
- Submit the next Semi-Annual Remedy Selection and Design Progress Report by June 12, 2021.
- Conduct the first semi-annual assessment monitoring event in the first half of 2021 and submit the annual groundwater monitoring and corrective action report summarizing the findings to ADEM by July 31, 2021.

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

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

Statistical Analysis Results *

Appendix III SSIs

Parameter	Wells
Boron	BY-AP-MW-1, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-16
Calcium	BY-AP-MW-1, BY-AP-MW-2, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16
Chloride	BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16
Fluoride	BY-AP-MW-15
pH	BY-AP-MW-13, BY-AP-MW-14
Sulfate	BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-15, BY-AP-MW-16
TDS	BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16

Appendix IV SSLs

Parameter	Wells
Arsenic	BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16
Cobalt	BY-AP-MW-15

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

Assessment of Corrective Measures & Groundwater Remedy

Assessment of Corrective Measures

Date Initiated: January 13, 2019
Date Complete: June 12, 2019
Public Meeting Date: June 30, 2020

Groundwater Remedy

Selected During Period: No
Selection Date: Not yet selected
Initiated During Period: No
Ongoing During Period: No

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ABBREVATIONS

ACM	Assessment of Corrective Measures
ADEM	Alabama Department of Environmental Management
AL	Alabama
APC	Alabama Power Company
APCEL	APC Environmental Laboratory
ASD	Alternate Source Demonstration
ASTM	Alabama Power Company Environmental Laboratory
BGS	below ground surface
CCR	Coal Combustion Residual
CEC	cation exchange capacity
CFR	Code of Federal Regulations
COC	chain of custody
COI	constituents of interest
CSM	conceptual site model
DO	dissolved oxygen
EPA	United States Environmental Protection Agency
ft	feet
GW	groundwater
GWPS	Groundwater Protection Standard(s)
LCL	Lower Confidence Limit(s)
m	meter
mg/L	milligram per liter
MNA	monitored natural attenuation
MSL	mean sea level
MW-	denotes “Monitoring Well”
NCDS	National Coal Data System
NELAP	National Environmental Laboratory 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
SEM	scanning electron microscopy
SM	Standard Method(s)
SSE	selective sequential extraction

SSI	statistically significant increase
SSL	statistically significant level
TAL	Test America, Inc.
TOC	top of casing
TDS	total dissolved solids
USGS	Unites States Geological Survey
UTLs	Upper Tolerance Limits
XRD	X-ray diffraction

1.0 INTRODUCTION

In accordance with the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) and the State of Alabama Department of Environmental Management (ADEM) Admin. Code Ch. 335-13-15, this 2020 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document 2020 semi-annual assessment groundwater monitoring activities at the Plant Barry Ash Pond and to satisfy the requirements of § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual assessment monitoring and associated reporting for Plant Barry Ash Pond is performed in accordance with the monitoring requirements § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

2.0 SITE LOCATION AND DESCRIPTION

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

The Ash Pond is located east-southeast of the main plant, between the Mobile River and Plant Barry barge canal. **Figure 1, Site Location Map,** depicts the location of the Plant and Ash Pond with respect to the surrounding area.

2.1 SITE GEOLOGY AND HYDROGEOLOGY

2.1.1 Physical Setting

Plant Barry is located within the Southern Pine Hills and the Alluvial-deltaic Plain districts of the East Gulf Coastal Plain physiographic section. The Alluvial-deltaic Plain district is composed of alluvium and terrace deposits of the Mobile River delta and is characterized by very little topographical relief (Gillet et al., 2000). The Southern Pine Hills district is a southward sloping plain developed on Miocene Series clay, sand, and gravel deposits. The Southern Pine Hills district is dissected by surface water features, and near Plant Barry, displays gentle topographic relief (Davis, 1987). Local site elevations near the Ash Pond range from approximately 50 to 0 feet above mean seal level (MSL). The embankment elevations that form the perimeter of the Ash Pond reside between 26 and 20 feet MSL. **Figure 2**, **Site Topographic Map**, provides the topography of the Site.

2.1.2 Geology and Hydrogeology

The geology of the site is characterized by sedimentary deposits ranging in age from Tertiary to Quaternary. The Pliocene age Citronelle formation, while present regionally, was not encountered at the site. 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. **Figure 4A, Geologic Cross-Section A-A'**, **Figure 4B, Geologic Cross-Section B-B**, **and Figure 4C, Geologic Cross-Section C-C'**, provides an illustration of well screen intervals with respect to stratigraphy and elevation at the Site.

Around the site, the uppermost stratigraphic layer varies from approximately 5 to 20 feet and is defined as fill material composed of sandy and silty lean clays that were placed during the construction of the Ash Pond. Beneath the fill material, generalized near-surface stratigraphy of the site, in descending order, consists of (Unit 1) an organic-rich fat clay to lean clay, (Unit 2) a sandy lean clay to clayey sand with interbedded silty sand, and (Unit 3) a poorly graded sand with lenses of sandy lean clay and gravel. The stratigraphy of the site displays vertical and horizontal heterogeneity common with alluvial, low terrace, and coastal deposits.

- Unit 1 is described as a mottled gray to dark gray and red fat clay with some interlayered sandy lean clays. Unit 1 extends from the base of fill materials to elevations of approximately -10 to -25 feet mean sea level (MSL).
- Unit 2 consists of mottled light gray, brownish yellow, and red sandy lean clay with medium plasticity and trace amounts of interlayered sand. Lenses of clayey sands and silty sands are also present within this unit. Unit 2 extends from the base of the organic clay layer to elevations of approximately -30 to -40 feet MSL grading into sand of Unit 3.
- Unit 3 comprises the uppermost aquifer for groundwater monitoring purposes at the site and is described as a pale brown or light gray poorly graded sand with silt content. Fine gravel appears in the lower portion of Unit 3. Lenses of sandy clay and clayey sand are present in the upper portions of Unit 3 but are not prevalent.
- Unit 4 likely corresponds to the transition to Miocene Series sediments and is described as a pale greenish gray or blue, interbedded fat clay, lean clay, and silty sand. The top of Unit 4 generally

appears between 90 and 120 feet below ground surface at the Site (-65 to -100 ft MSL) and select borings (BY-AP-MW-8V, BY-AP-MW-12V, BY-AP-MW-12VM, BY-AP-MW-15VM) indicate a thickness of at least 10 feet. Unit 4 clays display a very low average hydraulic conductivity of 3.0×10^{-7} cm/s.

2.1.3 Uppermost Aquifer

The uppermost aquifer beneath the site generally corresponds to Unit 3 sands, which are part of the Watercourse Aquifer system. At the site, Watercourse Aquifer generally consists of fine to medium grained sands with discrete gravelly, coarse sand and gravel. Clay nodules, lenses, and stringers are present within Unit 3, but are not prevalent. Depth to the top of the Watercourse Aquifer generally ranges between 45 and 70 feet below ground surface (BGS). Groundwater recharge to the Watercourse Aquifer is largely accomplished by infiltration of precipitation and subsequent percolation down to the water table. Regionally, the Watercourse and Miocene-Pliocene Aquifers are considered to be hydraulically connected due to the discontinuous nature of clay aquitards. However, locally semi-confined to confined conditions may be present when a sufficient aquitard separates the aquifers or sand units.

2.1.4 Flow Interpretation

Groundwater flow at the site is a subdued replica of the natural topography where gravity is the dominant force driving flow. Groundwater flows from higher topographic elevations west of the Ash Pond to lower topographic elevations to the east. Groundwater flow is accomplished by porous or Darcian flow mechanics through sands of the Watercourse Aquifer.

2.2 GROUNDWATER MONITORING SYSTEM

Pursuant to § 257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Barry has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The certified groundwater monitoring system for the Plant Barry Ash Pond is designed to monitor groundwater passing the waste boundary of the CCR unit within the uppermost aquifer. Wells were located to serve as upgradient or downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps.

Monitoring wells were screened in the Watercourse Aquifer. The Watercourse Aquifer is composed of Quaternary alluvial and low terrace deposits consisting of interbedded sand, gravel, and clay. The monitoring systems are designed to monitor water quality as groundwater flows laterally from south to north across the site. All groundwater monitoring wells were designed and constructed using "Design and Installation of Groundwater Monitoring Wells in Aquifers," ASTM Subcommittee D18.21, as a guideline.

2.2.1 Monitoring Wells

The detection and compliance groundwater monitoring network consists of 20 monitoring wells installed around the perimeter of the Ash Pond. Horizontal and vertical delineation wells were added in two phases of delineation beginning in late 2018. Monitoring and delineation well locations are presented in **Figure 5, Monitoring Well Location Map**. **Table 1**, **Groundwater Monitoring Well Network Details**, summarizes the monitoring and delineation well construction details and design purpose for the Ash Pond. The boring logs, well installation logs, and development logs are included as **Appendix A Boring Logs and Monitor Well Installation Data.**

2.2.1.1 Upgradient Wells

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

Historically, monitoring wells BY-AP-MW-2 through BY-AP-MW-4 have served as upgradient monitoring wells. These wells were selected as upgradient based on low concentrations of CCR indicator parameters and groundwater flow direction. Following discussions with ADEM, these wells were re-designated as compliance monitoring wells and not used for "background" purposes.

To establish a clear and distinct background, monitoring well locations BY-GSA-MW-1 through BY-GSA-MW-4 now serve as upgradient locations for the Ash Pond. Groundwater generally flows semi-radially across the Ash Pond from the southwest to northeast with a northerly and southerly flow component. Upgradient wells are located south of the Gypsum Pond as determined by water level monitoring and potentiometric surface maps constructed for the Site. This re-designation of well locations was detailed in

the revised groundwater monitoring plan submitted to ADEM on April 15, 2020 and resubmitted on August 24, 2020.

2.2.1.2 Downgradient Wells

Monitoring well locations BY-AP-MW-1 through BY-AP-MW-16 are used as downgradient compliance monitoring locations for the Ash Pond.

2.2.1.3 Delineation Wells

Pursuant to § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO 18-094-GW, additional delineation wells were installed to characterize the horizontal and vertical extent of GWPS exceedances identified during assessment monitoring. Two phases of field investigation since late 2018 explored potential impacts to groundwater. Phase I was conducted between December 2018 and December 2019. Seven vertical delineation wells (BY-AP-MW-1V, BY-AP-MW-5V, BY-AP-MW-7V, BY-AP-MW-8V, BY-AP-MW-10V, BY-AP-MW-12V and BY-AP-MW-15V) and seven horizontal delineation wells (BY-AP-MW-17H, BY-AP-MW-18H, BY-AP-MW-19H, BY-AP-MW-20H, BY-AP-MW-22H, BY-AP-MW-23H, and BY-AP-MW-24H), were installed and sampled to assess the lateral extent of groundwater impact in the directions of groundwater flow away from the facility.

A Groundwater Investigation Report was submitted on December 15, 2019 summarizing Phase I groundwater investigation findings and including a work plan for a Phase II investigation. Field work for Phase II was conducted between February 2020 and June 2020. Eight deep vertical delineation wells (BY-AP-MW-13V, BY-AP-MW-14V, BY-AP-MW-16V, BY-AP-MW-17V, BY-AP-MW-20V, BY-AP-MW-23V and BY-AP-MW-25V) and one horizontal delineation well (BY-AP-MW-25H) were installed to complete delineation activities at the Site.

Additionally, two Type III (double-cased) deep vertical delineation well borings (BY-AP-MW-12VM, and BY-AP-MW-15VM,) were advanced to vertically delineate the low-permeability Unit 4 interbedded fat clay, lean clay, and silty sand. Boring logs indicate thicknesses of greater than 25 feet (BY-AP-MW-12VM) and 20 feet (BY-AP-MW-15VM) of Unit 4 clays and a very low average hydraulic conductivity of 3.0 x 10^{-7} cm/s. Subsequently, soil boring BY-AP-MW-12VM was abandoned prior to well installation and BY-AP-MW-15VM was installed as a water level-only piezometer.

All delineation wells are sampled semi-annually as part of the semi-annual assessment groundwater monitoring program. A semi-annual progress and groundwater delineation report summarizing findings was submitted to ADEM on September 30, 2020.

Unlike compliance wells, which are installed on top of the Ash Pond dike, many delineation wells are installed at the base of the dike and surrounding lower-lying areas. During the wet season or after rainy periods, some delineation wells can be either temporarily inaccessible for sampling or unsafe to sample. In that case, another sampling event will be attempted after a drying period or during the next semi-annual sampling event.

A summary of well installation dates, location, elevation, screen interval, and purpose is provided in **Table 1 and Figure 5.** The boring logs, well installation logs, and development logs are included as **Appendix A**, **Boring Logs and Monitoring Well Installation Data.**

2.2.1.4 Piezometers

Phase II delineation location BY-AP-MW-15VM is used as a water level-only piezometer. This location is separated from the Watercourse Aquifer (Unit 2/3 sands) by a lower confining layer (Unit 4) of sufficient thickness to justify water level-only monitoring at this location. BY-AP-MW-15VM encountered greater than 20 feet of clay and demonstrated a groundwater separation of 1.38 feet and 0.78 feet from paired Watercourse Aquifer well BY-AP-MW-15 during the first Phase II delineation sampling event conducted on June 15, 2020 and second semi-annual sampling event conducted on August 31, 2020 respectively. The groundwater elevations observed in well BY-AP-MW-15VM also indicate an upward vertical gradient (i.e., groundwater flowing upwards), providing further support for a piezometer designation. Piezometers are presented on **Figure 5**. **Table 1** summarizes construction details.

2.2.1.5 Monitoring Well Replacement and Abandonment

Proposed delineation well location BY-AP-MW-12VM was not installed due to the thickness of the Unit 4 Miocene Series clay. The Unit 4 clay encountered within this borehole was greater than 25 feet in thickness, and targeted Miocene Series sands were absent at the termination depth. This thickness of Unit 4 clay provides sufficient vertical separation between the Unit 3 aquifer and deeper Miocene sand units. Consequently, the boring was abandoned in accordance with Alabama well construction standards described in Administrative Code Div. 335-13 and the Alabama Environmental Investigation and

Remediation Guidance (AEIRG; Revised 2017). The abandonment report is included in **Appendix B, Bore Hole Abandonment Report**.

2.2.1.6 Monitoring Variances

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

1. Retains boron as an Appendix III detection monitoring parameter and excludes it as an Appendix IV assessment monitoring parameter.
2. Authorizes the use of Federally-published GWPS of 0.006 milligrams per liter (mg/L) for cobalt; 0.015 mg/L for lead; 0.040 mg/L for lithium; and 0.100 mg/L for molybdenum in lieu of background where those levels are greater than background levels.

2.2.2 Groundwater Monitoring History

Background groundwater monitoring was performed at the site from March 2016 through June 2017. Semi-annual compliance monitoring began in September 2017.

2.2.2.1 Available Monitoring Data

In accordance with § 257.94(b) and ADEM Admin. Code r. 335-13-15-.06(5)(b), eight independent samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendix III and IV prior to October 17, 2017. Background sampling was performed over the period of March 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, APC initiated an assessment monitoring program on January 15, 2018. Pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a), monitoring wells were sampled for all Appendix IV parameters in January 2018, within 90 days of initiating the assessment monitoring program. Semi-annual assessment sampling continued with sampling events in May and November 2018 and May and September-October 2019.

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

2.2.2.2 Historical Groundwater Flow

Groundwater flow at the site is a subdued replica of the natural topography where gravity is the dominant force driving flow. Groundwater flows from higher topographic elevations west of the Ash Pond to lower topographic elevations to the east.

Groundwater elevations fluctuate in response to rainfall. Seasonal variations of 5 to 7 feet are typical at the site. These fluctuations are consistent in monitoring wells across the site indicating a relatively uniform response to rainfall events.

2.2.3 Groundwater Sampling and Analysis

As required by § 257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f), the following describes monitoring-related activities performed during the preceding year. The Plant Barry Ash Pond entered an assessment monitoring program pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a) in January 2018. Statistical evaluations of 2018 assessment monitoring data identified SSLs of Appendix IV constituents above the GWPS and the Site performed an Assessment of Corrective Measures. Pursuant to § 257.95(g)(1), ADEM Admin. Code r. 335-13-15-.06(6)(g)2., and AO 18-094-GW delineation wells were installed to characterize the horizontal and vertical extent of GWPS exceedances identified during assessment monitoring. These wells, along with the compliance monitoring well network, are sampled semi-annually.

2.2.3.1 Sampling Event Summary

Semi-annual assessment monitoring sampling events occurred in late March to early April and in August to September 2020. Delineation wells BY-AP-MW-15V, BY-AP-MW-19H, and BY-AP-MW-22H could not be sampled along with other wells during the first semi-annual sampling event due to spring flood waters but were sampled at a later date in May. Phase II delineation wells installed at the Site during Spring 2020 were sampled semi-annually for the first time in mid-June 2020 and were migrated into the regular semi-annual sampling schedule during the second semi-annual monitoring period of 2020.

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

2.2.3.2 Groundwater Sample Collection

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

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

- 0.2 standard units for pH.
- 5% for specific conductance.
- 0.2 Mg/L or 10% for DO > 0.5 mg/l (whichever is greater).
- Turbidity measurements less than 10 NTU.
- Temperature and ORP – record only, no stabilization criteria.

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

2.2.3.3 Sample Preservation and Handling

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

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

2.2.3.4 Chain of Custody

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

2.2.3.5 Laboratory Analysis

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

3.0 GROUNDWATER ELEVATIONS

3.1 GROUNDWATER ELEVATIONS AND FLOW

During the March-April 2020 sampling event, depths to water ranged from 3.55 to 23.06 feet below top of casing (BTOC) and groundwater elevations ranged from 8.54 to 4.96 feet above mean sea level (ft MSL) from west (near Gypsum Pond) to east (Ash Pond). During the August-September 2020 sampling event, depths to water ranged from 3.80 to 25.64 feet BTOC and groundwater elevations ranged from 5.02 to 1.96 ft MSL. Additionally, comprehensive water level measurements were collected during delineation sampling events conducted on May 12, 2020 and June 15, 2020. Many vertical delineations wells (denoted with a "V") installed deeper within Unit 3 sands display groundwater elevations higher than the more shallow, paired location. This indicates some level of confining conditions between the two zones in some locales and indicates an upward vertical gradient in which deeper groundwater is flowing upwards towards more shallow intervals. **Figure 6A, Potentiometric Surface Contour Map (March 30, 2020), Figure 6B, Potentiometric Surface Contour Map (May 12, 2020)**, **Figure 6C, Potentiometric Surface Contour Map (June 15, 2020)**, and **Figure 6D, Potentiometric Surface Contour Map (August 31, 2020)** depict groundwater elevations and inferred groundwater flow direction from higher elevation to lower. As shown on **Figure 6A through Figure 6D**, groundwater flows from south to north across the Site, consistent with previous events. All available groundwater elevation data recorded since 2016 have been tabulated and included in **Table 3, Groundwater Elevations Summary.**

3.2 GROUNDWATER FLOW VELOCITY CALCULATIONS

Groundwater flow rates at the site were calculated based on hydraulic gradients, hydraulic conductivity from aquifer pump test results, and an estimated effective porosity of the screened horizon. Slug testing provided horizontal hydraulic conductivities for the Watercourse Aquifer (Unit 3) between $2.1 \text{ x } 10^{-2}$ cm/sec and $6.75\ x10^{-3}$ cm/sec with an average of $1.0\ x10^{-2}$ cm/sec at the ash pond. Long duration pump testing of the Watercourse Aquifer revealed an average hydraulic conductivity of $3.3\ x10^{-3}$ cm/sec. The hydraulic gradient was calculated between well pairs shown on **Table 4, Horizontal Groundwater Flow Velocity Calculation**. The pumping test hydraulic conductivity value of $3.3 \text{ x } 10^{-3}$ cm/sec or 9.4 ft/day was used because the larger volume of aquifer allows averaging of small-scale heterogeneities, while slug tests are smaller in scale and could allow some results to skew an average. An estimated effective porosity of 25% is used in the flow rate calculations.

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

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

Where:

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

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

i = Horizontal hydraulic gradient

n_e= Effective porosity

Using this equation, horizontal groundwater flow velocity is calculated for various areas of the site and is tabulated on **Table 4**. **Table 4** presents the estimated horizontal flow velocity calculated using groundwater elevation data from the sampling events in 2020.

4.0 EVALUATION OF GROUNDWATER QUALITY DATA

4.1 DATA VALIDATION – QUALITY ASSURANCE/QUALITY CONTROL

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

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

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

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

Where the relative percent differences are below 20%, the difference is considered acceptable and no further action is needed. Where an RPD is greater than 20%, further evaluation is required to attempt to determine the cause of the difference and potentially result in qualified data. **Table 5, Relative Percent Difference Calculations,** provides the relative percent differences for sample and sample duplicates during the first semi-annual monitoring event of 2020. All RPDs were below 20% for the 2020 sampling events except fluoride in parent-duplicate pair BY-AP-MW-1/BY-AP-MW-1 DUP collected during the second semi-annual sampling event. A qualifier was not needed because the results were less than five times the RL and the difference between the parent and duplicate results was less than the RL value. Equipment blanks and field blanks were all non-detect for the most recent sampling event.

4.2 STATISTICAL METHODOLOGY AND TESTS

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

4.2.1 Appendix III Evaluation

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

Groundwater Stats Consulting demonstrated that these test methods were appropriate in the October 2017 Statistical Analysis Plan, which was updated in the August 2020 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.

According to the Unified Guidance, the following adjustments are considered part of the statistical analysis program:

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

- Non-parametric prediction limits are used on data containing greater than 50% non-detects.

4.2.2 Appendix IV Evaluation

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

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

As described in 40 CFR § 257.95(h)(1)-(3) and the ADEM Variance (see section **2.2.1.6)**, 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 confidence interval, exceeds the GWPS as discussed in the USEPA Unified Guidance (2009), the result is recorded as an SSL. Data from upgradient wells collected in between updates may still be used to support ASDs if merited.

4.3 STATISTICAL EXCEEDANCES

Analytical data from the 2020 semi-annual monitoring events were statistically analyzed in accordance with the professional engineer (PE)-certified statistical analysis plan (October 2017). The statistical analysis plan was updated in August 2020 incorporating a data screening evaluation performed by Groundwater Stats Consulting. Appendix III statistical analysis was performed to determine if constituents have returned to background levels. Appendix IV assessment monitoring parameters were evaluated to determine if concentrations statistically exceeded the established groundwater protection standard.

4.3.1 Appendix III Constituents

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

4.3.2 Appendix IV Constituents

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

The following subsections describe statistical exceedances during 2020 monitoring events. Statistical evaluations of the 2020 assessment monitoring data did not introduce new or additional SSLs beyond those previously identified and reported in the 2019 Groundwater Monitoring and Corrective Action Report.

4.3.2.1 First Semi-Annual Groundwater Monitoring Event

During the first semi-annual monitoring event, statistical analysis of Appendix IV data incorporating limits defined in the 2019 ADEM Variance (section **2.2.1.6**) identified the following SSLs over GWPS at the listed downgradient wells:

- BY-AP-MW-1: Arsenic.
- BY-AP-MW-5: Arsenic.
- BY-AP-MW-7: Arsenic.
- BY-AP-MW-8: Arsenic.
- BY-AP-MW-9: Arsenic.
- BY-AP-MW-10: Arsenic.

- BY-AP-MW-11: Arsenic.
- BY-AP-MW-12: Arsenic.
- BY-AP-MW-13: Arsenic.
- BY-AP-MW-14: Arsenic.
- BY-AP-MW-15: Arsenic, Cobalt.
- BY-AP-MW-16: Arsenic.

Table 7, First Semi-Annual Monitoring Event Analytical Summary, provides a summary of all constituents for the first semi-annual sampling event. Statistical reporting output is included as **Appendix E.**

4.3.2.2 Second Semi-Annual Groundwater Monitoring Event

During the second semi-annual monitoring event, statistical analysis of Appendix IV data incorporating limits defined in the 2019 ADEM Variance (section **2.2.1.6**) identified the following SSLs over GWPS at the listed downgradient wells:

- BY-AP-MW-1: Arsenic.
- BY-AP-MW-5: Arsenic.
- BY-AP-MW-7: Arsenic, Cobalt.
- BY-AP-MW-8: Arsenic.
- BY-AP-MW-9: Arsenic.
- BY-AP-MW-10: Arsenic.
- BY-AP-MW-11: Arsenic.
- BY-AP-MW-12: Arsenic.
- BY-AP-MW-13: Arsenic.
- BY-AP-MW-14: Arsenic.
- BY-AP-MW-15: Arsenic, Cobalt.
- BY-AP-MW-16: Arsenic.

Table 8, Second Semi-Annual Monitoring Event Analytical Summary, provides a summary of all constituents for the second semi-annual sampling event. Statistical reporting output is included as **Appendix E.**

4.3.2.3 Delineation Results

Limited groundwater analytical data is available for delineation wells installed at the site from December 2018 through 2020. Therefore, groundwater quality is simply compared to the GWPS in lieu of statistical comparison using confidence intervals. A review of analytical data derived from delineation wells identified the following GWPS exceedances during the second semi-annual sampling event:

- BY-AP-MW-12V: Arsenic
- BY-AP-MW-15V: Arsenic, Cobalt
- BY-AP-MW-16V: Cobalt
- BY-AP-MW-17H: Arsenic
- BY-AP-MW-17V: Cobalt
- BY-AP-MW-20H: Arsenic
- BY-AP-MW-22H: Arsenic
- BY-AP-MW-23H: Arsenic, Cobalt
- BY-AP-MW-24H: Arsenic

Details regarding the installation and sampling of these wells, and future proposed actions as a result of these exceedances, were submitted to ADEM in a Groundwater Investigation Report on May 13, 2019 and subsequent progress updates submitted in September 2019, March 2020, and on September 30, 2020.

To address SSLs at the site, an ACM was prepared to evaluate potential groundwater corrective measures for the occurrence of arsenic and cobalt in groundwater at the site in accordance with § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and ADEM Administrative Order AO 18-094-GW. The ACM was submitted to ADEM and placed in the operating record on June 12, 2019.

5.0 MONITORING PROGRAM STATUS

The site is currently in assessment monitoring and evaluating groundwater corrective action alternatives. In accordance with § 257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. SSIs of Appendix III and SSLs of Appendix IV parameters were identified at the Plant Barry Ash Pond during sampling events conducted in 2018. Alternate Source Demonstrations (ASD) were not completed for all Appendix IV constituents exceeding the GWPS; therefore, pursuant to § 257.95(g)(3)(i) and ADEM Admin. Code r. 335-13-15-.06(6)(g)4.(i), APC completed an assessment of corrective measures (ACM) in accordance with § 257.96, ADEM Admin. Code r. 335-13-15-.06(7), and ADEM Administrative Order AO 18-094-GW.

6.0 EVALUATION OF GROUNDWATER CORRECTIVE MEASURES

Site investigations and preliminary design work have continued at the Site to support remedy selection and design. As discussed in the ACM (Anchor QEA 2019), completing a final long-term corrective action plan is a multi-year process. Additional assessment work has been completed since June 2020, and laboratory work has been performed to support MNA and in situ geochemical manipulation as discussed in the ACM. MNA and geochemical manipulation are both geochemically based, so site-specific geochemical data and analyses can be applied to both technologies.

Laboratory analysis of groundwater and precipitates (attenuating solids) was conducted to support MNA and geochemical manipulation. The rationale for these investigations includes:

- Identifying attenuating mechanisms.
- Gaining an understanding of the stability of the attenuating mechanisms.
- Identifying potential geochemical manipulation approaches for constituents of interest (COI) based on Site geochemical conditions and attenuation processes already occurring naturally.

In the previous semi-annual remedy selection and design reporting period (January through June 2020), the following field and laboratory investigations were performed:

- Evaluated groundwater analytical data (primarily graphing) to look for evidence of natural attenuation occurring in space and time.
- Collected groundwater samples from background and impacted wells and performed a complete chemical analysis on the samples to enable groundwater geochemical modeling and the development of a geochemical conceptual site model (CSM).
- Performed geochemical modeling using the U.S. Geological Survey (USGS) computer program PHREEQC with the WATEQ4F thermodynamic database.
- Collected precipitate samples from the bottom of monitoring wells.
- Analyzed precipitate samples by X-ray fluorescence (XRF) and X-ray diffraction (XRD).

The following investigations were begun in the previous reporting period but completed in the current reporting period:

- Scanning electron microscopy (SEM) to directly observe attenuating mineral phases.
- Selective sequential extraction (SSE) to determine association of COI with attenuating phases, determine relative strength of attenuation, and provide a sense of permanence.
- Cation exchange capacity (CEC) to assess ion exchange as an attenuation mechanism.

The work performed since the completion of the June 2020 Remedy Selection and Design Progress Report includes the following:

- Sampling on-site and off-site delineation wells.
- Completing SEM, SSE, and CEC testing on well solids samples.
- Analyzing and synthesizing the laboratory data described above to develop a geochemical CSM and to evaluate MNA and geochemical manipulation.
- Conceptualizing other corrective action options in the context of site-specific conditions, if MNA does not perform as expected.

6.1 PRELIMINARY RESULTS FROM THE GEOCHEMICAL ANALYSES

As discussed in the Semi-Annual Remedy Selection and Design Progress Report Plant Barry (Anchor QEA 2020), results from existing groundwater data analysis, geochemical modeling, and well solids analyses provide evidence for attenuation mechanisms for arsenic and cobalt. The attenuating mechanisms identified include sorption-coprecipitation on iron oxides, cation exchange on clays, coprecipitation in carbonate minerals, and incorporation of arsenic in barium arsenate.

Concentration versus time and concentration versus distance graphs, and laboratory analyses were integrated with geochemical modeling results to develop an initial geochemical CSM that included probable attenuating mechanisms for arsenic and cobalt, and the relative permanence of those mechanisms. The initial CSM for the Site is:

- Multiple lines of evidence for arsenic and cobalt attenuation.
- Suboxic and acidic conditions in groundwater.
- Redox appears to be buffered by iron oxide (+/- carbonate) equilibria.
- Arsenic attenuation by adsorption to iron oxides and possibly by a predicted (but not observed) barium arsenate phase.
- Cobalt attenuation by adsorption/co-precipitation in iron oxides and cation exchange on clay minerals.
- Increased arsenic and cobalt sequestration over time; iron oxides age to more crystalline forms.

As supported by SSE results and the scientific literature, incorporation of arsenic and cobalt into iron minerals and arsenic into barium arsenate are relatively stable attenuation mechanisms.

Summary tables of the results are presented in **Appendix F, MNA – Geochemical Lab Data.**

7.0 SUMMARY AND CONCLUSIONS

Semi-annual assessment monitoring events took place in late March to early April 2020 and late August to early September 2020. Statistical evaluations of the 2020 assessment monitoring data identified SSLs of Appendix IV constituents above the GWPS. The site remains in assessment monitoring while groundwater corrective remedies are being evaluated. Additional monitoring wells were installed to assess the horizontal and vertical extent of groundwater impacts at the site. The results of this investigation were submitted to ADEM in May 2019, and additional details on delineation efforts were provided in subsequent semi-annual progress reports in September 2019 and March 2020 and a semi-annual progress and groundwater delineation report submitted in September 2020. These additional monitoring wells will continue to be sampled and analyzed as part of the ongoing assessment monitoring program.

An ACM was completed on June 12, 2019 to address SSLs of Appendix IV above groundwater protection standards. The following future actions will be taken or are recommended for the Site:

- Collect additional data to further evaluate remedies that were selected as feasible for the remediation of arsenic and cobalt as described in the ACM.
- Continue to compare site-specific corrective actions to the evaluation criteria in the CCR Rule, with emphasis on deficiencies that could eliminate a corrective action from further consideration.
- Continue to determine how corrective actions could be integrated with pond closure, such as dewatering and associated water treatment systems.
- Develop plans for additional Site investigations and associated laboratory work to determine MNA capacity, rates, and stability; and plans for laboratory treatability and/or field pilot tests to determine the effectiveness of geochemical manipulation as needed.
- Collect additional soil samples and perform associated laboratory work to determine MNA capacity, rates, and stability.
- Perform laboratory treatability studies and implement field pilot tests as needed.
- Prepare a Remedy Selection Report.
- Develop a Corrective Action Groundwater Monitoring Program.
- Submit the next Semi-Annual Progress Report by March 30, 2021.
- Submit the next Semi-Annual Remedy Selection and Design Progress Report by June 12, 2021.
- Conduct the first semi-annual assessment monitoring event in the first half of 2021 and submit the annual groundwater monitoring and corrective action report summarizing the findings to ADEM by July 31, 2021.

8.0 REFERENCES

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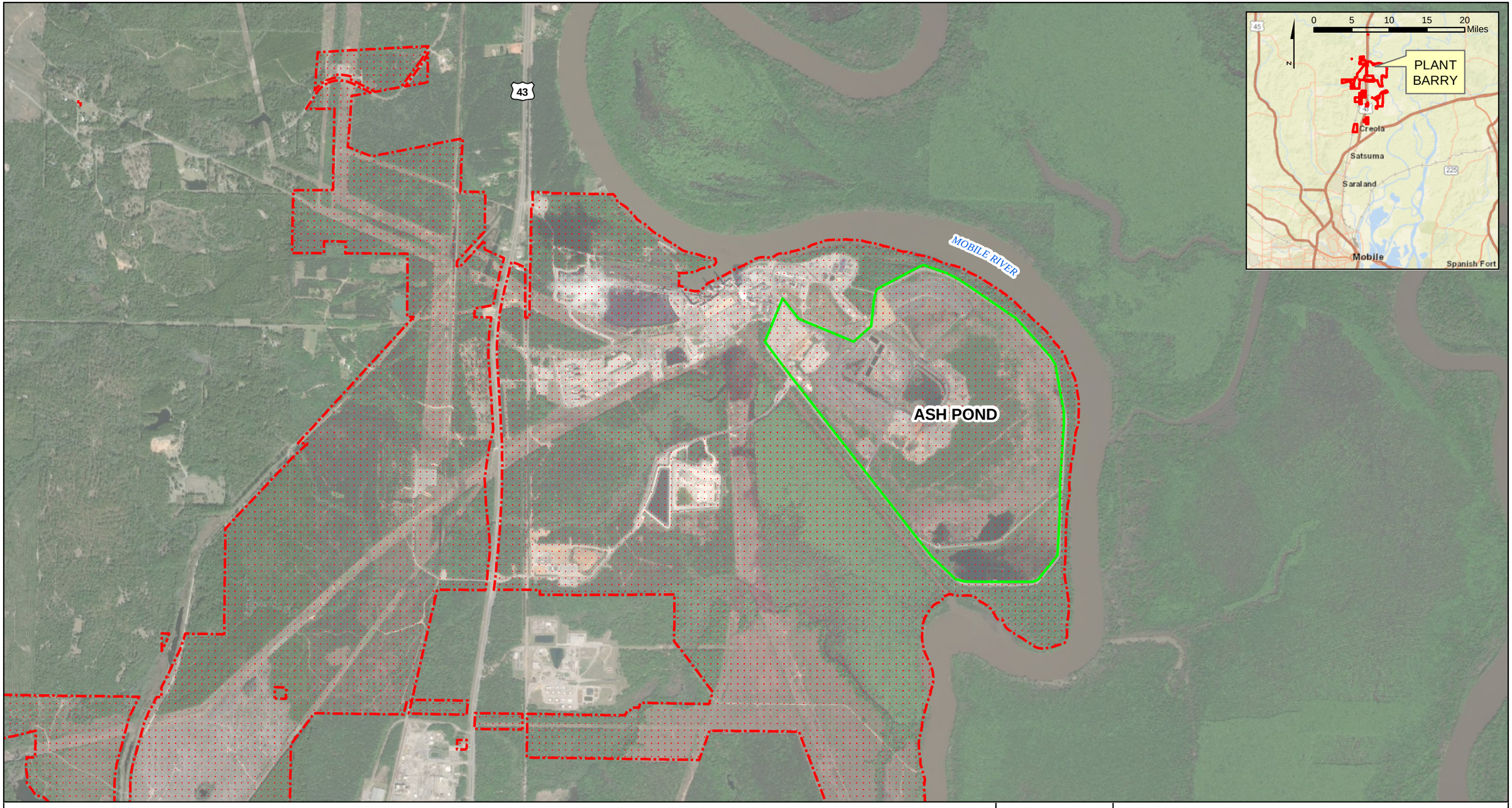
Figures



Legend

Property Boundary (Approximate)

Ash Pond Boundary

N

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

SCALE	1:24000
DATE	10/27/2020
DRAWN BY	KWR
CHECKED BY	GBD

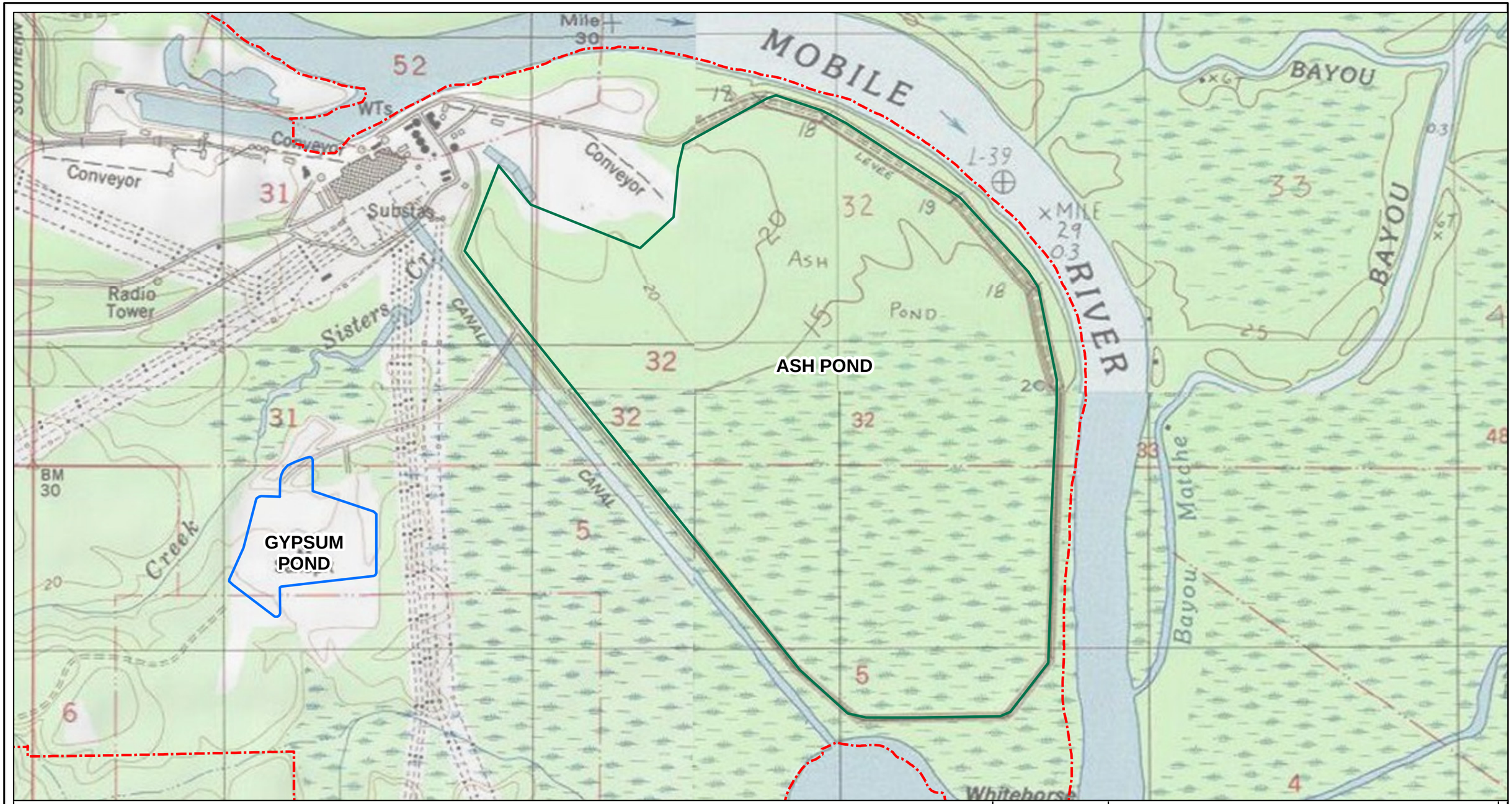
DRAWING TITLE

SITE LOCATION MAP
PLANT BARRY ASH POND

FIGURE NO

FIGURE 1

Southern Company



Legend

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

N

0 1,000 2,000 4,000 Feet

SCALE	1:12000
DATE	10/16/2020
DRAWN BY	KWR
CHECKED BY	GBD

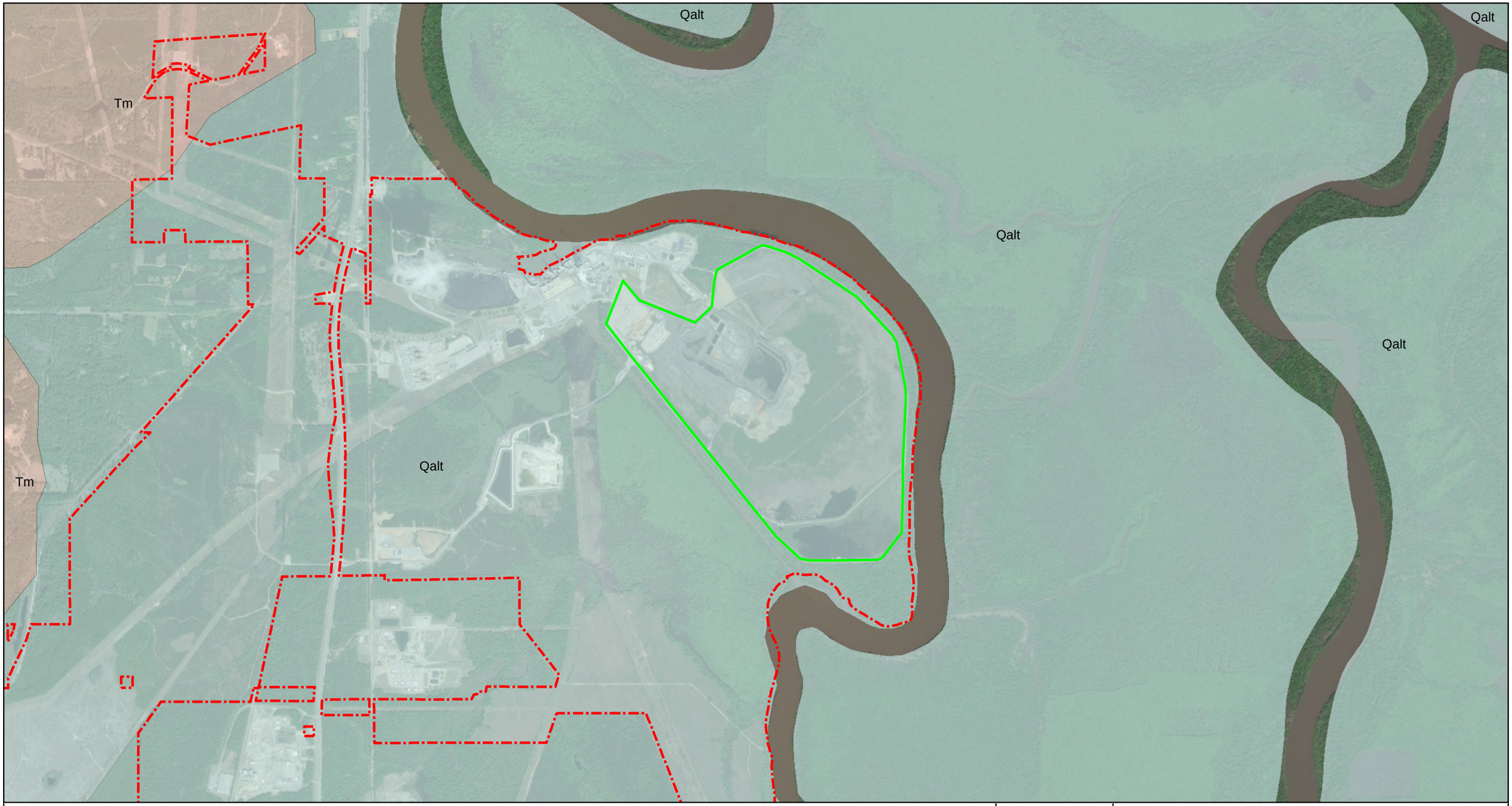
DRAWING TITLE

SITE TOPOGRAPHIC MAP
PLANT BARRY ASH POND

FIGURE NO

FIGURE 2

Southern Company



Legend

- Ash Pond Boundary
- Property Boundary (Approximate)

Geologic Units

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

N

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

SCALE	1:24000
DATE	10/16/2020
DRAWN BY	KWR
CHECKED BY	GBD

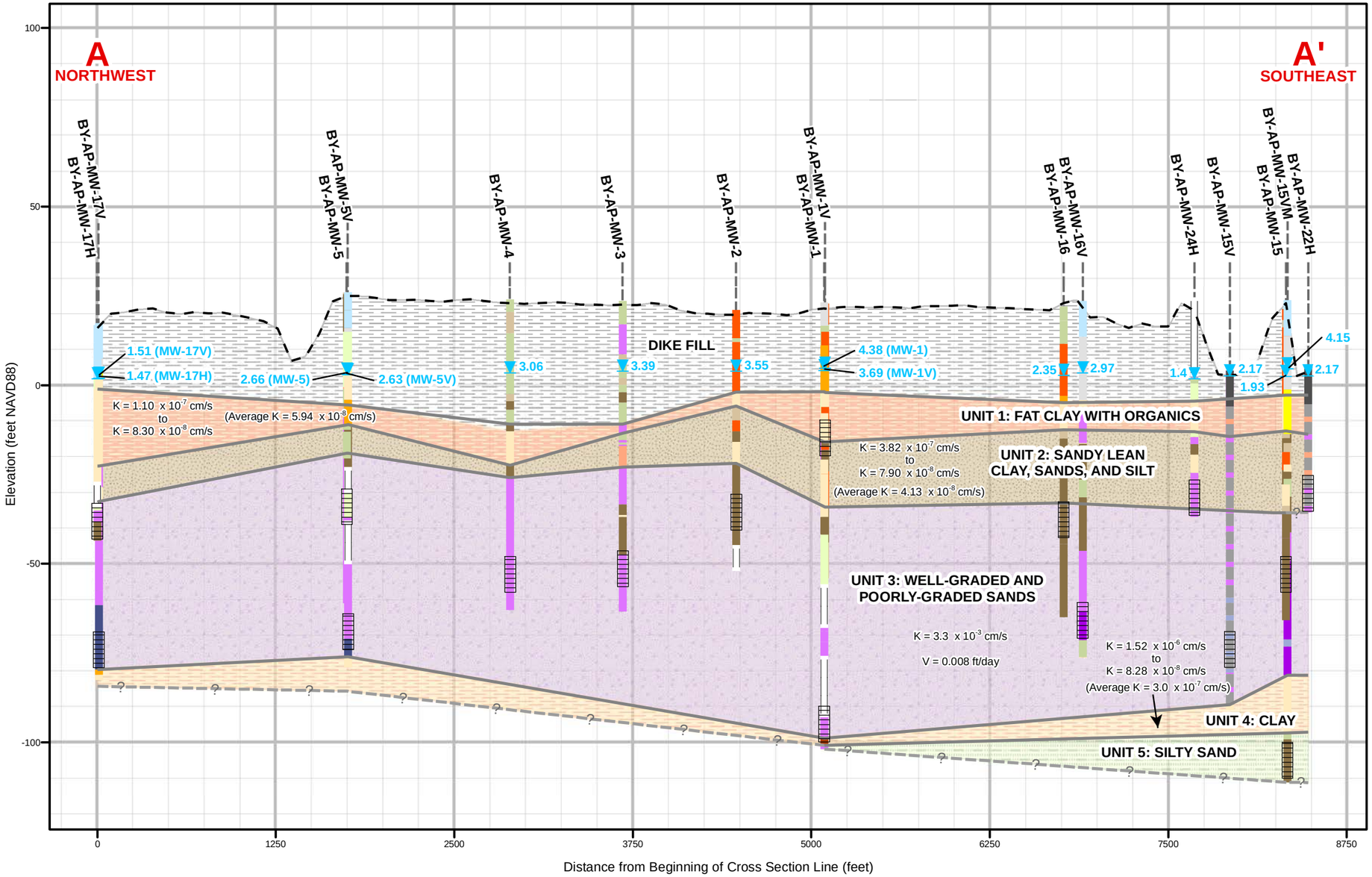
DRAWING TITLE

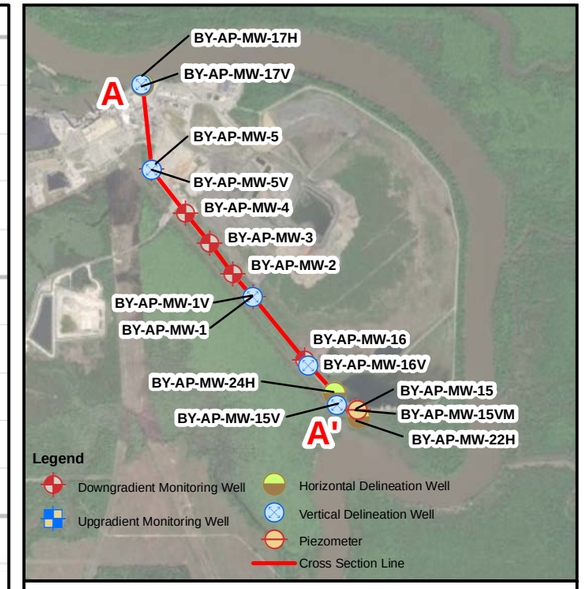
SITE GEOLOGIC MAP
PLANT BARRY ASH POND

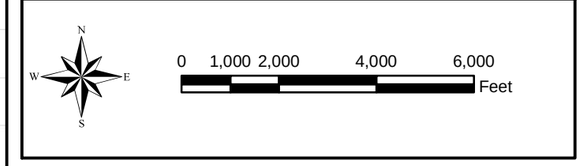
FIGURE NO

FIGURE 3

Southern Company







Notes:
1. Source of ground surface elevation data: Lidar
2. NAVD88 indicates North American Vertical Datum of 1988.
3. Groundwater elevations were measured on May 12, 2020.
4. K indicates hydraulic conductivity.
5. Units 1, 2, and 4 hydraulic conductivity calculated from Shelby tube permeameter testing on undistrubed soil samples.
6. Unit 3 hydraulic conductivity calculated from long duration pumping test data.
7. V indicates groundwater flow velocity.
8. Vertical exaggeration: 25x.

Legend

- Groundwater Elevation
- Well Location
- Ground Surface Elevation
- Screen Interval
- Unit Boundary (inferred)
- Unit Boundary

Borehole Description

- Hydroexcavation
- Hand Auger
- No Data
- No Recovery
- Fill
- Organic Soil
- Fat Clay
- Lean Clay
- Sandy Fat Clay
- Sandy Lean Clay
- Gravelly Fat Clay
- Silt
- Sandy Silt
- Clayey Sand
- Silty Sand
- Well-graded and Poorly-graded Sands
- Well-graded Gravelly Sand
- Well-graded and Poorly-graded Gravels
- Well-graded Gravel with Sand and/or Silt

Geologic Unit

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

SCALE	As Shown
DATE	9/18/2020
DRAWN BY	KWR
CHECKED BY	GBD

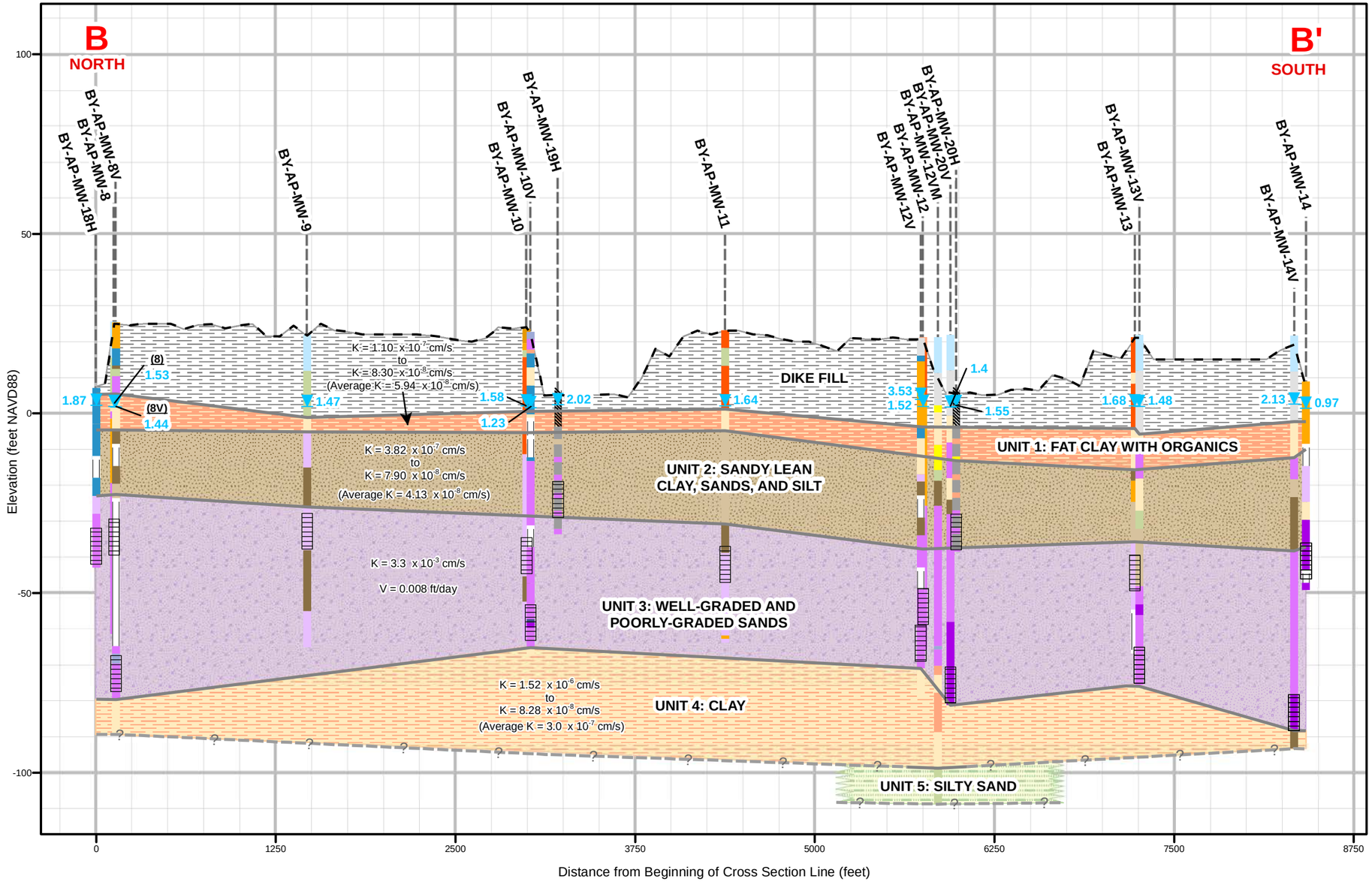
DRAWING TITLE

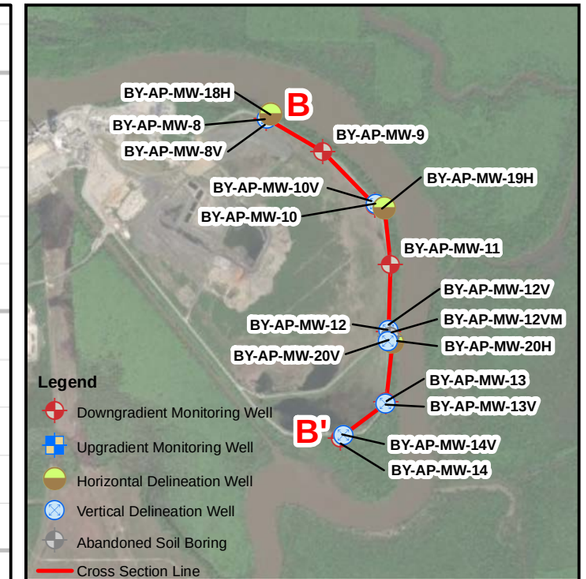
GEOLOGIC CROSS SECTION A - A'
PLANT BARRY ASH POND

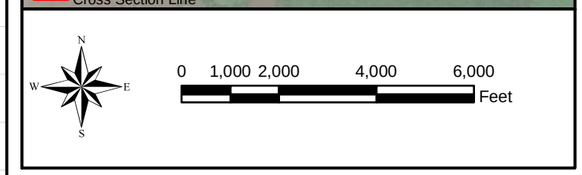
FIGURE NO

FIGURE 4A

Southern Company







Notes:
1. Source of ground surface elevation data: Lidar
2. NAVD88 indicates North American Vertical Datum of 1988.
3. Groundwater elevations were measured on May 12, 2020.
4. K indicates hydraulic conductivity.
5. Units 1, 2, and 4 hydraulic conductivity calculated from Shelby tube permeameter testing on undistrubed soil samples.
6. Unit 3 hydraulic conductivity calculated from long duration pumping test data.
7. V indicates groundwater flow velocity.
8. Vertical exaggeration: 25x.

Legend

- Groundwater Elevation
- Well Location
- Ground Surface Elevation
- Screen Interval
- Unit Boundary (inferred)
- Unit Boundary

Borehole Description

- Hydroexcavation
- Hand Auger
- No Data
- No Recovery
- Fill
- Fat Clay
- Lean Clay
- Silty Clay
- Sandy Fat Clay
- Sandy Lean Clay
- Silt
- Sandy Silt
- Clayey Sandy
- Silty Sand
- Well-graded and Poorly-graded Sand with Silt
- Well-graded and Poorly-graded Sand with Silt
- Well-graded Gravelly Sand
- Well-graded and Poorly-graded Gravels
- Well-graded Gravel with Sand and/or Silt

Geologic Unit

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

SCALE	As Shown
DATE	9/18/2020
DRAWN BY	KWR
CHECKED BY	GBD

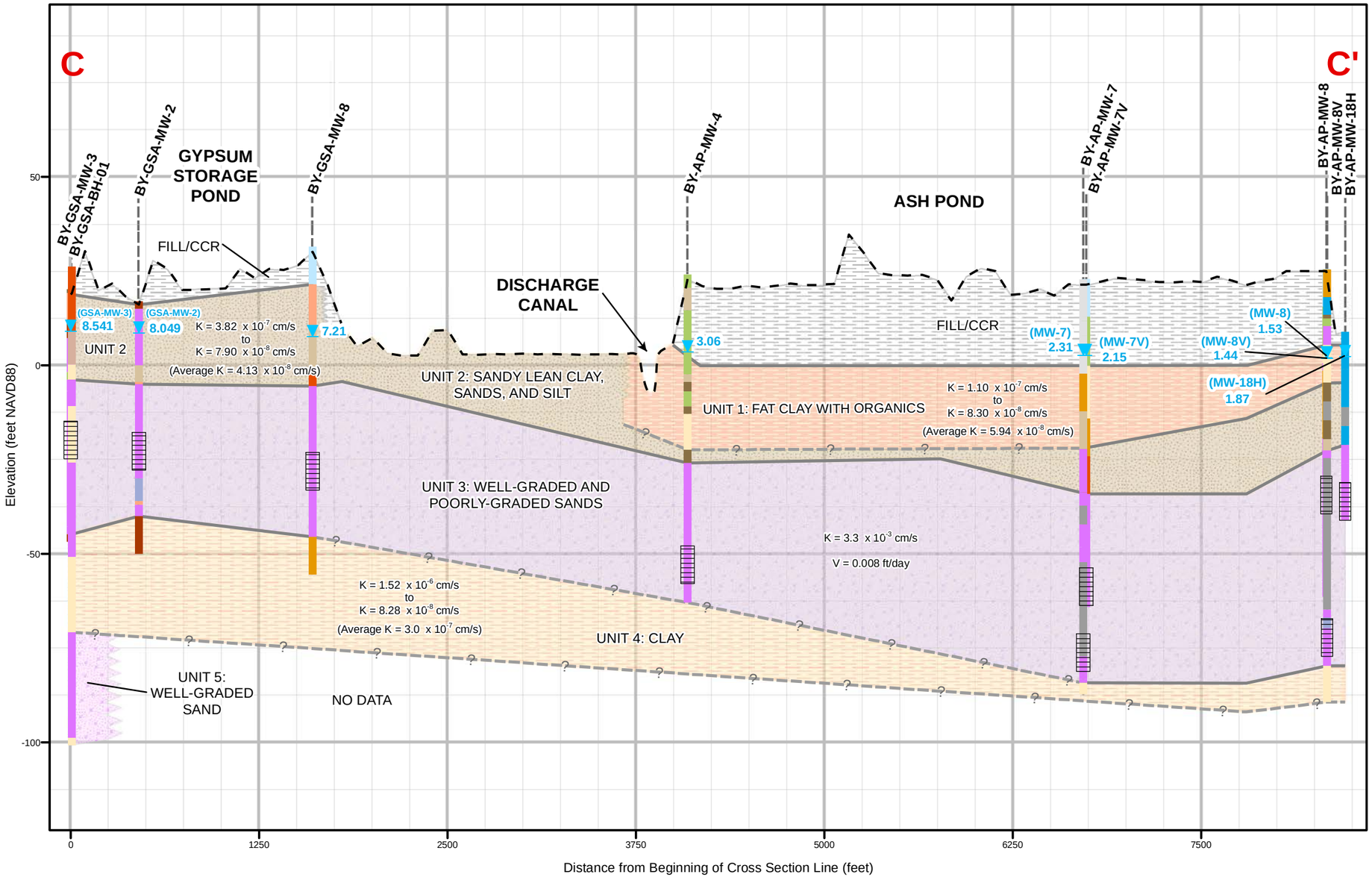
DRAWING TITLE

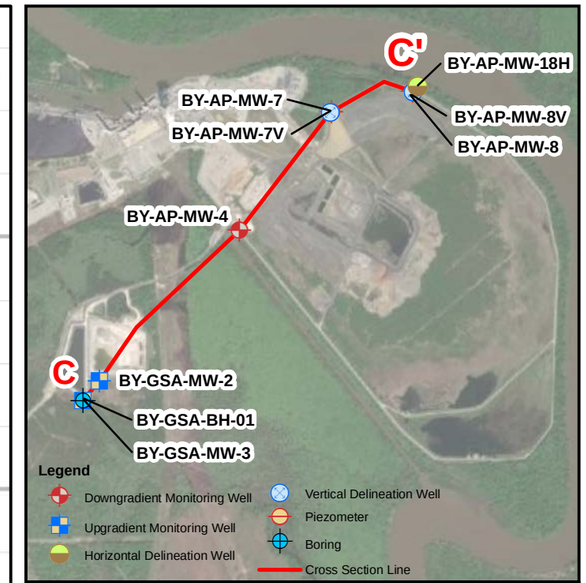
GEOLOGIC CROSS SECTION B - B'
PLANT BARRY ASH POND

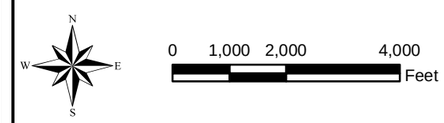
FIGURE NO

FIGURE 4B

Southern Company







Notes:
1. Source of ground surface elevation data: Lidar
2. Source of Discharge Canal depth: Bathymetry
3. NAVD88 indicates North American Vertical Datum of 1988.
4. Groundwater elevations were measured on March 30, 2020 for ash pond wells and on May 12, 2020 for gypsum pond wells.
5. K indicates hydraulic conductivity.
6. Units 1, 2, and 4 hydraulic conductivity calculated from Shelby tube permeameter testing on undistrubed soil samples.
7. Unit 3 hydraulic conductivity calculated from long duration pumping test data.
8. V indicates groundwater flow velocity.
9. Vertical exaggeration: 25x.

Legend

- 7.21 Groundwater Elevation
- Ground Surface Elevation
- Screen Interval
- Unit Boundary (inferred)
- Unit Boundary
- Well Location

Borehole Description

- Hydroexcavation
- Fill
- No Recovery
- Fat Clay
- Lean Clay
- Sandy Fat Clay
- Sandy Lean Clay
- Organic Silt or Clay
- Silt
- Sandy Silt
- Clayey Sand
- Silty Sand
- Clayey Silty Sand
- Silty Sand
- Well-graded and Poorly-graded Sands
- Well-graded and Poorly-graded Gravels

Geologic Unit

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

SCALE	As Shown
DATE	9/20/2020
DRAWN BY	KWR
CHECKED BY	GBD

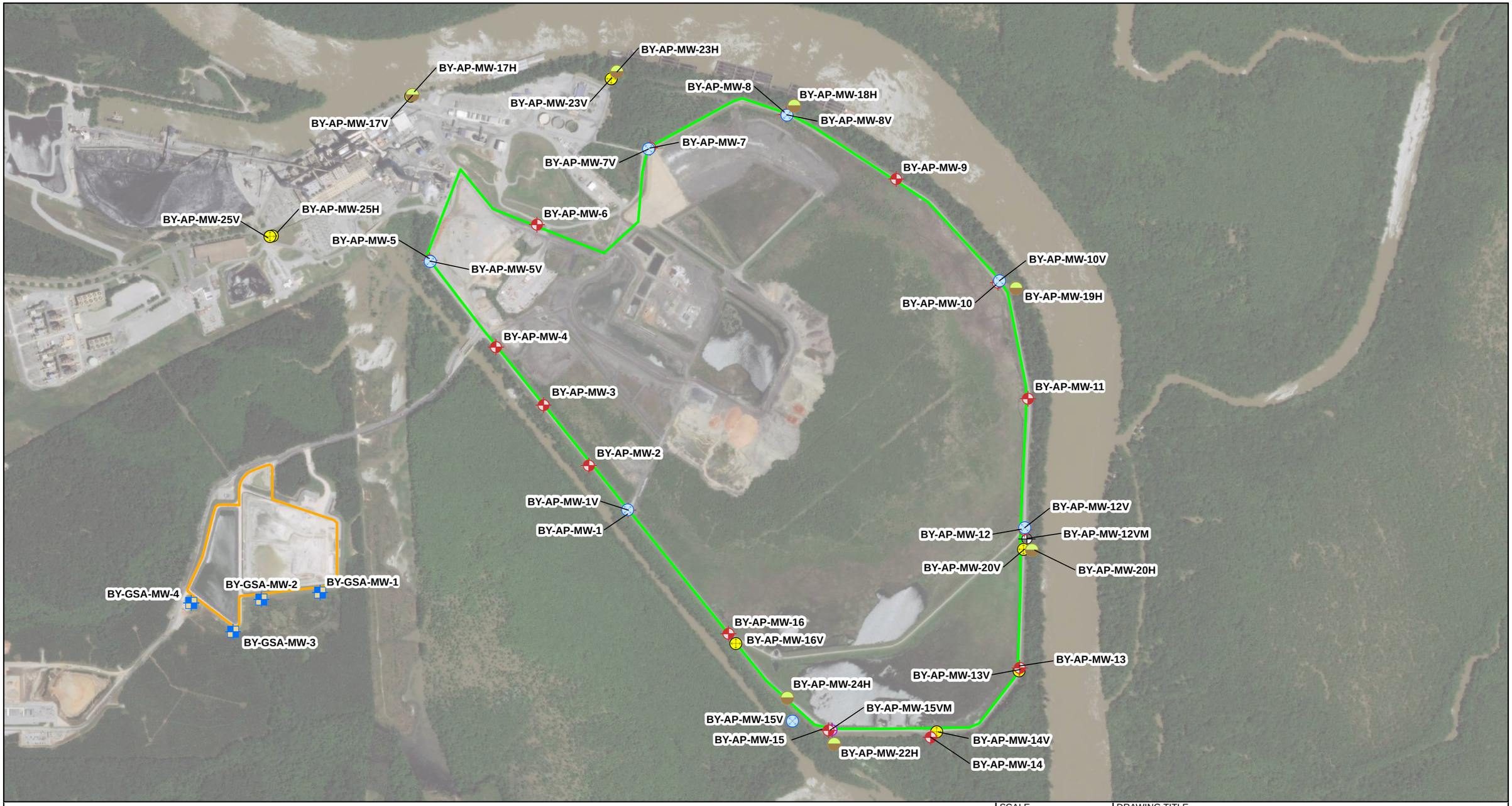
DRAWING TITLE

GEOLOGIC CROSS SECTION C - C'
PLANT BARRY ASH POND

FIGURE NO

FIGURE 4C

Southern Company



Legend

- Downgradient Monitoring Well
- Upgradient Monitoring Well
- Phase I Horizontal Delineation Monitoring Well
- Phase I Vertical Delineation Monitoring Well
- Phase II Vertical Delineation Monitoring Well
- Phase II Piezometer (Miocene Series)
- Abandoned Soil Boring
- Ash Pond Boundary
- Gypsum Pond Boundary

N

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

SCALE	1:12000
DATE	1/25/2021
DRAWN BY	KWR
CHECKED BY	GFB

DRAWING TITLE

MONITORING WELL LOCATION MAP
PLANT BARRY ASH POND

FIGURE NO

FIGURE 5

Southern Company

Legend

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

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

N

0 1,000 2,000 4,000 Feet

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

SCALE	1:12000
DATE	10/16/2020
DRAWN BY	KAR
CHECKED BY	GBD

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

FIGURE NO
FIGURE 6A

Southern Company

Legend

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

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

N

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

NOTES:
1. NAVD88 indicates North American Vertical Datum of 1988.
2. NM indicates not measured.
3. Groundwater elevations monitored in compliance and horizontal delineation wells can vary slightly based on the screened interval within Unit 3 sands and presence of lower permeability material. Vertical delineation wells were not factored into contouring.

SCALE	1:12000
DATE	10/16/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
MAY 12, 2020
PLANT BARRY ASH POND

FIGURE NO
FIGURE 6B

Southern Company

Legend

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

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

N

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

NOTES:
1. NAVD88 indicates North American Vertical Datum of 1988.
2. NM indicates not measured.
3. Groundwater elevations monitored in compliance and horizontal delineation wells can vary slightly based on the screened interval within Unit 3 sands and presence of lower permeability material. Vertical delineation wells were not factored into contouring.

SCALE	1:12000
DATE	10/16/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
JUNE 15, 2020
PLANT BARRY ASH POND

FIGURE NO
FIGURE 6C

Southern Company

Legend

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

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

N

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

NOTES:
1. NAVD88 indicates North American Vertical Datum of 1988.
2. NM indicates not measured.
3. Groundwater elevations monitored in compliance and horizontal delineation wells can vary slightly based on the screened interval within Unit 3 sands and presence of lower permeability material. Vertical delineation wells were not factored into contouring.

SCALE	1:12000
DATE	10/26/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE
POTENTIOMETRIC SURFACE CONTOUR MAP
AUGUST 31, 2020
PLANT BARRY ASH POND

FIGURE NO
FIGURE 6D

Southern Company

Tables

Table 1.
Groundwater Monitoring Well Network Details

Well Name	Purpose	Installation Date	Northing [1]	Easting [1]	Ground Elevation [2]	Top of Casing Elevation [2]	Well Depth (ft.) Below Top of Casing	Top of Screen Elevation [2,3]	Bottom of Screen Elevation [2,3]	Screen Length (ft)
BY-GSA-MW-1	Upgradient	10/7/2015	362040.419	1808280.793	17.49	20.66	43.83	-12.77	-22.77	10
BY-GSA-MW-2	Upgradient	10/7/2015	361970.572	1807662.482	17.00	19.95	47.58	-17.23	-27.23	10
BY-GSA-MW-3	Upgradient	10/7/2015	361628.894	1807368.366	20.15	23.24	48.53	-14.89	-24.89	10
BY-GSA-MW-4	Upgradient	10/13/2015	361930.406	1806925.713	26.16	29.12	64.06	-24.54	-34.54	10
BY-AP-MW-1	Downgradient	10/7/2015	362905.452	1811513.200	22.91	25.80	46.10	-9.90	-19.90	10
BY-AP-MW-2	Downgradient	10/7/2015	363375.014	1811104.860	21.10	23.89	65.40	-31.11	-41.11	10
BY-AP-MW-3	Downgradient	10/7/2015	364009.973	1810627.965	23.60	26.61	83.19	-46.18	-56.18	10
BY-AP-MW-4	Downgradient	10/7/2015	364620.885	1810128.368	24.05	26.97	84.91	-47.54	-57.54	10
BY-AP-MW-5	Downgradient	10/7/2015	365528.959	1809431.284	25.97	28.93	68.95	-29.62	-39.62	10
BY-AP-MW-6	Downgradient	10/7/2015	365906.041	1810555.372	23.78	26.69	88.51	-51.42	-61.42	10
BY-AP-MW-7	Downgradient	10/7/2015	366714.007	1811745.255	22.90	25.94	89.92	-53.58	-63.58	10
BY-AP-MW-8	Downgradient	10/7/2015	367064.508	1813172.112	25.57	28.45	68.14	-29.29	-39.29	10
BY-AP-MW-9	Downgradient	10/7/2015	366387.185	1814330.505	21.91	24.39	62.71	-27.92	-37.92	10
BY-AP-MW-10	Downgradient	10/7/2015	365296.811	1815400.957	23.61	26.89	71.47	-34.18	-44.18	10
BY-AP-MW-11	Downgradient	10/7/2015	364079.137	1815715.187	23.20	26.08	74.08	-37.60	-47.60	10
BY-AP-MW-12	Downgradient	10/7/2015	362704.953	1815677.689	21.24	23.88	82.93	-48.65	-58.65	10
BY-AP-MW-13	Downgradient	10/7/2015	361251.169	1815627.420	21.29	24.22	73.51	-38.89	-48.89	10
BY-AP-MW-14	Downgradient	10/1/2013	360520.621	1814694.666	9.27	11.74	58.02	-35.88	-45.88	10
BY-AP-MW-15	Downgradient	10/7/2015	360594.416	1813618.877	21.23	23.89	82.68	-48.39	-58.39	10
BY-AP-MW-16	Downgradient	10/7/2015	361610.794	1812571.016	22.05	25.01	67.72	-32.31	-42.31	10
BY-AP-MW-1V	Vertical Delineation	12/18/2018	362911.600	1811509.850	23.13	26.23	126.50	-89.87	-99.87	10
BY-AP-MW-5V	Vertical Delineation	12/20/2018	365519.510	1809435.460	25.98	28.94	103.36	-64.02	-74.02	10
BY-AP-MW-7V	Vertical Delineation	12/12/2018	366702.900	1811730.160	22.73	25.54	107.21	-71.27	-81.27	10
BY-AP-MW-8V	Vertical Delineation	12/14/2018	367058.690	1813183.810	25.39	28.25	106.06	-67.41	-77.41	10
BY-AP-MW-10V	Vertical Delineation	12/16/2018	365317.930	1815416.560	22.76	25.39	89.03	-53.24	-63.24	10
BY-AP-MW-12V	Vertical Delineation	12/17/2018	362720.230	1815680.530	21.05	25.51	94.86	-58.95	-68.95	10
BY-AP-MW-13V	Vertical Delineation	4/9/2020	361220.453	1815619.896	21.89	24.65	100.80	-65.65	-75.65	10
BY-AP-MW-14V	Vertical Delineation	4/10/2020	360576.025	1814756.329	21.68	24.72	113.40	-78.18	-88.18	10
BY-AP-MW-15V	Vertical Delineation	7/23/2019	360693.280	1813239.130	4.05	7.03	86.28	-68.85	-78.85	10
BY-AP-MW-15VM	Piezometer	4/23/2020	360596.249	1813656.803	23.79	23.51	133.53	-99.52	-109.52	10
BY-AP-MW-16V	Vertical Delineation	4/11/2020	361501.746	1812647.845	23.61	23.65	95.24	-61.09	-71.09	10
BY-AP-MW-17V	Vertical Delineation	4/11/2020	367254.779	1809232.403	17.41	20.40	100.15	-69.25	-79.25	10
BY-AP-MW-17H	Horizontal Delineation	12/21/2018	367266.280	1809249.170	16.88	19.83	63.35	-33.12	-43.12	10
BY-AP-MW-18H	Horizontal Delineation	12/15/2018	367152.710	1813259.550	7.08	10.30	52.62	-31.92	-41.92	10
BY-AP-MW-19H	Horizontal Delineation	7/18/2019	365236.720	1815589.070	6.39	9.40	38.41	-18.61	-28.61	10
BY-AP-MW-20H	Horizontal Delineation	7/18/2019	362486.830	1815755.460	6.51	9.40	47.39	-27.59	-37.59	10
BY-AP-MW-20V	Vertical Delineation	4/10/2020	362497.338	1815668.176	21.94	24.91	105.74	-70.33	-80.33	10
BY-AP-MW-22H	Horizontal Delineation	7/24/2019	360449.450	1813680.090	4.73	7.85	43.12	-27.87	-37.87	10
BY-AP-MW-23H	Horizontal Delineation	7/18/2019	367511.290	1811396.550	7.92	10.63	45.11	-24.08	-34.08	10
BY-AP-MW-23V	Vertical Delineation	3/25/2020	367442.033	1811335.890	12.04	15.33	102.97	-77.14	-87.14	10
BY-AP-MW-24H	Horizontal Delineation	12/19/2018	360936.040	1813185.890	23.51	26.28	63.17	-26.49	-36.49	10
BY-AP-MW-25H	Horizontal Delineation	4/13/2020	365788.118	1807781.122	20.89	23.82	80.41	-46.09	-56.09	10
BY-AP-MW-25V	Vertical Delineation	4/14/2020	365781.749	1807753.003	20.90	23.81	112.85	-78.54	-88.54	10

Notes:

1. Northing and easting are in feet relative to the State Plane Alabama West North America Datum of 1983.
2. Elevations are in feet relative to the North American vertical Datum of 1988.
3. Top of screen and bottom of screen elevations are calculated relative to Top of Casing elevation and less the well sump length of 0.4’or 0.5'.

Table 2.
Monitoring Parameters and Reporting Limits

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

Notes:

1. mg/L - Milligrams per liter

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

Table 3.
Groundwater Elevations Summary

Well Name	Top of Casing Elevation	Groundwater Elevation (ft) AMSL																				
		2/29/2016	4/18/2016	6/7/2016	8/30/2016	10/17/2016	1/31/2017	3/20/2017	5/1/2017	6/5/2017	9/12/2017	1/22/2018	4/30/2018	8/27/2018	11/26/2018	3/20/2019	5/28/2019	9/30/2019	3/30/2020	5/12/2020	6/15/2020	8/31/2020
BY-AP-MW-1	25.80	8.19	7.23	4.52	4.12	2.86	6.90	4.27	4.49	5.11	3.46	3.67	6.52	4.19	5.1	7.53	4.33	3.4	6.97	4.38	5.02	5.02
BY-AP-MW-2	23.89	7.59	6.58	3.51	3.03	2.61	5.79	2.99	3.95	4.13	2.49	2.47	5.84	2.95	4.26	6.99	3.55	2.74	6.53	3.55	3.81	3.84
BY-AP-MW-3	26.61	7.53	6.53	3.35	2.84	2.43	5.73	2.85	3.81	4.00	2.31	2.31	5.78	2.83	4.09	6.86	3.41	2.6	6.46	3.39	3.70	3.84
BY-AP-MW-4	26.97	7.41	6.36	3.12	2.68	2.10	5.56	2.62	3.54	3.73	2.88	2.58	5.62	2.62	3.84	6.63	3.14	2.33	6.21	3.06	3.39	3.60
BY-AP-MW-5	28.93	7.39	6.24	2.78	2.46	1.80	5.35	2.44	3.27	3.43	1.58	1.78	5.49	2.48	3.53	6.43	2.89	2.08	5.9	2.66	3.00	3.29
BY-AP-MW-6	26.69	7.48	6.34	2.87	2.46	1.66	5.36	2.33	3.20	3.36	1.36	1.63	5.58	2.33	3.6	6.45	2.66	1.91	6.1	2.51	2.85	3.30
BY-AP-MW-7	25.94	7.86	6.51	2.74	2.52	1.52	5.52	2.28	3.15	3.40	1.25	1.81	5.82	2.29	3.51	6.60	2.47	1.69	6.25	2.31	2.90	3.35
BY-AP-MW-8	28.45	7.90	6.36	2.48	2.34	1.19	5.35	2.06	2.91	3.16	0.92	1.32	5.56	2.14	3.17	6.37	2.17	1.32	5.89	1.53	2.41	3.21
BY-AP-MW-9	24.39	7.64	6.16	2.54	2.17	1.08	5.09	1.85	2.77	3.00	0.74	1.09	5.33	1.90	3.15	6.17	1.96	1.26	5.83	1.47	2.36	2.97
BY-AP-MW-10	26.89	7.77	6.29	2.74	1.35	1.19	5.19	2.01	2.88	3.14	0.88	1.26	5.47	2.07	3.09	6.26	2.12	1.34	4.96	1.58	2.46	3.11
BY-AP-MW-11	26.08	7.82	6.36	2.89	2.48	1.34	5.28	2.23	3.00	3.25	1.04	1.52	5.60	2.26	3.2	6.41	2.32	1.54	5.94	1.64	2.50	3.16
BY-AP-MW-12	23.88	7.43	6.00	2.56	2.16	1.07	4.93	1.91	2.67	2.93	0.73	1.19	5.23	1.99	2.86	5.98	1.97	1.26	6.02	1.52	2.31	2.95
BY-AP-MW-13	24.22	7.49	6.06	2.67	2.28	1.14	4.98	1.99	2.74	3.01	0.81	1.17	5.28	2.10	2.94	6.09	2.11	1.42	5.83	1.68	2.43	3.11
BY-AP-MW-14	11.74	6.89	5.49	2.66	1.72	0.73	4.49	1.44	2.29	2.54	0.36	0.61	4.66	1.49	2.51	5.49	1.6	0.89	5.04	0.97	1.77	1.96
BY-AP-MW-15	23.89	7.21	5.88	2.61	2.20	1.34	4.94	1.93	2.82	3.04	0.99	1.72	5.14	1.98	3.07	6.13	2.23	1.58	5.77	1.93	2.57	3.12
BY-AP-MW-16	25.01	7.344	6.174	2.944	2.524	2.044	5.31	2.38	3.4	3.52	1.76	1.93	5.4	2.4	3.7	6.47	2.82	2.2	6.08	2.35	3.83	3.45
BY-AP-MW-1V	26.23	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.90	--	2.65	7.34	3.69	3.61	3.72
BY-AP-MW-5V	28.94	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.43	--	2.1	5.88	2.63	3.00	3.32
BY-AP-MW-7V	25.54	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.54	--	1.66	6.03	2.15	2.68	3.13
BY-AP-MW-8V	28.25	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.18	--	1.23	5.74	1.44	2.23	2.82
BY-AP-MW-10V	25.39	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.09	--	1.21	5.65	1.23	2.17	2.78
BY-AP-MW-12V	25.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	8.15	--	3.46	7.83	3.53	4.33	5.00
BY-AP-MW-13V	24.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.48	2.23	2.93
BY-AP-MW-14V	24.72	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.13	2.26	2.88
BY-AP-MW-15V	7.03	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.97	--	2.17	2.71	3.23
BY-AP-MW-15VM	23.51	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	4.15	3.95	3.90
BY-AP-MW-16V	23.65	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	2.97	3.15	3.47
BY-AP-MW-17H	19.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.51	5.88	1.47	2.36	2.93
BY-AP-MW-17V	20.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.51	2.11	3.01
BY-AP-MW-18H	10.30	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.33	--	1.34	5.88	1.87	2.03	3.00
BY-AP-MW-19H	9.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.42	5.85	2.02	2.07	3.04
BY-AP-MW-20H	9.40	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.55	5.79	1.55	2.31	2.97
BY-AP-MW-20V	24.91	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.4	2.19	2.87
BY-AP-MW-22H	7.85	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.85	--	2.17	2.75	3.09
BY-AP-MW-23H	10.63	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.67	5.98	1.55	2.48	3.07
BY-AP-MW-23V	15.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.5	2.09	2.98
BY-AP-MW-24H	26.28	--	--	--	--	--	--	--	--	--	--	--	--	--	--	6.31	--	1.86	5.82	1.4	2.74	3.16
BY-AP-MW-25H	23.82	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.49	3.53	3.37
BY-AP-MW-25VM	23.81	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	3.22	3.42	3.38

Well Name	Top of Casing Elevation	Groundwater Elevation (ft)																		
		2/22/2016	4/18/2016	6/7/2016	8/29/2016	10/17/2016	1/30/2017	3/20/2017	5/1/2017	6/5/2017	9/12/2017	1/21/2018	4/30/2018	8/27/2018	11/26/2018	3/20/2019	5/28/2019	10/2/2019	3/30/2020	9/8/2020
BY-GSA-MW-1[3]	20.66	7.73	7.92	5.81	5.13	4.59	6.94	5.42	5.51	6.64	5.45	4.75	6.83	5.22	5.84	--	6.60	4.78	8.38	5.31
BY-GSA-MW-2[3]	19.95	7.55	7.77	5.75	5.04	4.50	6.82	5.30	5.48	6.45	5.30	4.68	6.66	5.06	5.73	--	6.32	4.71	8.05	5.16
BY-GSA-MW-3[3]	23.24	8.19	8.45	6.52	5.78	5.19	7.55	6.04	6.16	7.39	6.16	5.46	7.19	5.76	6.40	--	7.02	5.37	8.54	5.83
BY-GSA-MW-4[3]	29.12	7.83	8.13	6.21	5.47	4.93	7.25	5.71	5.98	6.87	5.74	5.18	6.99	5.47	6.13	--	6.57	5.16	8.20	5.53

Notes:

1. ft. AMSL - feet above mean sea level
2. -- Not Measured
3. BY-GSA-MW-1 - BY-GSA-MW-4 designated as upgradient Ash Pond well locations.

Table 4.
Horizontal Groundwater Flow Velocity Calculation

SA01 2020								
Source	**MW-1**	**MW-10**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity**	**Calculated Groundwater Flow Velocity**
5/12/2020	**h_1 (ft)**	**h_2 (ft)**	**Δl (ft)**	**$\Delta h/\Delta l$ (ft/ft)**	**K**	**n**	**(ft/d)**	**(ft/yr)**
Pump Testing	4.38	1.58	4564.34	0.00061	9.40	0.25	0.023	8.42

SA02 2020								
Source	**MW-1**	**MW-10**	**Distance**	**Hydraulic Gradient**	**Hydraulic Conductivity**	**Effective Porosity**	**Calculated Groundwater Flow Velocity**	**Calculated Groundwater Flow Velocity**
8/31/2020	**h_1 (ft)**	**h_2 (ft)**	**Δl (ft)**	**$\Delta h/\Delta l$ (ft/ft)**	**K**	**n**	**(ft/d)**	**(ft/yr)**
Pump Testing	5.02	3.11	4564.34	0.00042	9.40	0.25	0.016	5.74

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

Table 5.
Relative Percent Difference Calculations

2020 1st Semi-Annual Monitoring Event

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-8	BY-AP-MW-8 Dup	
Boron	mg/L	1.12	1.13	0.9
Calcium	mg/L	32.2	32.6	1.2
Chloride	mg/L	22.6	22.8	0.9
Fluoride	mg/L	0.0701	0.0666	5.1
Sulfate	mg/L	33.1	37.7	13.0
TDS	mg/L	310	306	1.3
Arsenic	mg/L	0.0589	0.0586	0.5
Barium	mg/L	0.141	0.144	2.1

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-2	BY-AP-MW-2 Dup	
Calcium	mg/L	2.95	2.88	2.4
Chloride	mg/L	8.48	8.37	1.3
Sulfate	mg/L	1.69	1.39	19.5
TDS	mg/L	42	47.3	11.9
Arsenic	mg/L	0.00149	0.00143	4.1
Barium	mg/L	0.0264	0.0268	1.5
Cobalt	mg/L	0.00716	0.00710	0.8

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-15	BY-AP-MW-15 Dup	
Boron	mg/L	0.1	0.0961	4.0
Calcium	mg/L	7.32	7.25	1.0
Chloride	mg/L	54.7	56.4	3.1
Fluoride	mg/L	0.187	0.184	1.6
Sulfate	mg/L	7.5	7.61	1.5
TDS	mg/L	231	210	9.5
Arsenic	mg/L	0.0183	0.0181	1.1
Barium	mg/L	0.0697	0.0684	1.9
Cobalt	mg/L	0.0344	0.0338	1.8
Lithium	mg/L	0.0174	0.0172	1.2

2020 2nd Semi-Annual Monitoring Event

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-1	BY-AP-MW-1 Dup	
Boron	mg/L	2.11	2.13	0.9
Calcium	mg/L	40.5	39.3	3.0
Chloride	mg/L	25.7	25.4	1.2
Fluoride	mg/L	0.194	0.114	51.9
Sulfate	mg/L	23.1	21.9	5.3
TDS	mg/L	454	453	0.2
Arsenic	mg/L	0.0811	0.0792	2.4
Barium	mg/L	0.33	0.336	1.8

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-10V	BY-AP-MW-10V Dup	
Boron	mg/L	1.06	1.05	0.9
Calcium	mg/L	57.3	56.8	0.9
Chloride	mg/L	22.9	20.5	11.1
Sulfate	mg/L	30.1	28.9	4.1
TDS	mg/L	403	400	0.7
Barium	mg/L	0.203	0.206	1.5

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		BY-AP-MW-25H	BY-AP-MW-25H Dup	
Calcium	mg/L	0.875	0.873	0.2
Chloride	mg/L	4.62	4.6	0.4
Sulfate	mg/L	4.39	4.41	0.5
TDS	mg/L	36	34	5.7
Barium	mg/L	0.0204	0.0202	1.0

Table 6.
Summary of Background Levels and Groundwater Protection Standards

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

Notes:

1. mg/L - Milligrams per liter

2. pCi/L - Picocuries per liter

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

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		Field Parameters				
WELL	**SAMPLE DATE**	**DO**	**ORP**	**Field Temperature**	**Conductivity**	**Turbidity**
UNITS		**mg/L**	**mv**	**C**	**uS/cm**	**NTU**
BY-GSA-MW-1	**3/31/2020**	0.33	243.97	20.55	86.94	2.10
BY-GSA-MW-2	**3/31/2020**	6.60	382.24	19.87	59.75	6.32
BY-GSA-MW-3	**3/31/2020**	6.04	366.76	20.30	52.07	4.95
BY-GSA-MW-4	**3/31/2020**	6.78	357.17	21.07	51.70	7.33
BY-AP-MW-1	**3/30/2020**	0.16	-53.88	21.70	742.11	7.93
BY-AP-MW-2	**3/31/2020**	0.25	111.24	21.48	55.73	4.11
BY-AP-MW-3	**3/31/2020**	2.78	288.24	21.24	43.02	1.82
BY-AP-MW-4	**3/31/2020**	0.21	240.19	21.36	45.68	2.26
BY-AP-MW-5	**3/31/2020**	0.09	-41.15	22.11	426.47	4.50
BY-AP-MW-6	**3/31/2020**	0.20	171.64	21.55	54.12	0.94
BY-AP-MW-7	**3/30/2020**	0.15	-22.86	21.59	252.35	7.53
BY-AP-MW-8	**3/30/2020**	0.06	-88.96	21.16	497.04	3.75
BY-AP-MW-9	**3/31/2020**	0.08	-92.26	21.24	580.80	2.03
BY-AP-MW-10	**3/31/2020**	0.15	-86.21	21.55	696.72	2.18
BY-AP-MW-11	**3/31/2020**	0.14	-58.60	20.91	637.68	9.69
BY-AP-MW-12	**3/31/2020**	0.09	-52.74	20.94	591.73	7.06
BY-AP-MW-13	**3/31/2020**	0.11	-4.91	20.48	434.81	9.84
BY-AP-MW-14	**3/31/2020**	0.11	1.50	19.99	505.86	8.37
BY-AP-MW-15	**4/1/2020**	0.18	-111.55	20.61	505.46	4.23
BY-AP-MW-16	**3/31/2020**	0.17	-4.50	21.48	417.47	6.36

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).

Values are displayed as less than the PQL with a J.

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		Field Parameters				
WELL	**SAMPLE DATE**	**DO**	**ORP**	**Field Temperature**	**Conductivity**	**Turbidity**
UNITS		**mg/L**	**mv**	**C**	**uS/cm**	**NTU**
BY-AP-MW-1V	**3/30/2020**	0.24	51.67	21.39	278.35	0.80
BY-AP-MW-5V	**3/31/2020**	1.39	119.11	21.91	121.62	2.93
BY-AP-MW-7V	**3/30/2020**	0.15	-113.29	21.84	376.17	1.45
BY-AP-MW-8V	**3/30/2020**	0.11	-44.48	20.76	562.17	1.54
BY-AP-MW-10V	**3/31/2020**	0.17	-99.81	21.20	735.21	2.36
BY-AP-MW-12V	**3/31/2020**	0.11	-64.69	21.01	620.52	2.15
BY-AP-MW-13V	**6/17/2020**	0.23	-40.27	21.58	719.39	3.27
BY-AP-MW-14V	**6/17/2020**	0.34	-153.73	22.3	999.38	4.69
BY-AP-MW-15V	**5/12/2020**	0.13	41.82	20.77	614.89	6.18
BY-AP-MW-16V	**6/16/2020**	0.17	103.97	22.08	411.97	4.86
BY-AP-MW-17V	**6/16/2020**	0.21	-7.28	22.04	2505.09	21.8
BY-AP-MW-17H	**4/1/2020**	0.15	-82.24	21.00	478.49	8.11
BY-AP-MW-18H	**4/1/2020**	8.99	197.12	19.48	1.45	4.83
BY-AP-MW-19H	**5/12/2020**	0.13	-84.70	20.05	585.03	4.91
BY-AP-MW-20H	**4/1/2020**	9.21	186.71	19.68	1.67	3.70
BY-AP-MW-20V	**6/17/2020**	0.23	-74.9	20.85	599.9	7.7
BY-AP-MW-22H	**5/12/2020**	0.12	-105.83	19.96	662.31	7.26
BY-AP-MW-23H	**4/1/2020**	9.33	203.56	19.41	1.76	8.08
BY-AP-MW-23V	**6/16/2020**	0.25	-205.49	20.73	688.81	44.4
BY-AP-MW-24H	**3/31/2020**	0.15	-82.00	21.74	800.01	2.35
BY-AP-MW-25H	**6/17/2020**	0.36	103.63	22.68	50.24	2.53
BY-AP-MW-25VM	**6/17/2020**	1.93	138.83	22.64	35.39	2.71

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).

Values are displayed as less than the PQL with a J.

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

5. "--" indicates results were not available at the time of report publication.

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX III						
WELL	**SAMPLE DATE**	**Boron**	**Calcium**	**Chloride**	**Fluoride**	**pH**	**Sulfate**	**TDS**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**SU**	**mg/L**	**mg/L**
BY-GSA-MW-1	**3/31/2020**	0.157	1.96	3.17	Non-Detect	4.64	24.3	53.3
BY-GSA-MW-2	**3/31/2020**	Non-Detect	1.43	2.72	Non-Detect	4.6	6.83	40
BY-GSA-MW-3	**3/31/2020**	Non-Detect	1.92	3.47	Non-Detect	4.4	7.98	39.3
BY-GSA-MW-4	**3/31/2020**	Non-Detect	1.78	3.34	Non-Detect	4.51	10.8	36.7
BY-AP-MW-1	**3/30/2020**	1.77	33.7	24.9	0.0726(J)	5.79	28.4	419
BY-AP-MW-2	**3/31/2020**	Non-Detect	2.95	8.48	Non-Detect	5.71	1.69	42
BY-AP-MW-3	**3/31/2020**	Non-Detect	1.1	9.07	Non-Detect	5.08	1.02	37.3
BY-AP-MW-4	**3/31/2020**	Non-Detect	0.898	9.54	Non-Detect	4.69	4.12	42.7
BY-AP-MW-5	**3/31/2020**	0.0782(J)	14.4	19.8	0.0735(J)	6.01	23.7	243
BY-AP-MW-6	**3/31/2020**	Non-Detect	1.68	5.94	Non-Detect	5.22	1.21	42
BY-AP-MW-7	**3/30/2020**	0.0369(J)	10.1	13.3	0.0933(J)	6.32	4.78	135
BY-AP-MW-8	**3/30/2020**	1.12	32.2	22.6	0.0701(J)	6.2	33.1	310
BY-AP-MW-9	**3/31/2020**	2.27	40.1	20.6	0.0655(J)	6.31	43.5	330
BY-AP-MW-10	**3/31/2020**	2.12	63.6	26.1	Non-Detect	6.37	20.1	387
BY-AP-MW-11	**3/31/2020**	0.0815(J)	25.1	24.1	0.078(J)	6.26	57.5	393
BY-AP-MW-12	**3/31/2020**	0.0856(J)	22.4	23.9	0.0755(J)	6.21	35.8	331
BY-AP-MW-13	**3/31/2020**	0.0505(J)	13.2	44.9	0.0665(J)	5.98	23.2	290
BY-AP-MW-14	**3/31/2020**	0.0655(J)	9.04	44.7	0.0867(J)	5.76	34.7	317
BY-AP-MW-15	**4/1/2020**	0.1	7.32	54.7	0.187	6.72	7.5	231
BY-AP-MW-16	**3/31/2020**	1.74	14.2	20.8	0.0602(J)	5.75	17.5	276

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).

Values are displayed as less than the PQL with a J.

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX III						
WELL	**SAMPLE DATE**	**Boron**	**Calcium**	**Chloride**	**Fluoride**	**pH**	**Sulfate**	**TDS**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**SU**	**mg/L**	**mg/L**
BY-AP-MW-1V	**3/30/2020**	0.0347(J)	3.23	69.1	Non-Detect	5.65	11.1	160
BY-AP-MW-5V	**3/31/2020**	0.0339(J)	1.88	25.8	Non-Detect	6.05	0.98(J)	81.3
BY-AP-MW-7V	**3/30/2020**	0.0555(J)	20	15.5	0.127	6.69	9.65	204
BY-AP-MW-8V	**3/30/2020**	0.247	24.5	22.7	0.0935(J)	6.2	75.8	328
BY-AP-MW-10V	**3/31/2020**	1.04	66.6	20.7	Non-Detect	6.38	20.3	413
BY-AP-MW-12V	**3/31/2020**	0.101	21.3	25	0.0828(J)	6.33	61.1	328
BY-AP-MW-13V	**6/17/2020**	0.0847(J)	20.2	77	0.103	6.25	101	449
BY-AP-MW-14V	**6/17/2020**	0.426	5.32	240	0.343	7.27	28	546
BY-AP-MW-15V	**5/12/2020**	0.0559(J)	8.01	190	0.0946(J)	5.68	1.61	327
BY-AP-MW-16V	**6/16/2020**	Non-Detect	2.15	77.4	0.0744(J)	5.2	41.5	238
BY-AP-MW-17V	**6/16/2020**	0.176	65.3	734	0.0994(J)	6.43	57.4	1460
BY-AP-MW-17H	**4/1/2020**	0.073(J)	27	17.2	0.151	6.52	19.4	243
BY-AP-MW-18H	**4/1/2020**	0.435	23.1	12.2	0.0722(J)	6.48	24.2	210
BY-AP-MW-19H	**5/12/2020**	1.22	34.2	17.9	0.0732(J)	6.09	22.9	321
BY-AP-MW-20H	**4/1/2020**	0.046(J)	26	23.1	0.0793(J)	6.45	18.7	319
BY-AP-MW-20V	**6/17/2020**	0.118	17.9	29.2	0.155	6.26	10.1	301
BY-AP-MW-22H	**5/12/2020**	0.0807(J)	15	58.3	0.323	6.55	59.5	337
BY-AP-MW-23H	**4/1/2020**	Non-Detect	15.8	4.46	0.0607(J)	6.44	18.1	105
BY-AP-MW-23V	**6/16/2020**	0.325	1.25	120	0.393	8.08	28.6	479
BY-AP-MW-24H	**3/31/2020**	0.325	18.1	47.5	0.148	6.23	84.5	418
BY-AP-MW-25H	**6/17/2020**	Non-Detect	0.793	4.81	Non-Detect	5.27	6.1	44
BY-AP-MW-25VM	**6/17/2020**	Non-Detect	0.842	4.04	Non-Detect	5.27	2.39	37.3

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).

Values are displayed as less than the PQL with a J.

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

5. "--" indicates results were not available at the time of report publication.

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV						
WELL	**SAMPLE DATE**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-GSA-MW-1	**3/31/2020**	Non-Detect	Non-Detect	0.176	Non-Detect	Non-Detect	Non-Detect	0.0123
BY-GSA-MW-2	**3/31/2020**	Non-Detect	Non-Detect	0.171	Non-Detect	Non-Detect	Non-Detect	0.00224(J)
BY-GSA-MW-3	**3/31/2020**	Non-Detect	Non-Detect	0.0927	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	**3/31/2020**	Non-Detect	0.0017(J)	0.129	Non-Detect	Non-Detect	0.00604(J)	Non-Detect
BY-AP-MW-1	**3/30/2020**	Non-Detect	0.0557	0.279	Non-Detect	Non-Detect	0.00415(J)	Non-Detect
BY-AP-MW-2	**3/31/2020**	Non-Detect	0.00149(J)	0.0264	Non-Detect	Non-Detect	Non-Detect	0.00716
BY-AP-MW-3	**3/31/2020**	Non-Detect	Non-Detect	0.0393	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	**3/31/2020**	Non-Detect	Non-Detect	0.0193	Non-Detect	Non-Detect	Non-Detect	0.0205
BY-AP-MW-5	**3/31/2020**	Non-Detect	0.0329	0.15	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	**3/31/2020**	Non-Detect	Non-Detect	0.0244	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	**3/30/2020**	Non-Detect	0.0215	0.059	Non-Detect	Non-Detect	Non-Detect	0.0172
BY-AP-MW-8	**3/30/2020**	Non-Detect	0.0589	0.141	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	**3/31/2020**	Non-Detect	0.0393	0.119	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	**3/31/2020**	Non-Detect	0.0702	0.0727	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	**3/31/2020**	Non-Detect	0.0158	0.0842	Non-Detect	Non-Detect	0.00358(J)	Non-Detect
BY-AP-MW-12	**3/31/2020**	Non-Detect	0.0246	0.0851	Non-Detect	Non-Detect	0.0056(J)	0.00364(J)
BY-AP-MW-13	**3/31/2020**	Non-Detect	0.0154	0.0728	Non-Detect	Non-Detect	0.00955(J)	Non-Detect
BY-AP-MW-14	**3/31/2020**	Non-Detect	0.0177	0.0619	Non-Detect	Non-Detect	0.00463(J)	Non-Detect
BY-AP-MW-15	**4/1/2020**	Non-Detect	0.0183	0.0697	Non-Detect	Non-Detect	Non-Detect	0.0344
BY-AP-MW-16	**3/31/2020**	Non-Detect	0.012	0.091	Non-Detect	Non-Detect	Non-Detect	0.0199

Notes:

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Values are displayed as less than the PQL with a J.

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV						
WELL	**SAMPLE DATE**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-AP-MW-1V	**3/30/2020**	Non-Detect	0.00152(J)	0.062	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5V	**3/31/2020**	Non-Detect	Non-Detect	0.0313	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7V	**3/30/2020**	Non-Detect	0.005	0.0519	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8V	**3/30/2020**	Non-Detect	0.00275(J)	0.264	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10V	**3/31/2020**	Non-Detect	Non-Detect	0.184	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12V	**3/31/2020**	Non-Detect	0.025	0.0939	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13V	**6/17/2020**	Non-Detect	0.00321(J)	0.106	Non-Detect	Non-Detect	0.00537(J)	Non-Detect
BY-AP-MW-14V	**6/17/2020**	Non-Detect	0.00208(J)	0.0809	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15V	**5/12/2020**	Non-Detect	0.0206	0.155	Non-Detect	Non-Detect	Non-Detect	0.0719
BY-AP-MW-16V	**6/16/2020**	Non-Detect	0.00135(J)	0.0658	Non-Detect	Non-Detect	0.00222(J)	0.0144
BY-AP-MW-17V	**6/16/2020**	Non-Detect	0.0117	0.62	Non-Detect	Non-Detect	0.00475(J)	0.0858
BY-AP-MW-17H	**4/1/2020**	Non-Detect	0.0208	0.194	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-18H	**4/1/2020**	Non-Detect	0.00937	0.109	Non-Detect	Non-Detect	Non-Detect	0.013
BY-AP-MW-19H	**5/12/2020**	Non-Detect	Non-Detect	0.167	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20H	**4/1/2020**	Non-Detect	0.00508	0.119	Non-Detect	Non-Detect	Non-Detect	0.00541
BY-AP-MW-20V	**6/17/2020**	Non-Detect	0.00584	0.152	Non-Detect	Non-Detect	Non-Detect	0.00593
BY-AP-MW-22H	**5/12/2020**	Non-Detect	0.0199	0.222	Non-Detect	Non-Detect	Non-Detect	0.00281(J)
BY-AP-MW-23H	**4/1/2020**	Non-Detect	0.00689	0.0629	Non-Detect	Non-Detect	Non-Detect	0.0206
BY-AP-MW-23V	**6/16/2020**	Non-Detect	0.00193(J)	0.02	Non-Detect	Non-Detect	0.0221	0.00302(J)
BY-AP-MW-24H	**3/31/2020**	Non-Detect	0.0729	0.243	Non-Detect	Non-Detect	Non-Detect	0.00528
BY-AP-MW-25H	**6/17/2020**	Non-Detect	Non-Detect	0.0189	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-25VM	**6/17/2020**	Non-Detect	Non-Detect	0.0132	Non-Detect	Non-Detect	Non-Detect	0.0026(J)

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Values are displayed as less than the PQL with a J.

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

5. "--" indicates results were not available at the time of report publication.

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV							
WELL	**SAMPLE DATE**	**Combined Radium 226 + 228**	**Fluoride**	**Lead**	**Lithium**	**Mercury**	**Molybdenum**	**Selenium**	**Thallium**
UNITS		**pCi/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-GSA-MW-1	**3/31/2020**	1.77	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	**3/31/2020**	0.814	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	**3/31/2020**	0.941	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	**3/31/2020**	1.09	Non-Detect	0.00126(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	**3/30/2020**	2.31	0.0726(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	**3/31/2020**	0.699	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	**3/31/2020**	0.478(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	**3/31/2020**	0.323(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	**3/31/2020**	0.754	0.0735(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	**3/31/2020**	0.291(U)	Non-Detect	0.00276(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	**3/30/2020**	0.744	0.0933(J)	Non-Detect	0.0102(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	**3/30/2020**	0.6	0.0701(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	**3/31/2020**	0.82	0.0655(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	**3/31/2020**	1.14	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	**3/31/2020**	0.462(U)	0.078(J)	Non-Detect	0.022	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	**3/31/2020**	1.26	0.0755(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	**3/31/2020**	0.725	0.0665(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	**3/31/2020**	0.941	0.0867(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	**4/1/2020**	0.527	0.187	Non-Detect	0.0174(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	**3/31/2020**	0.341(U)	0.0602(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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Values are displayed as less than the PQL with a J.

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 7.
First Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV							
WELL	**SAMPLE DATE**	**Combined Radium 226 + 228**	**Fluoride**	**Lead**	**Lithium**	**Mercury**	**Molybdenum**	**Selenium**	**Thallium**
UNITS		**pCi/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-AP-MW-1V	**3/30/2020**	0.579	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5V	**3/31/2020**	0.024(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7V	**3/30/2020**	0.604	0.127	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8V	**3/30/2020**	0.787	0.0935(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10V	**3/31/2020**	0.957	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12V	**3/31/2020**	0.923	0.0828(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13V	**6/17/2020**	1.22	0.103	Non-Detect	Non-Detect	Non-Detect	0.00237(J)	Non-Detect	Non-Detect
BY-AP-MW-14V	**6/17/2020**	0.726	0.343	Non-Detect	Non-Detect	Non-Detect	0.00451(J)	Non-Detect	Non-Detect
BY-AP-MW-15V	**5/12/2020**	1.67	0.0946(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16V	**6/16/2020**	0.642	0.0744(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-17V	**6/16/2020**	2.17	0.0994(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-17H	**4/1/2020**	0.797	0.151	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-18H	**4/1/2020**	1.05	0.0722(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-19H	**5/12/2020**	0.69	0.0732(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20H	**4/1/2020**	0.968	0.0793(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20V	**6/17/2020**	0.767	0.155	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-22H	**5/12/2020**	0.61	0.323	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-23H	**4/1/2020**	0.618	0.0607(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-23V	**6/16/2020**	0.752(U)	0.393	0.00222(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-24H	**3/31/2020**	0.577	0.148	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-25H	**6/17/2020**	0.554	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-25VM	**6/17/2020**	0.479	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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Values are displayed as less than the PQL with a J.

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

5. "--" indicates results were not available at the time of report publication.

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		Field Parameters				
WELL	**SAMPLE DATE**	**DO**	**ORP**	**Temperature**	**Conductivity**	**Turbidity**
UNITS		**mg/L**	**mv**	**C**	**uS/cm**	**NTU**
BY-GSA-MW-1	**9/9/2020**	0.1	205.82	21.21	66.68	1.02
BY-GSA-MW-2	**9/9/2020**	6.52	256.03	20.79	59.7	9.32
BY-GSA-MW-3	**9/9/2020**	5.92	236.75	20.6	52.56	2.24
BY-GSA-MW-4	**9/8/2020**	6.38	267.52	22.86	53.56	4.76
BY-AP-MW-1	**9/1/2020**	0.3	-15.74	21.77	782.56	4.14
BY-AP-MW-2	**8/31/2020**	0.31	118.72	22.45	55.07	1.82
BY-AP-MW-3	**9/1/2020**	3.24	187.01	21.69	43.51	2.12
BY-AP-MW-4	**9/1/2020**	5.56	219.52	21.81	39.97	2.36
BY-AP-MW-5	**9/1/2020**	0.24	-1.35	22.33	409.8	2.94
BY-AP-MW-6	**9/2/2020**	0.32	194.92	21.66	50.28	1.58
BY-AP-MW-7	**9/2/2020**	0.29	8.02	22.36	226.38	5.76
BY-AP-MW-8	**9/2/2020**	0.13	-56.51	21.37	458.41	1.92
BY-AP-MW-9	**9/2/2020**	0.12	-62.15	22.03	508.27	1.79
BY-AP-MW-10	**9/1/2020**	0.23	-84.51	22.04	551.38	0.23
BY-AP-MW-11	**9/1/2020**	0.12	-47.07	21.5	547.59	4.99
BY-AP-MW-12	**9/1/2020**	0.15	-58.58	21.54	487.32	1.59
BY-AP-MW-13	**9/1/2020**	0.13	-1.91	21.17	390.87	3
BY-AP-MW-14	**9/2/2020**	0.18	-19.09	20.97	517.2	3.2
BY-AP-MW-15	**9/2/2020**	0.13	-112.69	21.95	487.31	2.02
BY-AP-MW-16	**9/2/2020**	0.18	16.81	22.13	449.02	2.55

Notes:

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

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

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

4. TDS - Total Dissolved Solids

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		Field Parameters				
WELL	**SAMPLE DATE**	**DO**	**ORP**	**Field Temperature**	**Conductivity**	**Turbidity**
UNITS		**mg/L**	**mv**	**C**	**uS/cm**	**NTU**
BY-AP-MW-1V	**9/1/2020**	0.22	60.89	22.08	307.88	2.17
BY-AP-MW-5V	**9/1/2020**	1.39	98.16	22.48	145.76	3.58
BY-AP-MW-7V	**9/2/2020**	0.2	-52.85	24.22	290.44	1.66
BY-AP-MW-8V	**9/2/2020**	0.22	-13.62	21.26	413.2	1.89
BY-AP-MW-10V	**9/1/2020**	0.16	-104.04	21.85	601	1.42
BY-AP-MW-12V	**9/1/2020**	0.17	-66.11	21.33	488.91	3.17
BY-AP-MW-13V	**9/2/2020**	0.15	-70.62	21.09	560.52	4.7
BY-AP-MW-14V	**9/2/2020**	0.18	-137.7	21.59	910.82	1.69
BY-AP-MW-15V	**9/1/2020**	0.21	0.06	21.59	602.68	0.9
BY-AP-MW-16V	**9/2/2020**	0.19	87.51	22.67	373.84	3.04
BY-AP-MW-17H	**9/1/2020**	0.14	-88.98	21.95	446.14	6.06
BY-AP-MW-17V	**9/1/2020**	0.28	3.1	22.08	1063.37	6.07
BY-AP-MW-18H	**9/1/2020**	0.13	-62.71	20.81	492.66	1.04
BY-AP-MW-19H	**9/1/2020**	0.12	-90.15	20.64	554.46	2.14
BY-AP-MW-20H	**9/1/2020**	0.17	-74.76	20.55	790.06	3.41
BY-AP-MW-20V	**9/1/2020**	0.27	-56.17	21.48	469.67	1.98
BY-AP-MW-22H	**9/1/2020**	0.16	-95.19	20.71	675.82	2.55
BY-AP-MW-23H	**9/1/2020**	0.19	-47.32	20.78	480.42	2.37
BY-AP-MW-23V	**9/1/2020**	0.19	-190.29	21.06	665.99	9.97
BY-AP-MW-24H	**9/2/2020**	0.17	-66.26	22.15	767.26	2.52
BY-AP-MW-25H	**9/2/2020**	1.06	164.82	22.79	38.31	2.13
BY-AP-MW-25VM	**9/2/2020**	2.92	178.3	22.53	32.18	2.09

Notes:

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

5. "--" indicates results were not available at the time of report publication.

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX III						
WELL	**SAMPLE DATE**	**Boron**	**Calcium**	**Chloride**	**Fluoride**	**pH**	**Sulfate**	**TDS**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**SU**	**mg/L**	**mg/L**
BY-GSA-MW-1	**9/9/2020**	0.0999(J)	1.43	2.92	Non-Detect	4.65	16.5	42
BY-GSA-MW-2	**9/9/2020**	Non-Detect	1.5	2.32	Non-Detect	4.67	6.08	40.7
BY-GSA-MW-3	**9/9/2020**	Non-Detect	1.97	3.47	Non-Detect	4.76	7.13	42.7
BY-GSA-MW-4	**9/8/2020**	Non-Detect	1.94	3.29	Non-Detect	4.75	6.52	39.3
BY-AP-MW-1	**9/1/2020**	2.11	40.5	25.7	0.194	5.89	23.1	454
BY-AP-MW-2	**8/31/2020**	Non-Detect	3	8.3	Non-Detect	5.57	0.576(J)	45.3
BY-AP-MW-3	**9/1/2020**	Non-Detect	1.08	8.97	Non-Detect	4.24	0.705(J)	39.3
BY-AP-MW-4	**9/1/2020**	Non-Detect	0.566	7.82	Non-Detect	4.23	1.83	36
BY-AP-MW-5	**9/1/2020**	0.115	13.6	19.1	0.0921(J)	5.93	11	253
BY-AP-MW-6	**9/2/2020**	Non-Detect	1.8	5.94	Non-Detect	5.16	1.02	37.3
BY-AP-MW-7	**9/2/2020**	0.042(J)	10.4	12.9	0.109	6.25	3.59	129
BY-AP-MW-8	**9/2/2020**	1.26	31.5	22.2	Non-Detect	5.89	15.8	298
BY-AP-MW-9	**9/2/2020**	2.05	38	18.5	0.0804(J)	5.97	21.9	301
BY-AP-MW-10	**9/1/2020**	2.02	57.2	25	0.0794(J)	6.33	15.6	392
BY-AP-MW-11	**9/1/2020**	0.104	23.9	23.2	0.0841(J)	5.87	42.8	399
BY-AP-MW-12	**9/1/2020**	0.115	22.2	23.4	0.0845(J)	6.19	32.1	356
BY-AP-MW-13	**9/1/2020**	0.0642(J)	12.3	39.1	0.0757(J)	5.82	14.2	285
BY-AP-MW-14	**9/2/2020**	0.0789(J)	10.8	47.2	0.0957(J)	5.8	18.5	327
BY-AP-MW-15	**9/2/2020**	0.148	7.04	47	0.18	6.57	7.61	208
BY-AP-MW-16	**9/2/2020**	1.9	13.1	20.8	Non-Detect	5.47	13.3	279

Notes:

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Values are displayed as less than the PQL with a J.

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

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data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX III						
WELL	**SAMPLE DATE**	**Boron**	**Calcium**	**Chloride**	**Fluoride**	**pH**	**Sulfate**	**TDS**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**SU**	**mg/L**	**mg/L**
BY-AP-MW-1V	**9/1/2020**	0.0368(J)	3.43	69	Non-Detect	5.62	13	175
BY-AP-MW-5V	**9/1/2020**	0.0414(J)	2.13	30.6	0.0807(J)	5.7	1.47	94
BY-AP-MW-7V	**9/2/2020**	0.0565(J)	13.9	14.2	0.126	6.49	6.7	168
BY-AP-MW-8V	**9/2/2020**	0.26	23.3	22.6	0.098(J)	5.79	24	318
BY-AP-MW-10V	**9/1/2020**	1.06	57.3	22.9	0.0695(J)	6.34	30.1	403
BY-AP-MW-12V	**9/1/2020**	0.149	21	26.4	0.0947(J)	6.2	47.5	338
BY-AP-MW-13V	**9/2/2020**	0.112	12.3	51.7	0.0864(J)	6.23	30.6	361
BY-AP-MW-14V	**9/2/2020**	0.407	4.7	178	0.359	7.02	63.6	498
BY-AP-MW-15V	**9/1/2020**	0.0907(J)	6.9	170	0.0624(J)	5.91	2.21	318
BY-AP-MW-16V	**9/2/2020**	Non-Detect	2.02	75.6	Non-Detect	5.23	40	219
BY-AP-MW-17H	**9/1/2020**	0.146	10.8	18.2	0.196	6.56	7.61	236
BY-AP-MW-17V	**9/1/2020**	0.124	20.5	273	0.144	6.49	26.6	576
BY-AP-MW-18H	**9/1/2020**	0.855	25.6	19.8	0.0784(J)	6.15	30.6	281
BY-AP-MW-19H	**9/1/2020**	0.895	31.6	17.6	0.0752(J)	6.31	16.9	294
BY-AP-MW-20H	**9/1/2020**	0.106	28.8	34.6	0.0954(J)	6.15	43.5	479
BY-AP-MW-20V	**9/1/2020**	0.134	14.7	27.1	0.106	6.03	38.3	308
BY-AP-MW-22H	**9/1/2020**	0.115	14.8	59.9	0.301	6.48	93.2	362
BY-AP-MW-23H	**9/1/2020**	0.0943(J)	35.8	6.96	0.0919(J)	6.14	24.5	271
BY-AP-MW-23V	**9/1/2020**	0.307	1.27	117	0.401	7.98	9.25	391
BY-AP-MW-24H	**9/2/2020**	0.382	17.6	43.7	0.158	6.01	59.7	471
BY-AP-MW-25H	**9/2/2020**	Non-Detect	0.875	4.62	Non-Detect	5.39	4.39	36
BY-AP-MW-25VM	**9/2/2020**	Non-Detect	0.547	3.85	Non-Detect	5.32	2.26	34

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Values are displayed as less than the PQL with a J.

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

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

4. TDS - Total Dissolved Solids

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Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV						
WELL	**SAMPLE DATE**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-GSA-MW-1	**9/9/2020**	Non-Detect	Non-Detect	0.124	Non-Detect	Non-Detect	Non-Detect	0.00697
BY-GSA-MW-2	**9/9/2020**	Non-Detect	Non-Detect	0.172	Non-Detect	Non-Detect	Non-Detect	0.00219(J)
BY-GSA-MW-3	**9/9/2020**	Non-Detect	Non-Detect	0.0919	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	**9/8/2020**	Non-Detect	Non-Detect	0.125	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	**9/1/2020**	Non-Detect	0.0811	0.33	Non-Detect	Non-Detect	0.00242(J)	Non-Detect
BY-AP-MW-2	**8/31/2020**	Non-Detect	0.00176(J)	0.0275	Non-Detect	Non-Detect	Non-Detect	0.00751
BY-AP-MW-3	**9/1/2020**	Non-Detect	Non-Detect	0.038	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	**9/1/2020**	Non-Detect	Non-Detect	0.0131	Non-Detect	Non-Detect	Non-Detect	0.00657
BY-AP-MW-5	**9/1/2020**	Non-Detect	0.0372	0.154	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	**9/2/2020**	Non-Detect	Non-Detect	0.0282	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	**9/2/2020**	Non-Detect	0.0234	0.0745	Non-Detect	Non-Detect	Non-Detect	0.0197
BY-AP-MW-8	**9/2/2020**	Non-Detect	0.0629	0.151	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	**9/2/2020**	Non-Detect	0.0432	0.124	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	**9/1/2020**	Non-Detect	0.0763	0.078	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	**9/1/2020**	Non-Detect	0.0165	0.0923	Non-Detect	Non-Detect	0.00259(J)	Non-Detect
BY-AP-MW-12	**9/1/2020**	Non-Detect	0.0246	0.0827	Non-Detect	Non-Detect	0.00332(J)	0.0031(J)
BY-AP-MW-13	**9/1/2020**	Non-Detect	0.0148	0.0722	Non-Detect	Non-Detect	0.00888(J)	Non-Detect
BY-AP-MW-14	**9/2/2020**	Non-Detect	0.0174	0.0687	Non-Detect	Non-Detect	0.00482(J)	Non-Detect
BY-AP-MW-15	**9/2/2020**	Non-Detect	0.0206	0.0736	Non-Detect	Non-Detect	Non-Detect	0.0385
BY-AP-MW-16	**9/2/2020**	Non-Detect	0.0137	0.0954	Non-Detect	Non-Detect	Non-Detect	0.0192

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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),

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4. TDS - Total Dissolved Solids

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV						
WELL	**SAMPLE DATE**	**Antimony**	**Arsenic**	**Barium**	**Beryllium**	**Cadmium**	**Chromium**	**Cobalt**
UNITS		**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-AP-MW-1V	**9/1/2020**	Non-Detect	0.00179(J)	0.0795	Non-Detect	Non-Detect	Non-Detect	0.00407(J)
BY-AP-MW-5V	**9/1/2020**	Non-Detect	Non-Detect	0.0399	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7V	**9/2/2020**	Non-Detect	0.0024(J)	0.0648	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8V	**9/2/2020**	Non-Detect	0.00346(J)	0.289	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10V	**9/1/2020**	Non-Detect	Non-Detect	0.203	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12V	**9/1/2020**	Non-Detect	0.0257	0.102	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13V	**9/2/2020**	Non-Detect	0.00708	0.109	Non-Detect	Non-Detect	0.00525(J)	Non-Detect
BY-AP-MW-14V	**9/2/2020**	Non-Detect	0.00433(J)	0.0766	Non-Detect	Non-Detect	Non-Detect	0.00444(J)
BY-AP-MW-15V	**9/1/2020**	Non-Detect	0.0401	0.134	Non-Detect	Non-Detect	Non-Detect	0.0665
BY-AP-MW-16V	**9/2/2020**	Non-Detect	0.0012(J)	0.0733	Non-Detect	Non-Detect	Non-Detect	0.0163
BY-AP-MW-17H	**9/1/2020**	Non-Detect	0.0371	0.114	Non-Detect	Non-Detect	Non-Detect	0.00258(J)
BY-AP-MW-17V	**9/1/2020**	Non-Detect	0.00472(J)	0.277	Non-Detect	Non-Detect	Non-Detect	0.022
BY-AP-MW-18H	**9/1/2020**	Non-Detect	0.015	0.123	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-19H	**9/1/2020**	Non-Detect	0.00101(J)	0.159	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20H	**9/1/2020**	Non-Detect	0.0172	0.11	Non-Detect	Non-Detect	0.00283(J)	0.0046(J)
BY-AP-MW-20V	**9/1/2020**	Non-Detect	0.00845	0.115	Non-Detect	Non-Detect	Non-Detect	0.012
BY-AP-MW-22H	**9/1/2020**	Non-Detect	0.0217	0.234	Non-Detect	Non-Detect	Non-Detect	0.00294(J)
BY-AP-MW-23H	**9/1/2020**	Non-Detect	0.0226	0.182	Non-Detect	Non-Detect	Non-Detect	0.0273
BY-AP-MW-23V	**9/1/2020**	Non-Detect	Non-Detect	0.00933(J)	Non-Detect	Non-Detect	0.00284(J)	Non-Detect
BY-AP-MW-24H	**9/2/2020**	Non-Detect	0.0783	0.26	Non-Detect	Non-Detect	Non-Detect	0.0061
BY-AP-MW-25H	**9/2/2020**	Non-Detect	Non-Detect	0.0204	Non-Detect	Non-Detect	Non-Detect	0.00246(J)
BY-AP-MW-25VM	**9/2/2020**	Non-Detect	Non-Detect	0.0111	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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4. TDS - Total Dissolved Solids

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Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV							
WELL	**SAMPLE DATE**	**Combined Radium 226 + 228**	**Fluoride**	**Lead**	**Lithium**	**Mercury**	**Molybdenum**	**Selenium**	**Thallium**
UNITS		**pCi/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-GSA-MW-1	**9/9/2020**	1.77	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	**9/9/2020**	0.653(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-3	**9/9/2020**	1.05	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-4	**9/8/2020**	1.27	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	**9/1/2020**	1.3	0.194	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	**8/31/2020**	0.0265(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	**9/1/2020**	0.158(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	**9/1/2020**	0.39(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	**9/1/2020**	1.1	0.0921(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	**9/2/2020**	0.241(U)	Non-Detect	0.00171(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	**9/2/2020**	0.567	0.109	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	**9/2/2020**	3.95	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	**9/2/2020**	2.25	0.0804(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	**9/1/2020**	1.68	0.0794(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	**9/1/2020**	0.752	0.0841(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	**9/1/2020**	1.2	0.0845(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	**9/1/2020**	0.698	0.0757(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	**9/2/2020**	2.12	0.0957(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	**9/2/2020**	1.87	0.18	Non-Detect	Non-Detect	Non-Detect	0.00209(J)	Non-Detect	Non-Detect
BY-AP-MW-16	**9/2/2020**	2.25	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

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4. TDS - Total Dissolved Solids

Table 8.
Second Semi-Annual Monitoring Event Analytical Summary

		APPENDIX IV							
WELL	**SAMPLE DATE**	**Combined Radium 226 + 228**	**Fluoride**	**Lead**	**Lithium**	**Mercury**	**Molybdenum**	**Selenium**	**Thallium**
UNITS		**pCi/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**	**mg/L**
BY-AP-MW-1V	**9/1/2020**	0.948	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5V	**9/1/2020**	0.741	0.0807(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7V	**9/2/2020**	1.12	0.126	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8V	**9/2/2020**	2.89	0.098(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10V	**9/1/2020**	0.625(U)	0.0695(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12V	**9/1/2020**	1.03	0.0947(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13V	**9/2/2020**	2.49	0.0864(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14V	**9/2/2020**	1.54	0.359	Non-Detect	Non-Detect	Non-Detect	0.00229(J)	Non-Detect	Non-Detect
BY-AP-MW-15V	**9/1/2020**	1.28	0.0624(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16V	**9/2/2020**	1.15	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-17H	**9/1/2020**	0.44(U)	0.196	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-17V	**9/1/2020**	1.9	0.144	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-18H	**9/1/2020**	0.684	0.0784(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-19H	**9/1/2020**	0.675	0.0752(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20H	**9/1/2020**	0.39(U)	0.0954(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20V	**9/1/2020**	1.43	0.106	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-22H	**9/1/2020**	0.419(U)	0.301	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-23H	**9/1/2020**	0.224(U)	0.0919(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-23V	**9/1/2020**	0.323(U)	0.401	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-24H	**9/2/2020**	1.5(U)	0.158	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-25H	**9/2/2020**	0.0187(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-25VM	**9/2/2020**	0.596	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

1. J value indicates the result is greater that or equal to the Method Detection Limit (MDL) and less that the Practical Quantitation Limit (PQL).

Values are displayed as less than the PQL with a J.

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

3. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration),

data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurment.

4. TDS - Total Dissolved Solids

5. "--" indicates results were not available at the time of report publication.

Appendix A

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

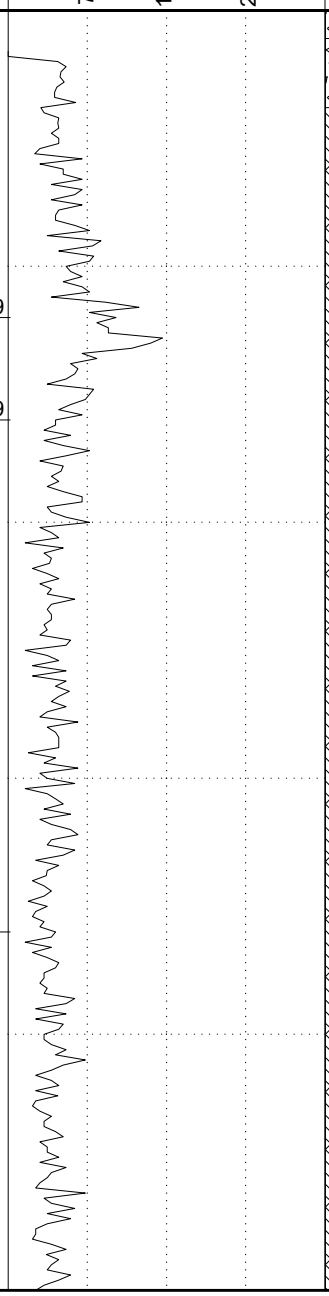
BORING LOG

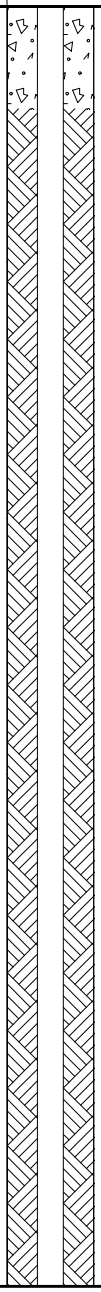
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/24/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 22.9 **COORDINATES:** N:362,905.45 E:1,811,513.20
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 77 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** 22 ft. **DELAYED** 22.81 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 27' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Sandy Lean Clay (CL) mottled reddish yellow (5YR 6/8), red (2.5YR 5/8) and light gray (5YR 7/1) fill dry, stiff, low to medium plastic, very fine to fine, trace organics near top decreasing with depth	22.9
5			16.9
		Silt (ML) very dark gray (10YR 3/1) and black (10YR 2/1) fill dry, medium dense, non plastic, very fine to medium, trace coarse grains, fly ash with trace bottom ash and coal fragments	14.9
10		**Sandy Lean Clay (CL)** mottled brown (7.5YR 5/4), pinkish gray (7.5YR 6/2) and light gray (7.5YR 7/1) fill dry, medium stiff to stiff, medium to high plastic, very fine to medium, sticky/cohesive, trace zones of interlayered sandy fat clay and clayey sand	
		mottled dark gray (7.5YR 4/1), reddish yellow (7.5YR 6/6) and light gray (7.5YR 7/1) fill moist, very stiff to hard, medium plastic, very fine to medium, some interlayered zones clayey sand	
15			4.9
		Sandy Fat Clay (CH) mottled reddish yellow (7.5YR 6/6) and light gray (7.5YR 7/1) fill wet, medium stiff to stiff, medium to high plastic, very fine to medium, sticky/cohesive, very thin zones of interlayered fly ash @ approx. 19-19.5'	
20			
25			-2.1





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SOUTHERN COMPANY

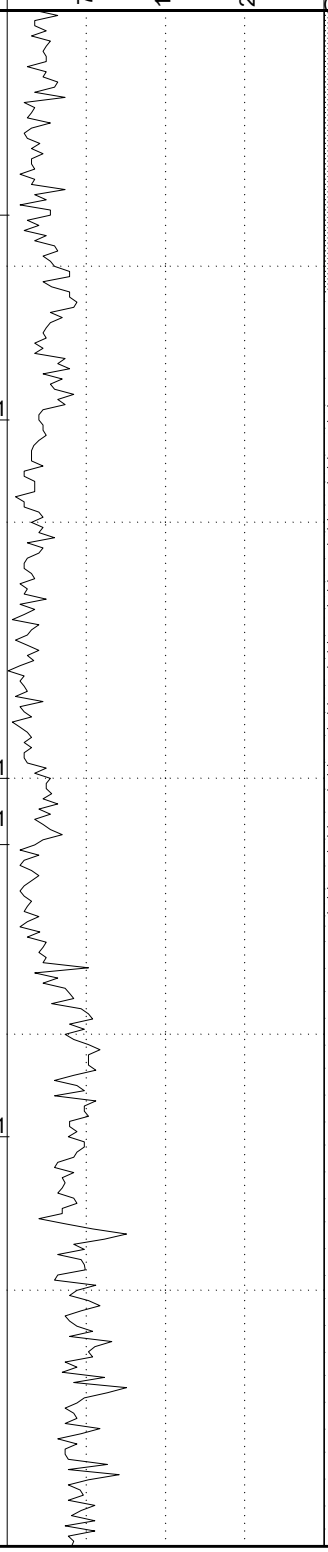
BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

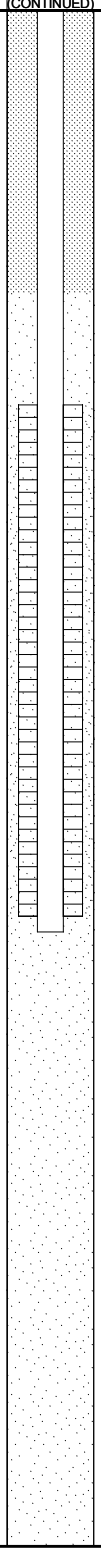
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			22.9
		Fat Clay (CH) black (7.5YR 2.5/1) and dark brown (7.5YR 3/2) residuum wet, medium stiff, high plastic, very fine to fine, abundant organics/wood fragments/peat	-6.1
30		**Sandy Lean Clay (CL)** gray (10YR 5/1) and gray (10YR 6/1) residuum wet, medium stiff to stiff, medium plastic, very fine to fine	-10.1
35		**Poorly-graded Sand with Silt (SP-SM)** very pale brown / grayish orange (10YR 7/4), very pale brown / very pale orange (10YR 8/2) and light gray (10YR 7/1) residuum wet, loose, non plastic, very fine to medium, subangular to subrounded grains	
40			-17.1
		Sandy Lean Clay (CL) gray (10YR 6/1) and light gray (10YR 7/1) residuum wet, medium stiff, medium plastic, very fine to fine	-18.1
45		**Silty Sand (SM)** light gray (10YR 7/1) and gray (10YR 6/1) residuum wet, loose, non plastic, very fine to fine	-24.1
50		**Sandy Lean Clay (CL)** light greenish gray (10BG 7/1), greenish gray (10BG 5/1) and gray (10YR 5/1) residuum wet, medium stiff to stiff, medium plastic, very fine to fine, sticky/cohesive, trace interbedded zones of fat clay and clayey sand, trace organics	
55			

Natural Gamma



WELL DATA

Top of casing Elev. = 25.80



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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA
			22.9		Top of casing Elev. = 25.80 (CONTINUED)
		Sandy Lean Clay (CL) light greenish gray (10BG 7/1), greenish gray (10BG 5/1) and gray (10YR 5/1) residuum wet, medium stiff to stiff, medium plastic, very fine to fine, sticky/cohesive, trace interbedded zones of fat clay and clayey sand, trace organics *(Con't)*	-34.1		
60		**Silty Sand (SM)** gray (10YR 5/1) residuum wet, medium dense, non plastic, very fine to medium			
65			-44.1		
70		**Clayey Sand (SC)** mottled dark grayish brown / dark yellowish brown (10YR 4/2), brown (10YR 5/3) and light gray (10YR 7/1) residuum wet, medium dense, non plastic, very fine to fine, trace medium, trace zones of interbedded clayey sand and sandy lean clay			
75			-54.1		

Bottom of borehole at 77.0 feet.

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SOUTHERN COMPANY

BORING LOG

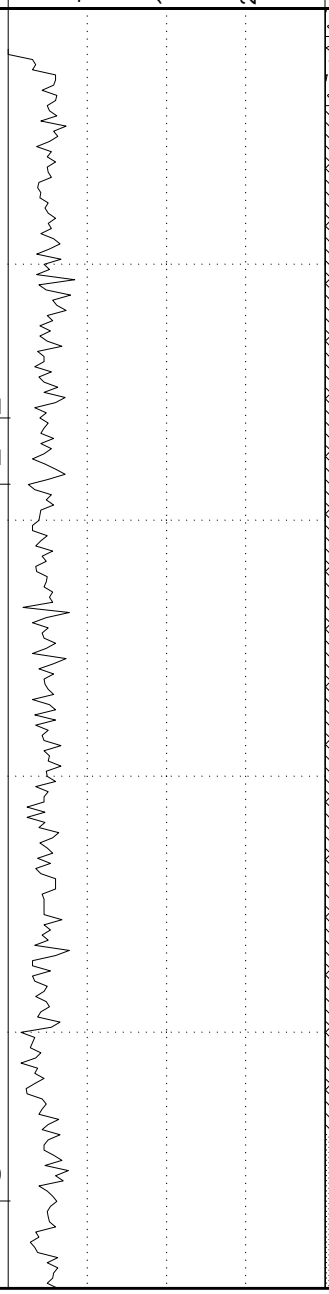
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/20/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.1 **COORDINATES:** N:363,374.02 E:1,811,103.57
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 72 ft. **GROUND WATER DEPTH: DURING** 18 ft. **COMP.** 25 ft. **DELAYED** 21.63 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 24' Well installed. Refer to well data sheet.

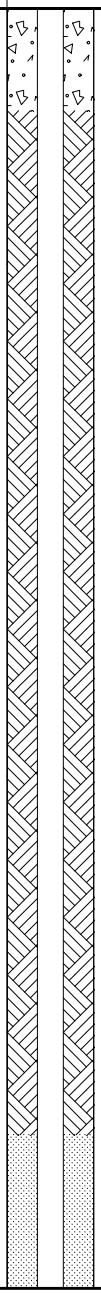
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			21.1
		Sandy Lean Clay (CL) mottled reddish yellow (7.5YR 7/8), gray (7.5YR 5/1) and yellow / pale yellowish orange (10YR 8/6) fill dry, stiff, medium plastic, very fine to medium, abundant sand	
5			
			13.1
		Silt (ML) mottled dark gray (10YR 4/1) and grayish brown (10YR 5/2) fill dry, medium dense non plastic, very fine to medium, intermixed bottom ash and coal fragments	12.1
10		**Sandy Lean Clay (CL)** mottled yellowish red / light brown (5YR 5/6), grayish brown (10YR 5/2) and dark gray (7.5YR 4/1) fill moist to wet, stiff to very stiff, medium plastic, very fine to medium, trace zones of interlayered silty sand	
15			
20			
		mottled yellowish red / light brown (5YR 5/6) and grayish brown (10YR 5/2) fill wet, stiff, medium plastic, very fine to medium, trace intermixed fly ash	-1.9
		Fat Clay (CH) black (10YR 2/1), very dark grayish brown (10YR 3/2) and dark brown (10YR 3/3) residuum wet, soft, high plastic, very fine, abundant organics/wood fragments/peat	
25			

Natural Gamma



WELL DATA

Top of casing Elev. = 23.89



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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 23.89)
			21.1		(CONTINUED)
		Fat Clay (CH) black (10YR 2/1), very dark grayish brown (10YR 3/2) and dark brown (10YR 3/3) residuum wet, soft, high plastic, very fine, abundant organics/wood fragments/peat*(Con't)*	-5.9		
30		**Clayey Sand (SC)** light yellowish brown (10YR 6/4) and light brownish gray / pale yellowish brown (10YR 6/2) residuum wet, medium dense, non plastic, very fine to medium, trace interbedded silty sand	-9.9		
		Sandy Lean Clay (CL) trace mottling dark grayish brown / dark yellowish brown (10YR 4/2), yellow (10YR 7/6) and very dark brown / dusky yellowish brown (10YR 2/2) residuum wet, medium stiff to stiff, medium plastic, very fine to medium, sticky/cohesive	-12.9		
35		**Silty Sand (SM)** light gray (10YR 7/2) and dark grayish brown / dark yellowish brown (10YR 4/2) residuum wet, medium dense to loose, non plastic, very fine to medium, trace lenses of clayey sand	-15.9		
		Fat Clay (CH) dark grayish brown / dark yellowish brown (10YR 4/2), dark gray (10YR 4/1) and light greenish gray (10BG 7/1) residuum wet, medium stiff, high plastic, very fine, color grades from brownish gray to greenish gray with depth, sand content decreases with depth	-21.9		Annular Seal
40					
		Poorly-graded Sand with Silt (SP-SM) light gray (10YR 7/2), pale brown (10YR 6/3) and very pale brown / very pale orange (10YR 8/2) residuum wet, medium dense to loose, non plastic, fine to medium, subangular to subrounded grains, trace interbedded zones with coarse sand			
45					
50					Filter Pack
55					

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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 23.89)
			21.1		(CONTINUED)
		Poorly-graded Sand with Silt (SP-SM) light gray (10YR 7/2), pale brown (10YR 6/3) and very pale brown / very pale orange (10YR 8/2) residuum wet, medium dense to loose, non plastic, fine to medium, subangular to subrounded grains, trace interbedded zones with coarse sand*(Con't)*			**Filter Pack**
60					**Screen Tip Elevation**
65		trace mottling reddish yellow (7.5YR 7/8) and light gray (10YR 7/2) residuum wet, medium dense to loose, non plastic, fine to medium grading to fine to coarse with depth, subangular to subrounded grains	-45.9		
70		No Recovery, Washed down casing	-50.9		

Bottom of borehole at 72.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

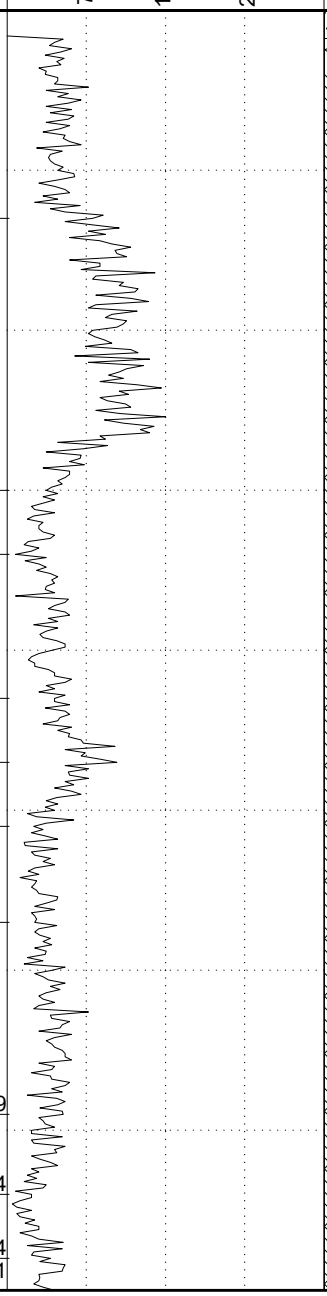
BORING LOG

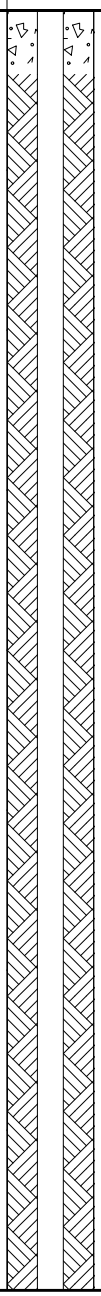
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/15/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 23.6 **COORDINATES:** N:364,011.44 E:1,810,629.36
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** M, Tanner **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	MATERIAL DESCRIPTION	ELEVATION
	Silt (ML) very dark gray (10YR 3/1) fill moist, fly ash; brownish yellow (10YR 6/8) and white (10YR 8/1) fill	23.6
5		17.1
	Poorly-graded Sand (SP) dark gray (10YR 4/1) fill medium to coarse grained, partially burned coal fragments (predominately bottom ash), silt fraction increasing with depth	
10		
15		8.6
	Clayey Sand (SC) gray (2.5Y 6/1) fill medium, medium to coarse grained	6.6
	Silt (ML) dark gray (2.5Y 4/1) fill wet, fly ash, fine to medium grained	
20		2.1
	Clayey Sand (SC) gray (2.5Y 6/1) fill medium, medium to coarse grained, moderately plastic	0.1
25	**Silt (ML)** dark gray (2.5Y 4/1) fill wet, fly ash, fine to medium grained	-1.9
	Silty Sand (SM) pale yellow (2.5Y 7/4) fill abundant wood fragments, limited recovery	-4.9
30	**Elastic Silt (MH)** dark olive brown (2.5Y 3/3) fill wet, abundant woody material	-10.9
35	**Poorly-graded Sand (SP)** light gray (2.5Y 7/2) alluvium medium grained	-13.4
	Silt (ML) very dark grayish brown (10YR 3/2) alluvium medium, moderately plastic	-15.4
40	**Poorly-graded Sand (SP)**	-16.1





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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		23.6	
		white (10YR 8/1) alluvium wet, fine to medium grained, clean	-16.6
		Silt (ML) very dark grayish brown (10YR 3/2) alluvium medium, moderately plastic *(Con't)*	-17.0
		Poorly-graded Sand (SP) white (10YR 8/1) alluvium wet, fine to medium grained, clean	
45		**Lean Clay (CL)** bluish gray (5B 6/1) alluvium very stiff, high, very stiff, plastic	-22.9
50		**Poorly-graded Sand (SP)** white (10YR 8/1) alluvium predominately medium grained, coarsening with depth	
55			-33.4
60		**Silty Sand (SM)** light gray (2.5Y 7/1) alluvium fine to medium grained, silty, micaceous	-36.4
		Fat Clay (CH) dark gray (2.5Y 4/1) alluvium stiff, high plasticity	-36.9
65		**Silty Sand (SM)** light gray (2.5Y 7/1) alluvium fine to medium grained, silty, micaceous	
70			-47.4
75		**Poorly-graded Sand (SP)** pale yellow (5Y 7/3) alluvium fine to medium grained with very little silt, slightly micaceous	
80			
85			-63.4

Natural Gamma: 75, 150, 225

WELL DATA

Top of casing Elev. = 26.61

(CONTINUED)

Annular Fill

Annular Seal

Filter Pack

Screen Tip Elevation

Bottom of borehole at 87.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

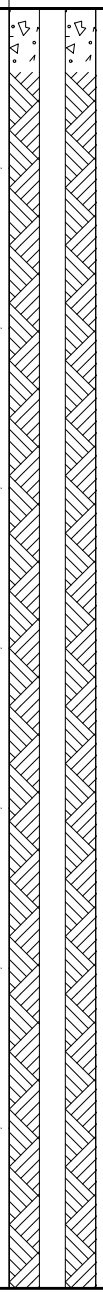
PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/15/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 24.1 **COORDINATES:** N:364,622.01 E:1,810,129.84
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** M. Tanner **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	MATERIAL DESCRIPTION	ELEVATION
		24.1
	Silt (ML) strong brown (7.5YR 5/6), white (2.5Y 8/1) and dark grayish brown (2.5Y 4/2) fill	20.6
5	**Clayey Sand (SC)** dark gray (10YR 4/1) fill medium to coarse grained (partially burned coal fragments, predominately bottom ash with some coal ash) GeoGrid material at 3.5 feet	14.6
10	**Silt (ML)** yellowish brown (10YR 5/8) and light gray (2.5Y 7/1) fill some fine-grained sand	
15		
20		
25		-2.5
	Clayey Sand (SC) dark gray (10YR 4/1) fill medium to coarse grained (partially burned coal fragments)	-4.5
30	**Silty Sand (SM)** gray (2.5Y 5/1) fill wet, fine to medium grained, silty and clays, fill (bottom ash)	-7.0
35	**Elastic Silt (MH)** dark grayish brown (2.5Y 4/2) alluvium moderately plastic, significant amounts of woody material, fibrous to log size	-11.0
	Silty Sand (SM) gray (2.5Y 6/1) alluvium medium grained	-13.0
40	**Fat Clay (CH)** light gray (5Y 7/1) alluvium wet, silty	

Natural Gamma: 75, 150, 225

WELL DATA
Top of casing Elev. = 26.97



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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 26.97)
			24.1		(CONTINUED)
		Fat Clay (CH) light gray (5Y 7/1) alluvium wet, silty*(Con't)*			
45					**Annular Fill**
			-22.5		
		Silty Sand (SM) gray (5Y 5/1) alluvium fine-grained with silt and clay			
50			-26.0		
		Poorly-graded Sand (SP) light gray (5Y 7/1) alluvium fine-grained, relatively clean			
55					
		yellow (10YR 7/6) alluvium fine- to very fine grained, less than 10% silt			
60					**Annular Seal**
65					
		very pale brown / very pale orange (10YR 8/2) alluvium fine to medium-grained, clean			
70					
75					**Filter Pack**
		light gray (2.5Y 7/1) and dark gray (2.5Y 4/1) alluvium wet, predominately medium grained, clean, wet with thin beds of dark gray, clayey-silt, moderatly plastic from 79-81			
80					**Screen Tip Elevation**
85					
			-63.0		

Bottom of borehole at 87.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

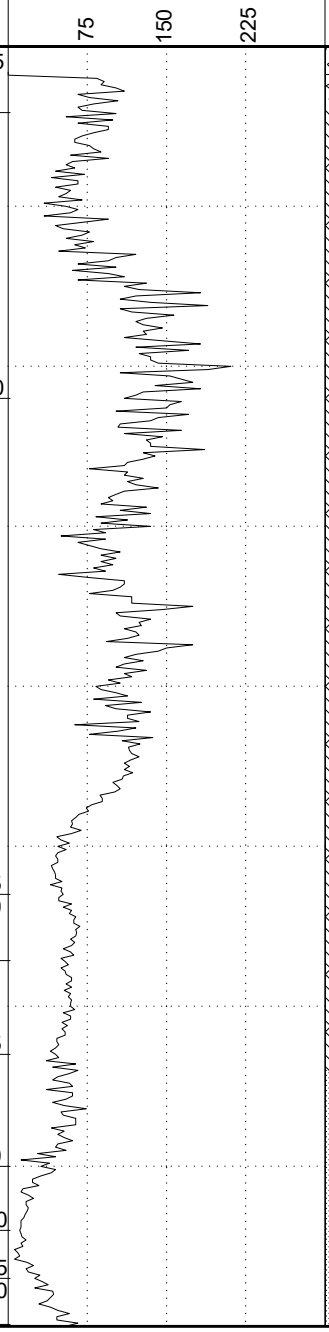
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/15/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 26.0 **COORDINATES:** N:365,528.46 E:1,809,433.61
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** M. Tanner **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Hydrovac excavation from 0-10 feet Well installed. Refer to well data sheet.

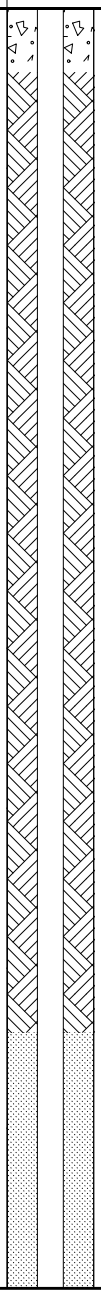
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Clayey Sand (SC) reddish yellow (5YR 6/8) moist, fine-grained silty-clayey, grass roots in upper 6 inches	26.0 / 25.5
		Silty Sand (SM) light olive brown (2.5Y 5/6) moist to wet, fine-medium grained, silty with some crushed limestone, geogrid material at 8.5 feet (thin flyash layering)	
5			
10			15.0
		Sandy Elastic Silt (MH) gray (2.5Y 5/1) wet	
15			
20			
25			-0.5
		Lean Clay (CL) olive / light olive brown (5Y 5/6) and pale olive (10Y 6/2) moist, soft, medium, (fly ash)	-1.0
		Silt (ML) dark gray / olive gray (5Y 4/1) moist, (fly ash)	
30			-5.5
		Clayey Sand (SC) grayish olive (10Y 4/2) wet, fine-grained, silty and clayey	
35			-9.0
		Poorly-graded Sand (SP) light gray (10YR 7/1) wet, medium to coarse grainted	-11.0
		Elastic Silt (ML) dark gray (2.5Y 4/1) wet, soft, sandy with some clay	-12.5
		Poorly-graded Sand (SP) light gray (2.5Y 7/2) wet, mostly medium grained, clean	-13.0
40			

Natural Gamma



WELL DATA

Top of casing Elev. = 28.93



Surface Seal

Annular Fill

Annular Seal

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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

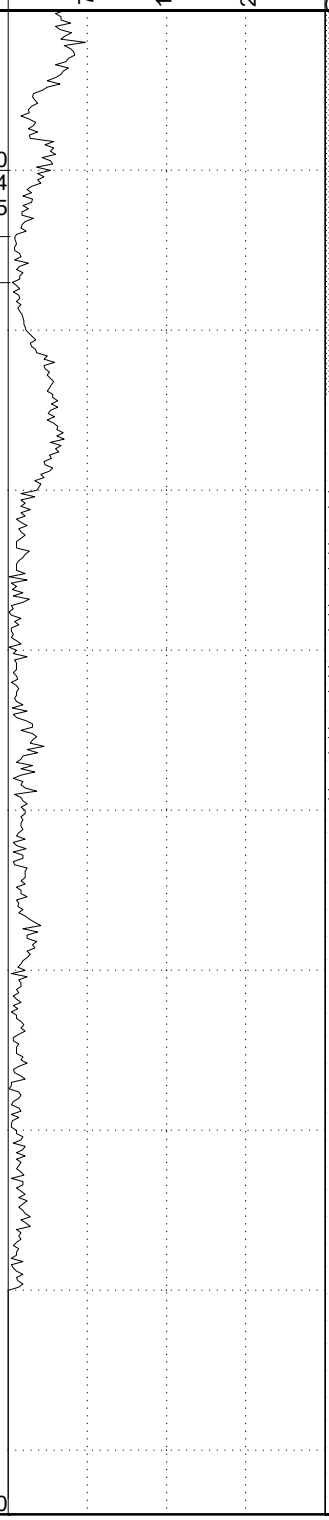
BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

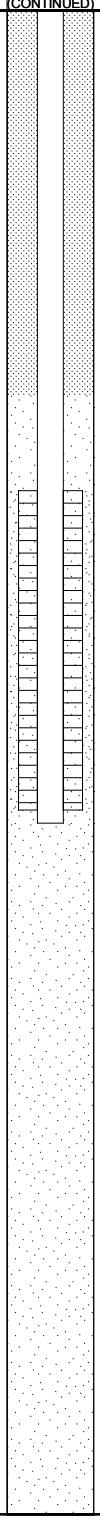
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			26.0
		Elastic Silt (MH) dark gray (2.5Y 4/1) soft, medium, silty, soft*(Con't)*	
45			-19.0
		Poorly-graded Sand (SP) pale yellow (2.5Y 8/3) wet, fine to medium grained, relatively clean, slightly micaceous	-19.4 -20.5
		Elastic Silt (ML) dark gray (2.5Y 4/1) medium, silty, soft	
50		**Poorly-graded Sand (SP)** white (2.5Y 8/1) wet, fine to medium grained, micaceous	
		gray (2.5Y 5/1) wet, fine grained, micaceous	
55			
		pale yellow (2.5Y 8/2) wet, predominately medium to coarse grained, very clean, with vary-colored gravel up to 3/8 inch from 57.0-60, silty from 86.0-86.5	
60			
65			
70			
75			
80			
85			
			-61.0

Natural Gamma



WELL DATA

Top of casing Elev. = 28.93



Bottom of borehole at 87.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

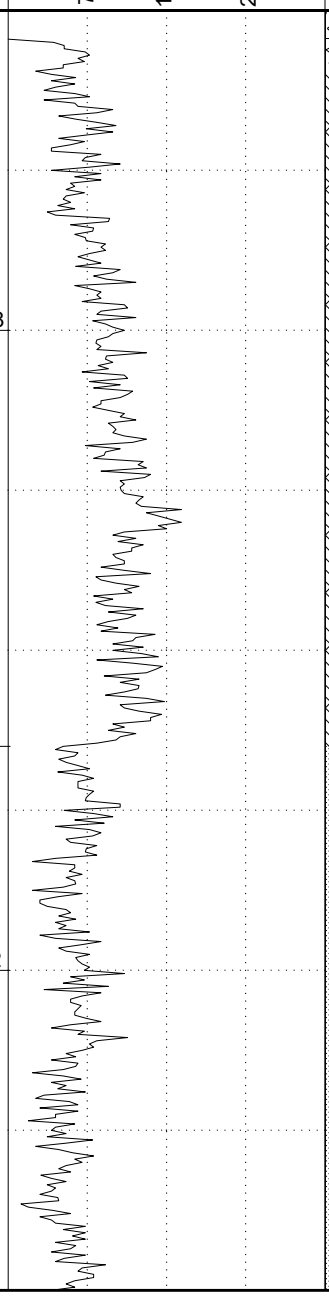
BORING LOG

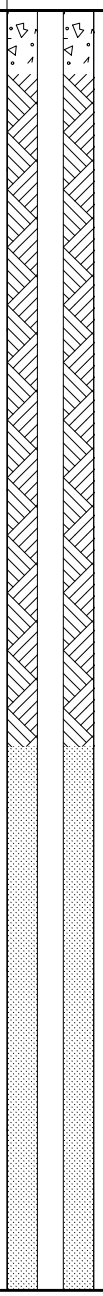
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/15/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 23.8 **COORDINATES:** N:365,903.84 E:1,810,554.76
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 18 ft. **COMP.** 25.15 ft. **DELAYED** 25.15 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 25' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Utility Clearance (HYDROEXCAVATION)	23.8
5			
10			13.8
		Silt (ML) fill wet, fly ash with trace bottom ash	
15			
20			0.8
		Fat Clay (CH) brown (7.5YR 4/4) alluvium wet, trace sand and wood fragments	
25			
30			-6.2
		Sandy Fat Clay (CH) gray (7.5YR 6/1) alluvium wet, sandy with less wood	
35			
		gray (7.5YR 6/1) alluvium wet, sandy with less wood	
40			





WELL DATA

Top of casing Elev. = 26.69

Surface Seal

Annular Fill

Annular Seal

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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75, 150, 225)	WELL DATA
			23.8		Top of casing Elev. = 26.69 (CONTINUED)
		Sandy Fat Clay (CH) gray (7.5YR 6/1) alluvium wet, sandy with less wood *(Con't)*			
45			-21.2		
		Well-graded Sand with Clay (SW-SC) light gray (7.5YR 7/1) alluvium wet, fine grained to very fine grained, with clay			
		grades to dark gray with more clay			
50					
55					Annular Seal
			-33.2		
		Poorly-graded Sand (SP) light gray (7.5YR 7/1) alluvium wet, fine grained with trace coarse grains, trace clay			
60					
65					
		mottled light brown (7.5YR 6/3) and light gray (7.5YR 7/1) alluvium wet, fine grained with trace coarse grains, trace clay			
70					
75					
		coarsens downward, lightens in color			Filter Pack
80					
85					Screen Tip Elevation
			-63.2		

Bottom of borehole at 87.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

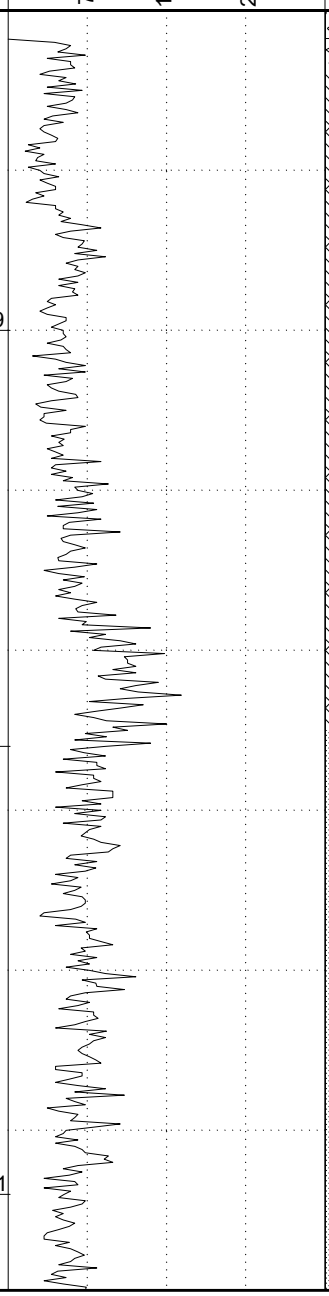
BORING LOG

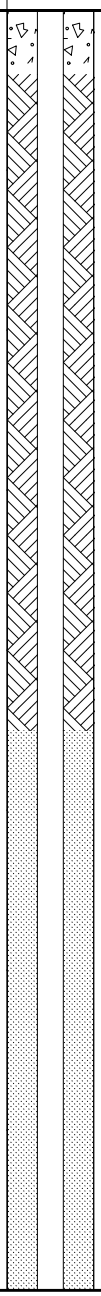
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/16/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 22.9 **COORDINATES:** N:366,712.30 E:1,811,746.59
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** 24.86 ft. **DELAYED** 24.86 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 27' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Utility Clearance (HYDROEXCAVATION)	22.9
5			
10			12.9
		Silt (ML) fill wet, fly ash with trace bottom ash	
15			
20			-0.1
		Fat Clay (CH) brown (7.5YR 4/4) alluvium wet, trace sand and wood fragments	
25			
		dark gray (7.5YR 4/1) alluvium wet, trace sand, organics	
30			
35			-14.1
		Sandy Fat Clay (CH) dark gray (7.5YR 4/1) alluvium wet, increasing fine sand content with depth, trace organics	
40			





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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

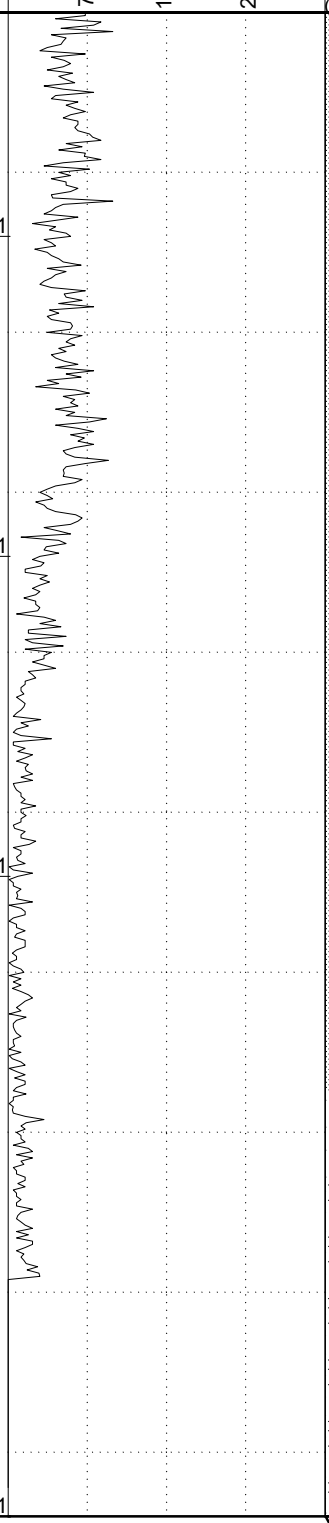
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			22.9
		Sandy Fat Clay (CH) dark gray (7.5YR 4/1) alluvium wet, increasing fine sand content with depth, trace organics*(Con't)*	
45			
			-24.1
		Sandy Lean Clay (SC-SM) gray (7.5YR 6/1) alluvium wet, trace organics, well graded sand, fine to coarse grained	
50			
55			
			-34.1
		Well-graded Sand (SW) light gray (7.5YR 7/1) alluvium wet, fine to coarse grained, interbedded gray clay nodules	
60			
65			
			-44.1
		Poorly-graded Sand (SP) white (7.5YR 8/1) alluvium wet, coarse grained with trace fine grained, trace rounded river gravel	
70			
75			
		mottled white (7.5YR 8/1) and reddish yellow (7.5YR 8/6) alluvium wet, coarse grained with trace fine grained, coarsening downward, increasing rounded river gravel content with depth	
80			
85			
			-64.1

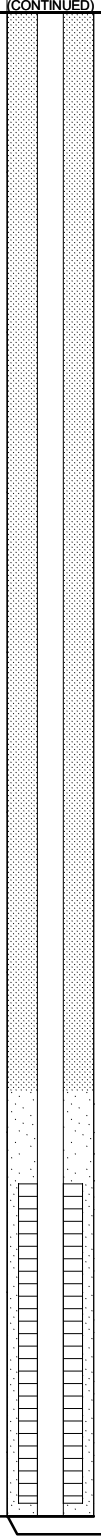
Bottom of borehole at 87.0 feet.

Natural Gamma



WELL DATA

Top of casing Elev. = 25.94



SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

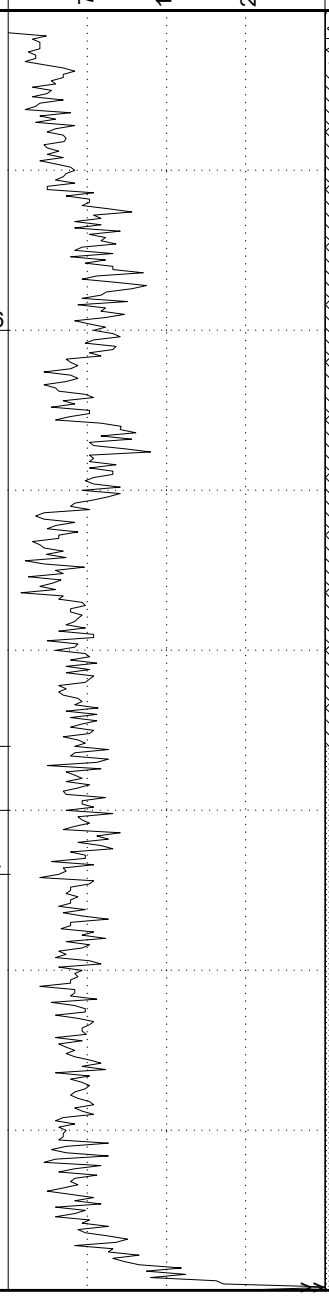
BORING LOG

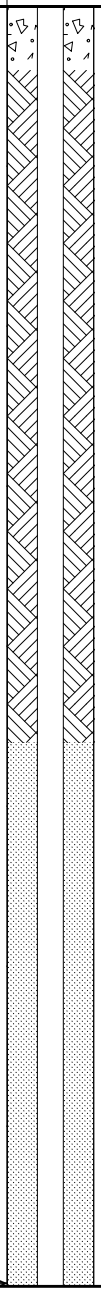
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/15/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 25.6 **COORDINATES:** N:367,062.51 E:1,813,172.40
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 25 ft. **COMP.** 27.35 ft. **DELAYED** 27.35 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 25' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			25.6
		Utility Clearance (HYDROEXCAVATION)	
5			
10			15.6
		Silt (ML) fill wet, fly ash with trace bottom ash	
15			
20			2.6
		Fat Clay (CH) brown (7.5YR 4/4) alluvium wet, trace sand and wood fragments	
25			0.6
		Well-graded Sand (SW-SC) reddish yellow (7.5YR 6/8) alluvium wet, fine to coarse grained, trace clay	-1.4
		Sandy Fat Clay (CH) gray (7.5YR 5/1) alluvium wet, sandy, trace organics	
30			
35			
40			





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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

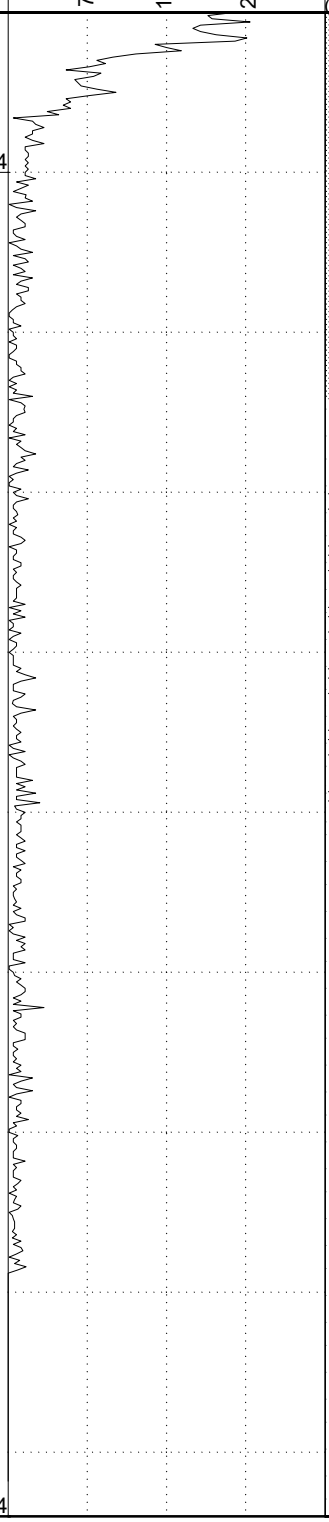
BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			25.6
		Sandy Fat Clay (CH) gray (7.5YR 5/1) alluvium wet, sandy, trace organics*(Con't)*	
45			-19.4
		Poorly-graded Sand (SP) light gray (7.5YR 7/1) alluvium wet, coarse grained with trace fines	
		light gray (7.5YR 7/1) alluvium wet, coarse grained with trace clay	
50			
55			
		light gray (7.5YR 7/1) alluvium wet, coarse grained with trace organics	
60			
65			
		light gray (7.5YR 7/1) alluvium wet, coarse grained with trace fines	
70			
75			
		light gray (7.5YR 7/1) alluvium wet, coarse grained with trace fines	
80			
85			
			-61.4

Natural Gamma



WELL DATA

Top of casing Elev. = 28.45

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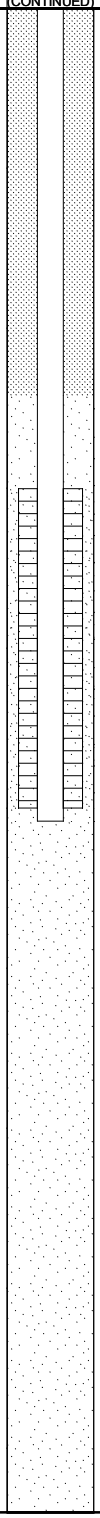


Annular Seal

Filter Pack

Screen Tip Elevation

Bottom of borehole at 87.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

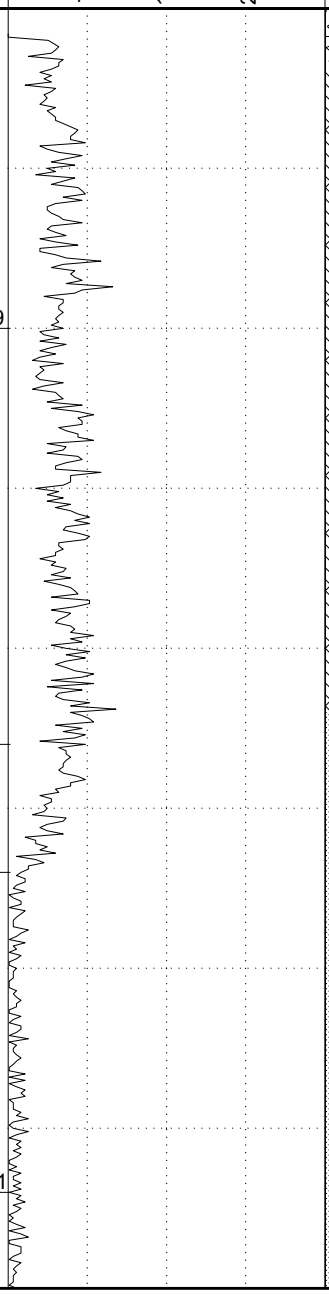
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/11/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.9 **COORDINATES:** N:366,388.08 E:1,814,332.50
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 17 ft. **COMP.** 18 ft. **DELAYED** 23.68 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 24' Well installed. Refer to well data sheet.

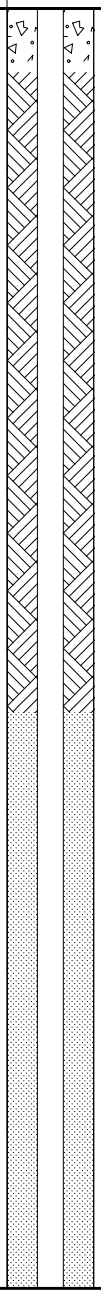
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Utility Clearance (HYDROEXCAVATION)	21.9
5			
10			11.9
		Silt (ML) fill wet, fly ash with trace bottom ash	
15			
20			-1.1
		Fat Clay (CH) brown (7.5YR 4/4) alluvium wet, trace sand and wood fragments	
25			-5.1
		Poorly-graded Sand with Silt (SP-SM) very pale brown (10YR 7/3) and light yellowish brown (10YR 6/4) residuum wet, loose, non plastic, Limited Recovery, fine to medium, subangular to subrounded	
30			
35			-15.1
		Silty Sand (SM) very pale brown (10YR 7/3), light brownish gray / pale yellowish brown (10YR 6/2) and pale brown (10YR 6/3) residuum wet, medium dense to loose, non plastic, very fine to fine, zones of interbedded SP-SM sand	
40			

Natural Gamma



WELL DATA

Top of casing Elev. = 24.39



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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Silty Sand (SM) very pale brown (10YR 7/3), light brownish gray / pale yellowish brown (10YR 6/2) and pale brown (10YR 6/3) residuum wet, medium dense to loose, non plastic, very fine to fine, zones of interbedded SP-SM sand*(Con't)*	21.9
45			-26.1
		Poorly-graded Sand with Silt (SP-SM) very pale brown (10YR 7/3) residuum wet, loose, non plastic, fine to medium, subangular to subrounded, trace subrounded coarse	
50			
55			
60			-38.1
		Silty Sand (SM) brown (10YR 5/3), light gray (10YR 7/1) and reddish yellow (7.5YR 7/6) residuum wet, medium dense, non plastic, very fine to medium	
65			
70			
75			-55.1
		Poorly-graded Sand with Silt (SP-SM) light gray (10YR 7/2) residuum wet, medium dense to loose, non plastic, fine to coarse, subangular to rounded, trace fine gravel, grain size increses with depth, zone @ approx. 86-87' of SW-SM sand	
80			
85			-65.1

Natural Gamma: 75, 150, 225

WELL DATA

Top of casing Elev. = 24.39

(CONTINUED)

Annular Seal

Filter Pack

Screen Tip Elevation

Bottom of borehole at 87.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

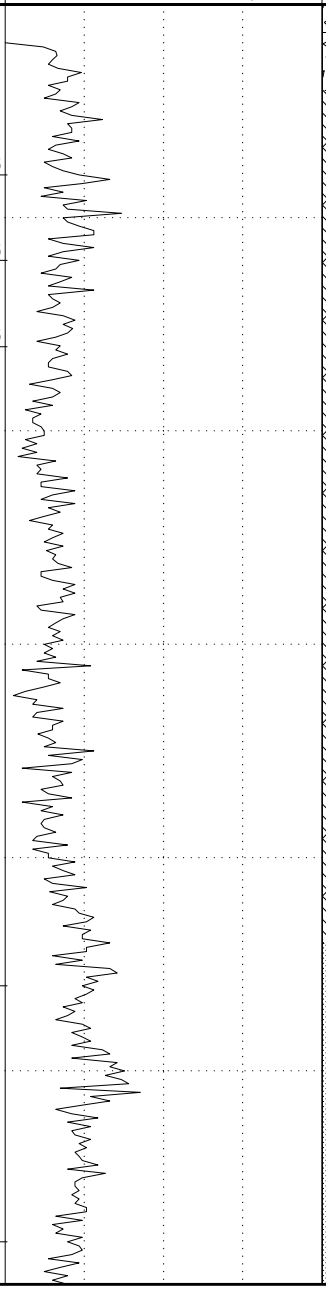
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/2/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 23.6 **COORDINATES:** N:365,295.84 E:1,815,399.60
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 18 ft. **COMP.** 20 ft. **DELAYED** 25.79 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 25' Well installed. Refer to well data sheet.

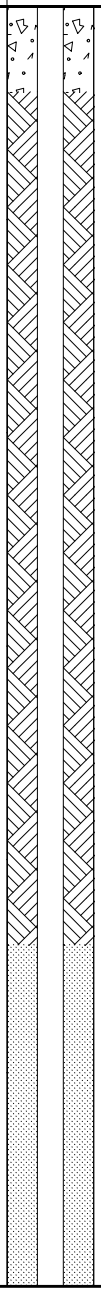
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Silty Clay (CL-ML) mottled reddish yellow (7.5YR 6/8) and strong brown (7.5YR 5/6) fill dry, medium stiff to stiff, low plastic, very fine to medium	23.6
		Sandy Fat Clay (CH) mottled reddish yellow (7.5YR 7/8), light gray (7.5YR 7/1) and light brown (7.5YR 6/3) fill dry, medium stiff to stiff, high plastic, very fine to fine	19.6
5		**Silt (ML)** mottling increasing with depth very dark gray (10YR 3/1) and black (10YR 2/1) fill dry, loose, non plastic, very fine to coarse, fly ash with intermixed bottom ash and coal fragments, ash becomes mixed with clayey dike fill material with depth	17.6
		Sandy Lean Clay (CL) mottled light gray (10YR 7/1), brownish yellow (10YR 6/8) and red (2.5YR 5/8) fill moist, stiff, medium plastic, very fine to medium, trace interlayered sand @ 17-17.5'	15.6
10			
15			
20			
		Lean Clay (CL) mottled reddish yellow (7.5YR 6/6), gray (7.5YR 6/1) and reddish yellow (7.5YR 7/6) residuum wet, medium stiff to soft, medium plastic, very fine to fine, trace sand, trace organics/wood fragments @ approx. 23-23.5'	0.6
25			
30			-5.4

Natural Gamma



WELL DATA

Top of casing Elev. = 26.89



Surface Seal

Annular Fill

Annular Seal

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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA
			23.6		Top of casing Elev. = 26.89 (CONTINUED)
		Sandy Lean Clay (CL) mottled dark gray (10YR 4/1), reddish yellow (7.5YR 6/8) and pale brown (10YR 6/3) residuum wet, medium stiff, medium plastic, very fine to medium, sticky/cohesive, some interbedded fat clay *(Con't)*			
35			-11.4		
		Poorly-graded Sand with Silt (SP-SM) pale brown (10YR 6/3), grayish brown (10YR 5/2) and dark gray (10YR 4/1) residuum wet, medium dense to loose, non plastic, very fine to medium, subangular to subrounded, some interbedded zones of dark gray clayey sand			
40					
					Annular Seal
45					
		very pale brown (10YR 8/3) and pale brown (10YR 6/3) residuum wet, loose, non plastic, fine to medium, subangular to subrounded, trace subrounded coarse			
50					
55					
60					**Filter Pack**
65					

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 26.89)
			23.6		(CONTINUED)
		Poorly-graded Sand with Silt (SP-SM) pale brown (10YR 6/3), grayish brown (10YR 5/2) and dark gray (10YR 4/1) residuum wet, medium dense to loose, non plastic, very fine to medium, subangular to subrounded, some interbedded zones of dark gray clayey sand*(Con't)*	-45.4		**Filter Pack** **Screen Tip Elevation**
70		**Silty Sand (SM)** very pale brown (10YR 8/3) and pale brown (10YR 6/3) residuum wet, loose, non plastic, very fine to medium			
75			-52.4		
		Well-graded Sand with Silt (SW-SM) gray (10YR 5/1) residuum wet, loose, non plastic, fine to fine gravel, subangular to rounded, trace coarse gravel, organics/ dark brown to black wood fragments	-54.4		
		Poorly-graded Sand with Silt (SP-SM) very pale brown (10YR 8/3) residuum wet, loose, non plastic, fine to coarse, subangular to rounded			
80					
85			-63.4		

Bottom of borehole at 87.0 feet.

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SOUTHERN COMPANY

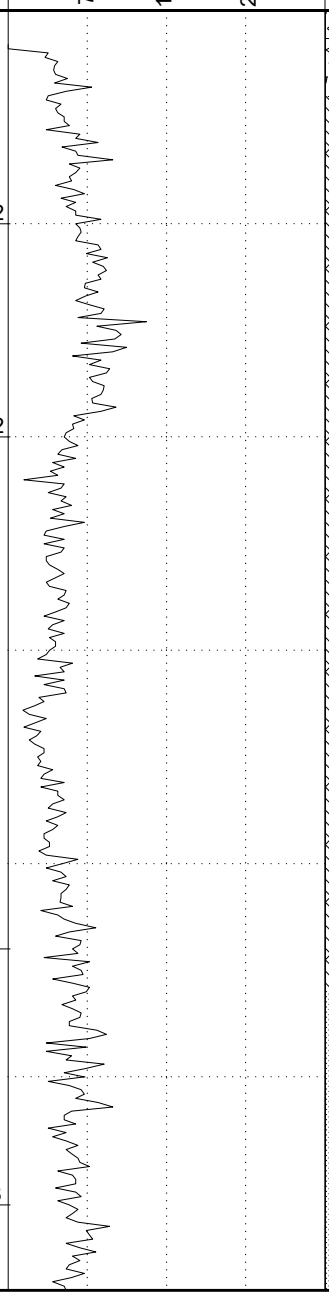
BORING LOG

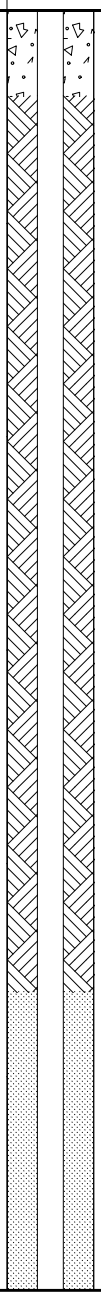
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/31/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 23.2 **COORDINATES:** N:364,080.06 E:1,815,713.47
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 19 ft. **COMP.** 20 ft. **DELAYED** 25.75 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 25' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Sandy Lean Clay (CL) mottled reddish yellow (7.5YR 7/8), gray (7.5YR 6/1) and brown (7.5YR 5/3) fill dry, medium stiff, medium plastic, very fine to fine, trace interlayered silty sand and sandy fat clay	23.2
5		**Silt (ML)** very dark gray (10YR 3/1) and black (10YR 2/1) fill moist, loose, non plastic, very fine to coarse, intermixed fly and bottom ash	18.2
10		**Sandy Lean Clay (CL)** mottled reddish yellow (7.5YR 7/8), pinkish gray (7.5YR 6/2) and light red (2.5YR 6/6) fill moist, medium stiff the stiff, medium plastic, very fine to medium, sticky/cohesive, trace zones of interlayered high plastic sandy fat clay,	13.2
15			
20		mottled brown (7.5YR 5/4), light brown (7.5YR 6/3) and dark gray (7.5YR 4/1) fill wet, medium stiff to soft, medium to high plastic, very fine to medium	1.2
25		**Fat Clay (CH)** gray (10YR 5/1), dark gray (10YR 4/1) and brown (10YR 4/3) residuum wet, soft, high plastic, very fine to fine, sticky/cohesive, trace sand, trace organics	-4.8
30		**Clayey Sand (SC)** mottled very dark gray (10YR 3/1) and dark gray (10YR 4/1) residuum wet, medium dense, non plastic, very fine to fine, sticky/cohesive, trace zones with interbedded sandy lean clay, @ approx. 46-54' visible shells and shell fragments	





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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA
			23.2		Top of casing Elev. = 26.08 (CONTINUED)
35, 40, 45, 50		**Clayey Sand (SC)** mottled very dark gray (10YR 3/1) and dark gray (10YR 4/1) residuum wet, medium dense, non plastic, very fine to fine, sticky/cohesive, trace zones with interbedded sandy lean clay, @ approx. 46-54' visible shells and shell fragments*(Con't)*	-30.8		Annular Seal
55, 60		**Silty Sand (SM)** light gray (10YR 7/1) and very pale brown (10YR 7/3) residuum wet, medium dense to loose, non plastic, very fine to medium, subangular to subrounded, trace coarse, subrounded to rounded, trace dark gray to slightly greenish gray thinly interbedded clay lenses	-38.8		Filter Pack
65		**Poorly-graded Sand with Silt (SP-SM)** very pale brown (10YR 7/3) and white (10YR 8/1) residuum wet, medium dense to loose, non plastic, fine to medium, subangular to subrounded, trace coarse to coarse gravel, subrounded to rounded			

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 26.08)
			23.2		(CONTINUED)
		Poorly-graded Sand with Silt (SP-SM) very pale brown (10YR 7/3) and white (10YR 8/1) residuum wet, medium dense to loose, non plastic, fine to medium, subangular to subrounded, trace coarse to coarse gravel, subrounded to rounded *(Con't)*			**Filter Pack**
70					**Screen Tip Elevation**
75					
80					
85			-61.8		
		Sandy Fat Clay (CH) very dark gray (10YR 3/1), very dark brown / dusky yellowish brown (10YR 2/2) and black (10YR 2/1) residuum wet, medium stiff, high plastic, very fine	-62.8		
		Poorly-graded Sand with Silt (SP-SM) very pale brown (10YR 7/3) residuum wet, loose, non plastic, fine to medium	-63.8		

Bottom of borehole at 87.0 feet.

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SOUTHERN COMPANY

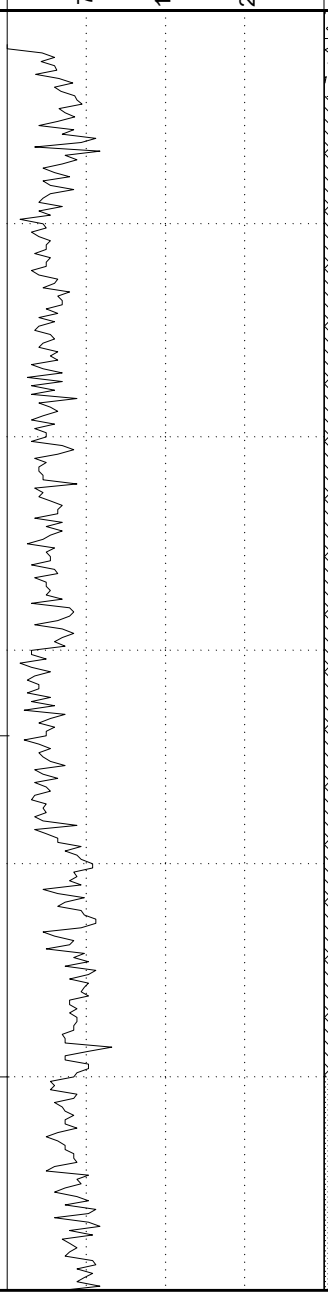
BORING LOG

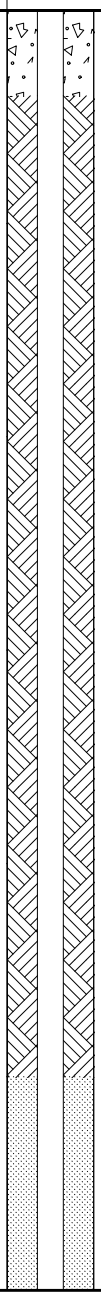
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/31/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.2 **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 17 ft. **COMP.** 22 ft. **DELAYED** 29 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 27', Well failed/Plugged and abandoned/Reinstalled Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Sandy Lean Clay (CL) mottled reddish yellow (7.5YR 6/8), red (2.5YR 5/6) and dark gray (7.5YR 4/1) fill dry, stiff to very stiff, low to medium plastic, very fine to medium, interlayered zones of clayey sand and silty sand, trace organics decreasing with depth, intermixed fly ash with dike fill from approx. 3-5'	21.2
5			
		mottled strong brown (7.5YR 5/6), gray (7.5YR 5/1) and red (2.5YR 5/6) fill moist, stiff to very stiff, medium plastic, very fine to medium, trace zones of intermixed silty sand	
10			
15			4.2
		Sandy Fat Clay (CH) mottled dark gray (10YR 4/1), dark gray (10YR 4/1) and red (2.5YR 4/8) fill wet, medium stiff to soft, medium to high plastic, very fine to medium, some interlayered sandy lean clay	
20			
25			-3.8
		Fat Clay (CH) trace mottling very dark gray (10YR 3/1) and red (2.5YR 5/8) residuum wet, medium stiff to soft, high plastic, very fine to fine, trace organics	
		black (10YR 2/1), very dark brown / dusky yellowish brown (10YR 2/2) and very dark grayish brown (10YR 3/2) residuum wet, medium stiff to soft, high plastic, very fine to fine, increase in organic content/wood fragments	
30			-8.8





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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 23.88)
			21.2		(CONTINUED)
		Silty Sand (SM) greenish gray (10BG 5/1) and dark gray (10YR 4/1) residuum wet, medium dense, non plastic, very fine to fine, some interbedded zones of clayey sand increasing with depth			
35					
40					
45			-23.8		
		Poorly-graded Sand with Silt (SP) very pale brown (10YR 7/3) and light gray (10YR 7/1) residuum wet, loose, non plastic, fine to medium, subangular to subrounded, trace coarse			Annular Seal
50					
			-30.8		
		Sandy Lean Clay (CL) light greenish gray (10BG 7/1) and greenish gray (10BG 5/1) residuum wet, medium stiff, low to medium plastic, very fine to fine			
			-32.8		
55		**Poorly-graded Sand with Silt (SP-SM)** very pale brown / very pale orange (10YR 8/2) and light gray (10YR 7/2) residuum wet, medium dense to loose, non plastic, fine to medium, subangular to subrounded			
			-35.8		
		Clayey Sand (SC) greenish gray (10BG 5/1) residuum wet, medium dense, non plastic, very fine to fine			
			-37.8		
60		**Poorly-graded Sand with Silt (SP-SM)** very pale brown / very pale orange (10YR 8/2) and light gray (10YR 7/1) residuum wet, loose, non plastic, fine to medium, subangular to subrounded, @ approx. 59-60' & 64-65' thinly interbedded zones of greenish gray silty sand with trace lean clay			
65					Filter Pack
		very pale brown / grayish orange (10YR 7/4) and light gray (10YR 7/2) residuum			

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 23.88)
			21.2		(CONTINUED)
		wet, medium dense to loose, non plastic, fine to medium, subangular to subrounded, trace coarse, subrounded to rounded, increasing SP sand with depth			
		Poorly-graded Sand with Silt (SP-SM)			
		very pale brown / very pale orange (10YR 8/2) and light gray (10YR 7/1) residuum wet, loose, non plastic, fine to medium, subangular to subrounded, @ approx. 59-60' & 64-65' thinly interbedded zones of greenish gray silty sand with trace lean clay*(Con't)*			
70					**Filter Pack**
75					**Screen Tip Elevation**
80					
85					
			-65.8		

Bottom of borehole at 87.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

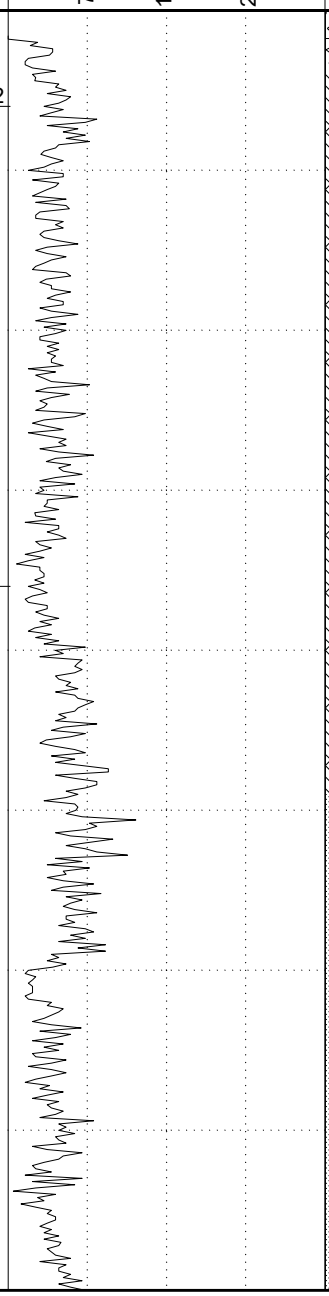
BORING LOG

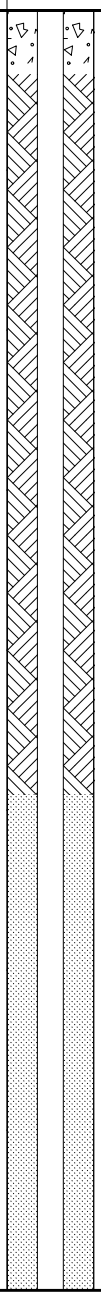
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/17/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.2 **COORDINATES:** N:362,705.09 E:1,815,679.92
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** 23 ft. **DELAYED** 23.12 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 26.5' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Lean Clay (CL) light brown (7.5YR 6/3) fill moist, sandy, trace gravel	21.2
		Sandy Lean Clay (CL) strong brown (7.5YR 5/6) fill moist, sandy	18.2
5		mottled light gray (7.5YR 7/1) and reddish yellow (7.5YR 7/8) fill moist, trace sand	
10			
15			3.2
		Sandy Fat Clay (CH) mottled gray (7.5YR 5/1) and brown (10YR 5/3) alluvium wet, trace sand	
20			
25			
30		mottled gray (7.5YR 5/1) and brown (10YR 5/3) alluvium wet, trace sand, with wood fragments	
35			
40		light gray (7.5YR 7/1) alluvium wet, sandy, trace organics	





WELL DATA

Top of casing Elev. = 23.88

Surface Seal

Annular Fill

Annular Seal

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SOUTHERN COMPANY

BORING LOG

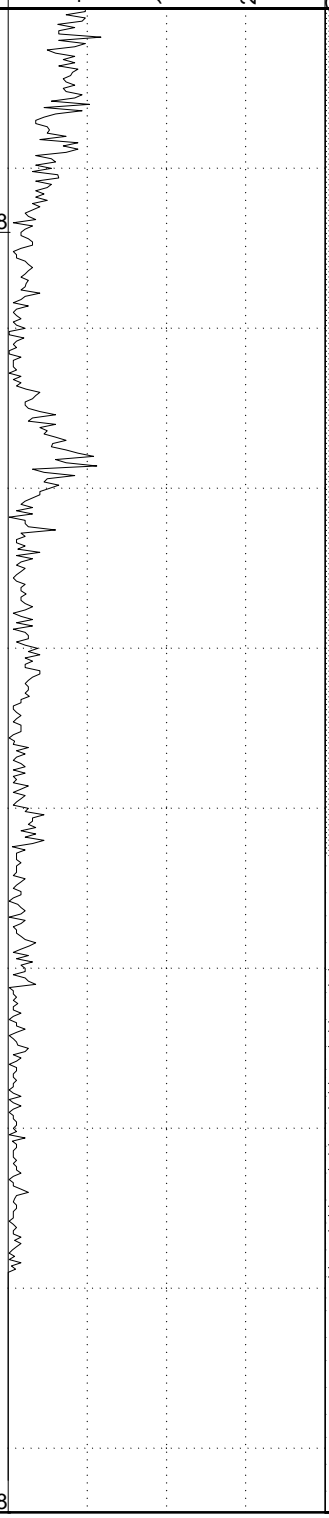
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			21.2
		Sandy Fat Clay (CH) mottled gray (7.5YR 5/1) and brown (10YR 5/3) alluvium wet, trace sand*(Con't)*	
45			
			-25.8
		Poorly-graded Sand (SP) pinkish gray (7.5YR 6/2) alluvium wet, coarse grained with trace fines, interbedded clay nodules	
50			
55			
		coarsening downward	
60			
65			
		mottled white (2.5YR 8/1) and pink / moderate orange pink (5YR 8/4) alluvium wet, coarse grained with trace fines, interbedded clay nodules	
70			
75			
		mottled white (2.5YR 8/1) and pink / moderate orange pink (5YR 8/4) alluvium wet, coarse grained with trace fines, interbedded clay nodules, rounded river gravel	
80			
85			
			-65.8

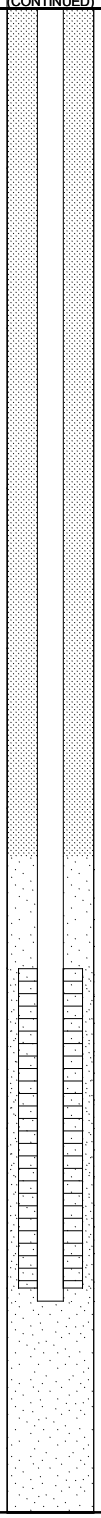
Bottom of borehole at 87.0 feet.

Natural Gamma



WELL DATA

Top of casing Elev. = 23.88



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SOUTHERN COMPANY

BORING LOG

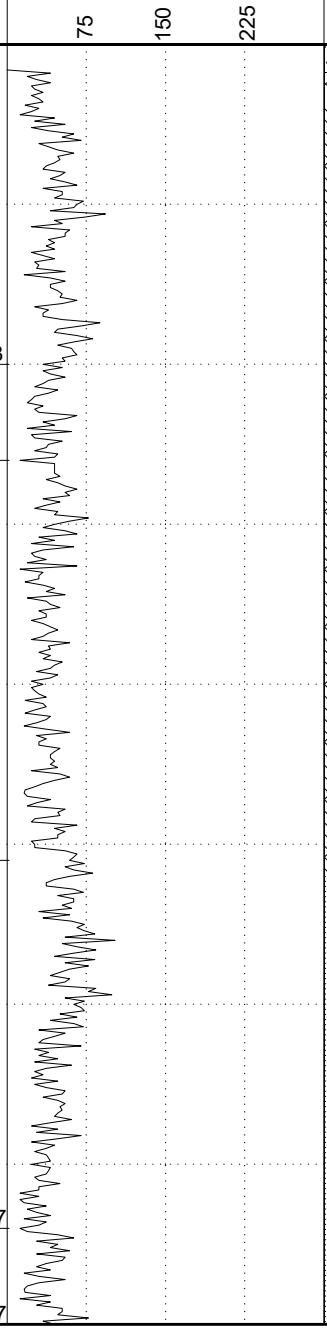
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/25/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.3 **COORDINATES:** N:361,251.39 E:1,815,625.46
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 19 ft. **COMP.** 24 ft. **DELAYED** 22.34 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 28' Well installed. Refer to well data sheet.

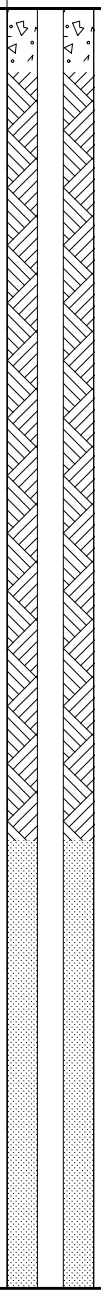
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Sandy Lean Clay (CL) mottled dark brown (7.5YR 3/2), brown (7.5YR 5/4) and yellowish red (5YR 5/8) fill dry, very stiff, low to medium plastic, very fine to medium, some interlayered clayey sand	21.3
5		black (7.5YR 2.5/1), gray (7.5YR 5/1) and strong brown (7.5YR 5/8) fill dry, very stiff, medium plastic, very fine to medium, zones of intermixed clayey sand and fly ash, trace bottom ash	
10		**Fat Clay (CH)** trace mottling gray (7.5YR 6/1) and light brown (7.5YR 6/4) fill moist, stiff, high plastic, very fine to medium, some included sand	11.3
		Sandy Lean Clay (CL) mottled brown (7.5YR 4/4), reddish yellow (7.5YR 6/6) and gray (7.5YR 6/1) fill moist, very stiff, medium plastic, very fine to medium, some interlayered zones of clayey sand	8.3
15			
20		mottled grayish brown (10YR 5/2), gray (10YR 5/1) and light yellowish brown (10YR 6/4) fill wet, medium stiff, medium plastic, very fine to medium, zones of increased plasticity, trace interlayered zones of clayey sand	
25		**Fat Clay (CH)** trace mottling black (10YR 2/1), dark grayish brown / dark yellowish brown (10YR 4/2) and dark gray (10YR 4/1) residuum wet, medium stiff, high plastic, very fine to fine, trace sand, organics/wood fragments, decrease in organics from previous borings	-4.2
30			
35			-15.7
40		**Silty Sand (SM)** dark gray (10YR 4/1), gray (10YR 6/1) and grayish brown (10YR 5/2) residuum wet, medium dense, non plastic, very fine to medium, interbedded zones of light greenish gray, trace interbedded silty sand	-18.7

Natural Gamma



WELL DATA

Top of casing Elev. = 24.22



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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

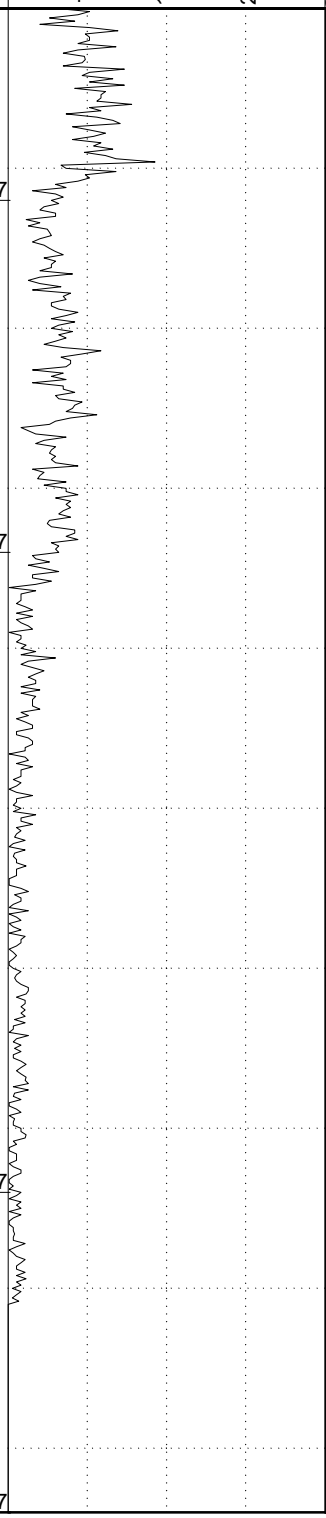
BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

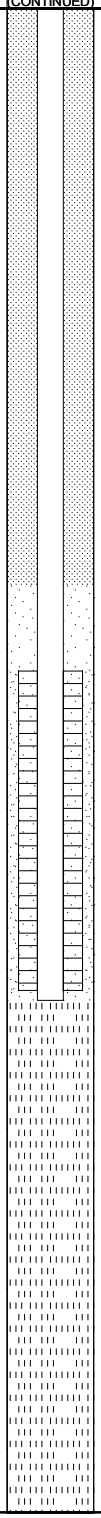
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			21.3
45		**Sandy Fat Clay (CH)** mottled greenish gray (10BG 5/1), gray (10YR 5/1) and pale brown (10YR 6/3) residuum wet, stiff, high plastic, very fine to fine, sticky/cohesive	-24.7
50, 55		**Clayey Sand (SC)** trace mottling gray (10YR 5/1), greenish gray (10BG 5/1) and yellowish brown / moderate yellowish brown (10YR 5/4) residuum wet, medium dense, non plastic, very fine to fine, sticky/cohesive, some interbedded zones of silty sand	-35.7
60, 65, 70, 75		**Poorly-graded Sand with Silt (SP-SM)** white (10YR 8/1) and light gray (10YR 7/1) residuum wet, medium dense to loose, non plastic, fine to medium, subangular to subrounded, trace included silty sand light yellowish brown (10YR 6/4) and very pale brown (10YR 8/4) residuum wet, loose, non plastic, fine to coarse, subangular to rounded, some fine to coarse/subrounded to rounded gravel included, trace interbedded zones of SW-SM sand, color lightens with depth	-55.7
80, 85		No Recovery 77-87'	-65.7

Natural Gamma



WELL DATA

Top of casing Elev. = 24.22



Bottom of borehole at 87.0 feet.

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/26/2013 **COMPLETED** 10/1/2013 **SURF. ELEV.** 8.9 **COORDINATES:**
CONTRACTOR Thompson Engineering **EQUIPMENT** **METHOD** Mud Rotary
DRILLED BY Phil/Stan **LOGGED BY** K.Lewis **CHECKED BY**
BORING DEPTH 58 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Previously named APZ-4 Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 11.74)
		Sandy Fat Clay (CHS)	8.9		Surface Seal
5		clay; sandy, gray, fine to medium sands, high plasticity			Annular Fill
10		saa; except with fine sands			
15		clay; fat, gray, very high plasticity	-9.6		
20		NO SAMPLE	-14.6		
25		**Well-graded Sand with Silt (SW-SM)** sand with silty fines, gray, fine sands and sparse medium sands			Annular Seal
30		saa; except gray and tan, fine grained sands, has strong smell " Mississippi Mud"	-24.6		
35		**Fat Clay (CH)** clay; fat, gray, high plasticity (top 2/3 white sand)	-29.6		
40		**Well-graded Gravelly Sand (SWG)** sand; light gray, fine sands, sparse medium sands			

(Continued Next Page)

SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 11.74)
		(CONTINUED)			
		Well-graded Gravelly Sand (SWG) sand; light gray, fine sands, sparse medium sands*(Con't)*	8.9		**Annular Seal**
45		sand with sparse gravel; white/tan, white pea size quartz gravel (1 inch), medium to coarse sands			**Filter Pack**
50			-44.6		
55		passed up sample due to the amount of collapse	-47.1		**Screen Tip Elevation**
		Well-graded Gravelly Sand (SWG) sand with silt and gravel, fine sand, coarse gravel, gravel pieces are surrounded by clays, gravel = subangular to well rounded	-49.1		

Bottom of borehole at 58.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

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SOUTHERN COMPANY

BORING LOG

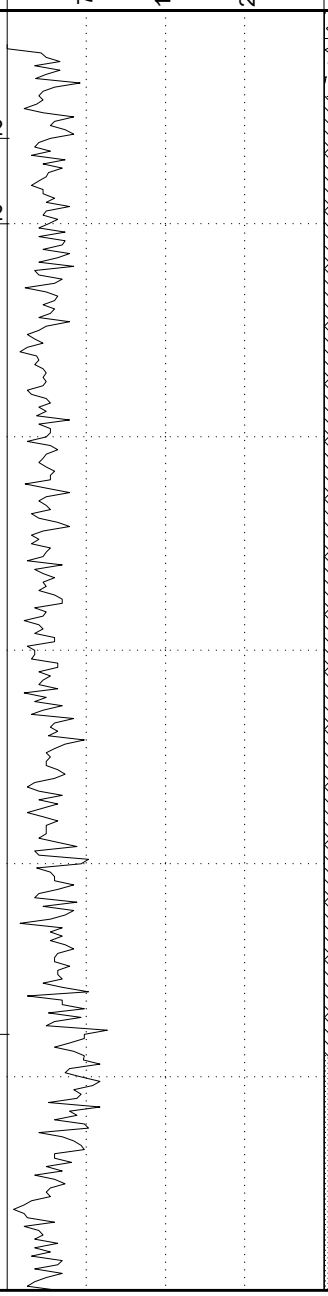
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/25/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.2 **COORDINATES:** N:360,591.97 E:1,813,619.23
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 21 ft. **COMP.** 23 ft. **DELAYED** 23.15 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 27' Well installed. Refer to well data sheet.

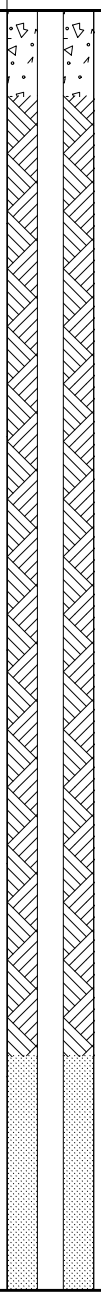
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Sandy Lean Clay (CL) mottled reddish yellow (7.5YR 7/8) and light brown (7.5YR 6/3) fill dry, stiff to very stiff, medium plastic, very fine to medium	21.2
		Clayey Sand (SC) brown (7.5YR 5/2) and very dark gray (10YR 3/1) fill dry, medium dense to dense, non plastic, very fine to medium, intermixed fly ash and trace bottom ash	18.2
5		**Sandy Lean Clay (CL)** mottled reddish yellow (7.5YR 7/8), pinkish gray (7.5YR 6/2) and gray (10YR 5/1) fill dry, stiff to very stiff, medium plastic, very fine to medium, interlayered zones of clayey sand	16.2
10			
15		mottled yellowish red (5YR 5/8), reddish gray / pale brown (5YR 5/2) and reddish yellow (7.5YR 6/8) fill moist, stiff to very stiff, medium plastic, very fine to medium	
20		mottled pinkish gray (7.5YR 6/2), light brown (7.5YR 6/4) and light gray (7.5YR 7/1) fill wet, medium stiff to stiff, medium plastic, very fine to medium, interlayered zones of high plastic sandy fat clay, sand content decreases with depth	-2.8
25		**Fat Clay (CH)** dark gray (7.5YR 4/1) and black (7.5YR 2.5/1) residuum wet, medium stiff, high plastic, very fine to fine, abundant organics/wood fragments	
30			

Natural Gamma



WELL DATA

Top of casing Elev. = 23.89



Surface Seal

Annular Fill

Annular Seal

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SOUTHERN COMPANY

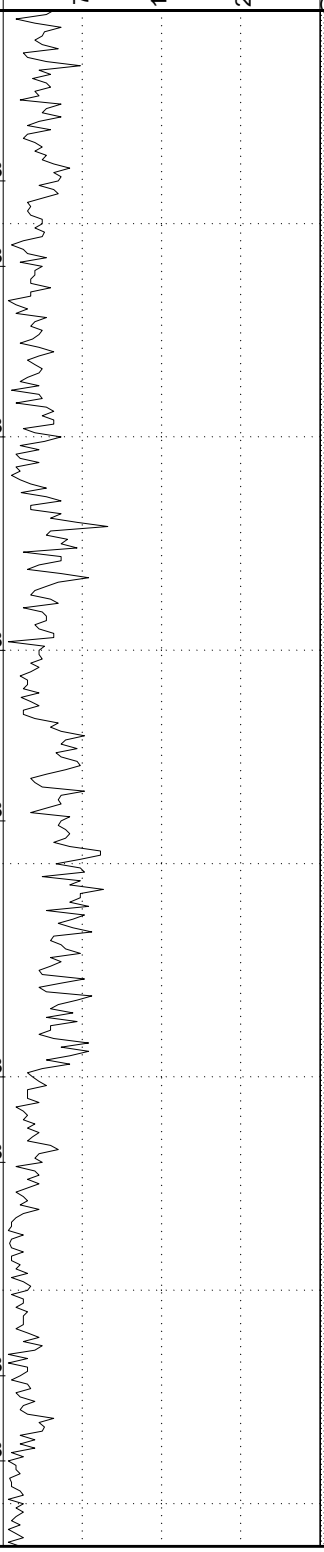
BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		21.2	
		Fat Clay (CH) dark gray (7.5YR 4/1) and black (7.5YR 2.5/1) residuum wet, medium stiff, high plastic, very fine to fine, abundant organics/wood fragments*(Con't)*	-12.8
35		**Clayey Sand (SC)** very dark gray (10YR 3/1) and dark brown (10YR 3/3) residuum wet, medium dense, non plastic, very fine to fine, sticky/cohesive	-14.8
		Silty Sand (SM) very pale brown (10YR 7/3) and brown (10YR 5/3) residuum wet, medium dense, non plastic, very fine to medium	-18.8
40		**Sandy Lean Clay (CL)** trace mottling brown (10YR 5/3), gray (10YR 6/1) and brownish yellow / dark yellowish orange (10YR 6/6) residuum wet, medium stiff to stiff, low to medium plastic, very fine to fine, interbedded zones of clayey sand	-23.8
45		**Silty Sand (SM)** dark gray (10YR 4/1) and gray (10YR 6/1) residuum wet, medium dense to loose, non plastic, very fine to medium, trace interbedded clayey sand lenses	-27.8
50		**Fat Clay (CH)** light greenish gray (10BG 7/1), olive gray / light olive gray (5Y 5/2) and dark gray (10YR 4/1) residuum wet, stiff, high plastic, very fine to fine, sticky/cohesive, trace sand	-33.8
55		**Clayey Sand (SC)** dark gray (10YR 4/1) and light greenish gray (10BG 7/1) residuum wet, medium dense, non plastic, very fine to fine, sticky/cohesive	-35.8
60		**Poorly-graded Sand with Silt (SP-SM)** white (10YR 8/1) and light gray (10YR 7/2) residuum wet, loose, non plastic, very fine to medium, subangular to subrounded	-40.8
		Silty Sand (SM) gray (10YR 5/1) and gray (10YR 6/1) residuum wet, medium dense, non plastic, very fine to fine, trace interbedded clayey sand	-42.8
65		**Poorly-graded Sand with Silt (SP-SM)** white (10YR 8/1) and light gray (10YR 7/2) residuum wet, medium dense to loose, non plastic, fine to medium, trace coarse, some included zones of silty sand	

Natural Gamma



WELL DATA

Top of casing Elev. = 23.89

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Annular Seal

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA
			21.2		Top of casing Elev. = 23.89 (CONTINUED)
		Poorly-graded Sand with Silt (SP-SM) white (10YR 8/1) and light gray (10YR 7/2) residuum wet, medium dense to loose, non plastic, fine to medium, trace coarse, some included zones of silty sand *(Con't)*			
70		very pale brown (10YR 7/3), light yellowish brown (10YR 6/4) and pink (7.5YR 7/3) residuum wet, loose, non plastic, fine to coarse, subangular to rounded, trace fine to coarse gravel, subrounded to rounded, some zones of interbedded SW-SM sand, color darkens with depth			Filter Pack
75					
80					Screen Tip Elevation
85			-65.8		

Bottom of borehole at 87.0 feet.

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SOUTHERN COMPANY

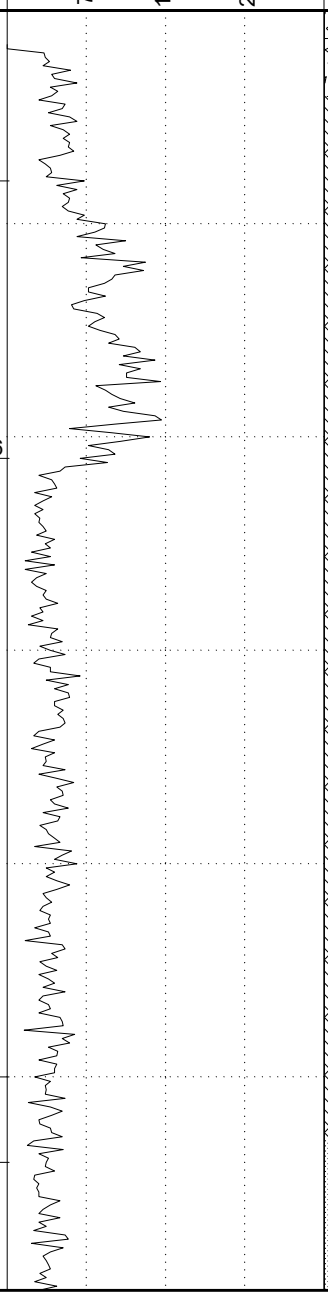
BORING LOG

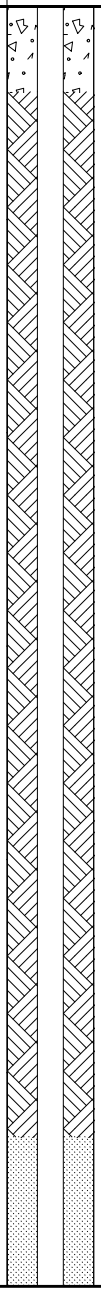
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/25/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 22.1 **COORDINATES:** N:361,613.08 E:1,812,571.44
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 21 ft. **COMP.** 22 ft. **DELAYED** 23.01 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 29' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Elastic Silt (MH) mottled strong brown (7.5YR 5/8), reddish yellow (7.5YR 7/8) and red (2.5YR 5/6) fill dry, medium stiff to stiff, non to low plastic, very fine to medium, trace zones of interlayered lean clay	22.1
			18.1
5		**Silt (ML)** very dark gray (10YR 3/1) and black (10YR 2/1) fill moist, medium dense to loose, non plastic, very fine to medium, trace coarse grains, fly ash with trace included bottom ash	
10			11.6
		Sandy Lean Clay (CL) mottled gray (7.5YR 6/1), brown (7.5YR 5/4) and reddish brown (2.5YR 5/4) fill moist, stiff to very stiff, low to medium plastic, very fine to medium, interlayered zones of clayey sand	
15		mottled strong brown (7.5YR 5/8), grayish brown (10YR 5/2) and reddish brown (5YR 4/3) fill wet, medium stiff to stiff, medium plastic, very fine to medium, trace interlayered clayey sand, sticky/cohesive, stiffness decreasing with depth	
20			
25			-3.0
		Sandy Fat Clay (CH) mottled strong brown (7.5YR 5/8) and grayish brown (10YR 5/2) fill wet, medium stiff, high plastic, very fine to medium	
			-5.0
		Fat Clay (CH) black (7.5YR 2.5/1) and dark brown (7.5YR 3/2) residuum wet, medium stiff, high plastic, very fine to fine, abundant organics/wood fragments/peat	
30			





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SOUTHERN COMPANY

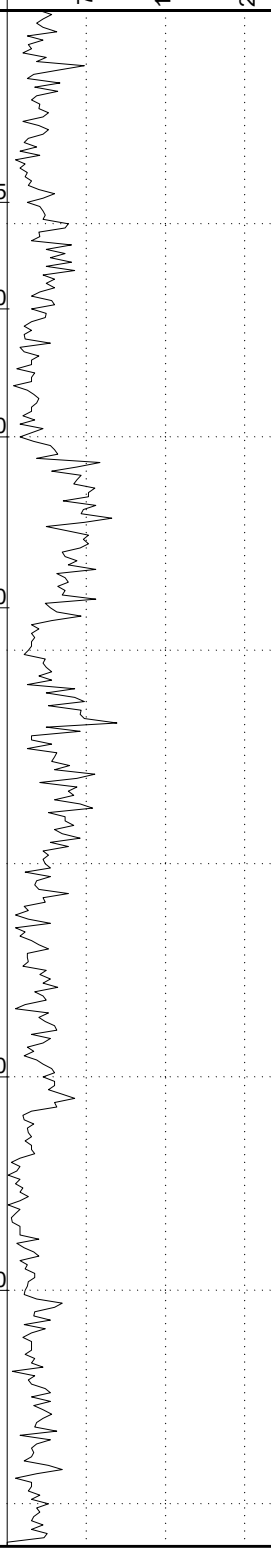
BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

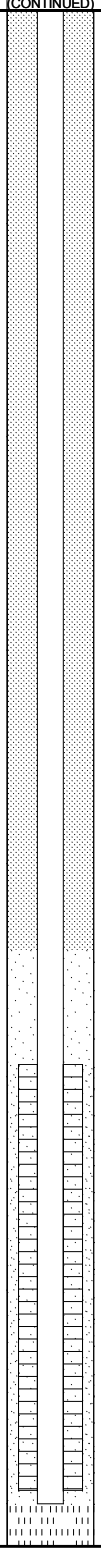
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Fat Clay (CH) black (7.5YR 2.5/1) and dark brown (7.5YR 3/2) residuum wet, medium stiff, high plastic, very fine to fine, abundant organics/wood fragments/peat*(Con't)*	22.1
			-12.5
35		**Clayey Sand (SC)** trace mottling very dark gray (10YR 3/1), gray (10YR 5/1) and brown (10YR 5/3) residuum wet, medium dense, non plastic, very fine to fine, sticky/cohesive	
			-15.0
		Silty Sand (SM) mottled gray (10YR 6/1) and light yellowish brown (10YR 6/4) residuum wet, medium dense, non plastic, very fine to medium	
40			-18.0
		Sandy Lean Clay (CL) mottled gray (10YR 5/1), brown (10YR 4/3) and dark yellowish brown (10YR 4/6) residuum wet, medium stiff to stiff, medium plastic, very fine to fine	
			-22.0
45		**Silty Sand (SM)** brownish yellow / dark yellowish orange (10YR 6/6) and gray (10YR 5/1) residuum wet, medium dense, non plastic, very fine to fine, some interbedded zones of clayey sand and SP-SM sand	
50			
		trace mottling very pale brown (10YR 7/3), light brownish gray / pale yellowish brown (10YR 6/2) and gray (10YR 6/1) residuum wet, medium dense to loose, non plastic, very fine to medium, subangular to subrounded grains	
55			-33.0
		Poorly-graded Sand with Silt (SP-SM) white (10YR 8/1) and very pale brown / very pale orange (10YR 8/2) residuum wet, loose, non plastic, fine to medium, trace coarse, subangular to subrounded	
60			-38.0
		Silty Sand (SM) trace mottling gray (10YR 6/1), white (10YR 8/1) and pale brown (10YR 6/3) residuum wet, medium dense to loose, non plastic, very fine to medium, trace zone of interbedded clayey sand @ approx. 65.5-66'	
65			

Natural Gamma



WELL DATA

Top of casing Elev. = 25.01



Annular Seal

Filter Pack

Screen Tip Elevation

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA
			22.1		Top of casing Elev. = 25.01 (CONTINUED)
			-44.5		
		Poorly-graded Sand with Silt (SP-SM) reddish yellow (5YR 6/8) and reddish yellow (7.5YR 6/8) residuum wet, loose, non plastic, fine to medium, trace coarse, subangular to subrounded			
70					
		white (10YR 8/1) and light gray (10YR 7/2) residuum wet, loose, non plastic, fine to medium, subangular to subrounded, trace subrounded to rounded coarse to fine gravel			
75					
80					
		light gray (10YR 7/2) and very pale brown / grayish orange (10YR 7/4) residuum wet, loose, non plastic, fine to coarse, some fine to coarse gravel, subangular to rounded, zones of SW-SM sand, increasing coarse to gravel sized grains with depth			
85					
			-65.0		

Bottom of borehole at 87.0 feet.

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SOUTHERN COMPANY

BORING LOG

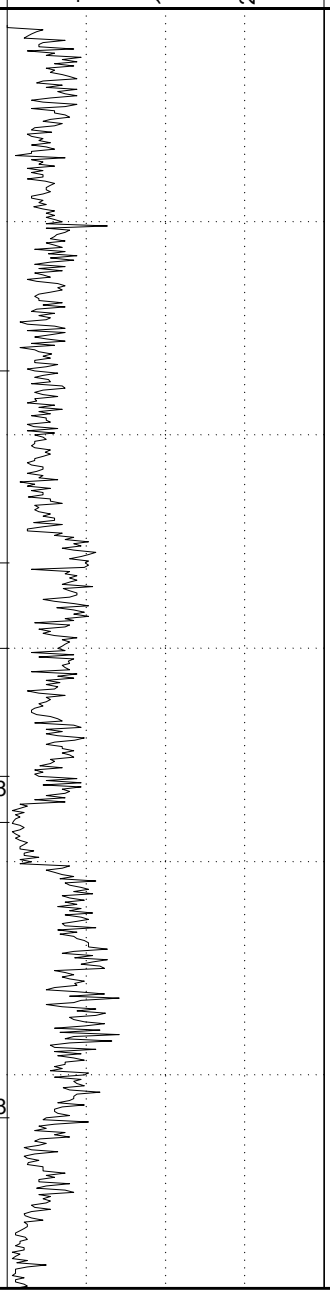
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/30/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 26.2 **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 127 ft. **GROUND WATER DEPTH: DURING** 15 ft. **COMP.** 18 ft. **DELAYED**
NOTES

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Sandy Lean Clay (CL) mottled reddish yellow (7.5YR 6/8) and gray (7.5YR 6/1) fill moist, sandy, trace roots and gravelly debris	26.2
10			
		increasing sand content	
			9.2
		Clayey Silty Sand (SW) mottled reddish yellow (7.5YR 6/8) and pink (7.5YR 7/3) alluvium wet, coarse to very fine grained	
20			
			0.2
		Fat Clay (CH) gray (7.5YR 6/1) alluvium wet, trace sand and wood fragments	
30			-3.8
		Well-graded Sand (SW) mottled reddish yellow (7.5YR 6/8) and gray (7.5YR 6/1) alluvium wet, coarse to very fine grained	
			-9.8
		Poorly-graded Sand (SP) gray (7.5YR 6/1) alluvium wet, coarse grained with trace fines, trace clay nodules	-10.8
40		**Fat Clay (CH)** gray (7.5YR 6/1) alluvium wet, trace sand and wood fragments	
50		gray (7.5YR 6/1) alluvium wet, trace sand and wood fragments	
			-25.8
		Poorly-graded Sand (SP) mottled reddish yellow (7.5YR 6/8) and gray (7.5YR 6/1) alluvium wet, coarse grained with trace fines, trace clay	
60		mottled reddish yellow (7.5YR 6/8) and gray (7.5YR 6/1) alluvium wet, coarse grained with trace fines, interbedded clay zones	

Natural Gamma



WELL DATA

Top of casing Elev. =

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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

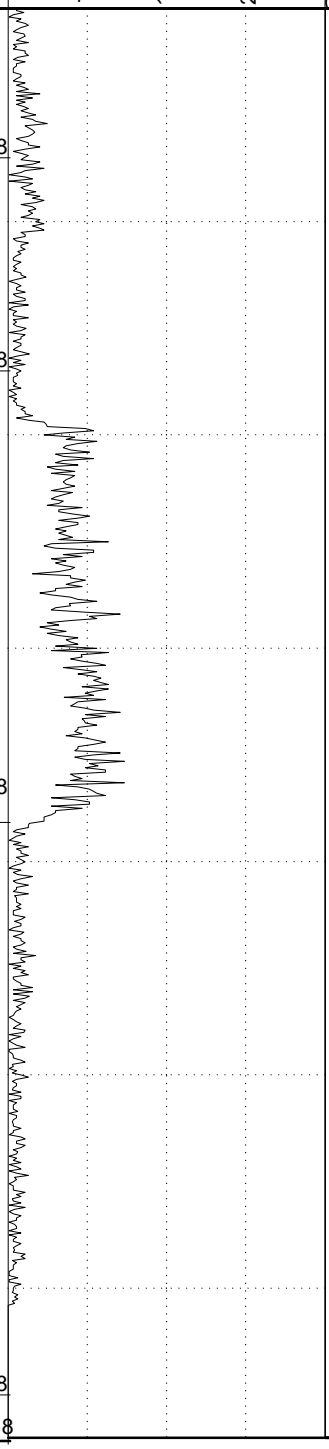
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Poorly-graded Sand (SP) mottled reddish yellow (7.5YR 6/8) and gray (7.5YR 6/1) alluvium wet, coarse grained with trace fines, trace clay*(Con't)*	26.2
			-40.8
70		**Poorly-graded Sand (SP)** gray (7.5YR 6/1) alluvium wet, coarse grained with trace fines, trace gravel	
			-50.8
80		**Fat Clay (CH)** mottled gray (7.5YR 6/1) and strong brown (7.5YR 4/6) alluvium wet, trace wood pulp and sand	
90			
			-70.8
		coarse orange sand at 97 ft	
100		**Poorly-graded Sand (SP)** gray (7.5YR 6/1) alluvium wet, very coarse grained with trace fines, well graded fine rounded river gravel	
110			
120		gray (7.5YR 6/1) alluvium wet, very coarse grained with trace fines, well graded fine rounded river gravel	
			-98.8
		Fat Clay (CH) gray (7.5YR 6/1) alluvium wet, fairly clean	-100.8

Bottom of borehole at 127.0 feet.

Natural Gamma



WELL DATA

Top of casing Elev. =

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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

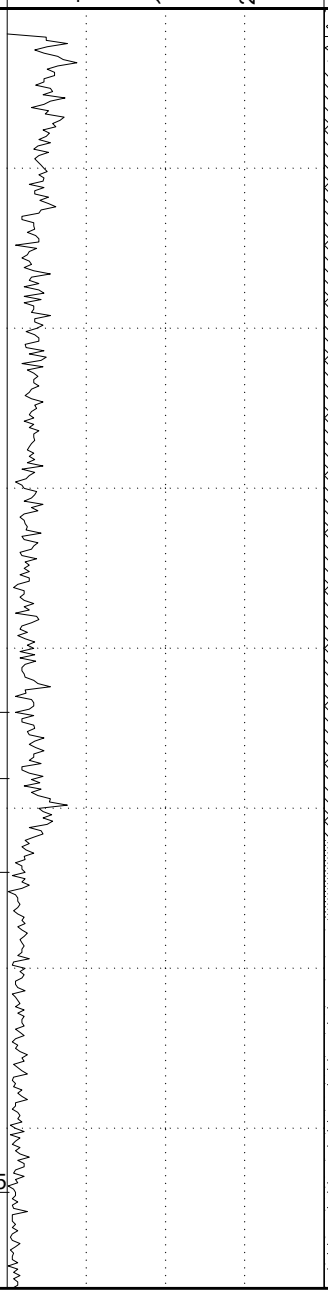
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/23/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 17.5 **COORDINATES:** N:362,038.24 E:1,808,279.56
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

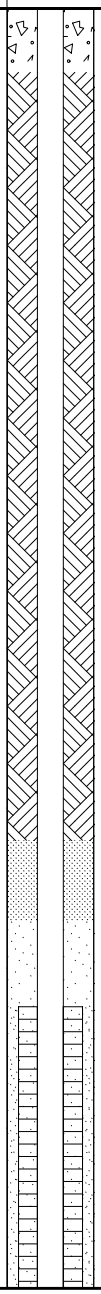
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Silty Sand (SM) light olive brown (2.5Y 5/4) alluvium moist, minimal clay, organic rich	17.5
		white (7.5YR 8/1) alluvium wet, predominantly fine to medium grained, no gravel	
5			
10			
15			
		white (10YR 8/1) alluvium wet, very wet	
20			
		Clayey Sand (SC) very pale brown / very pale orange (10YR 8/2) and gray (10YR 6/1) alluvium wet, medium, silty clay and sand interbedded, sand is medium to coarse grained	-4.5 -6.5
25		**Poorly-graded Sand (SP)** white (10YR 8/1) alluvium wet, medium to coarse grained, subrounded to subangular quartzite/chert gravel ~ 2-3 cm in size	-9.5
		Silty Sand (SM) white (10YR 8/1) alluvium wet, medium grained, no fines, no gravel, rare mica	
30			
35			-19.5
		Poorly-graded Sand (SP) very pale brown (10YR 8/3) alluvium wet, coarse grained with 10% gravel	
40			

Natural Gamma



WELL DATA

Top of casing Elev. = 20.66



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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA
			17.5		Top of casing Elev. = 20.66 (CONTINUED)
		Poorly-graded Sand (SP) very pale brown (10YR 8/3) alluvium wet, coarse grained with 10% gravel *(Con't)*			Filter Pack Screen Tip Elevation
45		white (10YR 8/1) and pale yellow (2.5Y 7/4) alluvium wet, medium, medium to coarse grained sand, with subangular gravel, clay nodules present from 43 to 50 feet			
50					
55					
60					
65			-49.5		

Bottom of borehole at 67.0 feet.

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SOUTHERN COMPANY

BORING LOG

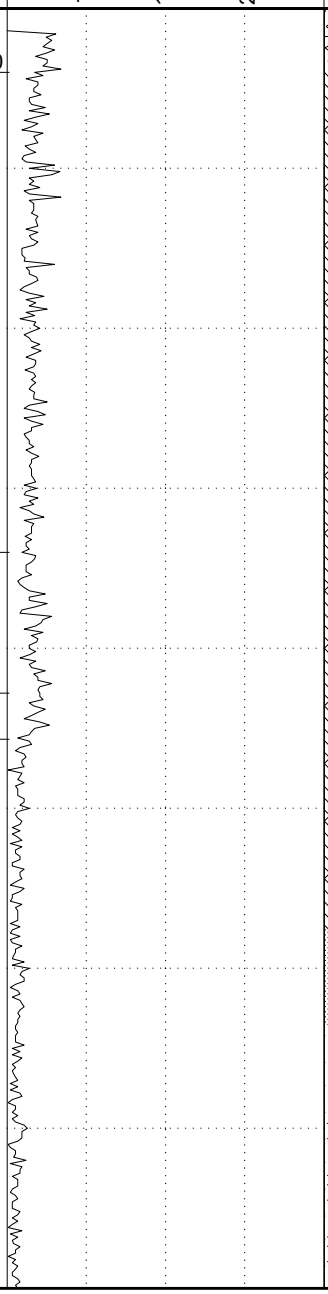
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/23/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 17.0 **COORDINATES:** N:361,968.69 E:1,807,662.77
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

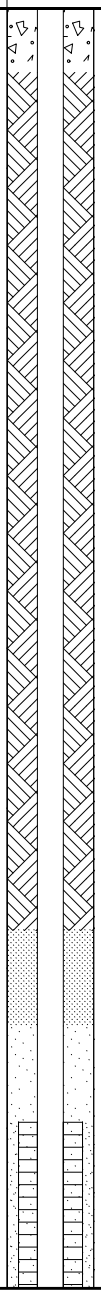
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Low Plastic Organic Silt or Clay (OL) reddish yellow (7.5YR 7/8) alluvium wet, medium dense, organic rich	17.0
		Poorly-graded Sand (SP) white (10YR 8/1) and reddish yellow (7.5YR 7/8) alluvium moist, rare gravel, medium grained	15.0
5			
10			
15			
		Clayey Sand (SC) white (10YR 8/1) alluvium moist, increasing clay content with depth, no organic material	0.0
20			
		Lean Clay (CL) white (10YR 8/1) alluvium	-4.4 -5.0
		Poorly-graded Sand (SP) white (7.5YR 8/1) alluvium micaceous, medium to coarse grained, subrounded gravel	
25			
		yellow (10YR 7/6) alluvium wet, coarse to medium grained, pebbles are predominantly subangular	
30		very pale brown (10YR 7/3) alluvium wet, coarse to medium grained, pebbles are predominantly subangular	
		very pale brown (10YR 8/3) alluvium wet, coarse to medium grained, pebbles are predominantly subangular	
35			
		very pale brown (10YR 7/3) alluvium wet, coarse to medium grained, pebbles are predominantly subangular	
40			

Natural Gamma



WELL DATA

Top of casing Elev. = 19.95



Surface Seal
Annular Fill
Annular Seal
Filter Pack

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			17.0
		Poorly-graded Sand (SP) white (7.5YR 8/1) alluvium micaceous, medium to coarse grained, subrounded gravel*(Con't)* yellow (10YR 7/6) alluvium wet, coarse to medium grained, pebbles are predominantly subangular	
45			
			-30.0
		Poorly-graded Gravel (SP) very pale brown (10YR 8/3) alluvium wet, coarse grained sand, gravel size from 2 to 4 cm, subrounded to subangular (gravel much more abundant than other units)	
50			
			-36.0
		Lean Clay (CL) pale yellow (5Y 8/2) alluvium moist, clean	-37.0
55		**Well-graded Sand (SW)** white / yellowish gray (5Y 8/1) alluvium wet, clean medium to fine grained, no gravels	
			-40.0
		Medium to High Plastic Organic Clay or Silt (OH) very dark gray (2.5Y 3/1) alluvium very damp, stiff, high, organic rich, fat	
60			
65			
			-50.0

Natural Gamma: 75, 150, 225

WELL DATA

Top of casing Elev. = 19.95

(CONTINUED)

Filter Pack

Screen Tip Elevation

Bottom of borehole at 67.0 feet.

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SOUTHERN COMPANY

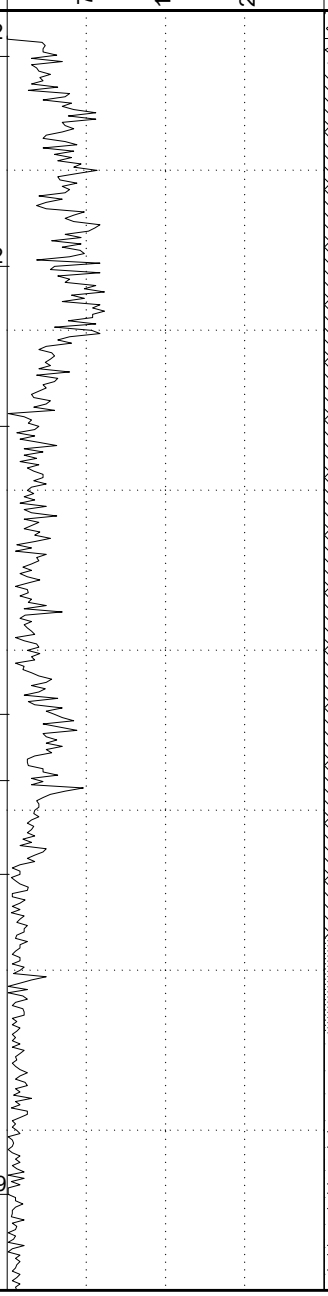
BORING LOG

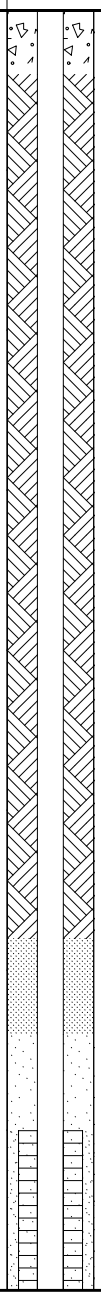
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/22/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 20.2 **COORDINATES:** N:361,627.64 E:1,807,366.92
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	MATERIAL DESCRIPTION	ELEVATION
		20.2
	Silty Sand (SM) very pale brown (10YR 8/4) alluvium damp, fine to medium grained	19.2
	Lean Clay (CL) gray (5YR 5/1) alluvium damp, medium dense, low, fine sandy clay with sand lense ~4 inches at 6.0 feet. grades down from darker to ligher gray color	
5		
		12.2
	Medium to High Plastic Organic Clay or Silt (OH) brown (7.5YR 5/2) alluvium damp, high, orangic rich with possible charcoal or coal.	
10		
		7.2
	Well-graded Sand (SW) white (10YR 8/1) alluvium wet, fine to medium, clean	
15		
20		
		-1.9
	Elastic Silt (MH) light gray (10YR 7/1) alluvium fine clayey-silty sand becomes more clayey with depth	-3.9
25	**Well-graded Sand (SW)** white (10YR 8/1) alluvium wet, medium sand, clean	
		-6.9
	Well-graded Gravelly Sand (SW) yellow (10YR 7/6) alluvium wet, medium to coarse sand, some gravel	
30		
35		
		-16.9
	Well-graded Sand (SW) white (10YR 8/1) alluvium wet, medium sand grades down to coarse sand	
40		





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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 23.24)
			20.2		(CONTINUED)
		Well-graded Sand (SW) white (10YR 8/1) alluvium wet, medium sand grades down to coarse sand*(Con't)*	-23.9		Filter Pack
45		**Poorly-graded Gravelly Sand (SP)** yellow (10YR 7/8) alluvium wet, coarse sand with gravel			Screen Tip Elevation
50					
55			-36.9		
		Well-graded Gravelly Sand (SW) white (10YR 8/1) alluvium wet, medium to coarse sand			
60			-42.9		
		Poorly-graded Sand (SP) yellow (10YR 7/8) alluvium wet, coarse sand with pea sized gravels	-44.9		
65		**Medium to High Plastic Organic Clay or Silt (OH)** very dark gray (10YR 3/1) alluvium stiff, high, organic rich, fat clay, very plastic	-46.9		

Bottom of borehole at 67.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

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SOUTHERN COMPANY

BORING LOG

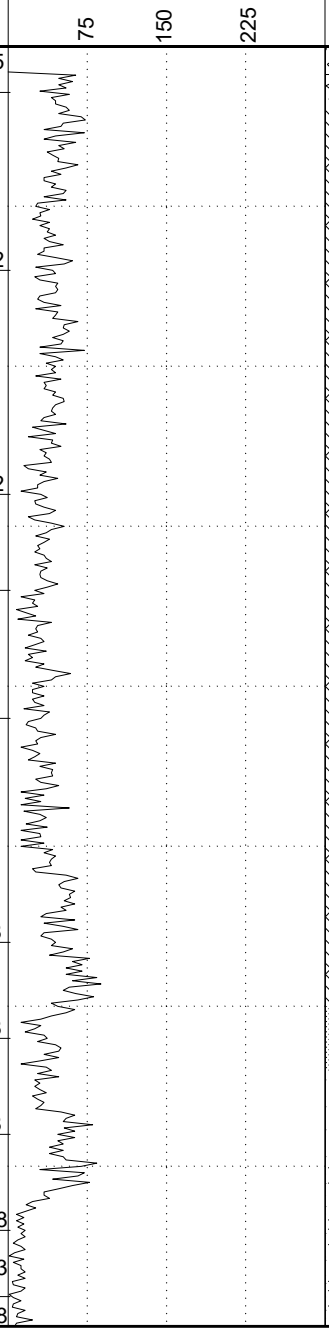
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/18/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 26.2 **COORDINATES:**
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** M. Tanner **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

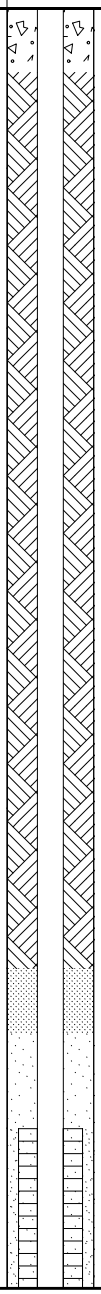
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			26.2
		Poorly-graded Sand (SP) very pale brown / grayish orange (10YR 7/4) fill moist, fine to medium grained, silty	25.5
		Low Plastic Organic Silt or Clay (OL) brownish yellow / dark yellowish orange (10YR 6/6) fill moist, some (<10%) fine sand and crushed limestone from 4.0-4.5 feet	
5		black (10YR 2/1) and very dark gray (10YR 3/1) fill moist, abundant coal fragments up to 2.5 inches	19.2
		Silty Sand (SM) brownish yellow (10YR 6/8) fill moist, fine to medium grained, some silt	
10			12.2
15		**Elastic Silt (MH)** light brownish gray / pale yellowish brown (10YR 6/2) alluvium stiff, medium	9.2
		Medium to High Plastic Organic Clay or Silt (OH) dark gray (2.5Y 4/1) alluvium woody material also present	
20			5.2
		Silty Sand (SM) light gray (10YR 7/1), brownish yellow (10YR 6/8) and pink (5YR 7/3) alluvium wet, fine to medium grained, grades to pink color	
25			-1.8
		Low Plastic Organic Silt or Clay (OL) light brownish gray (2.5Y 6/2) and light gray (2.5Y 7/1) alluvium wet, medium, with thin interbeds of fine silty sand	
30			-4.8
		Poorly-graded Sand (SP) light gray (2.5Y 7/1) alluvium wet, predominately medium grained, slightly silty	-7.8
35		**Elastic Silt (MH)** dark gray (2.5Y 4/1) alluvium medium	-10.8
		Silty Sand (SM) pale yellow (5Y 7/3) alluvium wet, fine to medium grained with very little silt, micaceous	-12.3
40		**Clayey Sand (SC)**	-13.8

Natural Gamma



WELL DATA

Top of casing Elev. = 29.12



Surface Seal
Annular Fill
Annular Seal
Filter Pack

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SOUTHERN COMPANY

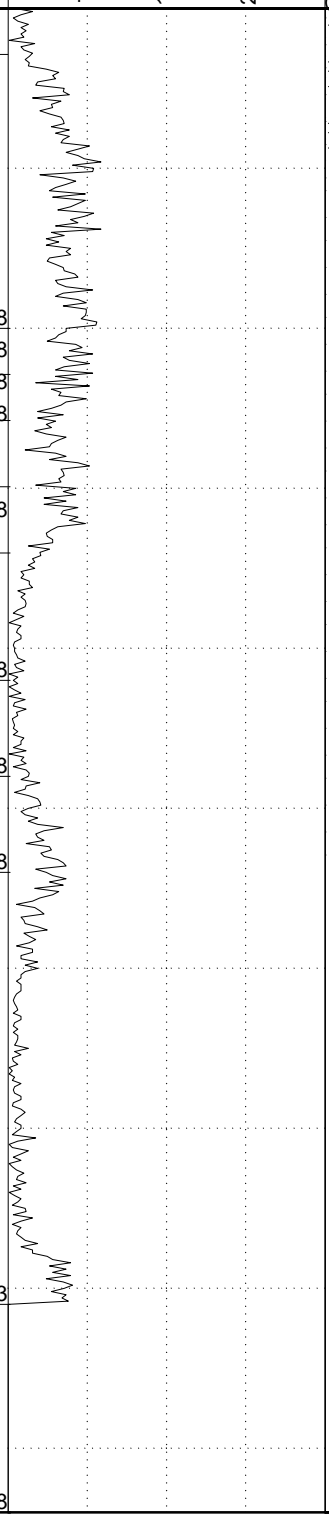
BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		gray (5Y 5/1) and dark gray / olive gray (5Y 4/1) alluvium fine-grained, organic rich, muscovite	26.2
		Medium to High Plastic Organic Clay or Silt (OH) mottled dark gray / olive gray (5Y 4/1) and pale olive / dusky yellow (5Y 6/4) alluvium stiff, high, organic leaf and sticks, very thin (<2mm) sand lenses	
45			
50			-23.8
		Silty Sand (SM) light gray (5Y 7/1) alluvium wet, fine to very fine, trace mica.	-24.8
		Elastic Silt (MH) dark gray / olive gray (5Y 4/1) alluvium stiff, medium, silty and sandy. no organics	-25.8
		Lean Clay (CL) mottled strong brown (7.5YR 5/8) and gray (7.5YR 5/1) alluvium wet, thin fine-grained sand interbedded	-26.8
55		**Clayey Gravel (GC)** yellow (10YR 7/8) alluvium wet, round to subrounded gravel with thin (<4mm) clay lenses.	-29.8
		Silty Sand (SM) pale yellow (5Y 8/2) alluvium wet, fine-grained with minor silty clay	
60			-34.8
		Poorly-graded Sand (SP) pale yellow (5Y 8/2) alluvium wet, with fine-grained, clean sand	-37.8
65		**Clayey Sand (SC)** pale yellow (5Y 8/2) alluvium sandy, fine-grained, clean, no gravel	-40.8
		Peat (PT) black (5Y 2.5/1) alluvium stiff, high, peat-like, bark and tree-material, plastic	
70			
75			
80			-54.3
		Fat Clay (CH) black (N1) alluvium stiff, high, decreasing organics with depth	
85			-60.8

Natural Gamma



WELL DATA

Top of casing Elev. = 29.12

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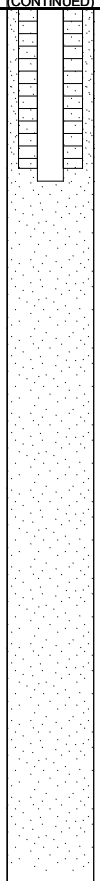

Filter Pack

Screen Tip Elevation

Bottom of borehole at 87.0 feet.

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 10/12/2015 **COMPLETED** 10/13/2015 **SURF. ELEV.** 26.2 **COORDINATES:** N:361,932.31 E:1,806,927.51
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 21 ft. **COMP.** 23.66 ft. **DELAYED** 23.59 ft. after 24 hrs.
NOTES No geophysical data collected Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 29.12)
		Sandy Lean Clay (CL) mottled strong brown (7.5YR 4/6) and reddish yellow (7.5YR 6/8) fill moist, sandy, trace gravel	26.2		Surface Seal
5			19.2		
		Sandy Fat Clay (CH) strong brown (7.5YR 5/6) alluvium moist, sandy			
10			16.2		
		Well-graded Sand (SW) mottled reddish yellow (7.5YR 7/8) and reddish yellow (7.5YR 6/8) alluvium moist, coarse to fine grained, interbedded clay			
15					
		mottled reddish yellow (7.5YR 7/8) and pinkish white (7.5YR 8/2) alluvium wet, coarse to very fine grained, increasing clay content with depth			
20			5.2		Annular Fill
		Fat Clay (CH) dark gray (7.5YR 4/1) alluvium wet, trace wood pulp	3.2		
25		**Poorly-graded Sand (SP)** gray (7.5YR 6/1) alluvium wet, coarse grained with trace fines, trace gravel and clay			
		gray (7.5YR 6/1) alluvium wet, coarse grained with trace fines, trace gravel and clay			
30			-4.8		
		Well-graded Sand (SW) mottled reddish yellow (7.5YR 6/8) and yellow (10YR 8/8) alluvium wet, coarse to fine grained, clayey	-7.8		
35		**Fat Clay (CH)** dark gray (7.5YR 4/1) alluvium wet, trace wood pulp			
40					

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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 29.12)
			26.2		(CONTINUED)
		Fat Clay (CH) dark gray (7.5YR 4/1) alluvium wet, trace wood pulp*(Con't)*			Annular Fill
45					Annular Seal
50		**Poorly-graded Sand (SP)** reddish yellow (7.5YR 6/8) alluvium wet, coarse grained with trace fines, trace gravel and interbedded gravel			Filter Pack
55			-30.8		
		gray (7.5YR 6/1) alluvium wet, coarse grained with trace fines, trace gravel and interbedded clay			
60					Screen Tip Elevation
65					
		coarsening downward			
70					
75			-50.8		
		Fat Clay (CH) gray (7.5YR 6/1) alluvium wet, trace wood pulp			
80					
85			-60.8		

Bottom of borehole at 87.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

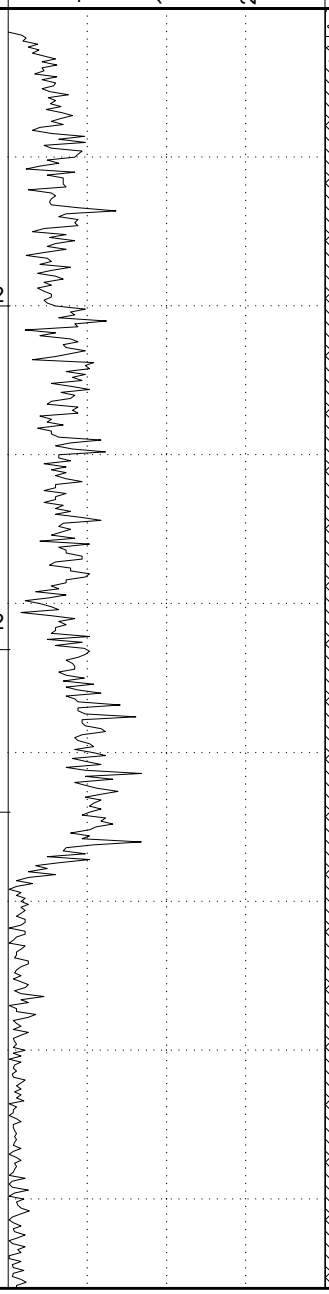
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/30/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 31.2 **COORDINATES:** N:362,557.33 E:1,807,427.93
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 89 ft. **GROUND WATER DEPTH: DURING** 25 ft. **COMP.** 29.5 ft. **DELAYED** 29.5 ft. after 48 hrs.
NOTES Well installed. Refer to well data sheet.

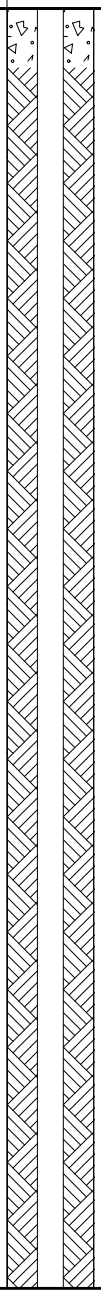
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			31.2
		Utility Clearance (HYDROEXCAVATION)	
5			
10			21.2
		Lean Clay (CL) mottled reddish yellow (7.5YR 6/8) and gray (7.5YR 6/1) fill moist, sandy	
15			
20			10.2
		3.0" black contact	
		Fat Clay (CH) gray (7.5YR 6/1) alluvium wet, trace silt, very clean	
25			4.2
		Poorly-graded Sand (SP) mottled reddish yellow (7.5YR 6/8) and light brown (7.5YR 6/3) alluvium wet, coarse grained with trace fines, trace gravel	
30			
35			
		coarsens downward, more consistent color	
40			

Natural Gamma



WELL DATA

Top of casing Elev. = 34.31



Surface Seal

Annular Fill

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SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

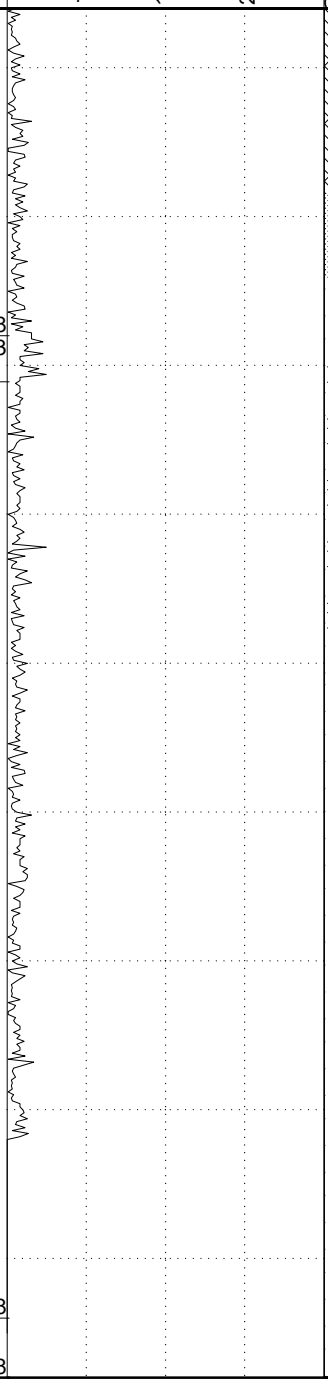
BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

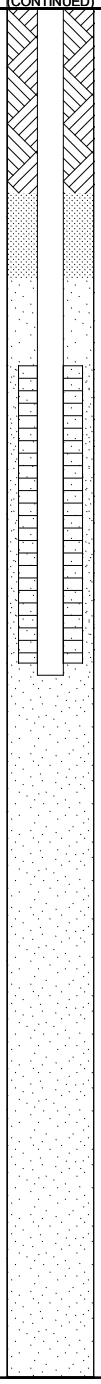
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			31.2
45		**Poorly-graded Sand (SP)** mottled reddish yellow (7.5YR 6/8) and light brown (7.5YR 6/3) alluvium wet, coarse grained with trace fines, trace gravel*(Con't)*	
50			
			-22.8
55		**Sandy Lean Clay (CL)** gray (7.5YR 6/1) alluvium wet, sandy	-23.3
		Poorly-graded Sand (SP) mottled reddish yellow (7.5YR 6/8) and light brown (7.5YR 6/3) alluvium wet, coarse grained with trace fines, trace gravel	
		gray (7.5YR 6/1) alluvium wet, coarse grained with little to no fines, no gravel	
60			
65			
		gray (7.5YR 6/1) alluvium wet, coarse grained with little to no fines, no gravel	
70			
75			
		gray (7.5YR 6/1) alluvium wet, coarse grained with little to no fines, no gravel	
80			
85			
			-55.8
		Fat Clay (CH) strong brown (7.5YR 5/6) alluvium wet, sandy, trace organic pulp	-57.8

Bottom of borehole at 89.0 feet.



WELL DATA

Top of casing Elev. = 34.31



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SOUTHERN COMPANY

BORING LOG

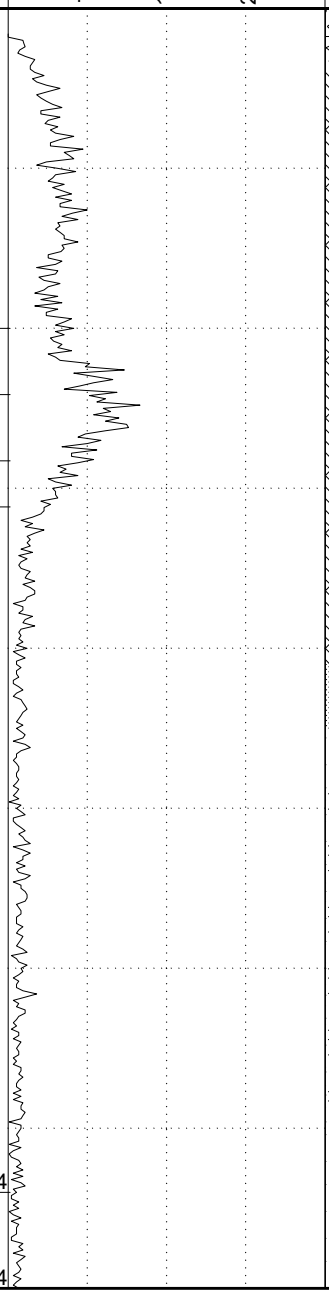
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/28/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 18.6 **COORDINATES:** N:363,068.86 E:1,807,361.63
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Hydrovac excavation from 0-10 feet Well installed. Refer to well data sheet.

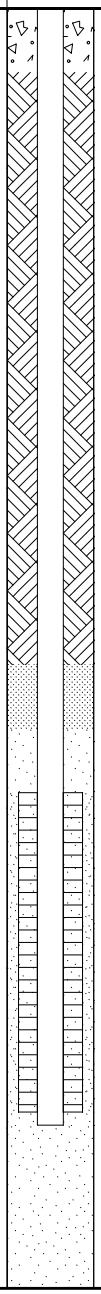
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Utility Clearance (HYDROEXCAVATION)	18.6
5			
10			8.6
		Silty Sand (SM) light gray (2.5Y 7/1) and yellow (2.5Y 7/6) alluvium moist, thinnly laminated, some organics	7.6
		Lean Clay (CL) light brownish gray (2.5Y 6/2) alluvium soft, medium, laminated, concentrated organics	4.6
15		**Silt (ML)** light gray / yellowish gray (5Y 7/2) alluvium moist, fine grained sand	3.6
		Well-graded Sand (SW) white / yellowish gray (5Y 8/1) alluvium wet, repeated fining upward sequences of coarse to medium sand, each sequence about 0.5 foot thick, rare pebble	
20			
		reddish yellow (7.5YR 6/8), yellow / pale yellowish orange (10YR 8/6) and reddish yellow (7.5YR 7/6) alluvium wet, gravelly fining upward sequences about 1 foot thick, gravel base at each sequence, grades up to medium sand	
25			
30			
35			
			-18.4
		Poorly-graded Sand (SP) pale yellow (2.5Y 7/4) alluvium wet, medium grained, clean, rare pebble	
40			-21.4

Natural Gamma



WELL DATA

Top of casing Elev. = 21.68



Surface Seal
Annular Fill
Annular Seal
Filter Pack
Screen Tip Elevation

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA
			18.6		Top of casing Elev. = 21.68 (CONTINUED)
45		**Well-graded Sand (SW)** yellow (10YR 7/8) and pale yellow (2.5Y 8/2) alluvium wet, medium to fine grained clean sand	-28.4		
50		**Clayey Sand (SC)** yellow (10YR 7/8) alluvium wet, medium, fine grained sand, most clay in top 4 inches	-31.4		
55		**Poorly-graded Sand (SP)** pale yellow (2.5Y 8/4) alluvium wet, coarse to medium grained sand, subangular gravel	-38.4		
60		**Well-graded Sand (SW)** pale yellow (2.5Y 8/2) alluvium wet, medium to coarse sand, no gravel	-47.4		
65		**Clayey Sand (SC)** gray (5Y 5/1) alluvium wet, fine grained sand with organic material present	-48.4		

Bottom of borehole at 67.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

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SOUTHERN COMPANY

BORING LOG

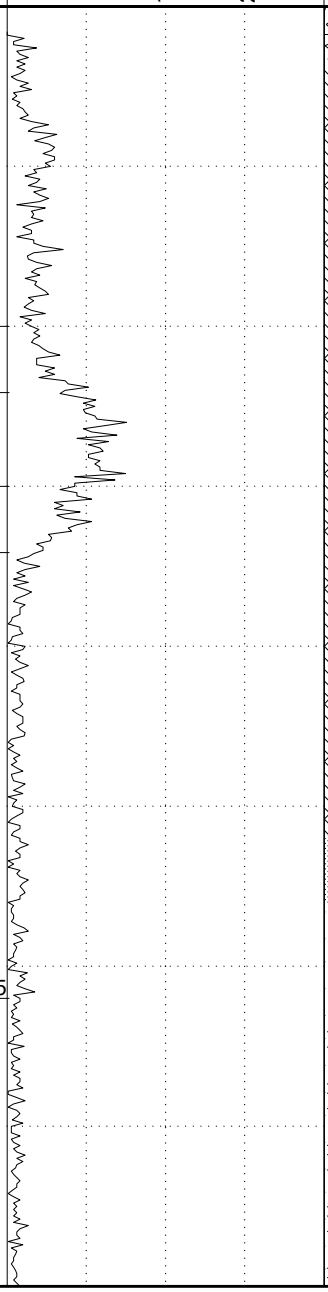
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/28/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 17.5 **COORDINATES:** N:363,101.48 E:1,807,776.83
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Hydrovac excavation from 0-10 feet Well installed. Refer to well data sheet.

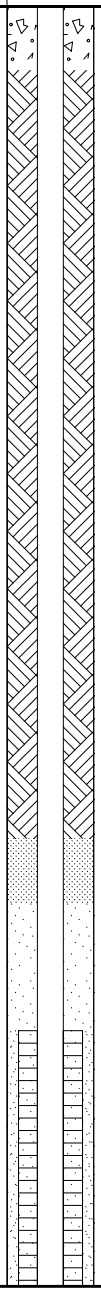
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Utility Clearance (HYDROEXCAVATION)	17.5
5			
10			7.5
		Fat Clay (CH) pinkish gray (7.5YR 6/2) alluvium moist, dense, medium, inorganic with thin <2mm interbeds of fine sand	5.5
		Lean Clay (CL) light brownish gray / pale yellowish brown (10YR 6/2) and yellowish brown (10YR 5/8) alluvium damp, dense, medium, contains 2 colors, within yellowish brown inclusions are pebbles	2.5
15		**Silty Sand (SM)** light brownish gray / pale yellowish brown (10YR 6/2) alluvium wet, fine grained with trace clay	1.5
		Poorly-graded Sand (SP) pale yellow (2.5Y 8/2) alluvium wet, repeating fining upward sequences of gravel to medium grained sand, each sequence ~1 foot thick, no clay	
20			
25			
		yellow (10YR 7/6) alluvium wet, medium to coarse grained, no gravel	
		yellow (10YR 7/6) and gray (7.5YR 6/1) alluvium wet, medium to coarse sand with 35% large clay nodules	
30			-13.5
		Well-graded Sand (SW) reddish yellow (7.5YR 6/8) alluvium wet, coarse grained, gravelly sand, repeating fining upward sequences about 1.5 foot thick	
35			
40			

Natural Gamma



WELL DATA

Top of casing Elev. = 17.46



Surface Seal
Annular Fill
Annular Seal
Filter Pack

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SOUTHERN COMPANY

BORING LOG

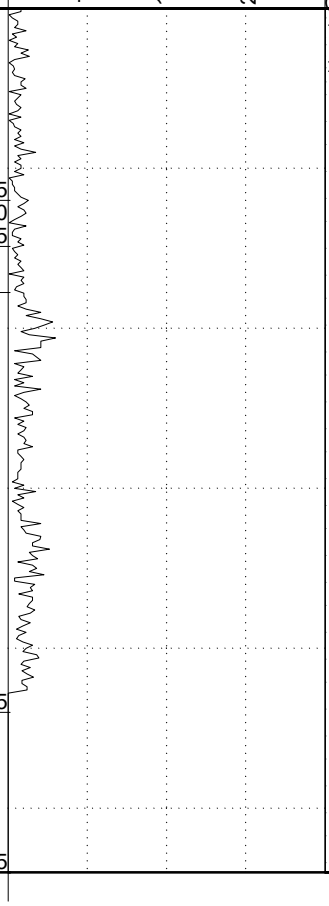
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			17.5
		Well-graded Sand (SW) reddish yellow (7.5YR 6/8) alluvium wet, coarse grained, gravelly sand, repeating fining upward sequences about 1.5 foot thick*(Con't)*	
45			-28.5
		Clayey Gravel (GC) light gray (10YR 7/2) alluvium wet	-29.0
		Silty Gravel (GM) yellow (10YR 7/6) alluvium wet, fine grained sand	-29.5
50		**Silty Sand (SM)** pale yellow (2.5Y 7/4) alluvium wet, clean, medium to fine grained, no clay, no gravel	
55			
60			-44.5
		Clayey Gravel (GC) yellow (10YR 7/6) alluvium wet, interbedded coarse sand and gravel with some clay, trace claystone clasts also present.	
65			-49.5

Bottom of borehole at 67.0 feet.

Natural Gamma



WELL DATA

Top of casing Elev. = 17.46

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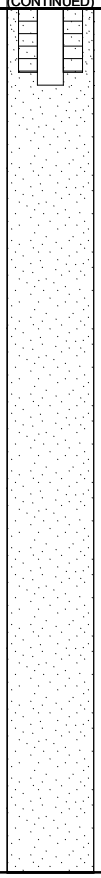


Filter Pack
Screen Tip Elevation

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

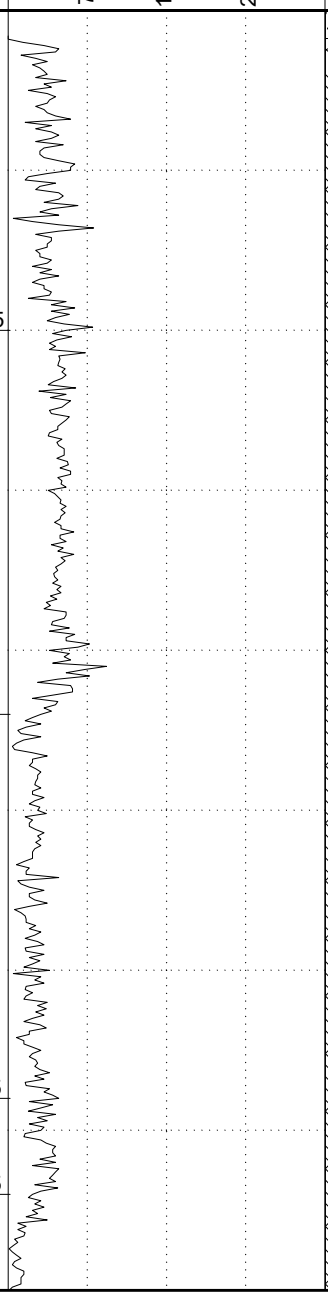
BORING LOG

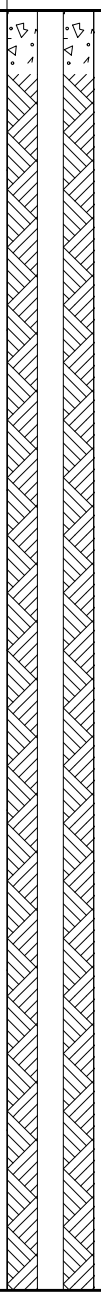
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/29/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 31.5 **COORDINATES:** N:362,918.17 E:1,808,316.29
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 25 ft. **COMP.** 27.8 ft. **DELAYED** 27.8 ft. after 48 hrs.
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Utility Clearance (HYDROEXCAVATION)	31.5
5			
10			21.5
		Lean Clay (CL) mottled strong brown (7.5YR 5/8) and gray (7.5YR 6/1) fill moist, sandy, trace orgainics	
15			
		mottled strong brown (7.5YR 5/8) and gray (7.5YR 6/1) fill moist, sandy, trace orgainics	
20			9.5
		Clayey Sand (SC) mottled reddish yellow (7.5YR 6/8) and gray (7.5YR 6/1) alluvium wet, clayey, coarse grained with trace fines, trace gravel	
25			
		mottled reddish yellow (7.5YR 6/8) and gray (7.5YR 6/1) alluvium wet, clayey, coarse grained with trace fines, trace gravel	
30			-2.5
35		**Sandy Lean Clay (CL)** mottled gray (7.5YR 6/1) and reddish yellow (7.5YR 6/8) alluvium wet, sandy, trace fine gravel	-5.5
		Poorly-graded Sand (SP) mottled reddish yellow (7.5YR 6/8) and yellow (10YR 7/8) alluvium wet, coarse grained with trace fines, trace clay nodules, rounded river gravel	
40			





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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Poorly-graded Sand (SP) mottled reddish yellow (7.5YR 6/8) and yellow (10YR 7/8) alluvium wet, coarse grained with trace fines, trace clay nodules, rounded river gravel*(Con't)*	31.5
45			
		mottled reddish yellow (7.5YR 6/8) and yellow (10YR 7/8) alluvium wet, coarse grained with trace fines, trace clay nodules, rounded river gravel, coarsening downward	
50			
55			
		dusky red (5R 3/4) alluvium wet, coarse grained with trace fines, trace clay nodules, rounded river gravel, coarsening downward	
60			
65			
70			
75			-45.5
		Sandy Fat Clay (CH) gray (7.5YR 6/1) alluvium wet, sandy	
80			
85			-55.5

Natural Gamma: 75, 150, 225

WELL DATA

Top of casing Elev. = 34.36

(CONTINUED)

Annular Fill

Annular Seal

Filter Pack

Screen Tip Elevation

Bottom of borehole at 87.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

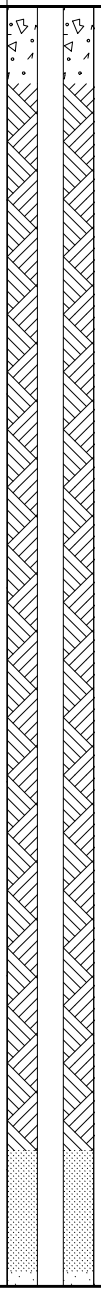
PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/23/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 10.4 **COORDINATES:** N:362,799.55 E:1,808,595.91
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY J. Hall **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** 15 ft. **COMP.** 13.8 ft. **DELAYED** 13.8 ft. after 48 hrs.
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Sandy Lean Clay (CL) mottled reddish yellow (7.5YR 6/8) and reddish yellow (7.5YR 7/8) fill moist, trace sand	10.4
5			3.4
		Clayey Sand (SC) mottled strong brown (7.5YR 5/8) and gray (7.5YR 6/1) fill moist, grades to unmottled	
10			
15			-6.6
		Poorly-graded Sand (SP) reddish yellow (7.5YR 7/6) alluvium wet, coarse grained with trace fines, trace clay nodules and gravel	
20			
25			
30			

Natural Gamma: 75, 150, 225

WELL DATA
Top of casing Elev. = 13.32



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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 13.32)
			10.4		(CONTINUED)
35		**Poorly-graded Sand (SP)** reddish yellow (7.5YR 7/6) alluvium wet, coarse grained with trace fines, trace clay nodules and gravel*(Con't)*			
40					**Filter Pack**
45			-34.6		**Screen Tip Elevation**
		Lean Clay (CL) gray (7.5YR 6/1) alluvium wet, sandy, trace gravel	-36.6		
50		**Poorly-graded Sand (SP)** mottled reddish yellow (7.5YR 6/8) and light gray (7.5YR 7/1) alluvium wet, coarse grained with trace fines, trace clay and gravel			
55					
60		mottled reddish yellow (7.5YR 6/8) and light gray (7.5YR 7/1) alluvium wet, coarse grained with trace fines, trace clay and coarsening downward gravel			
65			-56.6		

Bottom of borehole at 67.0 feet.

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SOUTHERN COMPANY

BORING LOG

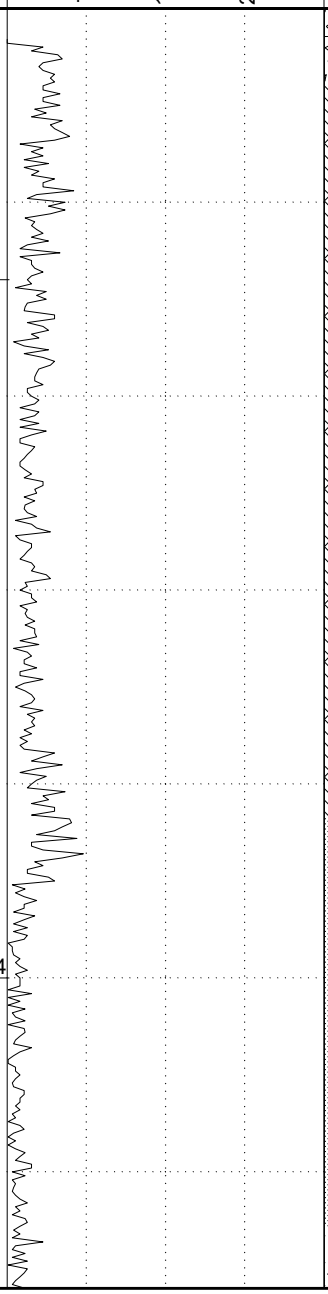
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/23/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 14.7 **COORDINATES:** N:362,441.66 E:1,808,600.05
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY J. Hall **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** 14.4 ft. **DELAYED** 14.4 ft. after 48 hrs.
NOTES Well installed. Refer to well data sheet.

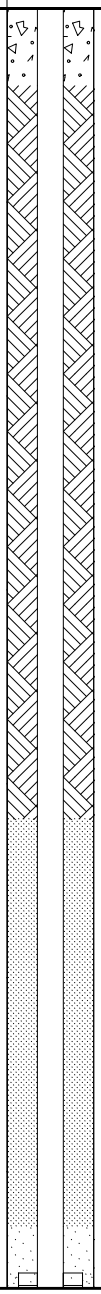
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Sandy Lean Clay (CL) light brown (7.5YR 6/3) fill moist, sandy, trace roots	14.7
5			
		Sandy Lean Clay (CL) mottled light brown (7.5YR 6/4) and reddish yellow (7.5YR 6/8) fill moist, sandy, sand coarse to fine grained	7.7
10			
15			
20			
25		**Poorly-graded Sand (SP)** light gray (7.5YR 7/1) alluvium wet, coarse grained with trace fines, trace clay nodules mottled light gray (7.5YR 7/1) and strong brown (7.5YR 5/8) alluvium wet, coarse grained with trace fines, trace clay nodules	-10.4
30			

Natural Gamma



WELL DATA

Top of casing Elev. = 17.61



Surface Seal
Annular Fill
Annular Seal
Filter Pack

(Continued Next Page)

SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA (Top of casing Elev. = 17.61)
		Poorly-graded Sand (SP) light gray (7.5YR 7/1) alluvium wet, coarse grained with trace fines, trace clay nodules*(Con't)*	14.7		(CONTINUED)
35					
		mottled light gray (7.5YR 7/1) and strong brown (7.5YR 5/8) alluvium wet, very coarse grained with trace fines, trace clay nodules			**Filter Pack**
40					**Screen Tip Elevation**
45					
		mottled light gray (7.5YR 7/1) and strong brown (7.5YR 5/8) alluvium wet, very coarse grained with trace fines, trace clay nodules			
50					
55					
		reddish yellow (7.5YR 6/8) alluvium wet, coarse grained with trace fines, trace rounded gravel			
60			-47.4		
		Fat Clay (CH) mottled strong brown (7.5YR 4/6) and very dark gray (7.5YR 3/1) alluvium wet, trace peat			
65			-52.4		

Bottom of borehole at 67.0 feet.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE.GDT - 10/12/17 12:02 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REPORT\

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SOUTHERN COMPANY

BORING LOG

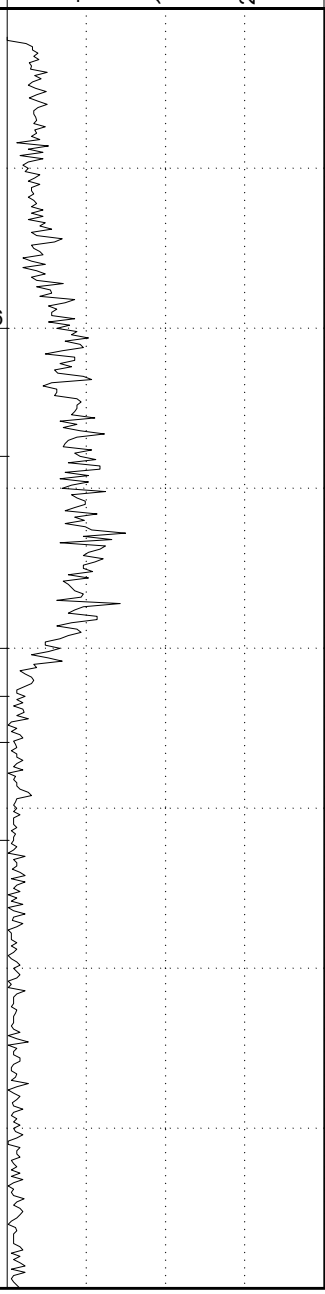
SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/25/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 23.6 **COORDINATES:** N:363,466.38 E:1,807,619.63
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY J. Hall **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Hydrovac excavation from 0-10 feet Well installed. Refer to well data sheet.

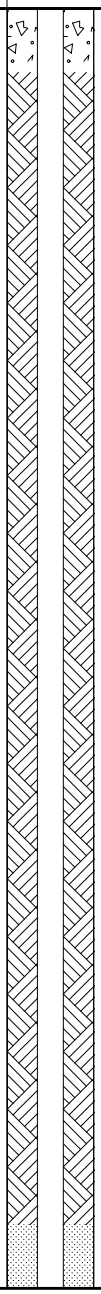
DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Utility Clearance (HYDROEXCAVATION)	23.6
5			
10			13.6
		Lean Clay (CL) light gray (5Y 7/1) and red (2.5YR 4/8) red inclusions, crumbley	9.6
15		**Fat Clay (CH)** light olive gray (5Y 6/2) moist dense, medium	
20			3.6
		Silty Sand (SM) white / yellowish gray (5Y 8/1) moist fine grained sand with clay clasts near the base	2.1
		Clayey Sand (SC) olive gray (5Y 4/2) moist dense, high, some fine sand	1.6
		Poorly-graded Sand (SP) white / yellowish gray (5Y 8/1) moist medium grained, micaceous,	
25			-2.4
		Poorly-graded Gravel (SP) yellow (10YR 7/8) and yellow / pale yellowish orange (10YR 8/6) wet coarse sand, subangular 0.5 to 1 cm gravels. limited recovery from 27-37.	
30			
35			
		white / yellowish gray (5Y 8/1) wet medium grained sand with some gravel in upper foot (37-38). coarsens upward	
40			

Natural Gamma



WELL DATA

Top of casing Elev. = 25.92



Surface Seal

Annular Fill

Annular Seal

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
			23.6
		Poorly-graded Gravel (SP) yellow (10YR 7/8) and yellow / pale yellowish orange (10YR 8/6) wet coarse sand, subangular 0.5 to 1 cm gravels. limited recovery from 27-37.*(Con't)*	
45		yellow (5Y 8/8), white / yellowish gray (5Y 8/1) and yellow (5Y 7/8) wet coarse grained with subangular gravel and clay nodules. gravels larger near base - coarsens upward	
50			-28.4
		Silty Sand (SM) white (2.5Y 8/1) wet silty, interbedded fine to medium grained	
55			-33.4
		Well-graded Sand (SW) white / yellowish gray (5Y 8/1) wet coarse sand with subangular gravel and rare clay nodules.	
60			-36.4
		Silty Sand (SM) very pale brown (10YR 7/3) wet fine to medium grained sand, no clay, no gravel	
			-39.4
		Lean Clay (CL) very pale brown (10YR 8/4) wet dense, high, fine sand to silty clay	
65			-41.4
		Poorly-graded Sand (SP) yellow (5Y 7/8) wet very coarse grained with some clay clasts	
			-43.4

Natural Gamma: 75, 150, 225

WELL DATA

Top of casing Elev. = 25.92

(CONTINUED)

Annular Seal

Filter Pack

Screen Tip Elevation

Bottom of borehole at 67.0 feet.

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SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/29/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 14.1 **COORDINATES:** N:363,286.54 E:1,808,282.28
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Hydrovac excavation from 0-10 feet Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION
		Utility Clearance (HYDROEXCAVATION)	14.1
5			
10			4.1
		Clayey Sand (SC) light gray (5Y 7/1), red (2.5YR 5/8) and brownish yellow (10YR 6/8) alluvium wet, predominantly fine sand with some coarse grained lenses	
15			-2.4
		Fat Clay (CH) light brownish gray / pale yellowish brown (10YR 6/2) and brownish yellow (10YR 6/8) alluvium wet, dense, high, inorganic	-3.9
		Clayey Sand (SC) yellowish brown (10YR 5/8) alluvium wet, fine sand	-4.9 -5.4
20		**Well-graded Sand (SW)** strong brown (7.5YR 5/8) alluvium wet, coarse sand, some subangular gravel	
		Poorly-graded Sand (SP) very pale brown / grayish orange (10YR 7/4) alluvium wet, repeating fining upward sequences of coarse, gravelly sand to medium sand. (each sequence about 1.5 feet thick)	
25			
30			
35			
40			-24.9

Natural Gamma: 75, 150, 225

WELL DATA
Top of casing Elev. = 17.43

Surface Seal
Annular Fill
Annular Seal
Filter Pack
Screen Tip Elevation

(Continued Next Page)

SOUTHERN COMPANY

BORING LOG

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION	Natural Gamma (75 / 150 / 225)	WELL DATA
			14.1		Top of casing Elev. = 17.43 (CONTINUED)
		Clayey Gravel (GC) very pale brown / grayish orange (10YR 7/4) alluvium wet, subrounded gravel with clay matrix*(Con't)*	-26.9		
		Well-graded Sand (SW) pale yellow (2.5Y 7/4) alluvium wet, medium grained, clean, very little gravel, thin gravel lense at 48 feet.			
45					
50					
55			-42.9		
		Poorly-graded Sand (SP) reddish yellow (7.5YR 6/8) alluvium wet, subrounded to subangular gravel within coarse sand matrix	-44.9		
60		**Medium to High Plastic Organic Clay or Silt (OH)** very dark gray (5Y 3/1) alluvium damp, medium stiff, high, highly organic, pieces of bark and stick.			
65			-52.9		

Bottom of borehole at 67.0 feet.

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/24/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 22.9 **COORDINATES:** N:362,905.45 E:1,811,513.20
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 77 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** 22 ft. **DELAYED** 22.81 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 27' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			22.9
5		Sandy Lean Clay (CL)	16.9
		Silt (ML)	14.9
10, 15		Sandy Lean Clay (CL)	4.9
20, 25		Sandy Fat Clay (CH)	-2.1
		Fat Clay (CH)	-6.1
30		Sandy Lean Clay (CL)	-10.1
35, 40		Poorly-graded Sand with Silt (SP-SM)	-17.1
		Sandy Lean Clay (CL)	-18.1
45		Silty Sand (SM)	-24.1
50, 55		Sandy Lean Clay (CL)	-34.1
60, 65		Silty Sand (SM)	-44.1
70, 75		Clayey Sand (SC)	-54.1

Bottom of borehole at 77.0 feet.

WELL DATA

Top of casing Elev. = 25.80

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	25.0
Annular Seal: bentonite pellets	30.5
Filter Pack: Filter Media 1A Silica Sand	42.7
Screen Tip Elevation: 0.30 ft.	43.0
Backfill: Filter Media 1A Silica Sand (43'-59'),Natural Collapse (59'-77')	59.0

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 79.89 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/20/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.1 **COORDINATES:** N:363,374.02 E:1,811,103.57
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 72 ft. **GROUND WATER DEPTH: DURING** 18 ft. **COMP.** 25 ft. **DELAYED** 21.63 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 24' Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		21.1
5	Sandy Lean Clay (CL)	
		13.1
10	Silt (ML)	12.1
15	Sandy Lean Clay (CL)	
20		-1.9
25	Fat Clay (CH)	-5.9
30	Clayey Sand (SC)	-9.9
	Sandy Lean Clay (CL)	-12.9
35	Silty Sand (SM)	-15.9
40	Fat Clay (CH)	-21.9
45		
50		
55	Poorly-graded Sand with Silt (SP-SM)	
60		
65		-45.9
70		-50.9

Bottom of borehole at 72.0 feet.

WELL DATA

Top of casing Elev. = 23.89

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	22.0
Annular Seal: bentonite pellets	49.0
Filter Pack: Filter Media 1A Silica Sand	61.7
Screen Tip Elevation: 0.30 ft.	62.0
Backfill: Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 74.79 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

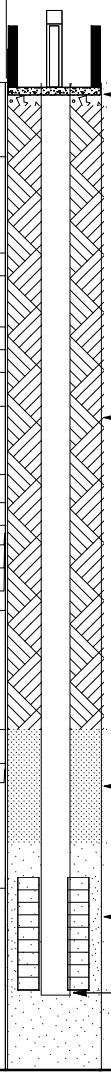
DATE STARTED 9/15/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 23.6 **COORDINATES:** N:364,011.44 E:1,810,629.36
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** M, Tanner **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		23.6
5	Silt (ML)	17.1
10	Poorly-graded Sand (SP)	8.6
15	Clayey Sand (SC)	6.6
20	Silt (ML)	2.1
	Clayey Sand (SC)	0.1
25	Silt (ML)	-1.9
	Silty Sand (SM)	-4.9
30	Elastic Silt (MH)	-10.9
35	Poorly-graded Sand (SP)	-13.4
	Silt (ML)	-15.4
40	Poorly-graded Sand (SP)	-16.1
	Silt (ML)	-16.6
45	Poorly-graded Sand (SP)	-17.0
	Lean Clay (CL)	-22.9
50	Poorly-graded Sand (SP)	
55		-33.4
60	Silty Sand (SM)	-36.4
	Fat Clay (CH)	-36.9
65	Silty Sand (SM)	
70		-47.4
75	Poorly-graded Sand (SP)	
80		
85		-63.4

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 26.61



		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	57.0
Annular Seal:	bentonite pellets	67.0
Filter Pack:	Filter Media 1A Silica Sand	80.0
Screen Tip Elevation:	0.40 ft.	80.4

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 90.01 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/15/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 24.1 **COORDINATES:** N:364,622.01 E:1,810,129.84
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** M. Tanner **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		24.1
	Silt (ML)	20.6
	Clayey Sand (SC)	14.6
	Silt (ML)	-2.5
	Clayey Sand (SC)	-4.5
	Silty Sand (SM)	-7.0
	Elastic Silt (MH)	-11.0
	Silty Sand (SM)	-13.0
	Fat Clay (CH)	-22.5
	Silty Sand (SM)	-26.0
	Poorly-graded Sand (SP)	-63.0

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 26.97

		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	
		50.0
Annular Seal:	bentonite pellets	
		69.0
Filter Pack:	Filter Media 1A Silica Sand	
		82.0
Screen Tip Elevation:	0.40 ft.	82.4

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches
Casing Material: Schedule 40 PVC
Casing Length: 89.92 feet
Screen Diameter: 2 inches
Screen Length: 10 feet
Screen Mesh: 0.010
Screen Material: PVC
PrePack Screen: Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/15/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 26.0 **COORDINATES:** N:365,528.46 E:1,809,433.61
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** M. Tanner **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Hydrovac excavation from 0-10 feet Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		26.0
	Clayey Sand (SC)	25.5
5, 10	Silty Sand (SM)	15.0
15, 20, 25	Sandy Elastic Silt (MH)	-0.5
	Lean Clay (CL)	-1.0
30	Silt (ML)	-5.5
35	Clayey Sand (SC)	-9.0
	Poorly-graded Sand (SP)	-11.0
	Elastic Silt (ML)	-12.5
40	Poorly-graded Sand (SP)	-13.0
45	Elastic Silt (MH)	-19.0
	Poorly-graded Sand (SP)	-19.4
50	Elastic Silt (ML)	-20.5
55, 60, 65, 70, 75, 80, 85	Poorly-graded Sand (SP)	-61.0

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 28.93

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	32.0
Annular Seal: bentonite pellets	52.0
Filter Pack: Filter Media 1A Silica Sand	65.0
Screen Tip Elevation: 0.40 ft.	65.4
Backfill: Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches
Casing Material: Schedule 40 PVC
Casing Length: 89.96 feet
Screen Diameter: 2 inches
Screen Length: 10 feet
Screen Mesh: 0.010
Screen Material: PVC
PrePack Screen: Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/15/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 23.8 **COORDINATES:** N:365,903.84 E:1,810,554.76
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 18 ft. **COMP.** 25.15 ft. **DELAYED** 25.15 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 25' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			23.8
5, 10		Utility Clearance (HYDROEXCAVATION)	13.8
15, 20		Silt (ML)	0.8
25, 30		Fat Clay (CH)	-6.2
35, 40, 45		Sandy Fat Clay (CH)	-21.2
50, 55		Well-graded Sand with Clay (SW-SC)	-33.2
60, 65, 70, 75, 80, 85		Poorly-graded Sand (SP)	-63.2

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 26.69

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	23.0
Annular Seal: bentonite pellets	72.2
Filter Pack: Filter Media 1A Silica Sand	85.0
Screen Tip Elevation: 0.40 ft.	85.4

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches
Casing Material: Schedule 40 PVC
Casing Length: 89.91 feet
Screen Diameter: 2 inches
Screen Length: 10 feet
Screen Mesh: 0.010
Screen Material: PVC
PrePack Screen: Yes

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 10/12/17 12:00 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REF

SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/16/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 22.9 **COORDINATES:** N:366,712.30 E:1,811,746.59
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** 24.86 ft. **DELAYED** 24.86 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 27' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			22.9
		Utility Clearance (HYDROEXCAVATION)	
			12.9
		Silt (ML)	
			-0.1
		Fat Clay (CH)	
			-14.1
		Sandy Fat Clay (CH)	
			-24.1
		Sandy Lean Clay (SC-SM)	
			-34.1
		Well-graded Sand (SW)	
			-44.1
		Poorly-graded Sand (SP)	
			-64.1

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 25.94

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	22.5
Annular Seal: bentonite pellets	73.7
Filter Pack: Filter Media 1A Silica Sand	86.6
Screen Tip Elevation: 0.40 ft.	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 90.04 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/15/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 25.6 **COORDINATES:** N:367,062.51 E:1,813,172.40
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 25 ft. **COMP.** 27.35 ft. **DELAYED** 27.35 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 25' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			25.6
		Utility Clearance (HYDROEXCAVATION)	
			15.6
		Silt (ML)	
			2.6
		Fat Clay (CH)	0.6
		Well-graded Sand (SW-SC)	-1.4
		Sandy Fat Clay (CH)	
			-19.4
		Poorly-graded Sand (SP)	
			-61.4

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 28.45

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	23.0
Annular Seal: bentonite pellets	52.1
Filter Pack: Filter Media 1A Silica Sand	65.0
Screen Tip Elevation: 0.40 ft.	65.4
Backfill: Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 89.88 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/11/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.9 **COORDINATES:** N:366,388.08 E:1,814,332.50
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 17 ft. **COMP.** 18 ft. **DELAYED** 23.68 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 24' Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		21.9
5, 10	Utility Clearance (HYDROEXCAVATION)	11.9
15, 20	Silt (ML)	-1.1
25	Fat Clay (CH)	-5.1
30, 35	Poorly-graded Sand with Silt (SP-SM)	-15.1
40, 45	Silty Sand (SM)	-26.1
50, 55, 60	Poorly-graded Sand with Silt (SP-SM)	-38.1
65, 70, 75	Silty Sand (SM)	-55.1
80, 85	Poorly-graded Sand with Silt (SP-SM)	-65.1

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 24.39

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	22.0
Annular Seal: bentonite pellets	46.8
Filter Pack: Filter Media 1A Silica Sand	59.7
Screen Tip Elevation: 0.30 ft.	60.0
Backfill: Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 89.48 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/2/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 23.6 **COORDINATES:** N:365,295.84 E:1,815,399.60
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 18 ft. **COMP.** 20 ft. **DELAYED** 25.79 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 25' Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		23.6
	Silty Clay (CL-ML)	19.6
	Sandy Fat Clay (CH)	17.6
	Silt (ML)	15.6
	Sandy Lean Clay (CL)	0.6
	Lean Clay (CL)	-5.4
	Sandy Lean Clay (CL)	-11.4
	Poorly-graded Sand with Silt (SP-SM)	-45.4
	Silty Sand (SM)	-52.4
	Well-graded Sand with Silt (SW-SM)	-54.4
	Poorly-graded Sand with Silt (SP-SM)	-63.4

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 26.89

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	22.0
Annular Seal: bentonite pellets	55.0
Filter Pack: Filter Media 1A Silica Sand	68.2
Screen Tip Elevation: 0.30 ft.	68.5
Backfill: Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 90.28 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/31/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 23.2 **COORDINATES:** N:364,080.06 E:1,815,713.47
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 19 ft. **COMP.** 20 ft. **DELAYED** 25.75 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 25' Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		23.2
5	Sandy Lean Clay (CL)	18.2
10	Silt (ML)	13.2
15, 20	Sandy Lean Clay (CL)	1.2
25	Fat Clay (CH)	-4.8
30, 35, 40, 45, 50, 55	Clayey Sand (SC)	-30.8
60	Silty Sand (SM)	-38.8
65, 70, 75, 80, 85	Poorly-graded Sand with Silt (SP-SM)	-61.8
	Sandy Fat Clay (CH)	-62.8
	Poorly-graded Sand with Silt (SP-SM)	-63.8

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 26.08

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	23.0
Annular Seal: bentonite pellets	57.0
Filter Pack: Filter Media 1A Silica Sand	70.2
Screen Tip Elevation: 0.30 ft.	70.5
Backfill: Filter Media 1A Silica Sand (70.5'-71'), Natural Collapse (71'-87')	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 89.88 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/31/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.2 **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 17 ft. **COMP.** 22 ft. **DELAYED** 29 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 27', Well failed/Plugged and abandoned/Reinstalled Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		21.2
5, 10, 15	Sandy Lean Clay (CL)	
		4.2
20, 25	Sandy Fat Clay (CH)	
		-3.8
30	Fat Clay (CH)	
		-8.8
35, 40, 45	Silty Sand (SM)	
		-23.8
50	Poorly-graded Sand with Silt (SP)	
		-30.8
55	Sandy Lean Clay (CL)	-32.8
	Poorly-graded Sand with Silt (SP-SM)	-35.8
60	Clayey Sand (SC)	-37.8
65, 70, 75, 80, 85	Poorly-graded Sand with Silt (SP-SM)	
		-65.8

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 23.88

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	25.0
Annular Seal: bentonite pellets	63.0
Filter Pack: Filter Media 1A Silica Sand	75.7
Screen Tip Elevation: 0.30 ft.	76.0
Backfill: Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches
Casing Material: Schedule 40 PVC
Casing Length: 89.64 feet
Screen Diameter: 2 inches
Screen Length: 10 feet
Screen Mesh: 0.010
Screen Material: PVC
PrePack Screen: Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

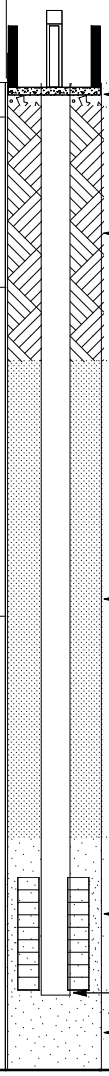
DATE STARTED 9/17/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.2 **COORDINATES:** N:362,705.09 E:1,815,679.92
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY D. Wilcox **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** 23 ft. **DELAYED** 23.12 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 26.5' Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			21.2
		Lean Clay (CL)	18.2
5, 10, 15		Sandy Lean Clay (CL)	3.2
20, 25, 30, 35, 40, 45		Sandy Fat Clay (CH)	-25.8
50, 55, 60, 65, 70, 75, 80, 85		Poorly-graded Sand (SP)	-65.8

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 23.88



		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	24.5
Annular Seal:	bentonite pellets	66.5
Filter Pack:	Filter Media 1A Silica Sand	80.0
Screen Tip Elevation:	0.40 ft.	80.4
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 89.64 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/25/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.3 **COORDINATES:** N:361,251.39 E:1,815,625.46
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 19 ft. **COMP.** 24 ft. **DELAYED** 22.34 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 28' Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		21.3
5, 10	Sandy Lean Clay (CL)	11.3
15	Fat Clay (CH)	8.3
20, 25	Sandy Lean Clay (CL)	-4.2
30, 35	Fat Clay (CH)	-15.7
40	Silty Sand (SM)	-18.7
45	Sandy Fat Clay (CH)	-24.7
50, 55	Clayey Sand (SC)	-35.7
60, 65, 70, 75	Poorly-graded Sand with Silt (SP-SM)	-55.7
80, 85		-65.7

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 24.22

		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	26.0
Annular Seal:	bentonite pellets	58.0
Filter Pack:	Filter Media 1A Silica Sand	70.7
Screen Tip Elevation:	0.30 ft.	71.0
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches
Casing Material: Schedule 40 PVC
Casing Length: 89.93 feet
Screen Diameter: 2 inches
Screen Length: 10 feet
Screen Mesh: 0.010
Screen Material: PVC
PrePack Screen: Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

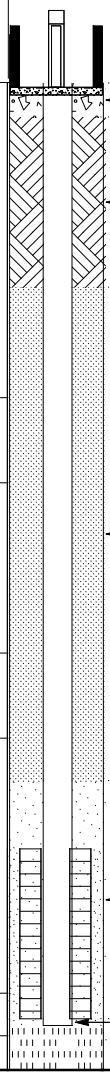
DATE STARTED 9/26/2013 **COMPLETED** 10/1/2013 **SURF. ELEV.** 8.9 **COORDINATES:**
CONTRACTOR Thompson Engineering **EQUIPMENT** **METHOD** Mud Rotary
DRILLED BY Phil/Stan **LOGGED BY** K.Lewis **CHECKED BY**
BORING DEPTH 58 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Previously named APZ-4 Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			8.9
5, 10, 15		Sandy Fat Clay (CHS)	
			-9.6
20			
			-14.6
25, 30		Well-graded Sand with Silt (SW-SM)	
			-24.6
35		Fat Clay (CH)	
			-29.6
40, 45, 50		Well-graded Gravelly Sand (SWG)	
			-44.6
55			-47.1
		Well-graded Gravelly Sand (SWG)	-49.1

Bottom of borehole at 58.0 feet.

WELL DATA

Top of casing Elev. = 11.74



	DEPTH
Surface Seal: concrete	2.0
Annular Fill: Cement-Bentonite Grout	12.0
Annular Seal: bentonite pellets	41.0
Filter Pack: Filter Media 1A Silica Sand	55.0
Screen Tip Elevation: 0.40 ft.	55.4

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches
Casing Material: Schedule 40 PVC
Casing Length: 60.85 feet
Screen Diameter: 2 inches
Screen Length: 10 feet
Screen Mesh: 0.010
Screen Material: PVC
PrePack Screen: Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/25/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 21.2 **COORDINATES:** N:360,591.97 E:1,813,619.23
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 21 ft. **COMP.** 23 ft. **DELAYED** 23.15 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 27' Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		21.2
	Sandy Lean Clay (CL)	18.2
5	Clayey Sand (SC)	16.2
10, 15, 20	Sandy Lean Clay (CL)	
25		-2.8
30	Fat Clay (CH)	
35		-12.8
	Clayey Sand (SC)	-14.8
40	Silty Sand (SM)	-18.8
45	Sandy Lean Clay (CL)	-23.8
50	Silty Sand (SM)	-27.8
55	Fat Clay (CH)	-33.8
	Clayey Sand (SC)	-35.8
60	Poorly-graded Sand with Silt (SP-SM)	-40.8
65	Silty Sand (SM)	-42.8
70, 75, 80, 85	Poorly-graded Sand with Silt (SP-SM)	
		-65.8

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 23.89

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	
	24.5
Annular Seal: bentonite pellets	
	66.5
Filter Pack: Filter Media 1A Silica Sand	
	79.2
Screen Tip Elevation: 0.30 ft.	79.5
Backfill: Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 89.66 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 8/25/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 22.1 **COORDINATES:** N:361,613.08 E:1,812,571.44
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** B. Smelser **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 21 ft. **COMP.** 22 ft. **DELAYED** 23.01 ft. after 48 hrs.
NOTES 6" Double Casing Set @ 29' Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		22.1
	Elastic Silt (MH)	18.1
5		
10	Silt (ML)	11.6
15	Sandy Lean Clay (CL)	
20		
25		-3.0
	Sandy Fat Clay (CH)	-5.0
30	Fat Clay (CH)	
35		-12.5
	Clayey Sand (SC)	-15.0
40	Silty Sand (SM)	-18.0
	Sandy Lean Clay (CL)	-22.0
45		
50	Silty Sand (SM)	
55		-33.0
60	Poorly-graded Sand with Silt (SP-SM)	-38.0
65	Silty Sand (SM)	-44.5
70		
75	Poorly-graded Sand with Silt (SP-SM)	
80		
85		-65.0

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 25.01

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	26.5
Annular Seal: bentonite pellets	52.0
Filter Pack: Filter Media 1A Silica Sand	64.7
Screen Tip Elevation: 0.30 ft.	65.0
Backfill: Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 89.96 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REF

SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/30/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 26.2 **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 127 ft. **GROUND WATER DEPTH: DURING** 15 ft. **COMP.** 18 ft. **DELAYED**
NOTES

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			26.2
10		Sandy Lean Clay (CL)	
			9.2
20		Clayey Silty Sand (SW)	
			0.2
30		Fat Clay (CH)	-3.8
		Well-graded Sand (SW)	-9.8
40		Poorly-graded Sand (SP)	-10.8
		Fat Clay (CH)	
50			-25.8
60		Poorly-graded Sand (SP)	
			-40.8
70			
			-50.8
80		Fat Clay (CH)	
90			
			-70.8
100		Poorly-graded Sand (SP)	
110			
120			
			-98.8
		Fat Clay (CH)	-100.8

Bottom of borehole at 127.0 feet.

WELL DATA

Top of casing Elev. =

DEPTH

NOTES:

WELL SPECIFICATIONS

Casing Diameter: inches **Screen Diameter:** inches
Casing Material: **Screen Length:** feet **Screen Material:**
Casing Length: feet **Screen Mesh:** **PrePack Screen:**

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/23/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 17.5 **COORDINATES:** N:362,038.24 E:1,808,279.56
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			17.5
5, 10, 15, 20		Silty Sand (SM)	
			-4.5
25		Clayey Sand (SC)	-6.5
		Poorly-graded Sand (SP)	-9.5
30, 35		Silty Sand (SM)	
			-19.5
40, 45, 50, 55, 60, 65		Poorly-graded Sand (SP)	
			-49.5

Bottom of borehole at 67.0 feet.

WELL DATA

Top of casing Elev. = 20.66

		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	26.0
Annular Seal:	bentonite pellets	28.5
Filter Pack:	Filter Media 1A Silica Sand	41.2
Screen Tip Elevation:	0.40 ft.	41.6
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches
Casing Material: Schedule 40 PVC
Casing Length: 70.17 feet
Screen Diameter: 2 inches
Screen Length: 10 feet
Screen Mesh: 0.010
Screen Material: PVC
PrePack Screen: Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/23/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 17.0 **COORDINATES:** N:361,968.69 E:1,807,662.77
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			17.0
		Low Plastic Organic Silt or Clay (OL)	15.0
5, 10, 15		Poorly-graded Sand (SP)	
			0.0
20		Clayey Sand (SC)	-4.4
		Lean Clay (CL)	-5.0
25, 30, 35, 40, 45		Poorly-graded Sand (SP)	
			-30.0
50		Poorly-graded Gravel (SP)	
			-36.0
55		Lean Clay (CL)	-37.0
		Well-graded Sand (SW)	-40.0
60, 65		Medium to High Plastic Organic Clay or Silt (OH)	
			-50.0

Bottom of borehole at 67.0 feet.

WELL DATA

Top of casing Elev. = 19.95

		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	
		28.8
Annular Seal:	bentonite pellets	31.8
Filter Pack:	Filter Media 1A Silica Sand	
		44.8
Screen Tip Elevation:	0.40 ft.	45.2
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 69.95 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/22/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 20.2 **COORDINATES:** N:361,627.64 E:1,807,366.92
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		20.2
	Silty Sand (SM)	19.2
5	Lean Clay (CL)	12.2
10	Medium to High Plastic Organic Clay or Silt (OH)	7.2
15	Well-graded Sand (SW)	-1.9
20		
25	Elastic Silt (MH)	-3.9
	Well-graded Sand (SW)	-6.9
30	Well-graded Gravelly Sand (SW)	
35		-16.9
40	Well-graded Sand (SW)	-23.9
45		
50	Poorly-graded Gravelly Sand (SP)	
55		-36.9
60	Well-graded Gravelly Sand (SW)	-42.9
65	Poorly-graded Sand (SP)	-44.9
	Medium to High Plastic Organic Clay or Silt (OH)	-46.9

Bottom of borehole at 67.0 feet.

WELL DATA

Top of casing Elev. = 23.24

		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	
		29.0
Annular Seal:	bentonite pellets	32.0
Filter Pack:	Filter Media 1A Silica Sand	
		45.0
Screen Tip Elevation:	0.40 ft.	45.4
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 70.09 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

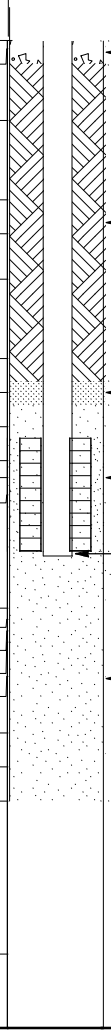
DATE STARTED 9/18/2015 **COMPLETED** 10/7/2015 **SURF. ELEV.** 26.2 **COORDINATES:**
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** M. Tanner **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		26.2
	Poorly-graded Sand (SP)	25.5
5	Low Plastic Organic Silt or Clay (OL)	19.2
10	Silty Sand (SM)	12.2
15	Elastic Silt (MH)	9.2
20	Medium to High Plastic Organic Clay or Silt (OH)	5.2
25	Silty Sand (SM)	-1.8
30	Low Plastic Organic Silt or Clay (OL)	-4.8
	Poorly-graded Sand (SP)	-7.8
35	Elastic Silt (MH)	-10.8
40	Silty Sand (SM)	-12.3
	Clayey Sand (SC)	-13.8
45	Medium to High Plastic Organic Clay or Silt (OH)	-23.8
50	Silty Sand (SM)	-24.8
55	Elastic Silt (MH)	-25.8
	Lean Clay (CL)	-26.8
	Clayey Gravel (GC)	-29.8
60	Silty Sand (SM)	-34.8
65	Poorly-graded Sand (SP)	-37.8
	Clayey Sand (SC)	-40.8
70		
75	Peat (PT)	
80		-54.3
85	Fat Clay (CH)	-60.8

Bottom of borehole at 87.0 feet.

WELL DATA

Top of casing Elev. = 29.12



		DEPTH
Surface Seal:		2.0
Annular Fill:		30.0
Annular Seal:		32.0
Filter Pack:		45.0
Screen Tip Elevation:	0.40 ft.	45.4
Backfill:		

NOTES:

WELL SPECIFICATIONS

Casing Diameter: inches **Screen Diameter:** inches
Casing Material: **Screen Length:** feet **Screen Material:**
Casing Length: feet **Screen Mesh:** **PrePack Screen:**

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

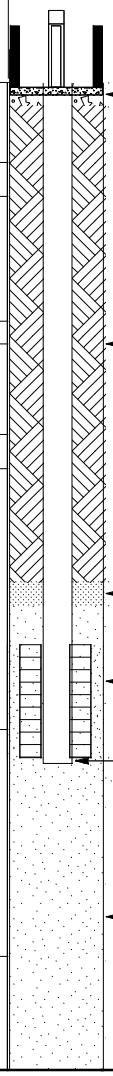
PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 10/12/2015 **COMPLETED** 10/13/2015 **SURF. ELEV.** 26.2 **COORDINATES:** N:361,932.31 E:1,806,927.51
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 21 ft. **COMP.** 23.66 ft. **DELAYED** 23.59 ft. after 24 hrs.
NOTES No geophysical data collected Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			26.2
5		Sandy Lean Clay (CL)	19.2
10		Sandy Fat Clay (CH)	16.2
15		Well-graded Sand (SW)	
20			5.2
25		Fat Clay (CH)	3.2
30		Poorly-graded Sand (SP)	-4.8
35		Well-graded Sand (SW)	-7.8
40		Fat Clay (CH)	
45			
50			
55			-30.8
60		Poorly-graded Sand (SP)	
65			
70			
75			-50.8
80		Fat Clay (CH)	
85			-60.8

Bottom of borehole at 87.0 feet.

WELL DATA



Top of casing Elev. = 29.12

		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	
		44.0
Annular Seal:	bentonite pellets	46.0
Filter Pack:	Filter Media 1A Silica Sand	
		59.5
Screen Tip Elevation:	0.50 ft.	60.0
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 89.96 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

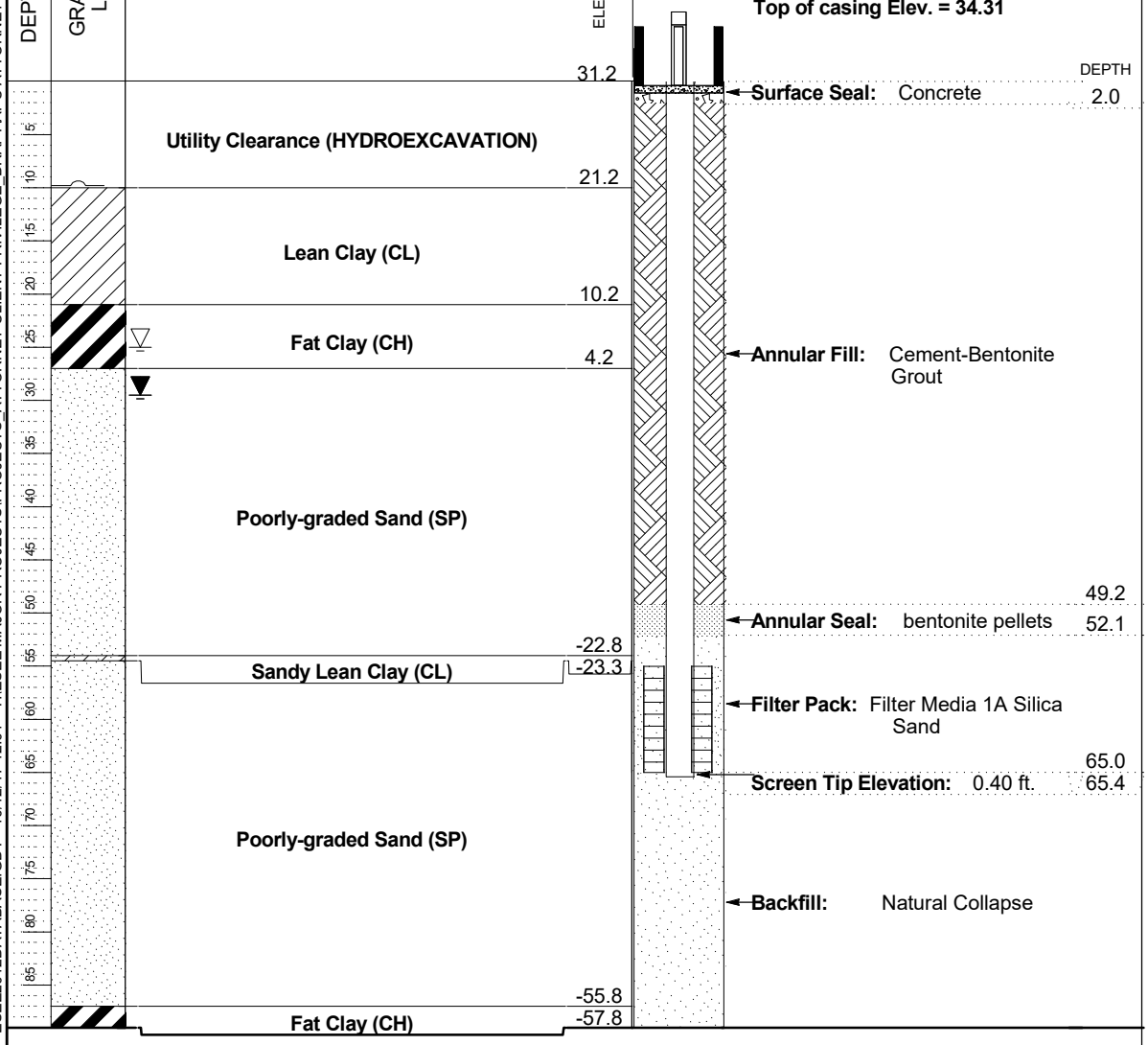
LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/30/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 31.2 **COORDINATES:** N:362,557.33 E:1,807,427.93
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 89 ft. **GROUND WATER DEPTH: DURING** 25 ft. **COMP.** 29.5 ft. **DELAYED** 29.5 ft. after 48 hrs.
NOTES Well installed. Refer to well data sheet.

DEPTH (ft) | GRAPHIC LOG | GENERAL STRATA DESCRIPTION | ELEVATION | WELL DATA | NOTES:



WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 92.1 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/28/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 18.6 **COORDINATES:** N:363,068.86 E:1,807,361.63
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Hydrovac excavation from 0-10 feet Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		18.6
5	Utility Clearance (HYDROEXCAVATION)	
10		8.6
	Silty Sand (SM)	7.6
	Lean Clay (CL)	4.6
15	Silt (ML)	3.6
20		
25	Well-graded Sand (SW)	
30		
35		-18.4
40	Poorly-graded Sand (SP)	-21.4
45	Well-graded Sand (SW)	-28.4
50	Clayey Sand (SC)	-31.4
55	Poorly-graded Sand (SP)	-38.4
60	Well-graded Sand (SW)	
65		-47.4
	Clayey Sand (SC)	-48.4

Bottom of borehole at 67.0 feet.

WELL DATA

Top of casing Elev. = 21.68

		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	
		20.5
Annular Seal:	bentonite pellets	22.5
Filter Pack:	Filter Media 1A Silica Sand	
		34.5
Screen Tip Elevation:	0.40 ft.	34.9
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 70.08 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/28/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 17.5 **COORDINATES:** N:363,101.48 E:1,807,776.83
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Hydrovac excavation from 0-10 feet Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		17.5
	Utility Clearance (HYDROEXCAVATION)	
		7.5
	Fat Clay (CH)	5.5
	Lean Clay (CL)	2.5
	Silty Sand (SM)	1.5
	Poorly-graded Sand (SP)	
		-13.5
	Well-graded Sand (SW)	
		-28.5
	Clayey Gravel (GC)	-29.0
	Silty Gravel (GM)	-29.5
	Silty Sand (SM)	
		-44.5
	Clayey Gravel (GC)	-49.5

Bottom of borehole at 67.0 feet.

WELL DATA

Top of casing Elev. = 17.46

		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	
		26.0
Annular Seal:	bentonite pellets	28.0
Filter Pack:	Filter Media 1A Silica Sand	
		42.0
Screen Tip Elevation:	0.40 ft.	42.4
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 70.13 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

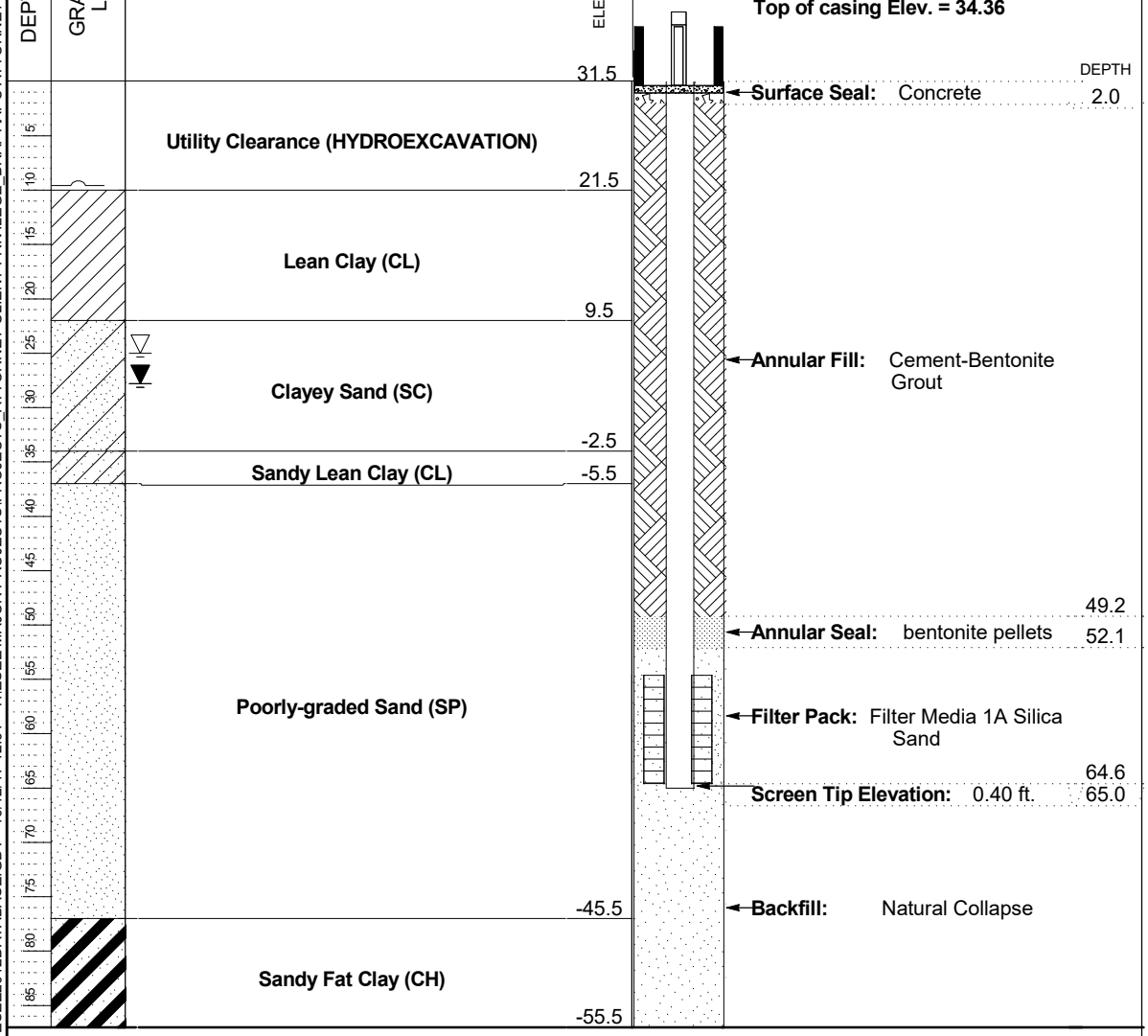
LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/29/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 31.5 **COORDINATES:** N:362,918.17 E:1,808,316.29
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 87 ft. **GROUND WATER DEPTH: DURING** 25 ft. **COMP.** 27.8 ft. **DELAYED** 27.8 ft. after 48 hrs.
NOTES Well installed. Refer to well data sheet.

DEPTH (ft) | GRAPHIC LOG | GENERAL STRATA DESCRIPTION | ELEVATION | WELL DATA | NOTES:



Bottom of borehole at 87.0 feet.

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 89.85 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

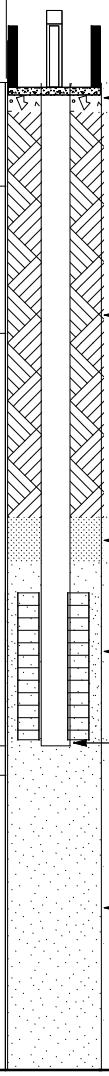
DATE STARTED 9/23/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 10.4 **COORDINATES:** N:362,799.55 E:1,808,595.91
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY J. Hall **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** 15 ft. **COMP.** 13.8 ft. **DELAYED** 13.8 ft. after 48 hrs.
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			10.4
		Sandy Lean Clay (CL)	
			3.4
		Clayey Sand (SC)	
			-6.6
		Poorly-graded Sand (SP)	
			-34.6
		Lean Clay (CL)	-36.6
		Poorly-graded Sand (SP)	
			-56.6

Bottom of borehole at 67.0 feet.

WELL DATA

Top of casing Elev. = 13.32



		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	29.5
Annular Seal:	bentonite pellets	32.6
Filter Pack:	Filter Media 1A Silica Sand	44.6
Screen Tip Elevation:	0.40 ft.	45.0
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 69.88 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REF

SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

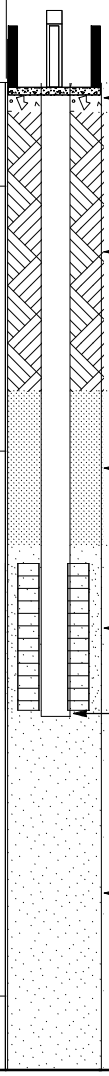
PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/23/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 14.7 **COORDINATES:** N:362,441.66 E:1,808,600.05
CONTRACTOR Cascade Drilling **EQUIPMENT** **METHOD** Sonic
DRILLED BY J. Hall **LOGGED BY** S. Baxter **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** 14.4 ft. **DELAYED** 14.4 ft. after 48 hrs.
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	GENERAL STRATA DESCRIPTION	ELEVATION
			14.7
		Sandy Lean Clay (CL)	
			7.7
		Poorly-graded Sand (SP)	
			-10.4
			-47.4
		Fat Clay (CH)	
			-52.4

Bottom of borehole at 67.0 feet.

WELL DATA



Top of casing Elev. = 17.61

		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	20.9
Annular Seal:	bentonite pellets	31.4
Filter Pack:	Filter Media 1A Silica Sand	42.6
Screen Tip Elevation:	0.40 ft.	43.0
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 69.96 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

2012 GEOTECH LOG WITH WELL - ESEE2012DATABASE.GDT - 10/12/17 12:01 - T:\ESEE MAJOR PROJECTS\PROJECTS_ATTORNEY CLIENT PRIVILEGE_DRAFT\APC ATTORNEY CLIENT PRIVILEGED\PLANT BARRY\ACES2520 BARRY AP CHARACTERIZATION REF

SOUTHERN COMPANY

LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/25/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 23.6 **COORDINATES:** N:363,466.38 E:1,807,619.63
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY J. Hall **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Hydrovac excavation from 0-10 feet Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		23.6
5	Utility Clearance (HYDROEXCAVATION)	
10		13.6
	Lean Clay (CL)	9.6
15	Fat Clay (CH)	
20		3.6
	Silty Sand (SM)	2.1
	Clayey Sand (SC)	1.6
25	Poorly-graded Sand (SP)	-2.4
30		
35		
40	Poorly-graded Gravel (SP)	
45		
50		-28.4
55	Silty Sand (SM)	-33.4
60	Well-graded Sand (SW)	-36.4
	Silty Sand (SM)	-39.4
65	Lean Clay (CL)	-41.4
	Poorly-graded Sand (SP)	-43.4

Bottom of borehole at 67.0 feet.

WELL DATA

Top of casing Elev. = 25.92

		DEPTH
Surface Seal:	Concrete	2.0
Annular Fill:	Cement-Bentonite Grout	
		38.0
Annular Seal:	bentonite pellets	43.0
Filter Pack:	Filter Media 1A Silica Sand	
		55.0
Screen Tip Elevation:	0.40 ft.	55.4
Backfill:	Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches **Screen Diameter:** 2 inches
Casing Material: Schedule 40 PVC **Screen Length:** 10 feet **Screen Material:** PVC
Casing Length: 69.36 feet **Screen Mesh:** 0.010 **PrePack Screen:** Yes

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LOG OF WELL INSTALLATION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry CCR Boring Logs
LOCATION Bucks, AL

DATE STARTED 9/29/2015 **COMPLETED** 10/8/2015 **SURF. ELEV.** 14.1 **COORDINATES:** N:363,286.54 E:1,808,282.28
CONTRACTOR Cascade Drilling, LP **EQUIPMENT** **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** C. Stanford **CHECKED BY** B. Coates
BORING DEPTH 67 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Hydrovac excavation from 0-10 feet Well installed. Refer to well data sheet.

DEPTH (ft)	GENERAL STRATA DESCRIPTION	ELEVATION
		14.1
5	Utility Clearance (HYDROEXCAVATION)	
10		4.1
15	Clayey Sand (SC)	-2.4
	Fat Clay (CH)	-3.9
20	Clayey Sand (SC)	-4.9
	Well-graded Sand (SW)	-5.4
25		
30	Poorly-graded Sand (SP)	
35		
40		-24.9
	Clayey Gravel (GC)	-26.9
45		
50	Well-graded Sand (SW)	
55		-42.9
60	Poorly-graded Sand (SP)	-44.9
65	Medium to High Plastic Organic Clay or Silt (OH)	-52.9

Bottom of borehole at 67.0 feet.

WELL DATA

Top of casing Elev. = 17.43

	DEPTH
Surface Seal: Concrete	2.0
Annular Fill: Cement-Bentonite Grout	22.5
Annular Seal: bentonite pellets	26.0
Filter Pack: Filter Media 1A Silica Sand	38.5
Screen Tip Elevation: 0.40 ft.	38.9
Backfill: Natural Collapse	

NOTES:

WELL SPECIFICATIONS

Casing Diameter: 2 inches
Casing Material: Schedule 40 PVC
Casing Length: 70.29 feet
Screen Diameter: 2 inches
Screen Length: 10 feet
Screen Mesh: 0.010
Screen Material: PVC
PrePack Screen: Yes

MONITORING WELL BY-AP-MW-01V

LOG OF TEST BORING

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PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 12/18/2018 **COMPLETED** 12/18/2018 **TOC ELEV.** 26.23 **SURF. ELEV.** 23.13 **COORDINATES** N: 362911.6 ft E: 1811509.85 ft

CONTRACTOR Cascade **EQUIPMENT** Geoprobe 8140LC **DRILLING METHOD** Sonic

DRILLED BY Mike Rodriguez **LOGGED BY** T. Fitzhugh **CHECKED BY** D. Yifru **BORING DEPTH** 125 ft BLS

GROUND WATER DEPTH (ft bls): DURING 6.5 (12/18/2018) **DELAYED** --- **COMPLETED** 16.93 (01/02/2019)

NOTES 4" core barrel, 6" outer casing. Hole pre-cleared to 4.0' using Hand Auger. TOC=Top of Casing; BLS=Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(0') Fill; Elastic SILT with sand (MH); few fine sand, mostly silt, few clay, low plasticity, medium stiff, dry, light reddish-brown.		Well Completion: 4"x4" aluminum stick-up, protective cover, 3'x3'x4" concrete pad, 4 traffic bollards	20
5			(5') Fill; Elastic SILT with gravel (MH); few fine-coarse gravel, trace fine-coarse sand, some silt, some clay, low plasticity, soft, moist, light reddish-brown.			
		80	(6.5') SILT (ML); few fine sand, mostly silt, few clay, low plasticity, very soft, wet, gray.	▽		15
10			(10') As Above.			
		100	(12') Fat CLAY with sand (CH); some fine-medium sand, some silt, mostly clay, high plasticity, soft, wet, dark brown, streaks of gray sand throughout.		Bentonite cement grout	10
15			(15') As Above.			
		100	(17') As Above; saturated.	▼	2" Sch 40 PVC riser	5
20		100	(20') Fat CLAY with sand (CH); little medium-coarse sand, some silt, mostly clay, high plasticity, stiff, moist, dark reddish-brown.			0
25		70	(25') SILT with sand (ML); little fine-medium sand, mostly silt, few clay, low plasticity, stiff, moist, dark brown.			-5
30			(30') As Above.			
		100	(31') Fat CLAY (CH); few silt, mostly clay, high plasticity, soft, moist, very dark gray, organic material throughout.			-10

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PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		100	(31') Fat CLAY (CH); few silt, mostly clay, high plasticity, soft, moist, very dark gray, organic material throughout. *(continued)* (35') As Above.			-15
40			(39') Well-graded SAND (SW); mostly fine-medium grained sand, trace silt, loose, saturated, dark gray. (40') As Above.			
		100	(42') Poorly graded SAND (SP); mostly fine grained sand, medium dense, moist, brown.			-20
45			(44') Fat CLAY (CH); trace fine sand, some silt, mostly clay, high plasticity, soft, moist, pale brown. (45') As Above.			
		100	(48') Fat CLAY (CH); little silt, mostly clay, high plasticity, soft, wet, pale gray.			-25
50			(50') As Above.			
		80			Bentonite cement grout	-30
55			(55') As Above.			
		86	(58') Fine sand content increasing down column.			-35
60			(60') Silty SAND (SM); mostly fine grained sand, some silt, few clay, well-graded, loose, wet, dark gray.		2" Sch 40 PVC riser	
		100				-40
65			(65') Sandy elastic SILT (MH); some fine-medium sand, some silt, little clay, medium plasticity, soft, moist, dark gray.			
		100				-45
70			(70') As Above.			
		100				-50

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LOG OF TEST BORING

PROJECT Plant Barry
LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		100	(65') Sandy elastic SILT (MH); some fine-medium sand, some silt, little clay, medium plasticity, soft, moist, dark gray. *(continued)* (75') As Above.		2" Sch 40 PVC riser Bentonite cement grout (Bentonite powder: 37.5 lbs, Portland cement: 564 lbs, Water: 105 gal)	-55
80		0	(80') No Recovery.			-60
85		0	(85') No Recovery.			-65
90		100	(90') Well-graded SAND (SW); mostly medium-coarse grained sand, trace fine gravel, loose, moist, pale brown. (92') Poorly graded SAND (SP); mostly medium grained sand, loose, moist, pale brown.			-70
95		100	(95') Well-graded SAND (SW); mostly fine-coarse grained sand, trace fine gravel, loose, moist, pale brown.			-75
100		0	(100') No Recovery.			-80
105		0	(105') No Recovery.		Bentonite seal (3/8" uncoated pellets and chips, hydrated for 3 hrs)	-85
110		0	(110') No Recovery.		20/40 pre-packed filter sand	-90

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		60	(115') Well-graded SAND (SW); mostly fine-coarse grained sand, trace fine gravel, loose, wet, pale brown.		2" Sch 40 PVC 0.010" slotted screen (prepack)	-95
120			(120') Well-graded SAND (SW); mostly fine-coarse grained sand, trace fine gravel, loose, moist, pale brown.			
		100	(122') Gravelly fat CLAY (CH) with sand; little fine gravel, little fine-coarse sand, little silt, mostly clay, high plasticity, medium stiff, moist, pale greenish.		Bottom cap	-100
			(124') Poorly graded SAND (SP); mostly fine grained sand, loose, moist, pale gray.		Backfilled with native soil	
125			Bottom of borehole at 125.0 feet.			-105
130						-110
135						-115
140						-120
145						-125
150						-130

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MONITORING WELL BY-AP-MW-05V

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 12/20/2018 **COMPLETED** 12/20/2018 **TOC ELEV.** 28.94 **SURF. ELEV.** 25.98 **COORDINATES** N: 365519.51 ft E: 1809435.46 ft

CONTRACTOR Cascade **EQUIPMENT** Geoprobe 8140LC **DRILLING METHOD** Sonic

DRILLED BY Mike Rodriguez **LOGGED BY** T. Fitzhugh **CHECKED BY** D. Yifru **BORING DEPTH** 105 ft BLS

GROUND WATER DEPTH (ft bls): DURING 18.0 (12/20/2018) **DELAYED** 18.6 **COMPLETED** 18.56 (01/02/2019)

NOTES 4" core barrel, 6" outer casing. Hole pre-cleared to 4.0' using Hand Auger. TOC=Top of Casing; BLS=Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		0	(0') No Recovery; Utility Clearance (HYDROEXCAVATION) 10 feet.		Well Completion: 4"x4" aluminum stick-up, protective cover, 3'x3'x4" concrete pad, 4 traffic bollards	25
5		0	(5') No Recovery.			20
10		60	(10') Fill; Sandy SILT, loose, soft, 10R 5/6. (11') SILT with sand (ML); little fine sand, mostly silt, low plasticity, soft, SILT with SAND (ML); intermixed with Sandy SILT, very soft.			15
15		86	(15') As Above.		Bentonite cement grout	10
20		100	(20') As Above. (22') Fat CLAY (CH); trace fine sand, trace silt, mostly clay, high plasticity, soft, wet, dark gray (10YR 4/1).		2" Sch 40 PVC riser	5
25		86	(25') As Above.			0
30		82	(30') Sandy fat CLAY (CH); little fine sand, few silt, little clay, high plasticity, soft, wet, dark gray (10YR 4/1).			-5

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PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(30') Sandy fat CLAY (CH); little fine sand, few silt, little clay, high plasticity, soft, wet, dark gray (10YR 4/1). *(continued)* (35') As Above.			-10
		100	(37') Well-graded SAND with silt (SW-SM); mostly fine-medium grained sand, trace silt, trace clay, medium dense, moist, dark gray.			
40			(40') As Above.		Bentonite cement grout	-15
		100				
45			(45') As Above.		2" Sch 40 PVC riser	-20
		100				
50			(50') No Recovery.			-25
		0				
55			(55') Sandy SILT (ML); some fine sand, little silt, trace clay, low plasticity, soft, wet, gray (7.5YR 6/1).			-30
		100				
60						-35
		96				
			(63') Well-graded SAND (SW); mostly fine-medium grained sand, loose, moist, white (2.5YR 8/1).			
65			(65') No Recovery.			-40
70		0	(70') No Recovery.			-45

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		96	(75') Well-graded SAND (SW); mostly fine-medium grained sand, trace fine gravel, loose, moist, pale gray.		2" Sch 40 PVC riser; Bentonite cement grout (Bentonite powder: 37.5 lbs, Portland cement: 564 lbs, water: 105 gal)	-50
80		98	(80') Poorly graded SAND (SP); mostly fine grained sand, loose, moist, white (10YR 8/1).			-55
85		60	(85') Poorly graded SAND (SP); mostly fine-medium grained sand, loose, moist, white (5YR 8/1).		Bentonite seal (3/8" uncoated pellets and chips, hydrated for 3 hrs); 20/40 pre-packed filter sand	-60
90		100	(90') As Above; trace fine gravel present.			-65
95			(95') Poorly graded SAND (SP); mostly fine grained sand, loose, wet, gray (10YR 6/1).		2" Sch 40 PVC 0.010" slotted screen (prepack)	-70
		100	(97') Well-graded GRAVEL with silt and sand (GW-GM); little fine grained gravel, little medium-coarse sand, trace silt, loose, wet, brownish yellow (10YR 6/8).			
100			(100') As Above.		Bottom cap	-75
		100	(102') Fat CLAY (CH); few silt, mostly clay, high plasticity, medium stiff, moist, gray.		Backfilled with native soil	
105			Bottom of borehole at 105.0 feet.			-80
110						-85

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MONITORING WELL BY-AP-MW-7V

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 12/11/2018 **COMPLETED** 12/12/2018 **TOC ELEV.** 25.54 **SURF. ELEV.** 22.73 **COORDINATES** N: 366702.9 ft E: 1811730.16 ft

CONTRACTOR Cascade **EQUIPMENT** Geoprobe 8140LC **DRILLING METHOD** Sonic

DRILLED BY Mike Rodriguez **LOGGED BY** J. Gallegos **CHECKED BY** D. Yifru **BORING DEPTH** 110 ft BLS

GROUND WATER DEPTH (ft bls): DURING 4.0 (12/11/2018) **DELAYED** --- **COMPLETED** 17.33 (01/02/2019)

NOTES 4" core barrel, 6" outer casing. Hole pre-cleared to 4.0' using Hand Auger. TOC=Top of Casing; BLS=Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(0') Fill; brown clay to sandy clay, medium stiff, moist, with fine to medium sand. Thin lenses of gray fine to medium and black gravel size present.		Well Completion: 4"x4" aluminum stick-up, protective cover, 3'x3'x4" concrete pad, 4 traffic bollards	20
5		30	(5') Fill; silt to fine grain sand, dark gray, intermixed with lenses of light brown clayey sand material. Saturated with water and very soft.			15
10			(10') Fill; dark gray, wet, silt to fine grain size.			
		40	(11') Fill; fat CLAY with sand (CH), little fine-medium sand, mostly clay, high plasticity, very stiff, moist, light brown.			10
15		0	(15') No Recovery.		Bentonite cement grout	5
20		100	(20') Fill; clayey SAND (SC), some fine-medium grained sand, some clay, loose, saturated, very dark gray, some wood fragments observed; grades to clay toward bottom.		2" Sch 40 PVC riser	0
25		100	(25') Fat CLAY with sand (CH); little fine-medium sand, trace silt, mostly clay, high plasticity, very soft, saturated, very dark gray, large wood fragments and branches present.			-5
30		100	(30') As Above; wood fragments present.			-10

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		100	(35') Clayey SAND (SC); mostly fine grained sand, little silt, some clay, poorly graded, saturated, very dark gray, minor amount of lenses of sandy clay.			-15
40		100	(40') As Above.		Bentonite cement grout	-20
45		100	(45') Poorly graded SAND with clay (SP-SC); mostly fine grained sand, few silt, few clay, medium dense, saturated, dark gray, grades from clayey sand to sand with clay.		2" Sch 40 PVC riser	-25
50		100	(50') As Above.			-30
55		60	(55') As Above. (56.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace silt, loose, saturated, light gray.			-35
60		0	(60') No Recovery.			-40
65		40	(65') Poorly graded SAND (SP); mostly fine grained sand, trace silt, trace clay, loose, saturated, light gray.			-45
70		60	(70') As Above. (71') Poorly graded SAND (SP); mostly medium grained sand, loose, saturated, light gray.			-50

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MONITORING WELL BY-AP-MW-7V

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(75') No Recovery; no recovery from 75-100 ft bgs. Driller reported that subsurface felt like sand as he was drilling from 75-100 ft bgs.		2" Sch 40 PVC riser	
80		0			Bentonite cement grout (Bentonite powder: 37.5 lbs, Portland cement: 564 lbs, water: 105 gal)	-55
85			(85') No Recovery.			-60
90		0			Bentonite seal (3/8" uncoated pellets and chips, hydrated for 3 hrs)	-65
95			(95') No Recovery.		20/40 pre-packed filter sand	-70
		0				-75
100		60	(100') Poorly graded SAND (SP); mostly medium-coarse grained sand, few fine-coarse gravel, loose, saturated, light brown.		2" Sch 40 PVC 0.010" slotted screen (prepack)	-80
105		100	(105') Well-graded SAND (SW); mostly coarse grained sand, few fine-coarse gravel, loose, saturated, light brown. (106') Poorly graded SAND (SP); mostly fine-medium grained sand, trace fine gravel, loose, saturated, light gray. (107') Fat CLAY (CH); mostly clay, high plasticity, very stiff, moist, pale greenish.		Bottom cap Backfilled with native soil	-85
110			Bottom of borehole at 110.0 feet.			-90

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MONITORING WELL BY-AP-MW-8V

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 12/13/2018 **COMPLETED** 12/14/2018 **TOC ELEV.** 28.25 **SURF. ELEV.** 25.39 **COORDINATES** N: 367058.69 ft E: 1813183.81 ft

CONTRACTOR Cascade **EQUIPMENT** Geoprobe 8140LC **DRILLING METHOD** Sonic

DRILLED BY Mike Rodriguez **LOGGED BY** Gallegos/Fitzhugh **CHECKED BY** D. Yifru **BORING DEPTH** 115 ft BLS

GROUND WATER DEPTH (ft bls): DURING 14.0 (12/13/2018) **DELAYED** --- **COMPLETED** 20.10 (01/02/2019)

NOTES 4" core barrel, 6" outer casing. Hole pre-cleared to 4.0' using Hand Auger. TOC=Top of Casing; BLS=Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(0') Fat CLAY with sand (CH); few fine sand, mostly clay, high plasticity, red and brown, clay to clay with sand, red and brown, highly plastic, stiff, dry; thin lenses of sand fill also present.		Well Completion: 4"x4" aluminum stick-up, protective cover, 3'x3'x4" concrete pad, 4 traffic bollards	25
5			(5') As Above.			20
		52	(7.3') SILT with sand (ML); very fine sand to silt, very dark gray, moist, loose. (7.5') SILT with sand (ML); some fine sand, mostly silt, very dark gray, with some black plastic (presumably old geogrid).			
10			(10') SILT with sand (ML); little fine sand, mostly silt, dark gray.			15
		100	(12') Silty SAND (SM); mostly fine-medium grained sand, some silt, very dark gray.			
			(13') SILT (ML); mostly silt, very soft, dark gray. (14') SILT (ML); very dark gray, fine to coarse sand, loose, wet, fragments of black plastic webbing grid.	▽		
15			(15') Well-graded SAND (SW); mostly fine-coarse grained sand, very dark gray.		Bentonite cement grout	10
		100				
20			(20') Fat CLAY (CH); trace fine sand, mostly clay, high plasticity, medium stiff, moist, light gray (10YR 7/1), long thin roots observed.	▼		5
		100	(21.3') Fat CLAY (CH); trace fine sand, mostly clay, high plasticity, medium stiff, moist, dark gray, ; clay is mottled. (21.5') As Above; trace pyrite.		2" Sch 40 PVC riser	
25			(25') Fat CLAY (CH); little silt, mostly clay, high plasticity, medium stiff, moist, pale greenish.			0
		66				
30			(30') Silty SAND (SM); some fine grained sand, some silt, some clay, loose, saturated, dark gray (10YR 4/1).			-5
		76				

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		0	(35') No Recovery.			-10
40		72	(40') Silty SAND (SM); mostly fine grained sand, little silt, little clay, loose, saturated, dark gray (10YR 4/1), grain size is fine to very fine; some zones transition to clayey sand or sand with silt.		Bentonite cement grout; 2" Sch 40 PVC riser	-15
45		92	(45') Clayey SAND (SC); mostly fine grained sand, trace silt, some clay, loose, saturated, dark gray (10YR 4/1).			-20
			(48') Poorly graded SAND with clay (SP-SC); mostly fine grained sand, trace silt, few clay, loose, saturated, dark gray (10YR 4/1).			
50		0	(50') No Recovery; Flapper bit jammed; driller reported that interval felt like sand; gravel observed within flapper bit when rods pulled up.			-25
55		0	(55') No Recovery; Flapper bit was jammed open by coarse (~25 mm) gravel. Driller reports that subsurface felt like drilling through sand and gravel between 55-70 ft Interval.			-30
60						-35
65						-40
70		0	(70') No Recovery; Flapper bit was jammed open by coarse (range from 5 - 15 mm) gravel. Driller reports that subsurface felt like drilling through sand and gravel, between 70 - 80 ft Interval.			-45

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		0	(70') No Recovery; Flapper bit was jammed open by coarse (range from 5 - 15 mm) gravel. Driller reports that subsurface felt like drilling through sand and gravel, between 70 - 80 ft Interval. *(continued)*		2" Sch 40 PVC riser; Bentonite cement grout (Bentonite powder: 50 lbs, Portland cement: 752 lbs, water: 140 gal)	-50
80		0	(80') No Recovery; flapper bit was jammed open by coarse (ranging from 5 - 20 mm) gravel. Driller reports that subsurface felt like drilling through sand and gravel, while he was drilling through the 70 - 80 ft Interval. Based on no recovery and drillers observations, this interval is likely composed of sand and gravel.		Bentonite seal (3/8" uncoated pellets and chips, hydrated for 3 hrs)	-55
85						-60
90			(90') Poorly graded SAND (SP); mostly fine-medium grained sand, loose, moist, pale brown.		20/40 pre-packed filter sand	-65
		100	(92') Well-graded GRAVEL with sand (GW); mostly fine-coarse grained gravel, some fine-coarse sand, loose, moist, pale brown.			
95			(95') Poorly graded SAND (SP); mostly fine grained sand, trace fine gravel, loose, moist, pale gray.			-70
		100	(97') As Above; Slightly more medium sand.		2" Sch 40 PVC 0.010" slotted screen (prepack)	
100			(100') As Above.			-75
		100			Bottom cap	
105			(104.5') Fat CLAY (CH); mostly clay, high plasticity, hard, moist, pale greenish blue, orange-brown mottling throughout.			-80
		100			Backfilled with native soil	
110			(110') As Above.			-85
		100				

Bottom of borehole at 115.0 feet.

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MONITORING WELL BY-AP-MW-10V

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 12/16/2018 **COMPLETED** 12/16/2018 **TOC ELEV.** 25.39 **SURF. ELEV.** 22.76 **COORDINATES** N: 365317.93 ft E: 1815416.56 ft

CONTRACTOR Cascade **EQUIPMENT** Geoprobe 8140LC **DRILLING METHOD** Sonic

DRILLED BY Mike Rodriguez **LOGGED BY** T. Fitzhugh **CHECKED BY** D. Yifru **BORING DEPTH** 90 ft BLS

GROUND WATER DEPTH (ft bls): DURING 10.0 (12/16/2018) **DELAYED** --- **COMPLETED** 17.31 (01/02/2019)

NOTES 4" core barrel, 6" outer casing. Hole pre-cleared to 4.0' using Hand Auger. TOC=Top of Casing; BLS=Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(0') Well-graded GRAVEL (GW); pale brown.		Well Completion: 4"x4" aluminum stick-up, protective cover, 3'x3'x4" concrete pad, 4 traffic bollards	
			(2') Poorly graded SAND (SP); mostly fine grained sand, some silt, little clay, medium dense, moist, dark black.			20
5			(5') Lean CLAY with sand (CL); trace fine gravel, few fine-medium sand, some silt, mostly clay, medium plasticity, soft, moist, very dark black.			
		60	(6') Elastic SILT with sand (MH); few fine sand, some silt, mostly clay, medium plasticity, very stiff, moist, pale brown.			15
10		100	(10') Fat CLAY with sand (CH); few fine sand, some silt, mostly clay, high plasticity, very stiff, wet, pale yellowish-brown.	▽	Bentonite cement grout	10
15		100	(15') SILT with sand (ML); some fine-medium sand, little silt, few clay, low plasticity, soft, saturated, pale yellowish-gray.	▼		5
20		100	(20') Sandy SILT (ML); some fine sand, mostly silt, little clay, low plasticity, medium stiff, moist, pale yellowish-brown. (21.5') One foot section of organic material.			0
			(23') Fat CLAY (CH); few silt, mostly clay, high plasticity, medium stiff, moist, gray.		2" Sch 40 PVC riser	
25			(25') No Recovery.			-5
30		0	(30') No Recovery.			-10

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LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(35') SILT with sand (ML); trace fine gravel, few fine-medium sand, mostly silt, some clay, low plasticity, soft, wet, dark gray.			
		100	(36') Poorly graded SAND (SP); mostly fine-medium grained sand, trace silt, trace clay, loose, moist, dark gray, Trace SILT/CLAY lenses throughout.			-15
40			(40') As Above.			
		100			2" Sch 40 PVC riser	-20
45			(45') Well-graded SAND (SW); mostly fine-coarse grained sand, trace silt, loose, wet, gray, trace SILT lenses.		Bentonite cement grout (Bentonite powder: 37.5 lbs, Portland cement: 564 lbs, water: 105 gal)	
		100				-25
50			(50') As Above; becoming pale brown down column.			
		100	(52') As Above; 2-inch SILT lens.			-30
55			(55') No Recovery.			
		0				-35
60			(60') Well-graded SAND (SW); mostly fine-coarse grained sand, loose, wet, pale brown.			
		68				-40
65			(65') As Above.			
		100				-45
70			(70') Poorly graded SAND (SP); mostly fine grained sand, loose, wet, pale brown.		Bentonite seal (3/8" uncoated pellets and chips, hydrated for 3 hrs)	
		84				-50
					20/40 pre-packed filter sand	

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MONITORING WELL BY-AP-MW-10V

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		82	(70') Poorly graded SAND (SP); mostly fine grained sand, loose, wet, pale brown. *(continued)* (75') As Above; trace coarse SAND throughout.			-55
80		98	(80') Well-graded GRAVEL with sand (GW); mostly fine-coarse grained gravel, some fine-coarse sand, loose, moist, dark gray. (81') Well-graded SAND with gravel (SW); mostly fine-coarse grained sand, some fine-coarse gravel, loose, moist, pale gray. (82.5') Poorly graded SAND (SP); mostly fine grained sand, loose, moist, pale gray.		2" Sch 40 PVC 0.010" slotted screen (prepack)	-60
85		100	(85') Poorly graded SAND (SP); mostly fine grained sand, loose, moist, pale gray. (86.5') Poorly graded SAND (SP); mostly fine grained sand, trace fine gravel, loose, moist, pale brown.		Bottom cap	-65
			(88') Fat CLAY (CH); little silt, mostly clay, high plasticity, very stiff, moist, pale bluish-gray.		Backfilled with native soil	
90			Bottom of borehole at 90.0 feet.			-70
95						-75
100						-80
105						-85
110						-90

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MONITORING WELL BY-AP-MW-12V

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 12/17/2018 **COMPLETED** 12/17/2018 **TOC ELEV.** 25.51 **SURF. ELEV.** 21.05 **COORDINATES** N: 362720.23 ft E: 1815680.53 ft

CONTRACTOR Cascade **EQUIPMENT** Geoprobe 8140LC **DRILLING METHOD** Sonic

DRILLED BY Mike Rodriguez **LOGGED BY** T. Fitzhugh **CHECKED BY** D. Yifru **BORING DEPTH** 100 ft BLS

GROUND WATER DEPTH (ft bls): DURING 12.0 (12/17/2018) **DELAYED** --- **COMPLETED** 15.60 (01/02/2019)

NOTES 4" core barrel, 6" outer casing. Hole pre-cleared to 4.0' using Hand Auger. TOC=Top of Casing; BLS=Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(0') Fill; clay to clay with sand, red and brown, highly plastic, stiff, dry; thin lenses of sand fill also present.		Well Completion: 4"x4" aluminum stick-up, protective cover, 3'x3'x4" concrete pad, 4 traffic bollards	20
5			(5') SILT with sand (ML); few fine sand, mostly silt, little clay, low plasticity, soft, moist, dark brown.			15
		60	(6.5') Fat CLAY with sand (CH); little fine sand, some silt, mostly clay, high plasticity, medium stiff, moist, light yellowish-brown, roots and organic material throughout.			
			(8') Streaks of pale gray.			
10			(10') As Above.			10
		74		▽		
			(13.5') Fat CLAY with sand (CH); little fine sand, some silt, mostly clay, high plasticity, medium stiff, moist, pale gray.			
15			(15') As Above; hard.	▼		5
		100	(16.5') Fat CLAY (CH); trace fine sand, trace silt, mostly clay, high plasticity, stiff, moist, gray.		Bentonite cement grout	
			(18') As Above; organic material present such as roots.			
20			(20') As Above.			0
		100			2" Sch 40 PVC riser	
25			(25') SILT with sand (ML); few fine sand, mostly silt, some clay, low plasticity, stiff, moist, pale yellowish-brown.			-5
		100				
			(28') Fat CLAY (CH); trace silt, mostly clay, high plasticity, medium stiff, moist, light gray, high organic content.			
30			(30') As Above.			-10
		100				

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		100	(28') Fat CLAY (CH); trace silt, mostly clay, high plasticity, medium stiff, moist, light gray, high organic content. *(continued)* (35') As Above.			-15
			(38') Poorly graded SAND with silt (SP-SM); mostly fine grained sand, trace silt, trace clay, loose, wet, pale gray.			
40		100	(40') Silty SAND (SM); mostly fine grained sand, little silt, trace clay, well-graded, medium dense, moist, light gray.		2" Sch 40 PVC riser	-20
45		0	(45') No Recovery.		Bentonite cement grout (Bentonite powder: 37.5 lbs, Portland cement: 564 lbs, water: 105 gal)	-25
50		40	(50') Silty SAND (SM); mostly fine grained sand, little silt, trace clay, loose, wet, pale greenish-brown.			-30
55		100	(55') Poorly graded SAND (SP); mostly fine-medium grained sand, loose, moist, pale yellowish-brown.			-35
60		100	(60') Well-graded SAND (SW); mostly fine-coarse grained sand, few fine gravel, loose, wet, pale yellowish-brown.			-40
65		100	(65') No Recovery.			-45
70		100	(70') Poorly graded SAND (SP); mostly fine grained sand, loose, moist, pale gray.		Bentonite seal (3/8" uncoated pellets and chips, hydrated for 3 hrs)	-50

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(70') Poorly graded SAND (SP); mostly fine grained sand, loose, moist, pale gray. *(continued)*			-55
		100	(77') Well-graded SAND with gravel (SW); mostly fine-coarse grained sand, little fine-coarse gravel, loose, moist, pale brown.		20/40 pre-packed filter sand	
80			(80') As Above.			-60
		100	(81.5') As Above; one foot clay lens from 81.5' to 82.5'.			
			(84') As Above; 7-inch silt lens from 84.0' to 84.58'.			
85			(85') Poorly graded SAND (SP); mostly fine grained sand, loose, moist, pale gray.		2" Sch 40 PVC 0.010" slotted screen (prepack)	-65
		100				
90			(90') As Above.		Bottom cap	-70
		100	(92') Fat CLAY (CH); mostly clay, high plasticity, very stiff, moist, pale greenish.			
95			(95') As Above.		Backfilled with native soil	-75
		100				
100			Bottom of borehole at 100.0 feet.			-80
105						-85
110						-90

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MONITORING WELL BY-AP-MW-15V

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 07/22/2019 **COMPLETED** 07/23/2019 **TOC ELEV.** 7.03 **SURF. ELEV.** 4.05 **COORDINATES** N 360693.28 E 1813239.13

CONTRACTOR SCS Civil Field Services **EQUIPMENT** CME-550 **DRILLING METHOD** Mud Rotary

DRILLED BY S. Milam **LOGGED BY** N. Tilahun **CHECKED BY** J. Ivanowski **BORING DEPTH** 95 ft BLS

GROUND WATER DEPTH (ft bls): DURING --- **DELAYED** 10.5 (07/23/2019) **COMPLETED** 21.51 (07/31/2019)

NOTES 16" split spoon sampler. TOC = Top of Casing; BLS = Below Land Surface; WOH = Weight of Hammer.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	BLOW COUNTS	MATERIAL DESCRIPTION	GROUND WATER DEPTH (ft BLS)	WELL DATA	ELEVATION
				(0') Hole pre-cleared to 10.0' on 07/22/2019 using hand auger; top soil and organic clay.		Well Completion: 4"x4" aluminum stick-up protective cover, 2'x2'x4" concrete pad; Bentonite grout	0
5						2" Sch 40 PVC riser	-5
10				(10') Drilling began.			
		100	WOH	(13.5') Lean CLAY (CL); trace silt, mostly clay, medium plasticity, very soft, wet, greenish-gray.			-10
15							
		60	3 3 1	(18.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace fine gravel, little silt, very loose, wet, greenish-gray.			-15
20					▼		
		60	9 8 10	(23.5') Poorly graded SAND (SP); mostly fine grained sand, trace silt, medium dense, saturated, light gray.			-20

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PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	BLOW COUNTS	MATERIAL DESCRIPTION	GROUND WATER DEPTH (ft BLS)	WELL DATA	ELEVATION
		60	3 6 8	(28.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace silt, medium dense, saturated, white.			-25
30						2" Sch 40 PVC riser	
		60	6 8 8	(33.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace silt, medium dense, saturated, greenish-white.		Bentonite grout	-30
35							
		60	5 5 4	(38.5') Poorly graded SAND (SP); mostly fine-medium grained sand, few silt, few clay, loose, saturated, dark gray.			-35
40							
		73	8 11 13	(43.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace silt, trace clay, medium dense, saturated, light yellowish-brown.			-40
45							
		67	8 18 13	(48.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace fine-coarse gravel, trace silt, trace clay, dense, saturated, light yellowish-gray, sub-rounded to rounded gravel.			-45
50							

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	BLOW COUNTS	MATERIAL DESCRIPTION	GROUND WATER DEPTH (ft BLS)	WELL DATA	ELEVATION
		100	10 12 14	(53.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace fine-coarse gravel, trace silt, trace clay, medium dense, saturated, light yellowish-gray, sub-rounded to rounded gravel. *(continued)*			-50
55							
		73	8 9 14	(58.5') Well-graded SAND with gravel (SW); mostly fine-coarse grained sand, some fine-coarse gravel, trace silt, trace clay, medium dense, saturated, light yellowish-white, sub-rounded to rounded gravel.			-55
60						2" Sch 40 PVC riser	
						Bentonite grout (2 bags of Aquaguard mixed with 40 gallons of water)	
		100	10 12 14	(63.5') Well-graded GRAVEL with sand (GW); mostly fine-coarse grained gravel, some fine-coarse sand, trace silt, medium dense, saturated, yellowish-white, sub-rounded to rounded gravel.			-60
65							
		67	7 8 8	(68.5') Well-graded GRAVEL (GW); mostly fine-coarse grained gravel, few fine-coarse sand, trace silt, medium dense, saturated, yellowish-white, sub-rounded to rounded gravel.		Bentonite seal (Pel-Plug coated bentonite pellets hydrated overnight)	-65
70						20/40 Filter sand	
		60	5 6 5	(73.5') Well-graded GRAVEL (GW); mostly fine-coarse grained gravel, few fine-coarse sand, trace silt, medium dense, saturated, yellowish-white, sub-rounded to rounded gravel, trace pebbles.			-70
75						2" Sch 40 PVC 0.010" slotted screen (prepack)	
		73	8 10 9	(78.5') Well-graded GRAVEL with sand (GW); mostly fine-coarse grained gravel, little fine-coarse sand, trace silt, trace clay, medium dense, saturated, white, sub-rounded to rounded gravel, trace pebbles.			-75
80							

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	BLOW COUNTS	MATERIAL DESCRIPTION	GROUND WATER DEPTH (ft BLS)	WELL DATA	ELEVATION
						Bottom cap	
		100	8 11 13	(83.5') Poorly graded GRAVEL (GP); mostly coarse grained gravel, trace fine-coarse sand, medium dense, saturated, white, sub-rounded to rounded gravel, trace pebbles.			-80
85				(84.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace fine gravel, medium dense, saturated, white, sub-rounded to rounded gravel.			
		87	9 11 14	(88.5') Well-graded SAND (SW); mostly fine-coarse grained sand, few fine-coarse gravel, medium dense, saturated, yellowish-white, sub-rounded to rounded gravel.		Backfilled with native soil (Borehole caved-in between 83 ft and 95 ft BLS).	-85
90							
		100	9 11 13	(93.5') Fat CLAY (CH); trace fine sand, trace silt, mostly clay, high plasticity, very stiff, moist, greenish.			-90
95				Bottom of borehole at 95.0 feet.			
							-95
100							
							-100
105							
							-105
110							

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MONITORING WELL BY-AP-MW-17H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 12/21/2018 **COMPLETED** 12/21/2018 **TOC ELEV.** 19.83 **SURF. ELEV.** 16.88 **COORDINATES** N: 367266.28 ft E: 1809249.17 ft

CONTRACTOR Cascade **EQUIPMENT** Geoprobe 8140LC **DRILLING METHOD** Sonic

DRILLED BY Mike Rodriguez **LOGGED BY** T. Fitzhugh **CHECKED BY** D. Yifru **BORING DEPTH** 60.4 ft BLS

GROUND WATER DEPTH (ft bls): DURING --- **DELAYED** --- **COMPLETED** ---

NOTES 4" core barrel, 6" outer casing. Hole pre-cleared to 4.0' using Hand Auger. TOC=Top of Casing; BLS=Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		0	(0') No Recovery; Utility Clearance (HYDROEXCAVATION) 10 feet.		Well Completion: 4"x4" aluminum stick-up, protective cover, 3'x3'x4" concrete pad, 4 traffic bollards	15
5		0	(5') No Recovery.			10
10		0	(10') No Recovery.			5
15		92	(15') SILT with sand (ML); trace fine gravel, few fine sand, mostly silt, trace clay, low plasticity, medium stiff, moist, reddish brown (5YR 5/4). (18') Fat CLAY (CH); trace fine sand, little silt, mostly clay, high plasticity, stiff, moist, GLEY 2 5/1 10GB, organic content.			0
20		92	(20') As Above. (22') As Above; fine SAND and SILT increasing down column.		Bentonite cement grout 2" Sch 40 PVC riser	-5
25		100	(25') Fat CLAY with sand (CH); trace fine gravel, few fine sand, trace silt, mostly clay, high plasticity, medium stiff, wet, gray (7.5YR 5/1). (26') As Above; roots and other organics throughout.			-10
30		100	(30') As Above; organic content decreasing.			-15

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SC_LOG_2_PLANT_BARRY - GEOSYNTEC STANDARD.GDT - 2/19/19 10:58 - C:\USERS\USER\DESKTOP\GINT\PROJECTS\GEOS PLANT BARRY.GPJ

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MONITORING WELL BY-AP-MW-17H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		100	(25') Fat CLAY with sand (CH); trace fine gravel, few fine sand, trace silt, mostly clay, high plasticity, medium stiff, wet, gray (7.5YR 5/1). *(continued)* (35') As Above; trace gravel, no organics present.		2" Sch 40 PVC riser Bentonite cement grout (Bentonite powder: 25 lbs, Portland cement: 376 lbs, Water: 70 gal)	-20
40		100	(40') As Above; red-brown mottling.			-25
45		0	(45') No Recovery.		Bentonite seal (3/8" uncoated pellets and chips, hydrated for 3 hrs) 20/40 pre-packed filter sand	-30
50		100	(50') Sandy SILT (ML); little fine-medium sand, little silt, little clay, low plasticity, soft, moist, pale gray. (52') Poorly graded SAND (SP); mostly fine-medium grained sand, trace silt, loose, moist, brownish yellow (10YR 6/8).			-35
55		100	(55') Silty SAND (SM); mostly fine grained sand, little silt, trace clay, poorly graded, medium dense, wet, gray (10YR 6/1).		2" Sch 40 PVC 0.010" slotted screen (prepack)	-40
60					Bottom cap	

Bottom of borehole at 60.4 feet.

65	-45
70	-50
	-55

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MONITORING WELL BY-AP-MW-18H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 12/15/2018 **COMPLETED** 12/15/2018 **TOC ELEV.** 10.3 **SURF. ELEV.** 7.08 **COORDINATES** N: 367152.71 ft E: 1813259.55 ft

CONTRACTOR Cascade **EQUIPMENT** Geoprobe 8140LC **DRILLING METHOD** Sonic

DRILLED BY Mike Rodriguez **LOGGED BY** T. Fitzhugh **CHECKED BY** D. Yifru **BORING DEPTH** 50 ft BLS

GROUND WATER DEPTH (ft bls): DURING 16.0 **DELAYED** --- **COMPLETED** ---

NOTES 4" core barrel, 6" outer casing. Hole pre-cleared to 4.0' using Hand Auger. TOC=Top of Casing; BLS=Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(0') Elastic SILT with sand (MH); trace fine gravel, few fine-medium sand, mostly silt, some clay, medium plasticity, medium stiff, moist, dark brown, red and gray mottling.		Well Completion: 4"x4" aluminum stick-up, protective cover, 3'x3'x4" concrete pad, 4 traffic bollards	5
5			(5') As Above.			
		100	(6') As Above; organic material throughout.			0
10			(10') Elastic SILT with sand (MH); trace fine gravel, few fine-medium sand, mostly silt, some clay, medium plasticity, medium stiff, moist, dark brown.			-5
		100			2" Sch 40 PVC riser	
15			(15') As Above.	▽	Bentonite cement grout (Bentonite powder: 25 lbs, Portland cement: 376 lbs, water: 70 gal)	-10
		100				
20			(20') No Recovery.			-15
		0				
25			(25') SILT with sand (ML); trace fine gravel, few fine-medium sand, mostly silt, little clay, low plasticity, medium stiff, wet, dark gray, organic material and clay/silt lenses throughout.			-20
		100				
30			(30') Well-graded SAND with silt (SW-SM); mostly fine-medium grained sand, trace fine gravel, few silt, few clay, loose, wet, dark gray, clay/silt decreasing down column.			-25
		48			Bentonite seal (3/8" uncoated pellets/chips, hydrated 3 hrs)	

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MONITORING WELL BY-AP-MW-18H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		100	(35') Poorly graded SAND (SP); mostly fine-medium grained sand, trace fine-coarse gravel, loose, wet, pale gray.		20/40 pre-packed filter sand	-30
			(39') As Above; pale brown.			
40			(40') As Above.			
		100				-35
					2" Sch 40 PVC 0.010" slotted screen (prepack)	
45			(45') Poorly graded SAND (SP); mostly fine grained sand, trace fine gravel, loose, moist, pale brown.			
			(46') Trace medium SAND.			-40
		100			Bottom cap	
50					Backfilled with native soil	
			Bottom of borehole at 50.0 feet.			
						-45
55						-50
60						-55
65						-60
70						-65

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MONITORING WELL BY-AP-MW-19H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 07/18/2019 **COMPLETED** 07/18/2019 **TOC ELEV.** 9.4 **SURF. ELEV.** 6.39 **COORDINATES** N 365236.72 E 1815589.07

CONTRACTOR SCS Civil Field Services **EQUIPMENT** CME-550 **DRILLING METHOD** Mud Rotary

DRILLED BY S. Milam **LOGGED BY** L. Dorman **CHECKED BY** J. Ivanowski **BORING DEPTH** 40 ft BLS

GROUND WATER DEPTH (ft bls): DURING --- **DELAYED** --- **COMPLETED** 7.57 (07/31/2019)

NOTES TOC = Top of Casing; BLS = Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	BLOW COUNTS	MATERIAL DESCRIPTION	GROUND WATER DEPTH (ft BLS)	WELL DATA	ELEVATION
			(0') Hole pre-cleared to 10.0' on 7/18/2019 using hand auger.		Well Completion: 4"x4" aluminum stick-up protective cover, 2'x2'x4" concrete pad	5
5						0
10			(10') Drilling began.		Bentonite grout (2 bags of Aquaguard mixed with 40 gallons of water)	-5
15		1 2 2	(13.5') Clayey SAND (SC); mostly fine grained sand, little clay, very loose, saturated, dark gray, sub-rounded.		2" Sch 40 PVC riser	-10
20		0 3 5	(18.5') Poorly graded SAND (SP); mostly fine grained sand, loose, saturated, dark gray, sub-rounded.		Bentonite seal (Pel-Plug coated bentonite pellets hydrated overnight)	-15
		2 4 4	(23.5') Poorly graded SAND (SP); mostly fine grained sand, loose, saturated, dark gray, sub-rounded.		20/40 Filter sand	

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	BLOW COUNTS	MATERIAL DESCRIPTION	GROUND WATER DEPTH (ft BLS)	WELL DATA	ELEVATION
						-20
30		4 4 5	(28.5') Poorly graded SAND (SP); mostly fine grained sand, loose, saturated, dark gray, sub-rounded.		2" Sch 40 PVC 0.010" slotted screen (prepack)	-25
35		5 5 7	(33.5') Poorly graded SAND (SP); mostly fine grained sand, loose, saturated, dark gray, sub-rounded, becomes medium dense.		Bottom cap 20/40 Filter sand	-30
40		7 6 4	(38.5') Poorly graded SAND (SP); mostly fine grained sand, loose, saturated, dark gray, sub-rounded, becomes loose.			-35
45			Bottom of borehole at 40.0 feet.			-40
50						-45

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MONITORING WELL BY-AP-MW-20H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 07/18/2019 **COMPLETED** 07/18/2019 **TOC ELEV.** 9.4 **SURF. ELEV.** 6.51 **COORDINATES** N 362486.83 E 1815755.46

CONTRACTOR SCS Civil Field Services **EQUIPMENT** CME-550 **DRILLING METHOD** Mud Rotary

DRILLED BY S. Milam **LOGGED BY** L. Dorman **CHECKED BY** J. Ivanowski **BORING DEPTH** 45 ft BLS

GROUND WATER DEPTH (ft bls): DURING --- **DELAYED** --- **COMPLETED** 7.10 (07/31/2019)

NOTES TOC = Top of Casing; BLS = Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	BLOW COUNTS	MATERIAL DESCRIPTION	GROUND WATER DEPTH (ft BLS)	WELL DATA	ELEVATION
			(0') Hole pre-cleared to 10.0' on 7/18/2019 using hand auger.		Well Completion: 4"x4" aluminum stick-up protective cover, 2'x2'x4" concrete pad	5
5					2" Sch 40 PVC riser	0
10			(10') Drilling began.		Bentonite grout (2 bags of Aquaguard mixed with 40 gallons of water)	-5
		0 0 0	(13.5') Lean CLAY (CL); medium plasticity, very soft, saturated, dark gray.			
15						-10
		0 0 0	(18.5') ORGANIC SOIL (OH); trace silt, mostly clay, low plasticity, very soft, saturated, dark gray, contains roots and organic material.			
20						-15
		0 0 0	(23.5') Lean CLAY (CL); medium plasticity, very soft, saturated, light gray.			

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MONITORING WELL BY-AP-MW-20H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	BLOW COUNTS	MATERIAL DESCRIPTION	GROUND WATER DEPTH (ft BLS)	WELL DATA	ELEVATION
			(28.5') Sample not collected, transition to sand is >30 ft, based on rig chatter ~33 ft BGS.		Bentonite seal (Pel-Plug coated bentonite pellets hydrated overnight)	
30						-20
						-25
		6 6 8	(33.5') Poorly graded SAND (SP); mostly fine grained sand, medium dense, saturated, light gray.		20/40 Filter sand	
35						-30
		4 2 10	(38.5') Poorly graded SAND (SP); mostly fine grained sand, medium dense, saturated, light gray.		2" Sch 40 PVC 0.010" slotted screen (prepack)	
40						-35
		8 10 13	(43.5') Well-graded SAND (SW); mostly fine-medium grained sand, medium dense, saturated, light gray.		Bottom cap	
45			Bottom of borehole at 45.0 feet.			
						-40
50						-45

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MONITORING WELL BY-AP-MW-22H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 07/24/2019 **COMPLETED** 07/24/2019 **TOC ELEV.** 7.85 **SURF. ELEV.** 4.73 **COORDINATES** N 360449.45 E 1813680.09

CONTRACTOR SCS Civil Field Services **EQUIPMENT** CME-550 **DRILLING METHOD** Mud Rotary

DRILLED BY S. Milam **LOGGED BY** N. Tilahun **CHECKED BY** J. Ivanowski **BORING DEPTH** 40.3 ft BLS

GROUND WATER DEPTH (ft bls): DURING --- **DELAYED** 2.2 (07/24/2019) **COMPLETED** 5.60 (07/31/2019)

NOTES TOC = Top of Casing; BLS = Below Land Surface; WOH = Weight of Hammer.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	BLOW COUNTS	MATERIAL DESCRIPTION	GROUND WATER DEPTH (ft BLS)	WELL DATA	ELEVATION
				(0') Hole pre-cleared to 10.0' on 7/18/2019 using hand auger; top soil and organic clay.		Well Completion: 4"x4" aluminum stick-up protective cover, 2'x2'x4" concrete pad	
5						2" Sch 40 PVC riser	0
10				(10') Drilling began.		Bentonite grout (2 bags of Aquaguard mixed with 40 gallons of water)	-5
		53	WOH	(13.5') Lean CLAY (CL); trace fine-coarse gravel, few silt, mostly clay, medium plasticity, very soft, saturated, dark brown, wood and roots, organic matter, rounded gravel.			
15							-10
		53	2 3 3	(18.5') Poorly graded SAND (SP); mostly fine grained sand, few silt, little clay, loose, saturated, greenish-gray, trace roots.			
20							-15
		80	0 0 0	(23.5') Lean CLAY with sand (CL); little fine sand, few silt, mostly clay, medium plasticity, very soft, saturated, light greenish-gray, very trace rounded gravel.		Bentonite seal (Pel-Plug coated bentonite pellets hydrated overnight)	-20

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MONITORING WELL BY-AP-MW-22H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	BLOW COUNTS	MATERIAL DESCRIPTION	GROUND WATER DEPTH (ft BLS)	WELL DATA	ELEVATION
		73	2 4 5	(28.5') Sandy lean CLAY (CL); some fine sand, few silt, mostly clay, medium plasticity, stiff, saturated, pale greenish-gray.		20/40 Filter sand	-25
30							
		73	5 6 7	(33.5') Poorly graded SAND (SP); mostly fine grained sand, trace fine-coarse gravel, trace silt, little clay, medium dense, saturated, light greenish-brown, rounded gravel.		2" Sch 40 PVC 0.010" slotted screen (prepack)	-30
35							
		53	7 9 13	(38.5') Poorly graded SAND (SP); mostly fine grained sand, trace silt, medium dense, saturated, white.		Bottom cap	-35
40				Bottom of borehole at 40.3 feet.			
45							-40
50							-45

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 07/25/2019 **COMPLETED** 07/25/2019 **TOC ELEV.** --- **SURF. ELEV.** --- **COORDINATES** N: --- E: ---

CONTRACTOR SCS Civil Field Services **EQUIPMENT** CME-550 **DRILLING METHOD** Mud Rotary

DRILLED BY S. Milam **LOGGED BY** N. Tilahun **CHECKED BY** J. Ivanowski **BORING DEPTH** 70 ft BLS

NOTES TOC = Top of Casing; BLS = Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	BLOW COUNTS	MATERIAL DESCRIPTION
				(0') Hole pre-cleared to 10.0' on 7/25/2019 using hand auger; top soil and organic clay.
5				
10				(10') Drilling began.
		87	1 2 3	(13.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace silt, few clay, loose, saturated, light yellowish-brown.
15				
		80	2 3 3	(18.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace silt, trace clay, loose, saturated, light brown.
20				
		80	2 3 6	(23.5') Poorly graded SAND (SP); mostly fine grained sand, trace silt, few clay, loose, saturated, light brown.

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	BLOW COUNTS	MATERIAL DESCRIPTION
30		100	1 2 5	(28.5') Poorly graded SAND (SP); mostly fine grained sand, trace silt, loose, saturated, light brown.
35		100	5 7 9	(33.5') Poorly graded SAND (SP); mostly fine grained sand, trace silt, medium dense, saturated, light brown.
40		100	5 4 5	(38.5') Poorly graded SAND (SP); mostly fine grained sand, trace silt, trace clay, loose, saturated, light yellowish-brown.
45		87	4 4 6	(43.5') Poorly graded SAND (SP); mostly fine grained sand, trace silt, loose, saturated, light yellowish-brown.
50		93	6 7 8	(48.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace fine-coarse gravel, trace silt, trace clay, medium dense, saturated, light yellowish-white.

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LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	BLOW COUNTS	MATERIAL DESCRIPTION
55		93	5 8 8	(53.5') Poorly graded SAND (SP); mostly fine-medium grained sand, trace fine-coarse gravel, trace silt, trace clay, medium dense, saturated, light yellowish-white. *(continued)*
60		73	5 5 5	(58.5') Poorly graded SAND (SP); mostly fine grained sand, trace silt, loose, saturated, light yellowish-white.
65		100	8 9 11	(63.5') Poorly graded SAND (SP); mostly fine-medium grained sand, few fine-coarse gravel, trace silt, trace clay, medium dense, saturated, light yellowish-brown.
70		100	9 11 10	(68.5') Poorly graded SAND (SP); mostly fine-medium grained sand, few fine-coarse gravel, trace silt, trace clay, medium dense, saturated, light yellowish-white.
75				Bottom of borehole at 70.0 feet. No well installed due to repeated cave-in of borehole. Borehole was abandoned by tremmie grouting with bentonite grout to ground surface.
80				

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MONITORING WELL BY-AP-MW-24H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

STARTED 12/19/2018 **COMPLETED** 12/19/2018 **TOC ELEV.** 26.28 **SURF. ELEV.** 23.51 **COORDINATES** N: 360936.04 ft E: 1813185.89 ft

CONTRACTOR Cascade **EQUIPMENT** Geoprobe 8140LC **DRILLING METHOD** Sonic

DRILLED BY Mike Rodriguez **LOGGED BY** T. Fitzhugh **CHECKED BY** D. Yifru **BORING DEPTH** 60.4 ft BLS

GROUND WATER DEPTH (ft bls): DURING --- **DELAYED** --- **COMPLETED** 15.89 (01/02/2019)

NOTES 4" core barrel, 6" outer casing. Hole pre-cleared to 4.0' using Hand Auger. TOC=Top of Casing; BLS=Below Land Surface.

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
		0	(0') No Recovery; Utility Clearance (HYDROEXCAVATION) 10 feet.		Well Completion: 4"x4" aluminum stick-up, protective cover, 3'x3'x4" concrete pad, 4 traffic bollards	20
5		100	(5') No Recovery.			15
10		0	(10') No Recovery.			10
15		0	(15') No Recovery.	▼		5
20		80	(20') Well-graded GRAVEL with sand (GW); mostly fine-coarse grained gravel, some fine-coarse sand, angular, loose. (21.5') Elastic SILT (MH); trace fine sand, mostly silt, little clay, medium plasticity, stiff, moist, pale, brownish gray. (23') SILT with sand (ML); trace fine sand, mostly silt, trace clay, low plasticity, stiff, moist, brownish yellow (10YR 6/8), streaks of 2.5Y 7/1.		Bentonite cement grout	0
25		100	(25') As Above.		2" Sch 40 PVC riser	-5
30		100	(28') Fat CLAY (CH); little silt, mostly clay, high plasticity, soft, moist, gray (2.5Y 5/1), high organic content. (30') Fat CLAY (CH); trace silt, mostly clay, high plasticity, soft, wet, very dark gray (2.5Y 3/1), high organic content, roots, wood.			-10

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MONITORING WELL BY-AP-MW-24H

LOG OF TEST BORING

PROJECT Plant Barry

LOCATION 15300 HWY 43 N, Bucks, AL 36512

DEPTH (ft)	GRAPHIC LOG	% RECOVERY	MATERIAL DESCRIPTION	GROUND WATER OBSERVATIONS	WELL DATA	ELEVATION
			(30') Fat CLAY (CH); trace silt, mostly clay, high plasticity, soft, wet, very dark gray (2.5Y 3/1), high organic content, roots, wood. *(continued)*		2" Sch 40 PVC riser	
			(35') As Above.			
		100	(36.5') Sandy SILT (ML); some fine sand, mostly silt, trace clay, low plasticity, stiff, moist, pale gray, 7.5YR 7/1.		Bentonite cement grout (Bentonite powder: 25 lbs, Portland cement: 376 lbs, water: 70 gal)	-15
			(38') Well-graded SAND (SW); mostly medium grained sand, trace fine gravel, loose, moist, pale gray, 7.5YR 7/1.			
40			(40') Silty SAND (SM); mostly fine grained sand, some silt, loose, moist, pale gray, 10YR 7/1.			
		100				
			(43') Fat CLAY (CH); few silt, mostly clay, high plasticity, very stiff, moist, gray.			-20
45			(45') As Above.		Bentonite seal (3/8" uncoated pellets and chips, hydrated for 3 hrs)	
		100				
			(48') Poorly graded SAND (SP); mostly fine grained sand, medium dense, moist, pale gray, 10YR 7/1.		20/40 pre-packed filter sand	-25
50			(50') Poorly graded SAND (SP); mostly fine grained sand, loose, moist, gray.			
		80				-30
55			(55') As Above.		2" Sch 40 PVC 0.010" slotted screen (prepack)	
		100				-35
60					Bottom cap	

Bottom of borehole at 60.4 feet.

65 -40

70 -45

-50

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SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/28/2020 **COMPLETED** 4/15/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 130 ft. **GROUND WATER DEPTH: DURING** 40 ft. **COMP.** **DELAYED**
NOTES Boring abandonded. Refer to boring abandonment form

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
5, 10		**Utility Clearance (HYDROEXCAVATION)** - Hydroexcavation to 10' BLS to clear utilities.		
15		**Fill (CL)** - mottled light gray (5Y 7/1) and reddish yellow (5YR 6/6) fill dry, very stiff to hard, nonplastic, with sand, cohesive		
20		**Medium to High Plastic Organic Clay or Silt (OH)** - layer of dense wood; possible old cross-ties		
25, 30		**Fat Clay (CH)** - mottled gray (5Y 5/1), olive gray / light olive gray (5Y 5/2) and strong brown (7.5YR 5/8) fill dry to moist, stiff to very stiff, high plasticity, cohesive, with sparse organics - mottled light olive gray (5Y 6/2) and dark gray / olive gray (5Y 4/1) fill dry, stiff, high plasticity, cohesive		

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SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
35		**Medium to High Plastic Organic Clay or Silt (OH)** - alluvium dry to moist, very stiff, with abundant organics/wood		
40		**Silt (ML)** - greenish gray (10Y 6/1) and greenish gray (5GY 6/1) alluvium moist, stiff, medium plasticity, sandy, cohesive, fine-grained		
45		**Silty Sand (SM)** - pale yellow (5Y 8/2) and gray / light olive gray (5Y 6/1) alluvium wet, medium dense to dense, nonplastic, silty, fine-grained, with sparse clay nodules and lens, noncohesive		
50		**Poorly-graded Sand (SP)** - light gray (2.5Y 7/2) and pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, fine-grained, subangular to subrounded		
55		**Well-graded Sand (SW)** - light gray (2.5Y 7/2) and pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, nonplastic, fine- to coarse-grained, subangular to subrounded, with sandy clay nodules		
60		- gray / light olive gray (5Y 6/1) and gray (5Y 5/1) alluvium moist, high plasticity, 3" layer of sandy clay, cohesive, at 56' and 1" layer at 56.5' - with sparse, small, angular to subrounded gravel		
65		- light gray / yellowish gray (5Y 7/2) and white / yellowish gray (5Y 8/1) alluvium wet, loose to very loose, fine- to medium-grained, subangular to subrounded, with sparse, small, angular to rounded gravel		

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Well-graded Sand (SW) *(Con't)*		
70		- no recovery		
75				
80		- white / yellowish gray (5Y 8/1) and pale yellow (5Y 8/2) alluvium wet, loose to very loose, fine- to medium-grained, subangular to subrounded		
85		- pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, fine- to coarse-grained, with ~10%-15% pea-sized gravel, angular to subrounded, gravel increasing with depth		
		Well-graded Gravel (GW) - pale yellow (2.5Y 8/2) est. ~50% gravel, angular to subrounded, and ~50% sand, for about 1'		
90		**Well-graded Sand (SW)** - pale yellow (2.5Y 8/2) returns to ~15%-20% gravel		
		Lean Clay (CL) - greenish gray (10GY 6/1) marine very stiff to hard, medium plasticity, silty, cohesive		
95		**Fat Clay (CH)** - greenish gray (5GY 6/1) and greenish gray (5G 5/1) marine very stiff to hard, high plasticity, sandy for top 1' only, very fine-grained, cohesive, with sparse olive brown (2.5Y 4/3) mottles		Set 6 1/4" outer PVC casing to 94' BLS and grout in place for minimum of 24 hours before continuing with hole.
100		**Lean Clay (CL)** - greenish gray (10GY 6/1) and brownish yellow / dark yellowish orange (10YR 6/6) marine dry, very stiff to hard, low to medium plasticity, cohesive		

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Lean Clay (CL) *(Con't)*		
105		- with sparse silty layers		
110		- mottled greenish gray (5GY 5/1) and medium dark gray (N4) marine dry, very stiff, medium plasticity, silty, cohesive		
		Fat Clay (CH) - mottled greenish gray (5GY 5/1) and medium dark gray (N4) marine wet, high plasticity, with silty seams, with light yellowish brown (2.5Y 6/3) mottles starting at 116'		
115				
120				
		Silt (ML) - light greenish gray (10Y 7/1) and greenish gray (5GY 6/1) marine moist, medium stiff to stiff, nonplastic, clayey, noncohesive, trace sand		
125				
130				
		Bottom of borehole at 130.0 feet.		
135				

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/31/2020 **COMPLETED** 4/9/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 100 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
5, 10		**Utility Clearance (HYDROEXCAVATION)**		
15, 20, 25		**Fill (CL)** - mottled brownish yellow / dark yellowish orange (10YR 6/6) and light gray (10YR 7/1) fill dry, stiff to very stiff, low to medium plasticity, sandy, cohesive, very fine- to fine-grained - 1' zone with higher sand content - mottled red (2.5YR 5/8), light yellowish brown (10YR 6/4) and light gray (10YR 7/1) fill dry, very stiff to hard, sandy, cohesive, with lens of silt to 2 cm thick - interlayered brownish yellow / dark yellowish orange (10YR 6/6) and light gray (10YR 7/1) fill dry to moist, stiff to very stiff, medium plasticity, sandy, cohesive, interlayered with light gray (2.5Y 7/2) clayey sand, fine-grained, dense, with sparse, angular, pea-sized gravel		
30		**Fat Clay (CH)** - gray / light olive gray (5Y 6/1) and gray (5Y 5/1) alluvium dry to moist, stiff, high plasticity, cohesive, with abundant organics		Set 6 1/4" outer PVC casing to 30' BLS and grout in

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Clayey Sand (SC) - light gray (5Y 7/1) and light gray / yellowish gray (5Y 7/2) alluvium wet, loose, fine-grained		place for minimum of 24 hours before continuing with hole. Shelby tube collected 30' - 32' BLS.
		Well-graded Sand (SW) - very pale brown (10YR 8/3) and white (10YR 8/1) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subangular		
35				
40		**Fat Clay (CH)** - gray (5Y 5/1) and medium gray (N5) alluvium wet, soft to medium stiff, high plasticity, cohesive		Shelby tube pushed 40' - 42' BLS.
45				
50		**Silt (ML)** - gray / light olive gray (5Y 6/1) alluvium wet, soft, nonplastic, fine-grained, noncohesive, with thin (2"-4") clayey seams, gray to brownish yellow (10YR 6/6), cohesive, high plasticity, moist, medium stiff to stiff		
55		**Poorly-graded Sand with Clay (SP-SC)** - gray / light olive gray (5Y 6/1) and light olive gray (5Y 6/2) alluvium wet, medium dense to loose, fine-grained - gray (5Y 5/1) interlayered with clay, high plasticity, medium stiff, cohesive, wet		
60		- white / yellowish gray (5Y 8/1) and light gray (5Y 7/1) alluvium wet, medium dense, fine-grained, trace silt - No recovery		
65				

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
70		**Poorly-graded Sand with Clay (SP-SC)** *(Con't)*		
75		**Well-graded Sand (SW)** - white / yellowish gray (5Y 8/1) alluvium wet, loose to very loose, fine- to coarse-grained, with est. 10% subangular to subrounded gravel, pea-sized		
		Well-graded Gravelly Sand (SWG) - white / yellowish gray (5Y 8/1) alluvium wet, very loose, est. 40%-50% gravel, subangular to primarily subrounded, small to 1"		
80		**Well-graded Sand (SW)** - pale yellow (5Y 8/2) and white / yellowish gray (5Y 8/1) alluvium wet, very loose, fine- to coarse-grained, angular to subangular, est. 20% gravel (pea-sized, subangular to subrounded) - No recovery		
85				
90		- pale yellow (5Y 8/2) and pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, fine- to coarse-grained, silty, subangular to subrounded grains, with sparse small, subrounded gravel		
95		- pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, increases to est. 10% gravel to 1", subangular to subrounded		
100		**Fat Clay (CH)** - greenish gray (5G 5/1) marine dry, hard, medium plasticity, cohesive		

Bottom of borehole at 100.0 feet.

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/31/2020 **COMPLETED** 4/10/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 115 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Utility Clearance (HYDROEXCAVATION)		
5				
10		**Fill (CL)** - mottled very pale brown / grayish orange (10YR 7/4) and yellowish red (5YR 5/8) fill dry, very stiff to hard, low plasticity, sandy, cohesive, with light gray (N7) sandier laminae		
15				
20		- medium plasticity, with more sandy lenses, sparse organics		
25		**Medium to High Plastic Organic Clay or Silt (OH)** - mottled medium gray (N5) and yellowish brown (10YR 5/8) alluvium very stiff, high plasticity, 1" layer of wood at 24', cohesive clay, with sparse organics, high wood content at 30'		
30				

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Medium to High Plastic Organic Clay or Silt (OH) *(Con't)* - very dark gray (5Y 3/1) and very dark grayish brown (10YR 3/2) alluvium moist, stiff to very stiff, high plasticity, cohesive, with abundant wood and roots		Shelby tube collected 30' - 32' BLS.
35		**Well-graded Sand (SW)** - pale yellow (2.5Y 8/3) alluvium wet, loose to very loose, fine- to very coarse-grained, with black grains in top 1.5', angular to subangular, fining downwards		Set 6 1/4" outer PVC casing to 34' BLS and grout in place for minimum of 24 hours before continuing with hole.
40		**Clayey Sand (SC)** - gray / light olive gray (5Y 6/1) and light gray (5Y 7/1) alluvium wet, medium dense, nonplastic, fine-grained, with sparse organics, with 1"-2" gray clayey lens (high plasticity, cohesive, stiff to very stiff) - 6" clay layer at 43.3'		Shelby tube pushed 40' - 42' BLS.
45		**Silty Sand (SM)** - light gray (5Y 7/1) alluvium wet, medium dense, nonplastic, fine-grained, with sparse clayey nodules and thin lens		
50		- light gray (5Y 7/1) alluvium wet, fine- to coarse-grained, angular to subangular, with sparse small, angular gravel - white / yellowish gray (5Y 8/1) and pale yellow (5Y 8/2) alluvium wet, medium dense to loose, fine-grained, subangular to angular, with sparse, pea-sized gravel, subangular, with sparse black grains		
55				
60		**Well-graded Sand (SW)** - white / yellowish gray (5Y 8/1) and pale yellow (5Y 8/2) alluvium wet, loose to very loose, fine- to medium-grained, sparse silt, angular to subangular, with est. 5%-10% small gravel, angular to subrounded, pea-sized to 1"		
65		- gravel increases to est. 25%, with sparse clayey nodules (light gray, plastic,		

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		cohesive) **Well-graded Sand (SW)** *(Con't)*		
70		- light gray (5Y 7/1) and light gray / yellowish gray (5Y 7/2) alluvium wet, silty sand, fine-grained, no gravel - No recovery		
75				
80		- No recovery		
85				
90		- No recovery		
95				
100		**Well-graded Gravelly Sand (SWG)** - white / yellowish gray (5Y 8/1) and pale yellow (5Y 8/2) alluvium wet, loose to very loose, fine- to very coarse-grained, angular to subangular, with est.		

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
105		40%-50% gravel, angular to subrounded pea-sized to 1" **Well-graded Gravelly Sand (SWG)** *(Con't)*		
110		- dark gray / olive gray (5Y 4/1) and very dark gray (5Y 3/1) alluvium wet, loose, est. 50% gravel to 3" diameter, angular to subangular, and 50% fine- to coarse-grained sand, subangular to subrounded		
115		**Silty Sand (SM)** - dark gray / olive gray (5Y 4/1) and very dark gray (5Y 3/1) marine wet, medium dense, nonplastic, fine-grained, noncohesive - medium gray (N5) marine moist, stiff, up to 3" layers of clay, high plasticity, cohesive - light gray (5Y 7/1) marine wet, loose, fine-grained, subangular, with sparse clayey nodules, light greenish gray (10GY 7/1), high plasticity		
120		Bottom of borehole at 115.0 feet.		
125				
130				
135				

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 4/1/2020 **COMPLETED** 4/23/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 135 ft. **GROUND WATER DEPTH: DURING** 36.5 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Utility Clearance (HYDROEXCAVATION)		
5				
10				
		Fill (ASH) - very dark gray (5Y 3/1) fill wet, medium dense, fly and bottom ash, fine- to coarse-grained, mixed with light gray (5Y 7/1) and yellowish red (5YR 5/8) sandy clay, fill, noncohesive, low to medium plasticity		
15		- CL: mottled light gray (5Y 7/1), yellowish red (5YR 5/8) and yellowish brown (10YR 5/6) fill dry, very stiff to hard, sandy, noncohesive		
20		- mottled grayish brown (2.5Y 5/2) and reddish yellow (7.5YR 6/8) fill dry, very stiff to hard, low to medium plasticity, with clayey sand layers, cohesive, with sparse organics		
25		**Medium to High Plastic Organic Clay or Silt (OH)** - gray (5Y 5/1) alluvium moist, stiff to very stiff, high plasticity, cohesive, with abundant organics/wood especially 25' - 26'		
30				

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
35		**Medium to High Plastic Organic Clay or Silt (OH)** *(Con't)* - very dark gray (10YR 3/1) alluvium moist, stiff, high plasticity, high wood content, cohesive		
40		- ML: light gray (10YR 7/1) alluvium wet, medium stiff, high plasticity, noncohesive, with organics **Silty Sand (SM)** - very pale brown / very pale orange (10YR 8/2) alluvium wet, loose, fine-grained		
45		**Poorly-graded Sand with Clay (SP-SC)** - mottled light gray (10YR 7/1) and light yellowish brown (2.5Y 6/4) alluvium wet, interlayered clayey sand, fine- to medium-grained, loose, and sandy clay, medium plasticity, cohesive, medium stiff, with 1"-2" layers of light gray (5Y 7/1) clay, high plasticity, cohesive		
		Fat Clay (CH) - mottled greenish gray (5GY 6/1) and light gray (N7) alluvium moist, very stiff, high plasticity, cohesive, very fine- to fine-grained, with thin layers of silt and sand		
50		**Silty Sand (SM)** - light greenish gray (10Y 7/1) alluvium wet, loose, fine-grained		
55		**Silt (ML)** - mottled greenish gray (10GY 6/1), pale yellow (2.5Y 7/3) and light gray (2.5Y 7/2) alluvium wet, medium stiff to stiff, nonplastic, with clay and sand, noncohesive, with sandy layers		
60		**Poorly-graded Sand with Silt (SP-SM)** - mottled greenish gray (10GY 6/1), pale yellow (2.5Y 7/3) and light gray (2.5Y 7/2) alluvium wet, medium dense, fine-grained, with thin clayey laminae; 6" of gray (5Y 5/1) clay at 56', high plasticity, cohesive, moist to wet, stiff to very stiff - mottled white (10YR 8/1) and very pale brown / very pale orange (10YR 8/2) alluvium wet, loose to medium dense, fine- to medium-grained, coarsening with depth, with sparse, small, subangular to subrounded gravel, with sparse thin clay layers, gray (2.5Y 5/1), high plasticity, medium stiff to stiff		
65		**Well-graded Sand (SW)**		

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		- white (2.5Y 8/1) and pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subrounded, with interbedded light gray (2.5Y 7/1) silty fine sand, trace clay, sparse small angular gravel starting at 69.5' **Well-graded Sand (SW)** *(Con't)*		
70				
		Well-graded Gravelly Sand (SWG) - light gray (2.5Y 7/2)pale yellow (2.5Y 7/3) alluvium wet, loose, fine- to coarse-grained, angular to subrounded, with est. 30%-40% gravel, subangular to subrounded but primarily subrounded, to 1"		
75				
80		- no recovery; sample fell out of sampler		
85				
90		- pale yellow (2.5Y 8/3) alluvium wet, loose to very loose, fine- to very coarse-grained, subangular to subrounded, with est. 10%-20% gravel, small to 2", subangular to subrounded		
95		**Well-graded Gravel (GW)** - alluvium wet, est. 50% gravel to 2", subangular to subrounded but primarily subrounded, varicolored 'river gravel'		
		Well-graded Gravelly Sand (SWG) - pale yellow (2.5Y 8/3) back to est. 10%-20% gravel, small to pea-sized		
100		- pale yellow (2.5Y 7/3) and pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, fine- to coarse-grained, subangular to rounded, with est. 25%-40% gravel, subangular o subrounded but primarily subrounded		

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
105		**Well-graded Gravelly Sand (SWG)** *(Con't)*		
		Fat Clay (CH) - dark gray / olive gray (5Y 4/1) and greenish gray (10GY 5/1) marine dry, very stiff to hard, high plasticity, cohesive		
		- greenish gray (10GY 6/1) marine dry, very stiff to hard, high plasticity, cohesive, color change		
110		- light greenish gray (10Y 8/1) and greenish gray (5G 6/1) marine dry, hard, high plasticity, cohesive, silty in spots, with sparse dark olive brown (2.5Y 3/3) mottles		
115		- greenish gray (5G 5/1) and dark greenish gray (5GY 4/1) marine dry, hard, high plasticity		
120				
		Silt (ML) - greenish gray (10Y 5/1) marine moist to wet, medium stiff, high plasticity, clayey, cohesive		
		Silty Sand (SM) - medium gray (N5) and greenish gray (10Y 5/1) marine wet, loose to medium dense, fine-grained		
125				
130		- gray / light olive gray (5Y 6/1) and greenish gray (5GY 5/1) marine wet, loose, fine-grained, homogeneous		
135				

Bottom of borehole at 135.0 feet.

SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 4/23/20 11:45 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 4/8/2020 **COMPLETED** 4/11/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 100 ft. **GROUND WATER DEPTH: DURING** 30 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Utility Clearance (HYDROEXCAVATION)		
5				
10				
		Fill (ML) - mottled yellow (10YR 7/8), light gray (5Y 7/1) and light olive brown (2.5Y 5/3) fill dry, very stiff to hard, nonplastic, with clay and sand, noncohesive		
15				
20		- CL: mottled brownish yellow (10YR 6/8) and light gray (5Y 7/1) fill dry, very stiff to hard, low plasticity, with sand, noncohesive - mottled yellow (10YR 7/8), light gray (5Y 7/1) and light yellowish brown (2.5Y 6/4) fill moist, stiff to very stiff, medium plasticity, sandy, cohesive		
25		- high plasticity, with organics/wood mixed in		
30		**Fat Clay (CH)** - mottled dark gray (2.5Y 4/1) and dark brown (7.5YR 3/2) alluvium moist, stiff, high plasticity, with organics/wood		Set 6 1/4" outer PVC casing to 30.3' BLS and grout in

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		- wet, soft, medium plasticity, sandy, cohesive		place for minimum of 24 hours before continuing with hole.
		Well-graded Sand (SW) - pale yellow (2.5Y 7/3) alluvium wet, loose, fine- to coarse-grained, subangular to subrounded, with est. 5% gravel, angular to subangular, pea-sized		Shelby tube collected 30' - 32' BLS.
35		- pale yellow (2.5Y 8/3) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subangular		
40		**Fat Clay (CH)** - grayish brown (2.5Y 5/2) alluvium wet, medium stiff, cohesive		Shelby tube pushed 30' - 32' BLS.
		Poorly-graded Sand with Silt (SP-SM) - mottled light gray (5Y 7/1) and gray / light olive gray (5Y 6/1) alluvium wet, medium dense, medium plasticity, fine-grained, with 2"-3" layers of clayey sand		
45				
50		**Silt (ML)** - mottled strong brown (7.5YR 5/8) and gray / light olive gray (5Y 6/1) alluvium medium stiff to stiff, medium to high plasticity, trace sand, cohesive, interlayered with 2" - 4" clay layers, high plasticity		
55		**Silty Sand (SM)** - light gray / yellowish gray (5Y 7/2) alluvium wet, medium dense to loose, fine-grained		
60		- white / yellowish gray (5Y 8/1) alluvium wet, loose, fine-grained, uniform, trace gray (5Y 7/1) mottles		
65				

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
70		**Silty Sand (SM)** *(Con't)* - gray (5Y 5/1) and dark gray / olive gray (5Y 4/1) alluvium wet, 6" clay, high plasticity, cohesive, stiff to very stiff, then light gray (5Y 7/1) silty sand, fine-grained, wet, loose		
75 80 85		**Well-graded Sand (SW)** - mottled pale yellow (2.5Y 7/4) and yellow (2.5Y 7/6) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subrounded, trace silt, with est. 10% gravel to 1", subangular to subrounded - pale yellow (2.5Y 8/3) and pale yellow (2.5Y 7/3) alluvium wet, loose to very loose, fine- to medium-grained, subangular to subrounded, trace silt		
90 95		**Well-graded Gravelly Sand (SWG)** - pale yellow (2.5Y 7/3) and pale yellow (2.5Y 8/2) alluvium wet, loose, fine- to medium grained, trace silt, with est. 50% angular to subrounded gravel to 1" for 3" at 87' and for 4" at 89.5' - yellowish red (5YR 5/8) - pale yellow (2.5Y 8/4) and yellow (2.5Y 8/6) alluvium wet, loose to very loose, fine- to coarse-grained, subangular to subrounded, with sparse pea-sized gravel, subrounded - with reddish yellow (7.5YR 6/8) mottles, coarsening		
100		**Silt (ML)** - gray (5Y 5/1) marine wet, medium stiff, nonplastic, sandy, very fine-grained, noncohesive		
		Fat Clay (CH) - medium gray (N5) marine dry, stiff, high plasticity, cohesive		

Bottom of borehole at 100.0 feet.

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/27/2020 **COMPLETED** 4/11/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 100 ft. **GROUND WATER DEPTH: DURING** 40 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Utility Clearance (HYDROEXCAVATION)		
5				
10				
		Fill (CH) - mottled gray (5Y 5/1) and dark gray / olive gray (5Y 4/1) fill dry, stiff, high plasticity, 5' fall-in of sand used to backfill hydrovac pothole; then clay with sand, cohesive, with organics		
15		**Medium to High Plastic Organic Clay or Silt (OH)** - alluvium 1" layer of organics at 14' BLS **Fat Clay (CH)** - mottled gray (5Y 5/1), greenish gray (10Y 5/1) and light yellowish brown (2.5Y 6/4) alluvium moist, medium stiff, high plasticity, cohesive		
20		- mottled light gray (N7) and brownish yellow (10YR 6/8) moist, stiff to very stiff, high plasticity, cohesive - with yellowish red (5YR 5/8) mottles for 6" at 22.5' BLS - gray (5Y 5/1) alluvium moist, stiff to very stiff, high plasticity		
25		- gray / light olive gray (5Y 6/1) and light greenish gray (5G 7/1) alluvium medium stiff to stiff, high plasticity, 2"-3" layer of wood, then clay, some sand increasing with depth, cohesive		
30				

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SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Fat Clay (CH) *(Con't)* - mottled gray / light olive gray (5Y 6/1) and brownish yellow / dark yellowish orange (10YR 6/6) alluvium dry, very stiff to hard, high plasticity, cohesive, with sparse organics		
35		- brownish yellow mottles increasing, gray decreasing - moist, stiff, medium plasticity, sandy clay, cohesive		
40		**Well-graded Sand (SW)** - white / yellowish gray (5Y 8/1), gray (5Y 5/1) and pale yellow (2.5Y 8/2) alluvium wet, medium dense, fine- to medium-grained, with subangular to subrounded grains		
		Poorly-graded Sand (SP) - pale yellow (2.5Y 8/2) alluvium wet, fine-grained		
45		**Fat Clay (CH)** - mottled strong brown (7.5YR 5/8) and pale olive (5Y 6/3) alluvium dry, stiff to very stiff, medium plasticity, sandy, cohesive		
50		**Poorly-graded Sand (SP)** - mottled brownish yellow / dark yellowish orange (10YR 6/6) and pale yellow (5Y 7/3) alluvium wet, medium dense, fine-grained, trace silt, subangular grains		
55		- start to see sparse, pea-sized gravel, rounded to subrounded - mottled very pale brown (10YR 8/3) and light gray (10YR 7/1) alluvium wet, loose, fine-grained		
60		- mottled light gray (5Y 7/1) and pale yellow (2.5Y 7/3) alluvium wet, medium dense, fine-grained, trace silt, with sparse silty/clayey nodules, high plasticity, cohesive, medium stiff up to 2" in diameter		
65		**Well-graded Sand (SW)**		

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		- mottled white (10YR 8/1) and reddish yellow (7.5YR 7/8) alluvium wet, medium dense, fine- to medium-grained, subangular to subrounded grains, with 2"-3" layers and nodules of sandy clay, high plasticity, cohesive, medium stiff, wet **Well-graded Sand (SW)** *(Con't)*		
70		- very pale brown / very pale orange (10YR 8/2) alluvium wet, loose, fine- to medium-grained, subangular to subrounded		
75		**Poorly-graded Sand (SP)** - mottled very pale brown / very pale orange (10YR 8/2) and reddish yellow (5YR 6/8) alluvium wet, loose, fine-grained - mottled yellow (10YR 7/6) and reddish yellow (5YR 6/8) alluvium wet, loose		
80		**Well-graded Sandy Gravel (GWS)** - alluvium wet, loose, fine- to coarse-grained, with small angular to subrounded, pea-sized gravel - brownish yellow / dark yellowish orange (10YR 6/6) alluvium wet, loose to very loose, est. 50% gravel, 50% sand, fine- to very coarse-grained sand, subangular to subrounded grains, with angular to subrounded gravel to dime-sized		
85		- very pale brown (10YR 8/3) alluvium wet, loose to very loose, est. ~60%-70% gravel and 30%-40% sand, gravel to 2" diameter, angular to subrounded		
90		- alluvium wet, loose to very loose, est. ~20% very coarse-grained sand, subangular to rounded, and ~80% fine to pea-sized gravel, angular to subrounded, with gravel coarsening downward		
95		**Sandy Fat Clay (CHS)** - medium gray (N5) marine moist, stiff, high plasticity, cohesive		
100		**Fat Clay (CH)** - medium gray (N5) marine very stiff to hard, high plasticity, cohesive		

Bottom of borehole at 100.0 feet.

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/30/2020 **COMPLETED** 4/10/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 105 ft. **GROUND WATER DEPTH: DURING** 22.5 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
5, 10		**Utility Clearance (HYDROEXCAVATION)**		
15, 20		**Fill (SC)** - mottled brownish yellow (10YR 6/8) and light gray (5Y 7/1) fill moist, dense, fine-grained, with sparse, angular gravel to 1", with red (2.5YR 4/8) clayey mottles - CL: mottled light yellowish brown (2.5Y 6/4), light gray (N7) and yellowish brown (10YR 5/6) fill moist, very stiff to hard, low plasticity, sandy, cohesive - mottled light yellowish brown (2.5Y 6/4) and light gray (N7) fill moist, stiff to very stiff, high plasticity, sandy, cohesive		Shelby tube collected 20' - 22' BLS.
25		**Medium to High Plastic Organic Clay or Silt (OH)** - medium light gray (N6) alluvium wet, medium stiff to stiff, high plasticity, cohesive, with abundant wood/organics, with sparse strong brown (7.5YR 5/8) mottles		
30		**Fat Clay (CH)** - mottled light gray (N7), medium light gray (N6) and yellowish red (5YR 5/8) alluvium moist, stiff to very stiff, high plasticity, no organics, cohesive		

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SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Well-graded Sand (SW) - light gray (10YR 7/2) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subrounded - gray (10YR 5/1) alluvium wet, soft to medium stiff, nonplastic, 1' layer of sandy silt, noncohesive - very pale brown (10YR 8/3) and pale yellow (2.5Y 8/3) alluvium wet, loose to very loose, sand, fine- to coarse-grained, angular to subrounded		Shelby tube collected 30' - 32' BLS.
35				
40		- grayish brown (2.5Y 5/2) color change at 39.5'		
		Fat Clay (CH) - gray (5Y 5/1) alluvium wet, medium stiff, high plasticity, cohesive, with minor sand content - greenish gray (5GY 6/1) alluvium wet, stiff, high plasticity, sandy, cohesive, becoming sandier with depth		Pushed Shelby tube 40' - 42'. No recovery.
45				
		Silty Sand (SM) - pale yellow (2.5Y 8/3) and light gray (2.5Y 7/2) alluvium wet, loose to very loose, fine- to medium-grained, some silt		
50				
		Well-graded Sand (SW) - pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subrounded, with sparse small (pea-sized) subrounded gravel		
55				
		- medium light gray (N6) alluvium wet, medium stiff, high plasticity, 3" layer at 55.3' and 0.7' layer at 56.3' of clay with trace sand		
		- pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, fine- to coarse-grained, subangular to subrounded, with sparse, small, subrounded gravel		
60				
		- white / yellowish gray (5Y 8/1) and pale yellow (5Y 8/2) alluvium wet, loose to very loose, fine- to medium-grained, angular to subrounded grains, with sparse, small, subangular to subrounded gravel		
65				

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
70		**Well-graded Sand (SW)** *(Con't)*		
		- no recovery		
75				
80				
		Well-graded Gravelly Sand (SWG) - white / yellowish gray (5Y 8/1) and pale yellow (5Y 8/2) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subrounded grains, with est. 10% gravel at 80' grading to est. 25%-30% gravel, angular to subrounded, pea-sized to 2", by 85'		
85				
90		- no recovery when drilled 90'-100'; when drilled 100'-105' picked up some of run; gravelly sand, est. 30%-35% gravel for 1.5', then decreases to est. 10% gravel, light gray (5Y 7/2) to white (5Y 7/1), fine- to very coarse-grained, wet, loose to very loose		
95				
100				

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Well-graded Gravelly Sand (SWG) *(Con't)*		
105		**Fat Clay (CH)** - greenish gray (5G 6/1) marine dry, very stiff to hard, medium plasticity, cohesive		
		Bottom of borehole at 105.0 feet.		
110				
115				
120				
125				
130				
135				

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/25/2020 **COMPLETED** 3/25/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 100 ft. **GROUND WATER DEPTH: DURING** 23 ft. **COMP.** **DELAYED**
NOTES Hand augered to 10' BLS to check for utilities. Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Well-graded Sand (SW) - mottled gray (10YR 5/1) and brownish yellow / dark yellowish orange (10YR 6/6) alluvium loose, fine- to medium-grained, subangular to subrounded, silty at times		
		Fat Clay (CH) - gray / light olive gray (5Y 6/1) and gray (5Y 5/1) alluvium moist to wet, stiff, high plasticity, cohesive		
5				
10		**Well-graded Sand (SW)** - mottled gray / light olive gray (5Y 6/1) and gray (5Y 5/1) alluvium wet, loose		
		Fat Clay (CH) - gray / light olive gray (5Y 6/1) and gray (5Y 5/1) alluvium moist, very stiff, high plasticity, cohesive, with sparse brown (10YR 5/3) mottles from 15' to 20' BLS		
15				
20		- mottled brown (10YR 5/3) and gray / light olive gray (5Y 6/1) alluvium stiff to very stiff, high plasticity, cohesive		
		- alluvium wet, medium stiff, medium plasticity, sandy, cohesive, with sparse organics		
25				
30				

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SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Clayey Sand (SC) - gray / light olive gray (5Y 6/1) and gray (5Y 5/1) alluvium wet, medium stiff, low plasticity, clayey sand to sandy clay, noncohesive, fine-grained, subangular, with sparse yellow (10YR 7/6) mottles		
35				
		- gray / light olive gray (5Y 6/1) and gray (5Y 5/1) alluvium wet, clayey sand/sandy clay as above interbedded with sand, fine- to medium-grained, wet, subangular grains, loose		
40				
		Well-graded Gravelly Sand (SWG) - no recovery; assumed wet flowing sand that fell out of sampler		
45				
50		- very pale brown / very pale orange (10YR 8/2) alluvium wet, loose to very loose, fine- to very coarse-grained, angular to subrounded, with sparse, pea-sized, subrounded gravel		
55				
60		- very pale brown / very pale orange (10YR 8/2) alluvium wet, loose to very loose, est. ~10% gravel, fine to bean-sized, angular to subangular, in fine- to coarse-grained sand (trending more toward fine-grained)		Sand flowing up to 30' up into core barrel each time sampler pulled from hole.
65				

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EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Well-graded Gravelly Sand (SWG) *(Con't)*		
70		- Sampler fell to 90' without drillling; no recovery 70' to 90'		
75				
80				
85				
90		- mottled very pale brown / very pale orange (10YR 8/2) and gray (5Y 5/1) alluvium wet, loose to very loose, sand fine- to coarse-grained, subangular to subrounded, with est. 25% gravel to 2" diameter, increasing in size, subangular to rounded		
		- with gray mottling and gravel increasing in abundance		
95		- mottled very pale brown / very pale orange (10YR 8/2) and gray (5Y 5/1) alluvium wet, loose to very loose, est. ~30%-35% gravel		
100		**Fat Clay (CH)** - greenish gray (5G 5/1) marine dry, very stiff to hard, medium to high plasticity, trace silt, cohesive		

Bottom of borehole at 100.0 feet.

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 4/13/2020 **COMPLETED** 4/13/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 80 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Utility Clearance (HYDROEXCAVATION)		
5				
10				
		Fill (ML) - mottled reddish yellow (5YR 6/8) and yellow (2.5Y 7/8) fill dry, stiff, low plasticity, noncohesive, with light gray (5Y 7/1) mottles		
15				
		Silty Sand (SM) - mottled pale yellow (2.5Y 8/4) and brownish yellow (10YR 6/8) alluvium moist, medium dense to loose, fine-grained, subangular to subrounded		
20		∇ - mottled pale yellow (2.5Y 8/2) and yellow (2.5Y 7/8) alluvium wet, loose, fine-grained, subangular to subrounded, with sparse, small (pea-sized) gravel, subrounded		
25				
30				

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SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 4/23/20 11:45 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
35		**Poorly-graded Gravelly Sand (SPG)** - alluvium wet, loose to very loose, fine- to medium grained, angular to subrounded, with silt, with est. 25% gravel to 1", subangular to primarily subrounded		
40		**Poorly-graded Sand with Silt (SP-SM)** - with yellow (10YR 8/6) mottles and less gravel content (est. 5%) - with 1" lenses of silt, very pale brown (10YR 8/4), with clayey nodules and mottles		
45		**Well-graded Sand (SW)** - pale yellow (2.5Y 8/3) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subrounded, trace silt - yellow (10YR 8/8) and reddish yellow (7.5YR 6/8) alluvium wet, color change, coarsening downward, with sparse, small, subangular to subrounded gravel starting at 47' BLS		
50		**Well-graded Gravelly Sand (SWG)** - very pale brown (10YR 8/4) and yellow / pale yellowish orange (10YR 8/6) alluvium wet, loose to very loose, fine- to very coarse-grained, angular to subrounded, with est. 30% gravel 50'-51' and 5%-10% gravel below, primarily pea-sized but up to 1", primarily subrounded, with clayey nodules to 2" (high plasticity, brown (10YR 5/3))		
55		- coarsens to medium- to very coarse-grained, still angular to subrounded, with sparse, small, subrounded gravel		
60		- white (10YR 8/1) alluvium wet, loose to very loose, fine- to very coarse-grained, angular to subrounded (primarily subangular), with est. 10% small gravel		
65		**Silty Sand (SM)**		

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SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 4/23/20 11:45 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		- very pale brown (10YR 8/4) alluvium wet, loose, fine-grained, with sparse grayish brown (10YR 5/2) clayey nodules, high plasticity		
		Silty Sand (SM) *(Con't)*		
		Well-graded Gravelly Sand (SWG)		
		- est. 10% subangular to subrounded gravel, pea-sized		
70		- est. 30% gravel to 1"		
		- mottled yellow / pale yellowish orange (10YR 8/6) and reddish yellow (7.5YR 6/8) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subrounded, trace silt, with sparse small gravel		
75		- reddish yellow (7.5YR 6/8)		
		Fat Clay (CH)		
		- greenish gray (10GY 6/1) marine dry, very stiff to hard, medium plasticity, cohesive		
80		- bluish gray (5B 6/1) marine moist, medium stiff, high plasticity, sandy, cohesive		Pushed Shelby tube 80' - 82' BLS. No recovery.
85				
90				
95				
100				

Bottom of borehole at 80.0 feet.

SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 4/23/20 11:45 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 4/12/2020 **COMPLETED** 4/14/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 110 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
5, 10		**Utility Clearance (HYDROEXCAVATION)**		
15		**Fill (ML)** - mottled brownish yellow / dark yellowish orange (10YR 6/6), yellowish red (5YR 5/8) and light gray (5Y 7/1) fill dry, stiff, nonplastic, clayey, noncohesive		
20, 25, 30		**Silty Sand (SM)** - yellow (10YR 7/6) and pale yellow (5Y 8/3) alluvium dry, medium dense, with interlayered fine-grained sand - pale yellow (2.5Y 8/4) and white (2.5Y 8/1) alluvium wet, loose to very loose, fine- to medium-grained, subangular to subrounded, with sparse small (pea-sized), subrounded 'river gravel'		

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LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Poorly-graded Sand (SP) - white / yellowish gray (5Y 8/1) alluvium wet, loose to very loose, fine- to medium-grained, with silt, with est. 15%-20% gravel, varicolored 'river gravel', subangular to subrounded, to 1"		
35		- mottled white / yellowish gray (5Y 8/1) and yellow (10YR 8/8) alluvium wet, loose to very loose		
40		**Silt (ML)** - mottled pale yellow (2.5Y 8/4) and reddish yellow (7.5YR 6/8) alluvium medium stiff, nonplastic, fine- to very fine-grained, noncohesive		
		Well-graded Sand (SW) - yellow (10YR 8/8) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subrounded, trace silt		
45		- reddish yellow (7.5YR 7/8) alluvium wet, loose to very loose, fine- to coarse-grained, with sparse, subrounded, pea-sized gravel		
50		**Silty Sand (SM)** - white / yellowish gray (5Y 8/1) alluvium wet, loose to very loose, fine- to coarse-grained, angular to subrounded, with sparse subrounded gravel, with clayey mottles (light gray (2.5Y 7/2)), high plasticity, starting at 49.5'		
		Well-graded Gravelly Sand (SWG) - very pale brown / grayish orange (10YR 7/4) and yellow (10YR 7/6) alluvium wet, loose, coarse- to very coarse-grained, angular to subrounded, trace silt, with est. 40%-50% gravel to pea-sized, subangular to subrounded		
55		**Silty Sand (SM)** - mottled reddish yellow (7.5YR 7/8) and yellow (10YR 7/6) alluvium wet, fine- to medium-grained, angular to subangular, with sparse small gravel, angular to subangular		
		Fat Clay (CH) - light gray (5Y 7/1) and light gray / yellowish gray (5Y 7/2) alluvium stiff, high plasticity, cohesive		
		Well-graded Gravelly Sand (SWG) - very pale brown (10YR 8/4) and pale yellow (2.5Y 8/3) alluvium fine- to very coarse-grained, subangular to subrounded, with est. 10% pea-sized gravel, angular to subrounded, with sparse clayey nodules		
60		- reddish yellow (7.5YR 7/8) color change only		
		Silty Sand (SM) - reddish yellow (7.5YR 7/8) and pale yellow (2.5Y 8/3) alluvium wet, medium dense to loose, fine- to medium-grained, subangular to subrounded, with sparse, subangular to subrounded, small gravel (est. 10%-15%)		
65		**Well-graded Gravelly Sand (SWG)** - pale yellow (2.5Y 8/3) alluvium wet, loose to very loose, fine- to very		

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SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		coarse-grained, angular to subrounded, with est. 20% gravel to 1/2", subangular to subrounded **Well-graded Gravelly Sand (SWG)** *(Con't)*		
70		- SM: pale yellow (2.5Y 8/3) and reddish yellow (7.5YR 7/8) alluvium wet, loose to medium dense, fine- to medium-grained, angular to subrounded, with sparse, small, subrounded gravel, with clayey mottles		
		Fat Clay (CH) - greenish gray (10Y 6/1) and greenish gray (10G 6/1) alluvium dry, very stiff to hard, high plasticity, cohesive, silty in spots, with 4" sandy clay at 79.5' then back to fat clay		
75				Set 6 1/4" outer PVC casing to 75' BLS and grout in place for minimum of 24 hours before continuing with hole.
80				Pushed Shelby tube 80' - 82'; no recovery.
		Poorly-graded Gravelly Sand (SPG) - pale yellow (2.5Y 8/2) fill loose, assumed fall-in, fine- to medium-grained, angular to subangular, with sparse, pea-sized, angular gravel		
85				
		Fat Clay (CH) - gray (5Y 5/1) and greenish gray (10Y 5/1) marine stiff to very stiff, high plasticity, cohesive		
90		**Well-graded Gravelly Sand (SWG)** - reddish yellow (7.5YR 6/8) and strong brown (7.5YR 5/8) marine wet, medium dense, angular to subrounded, with angular gravel to 2", trace clay - No recovery		Pushed Shelby tube 90' - 92'; no recovery.
95				
100		- No recovery		

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SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
105		**Well-graded Gravelly Sand (SWG)** *(Con't)*		
110				
		Bottom of borehole at 110.0 feet.		
115				
120				
125				
130				
135				

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SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/31/2020 **COMPLETED** 4/9/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 100 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. = (DEPTH)	
		Surface Seal: concrete (2.0)	
	5		
	10		
	15		
	20		
	25		
	30		

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SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED) (DEPTH)	
	35		
	40	Annular Fill: Aquaguard bentonite grout (5 bags grout, 125 gallons water)	
	45		
	50		
	55		
	60		
	65		

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

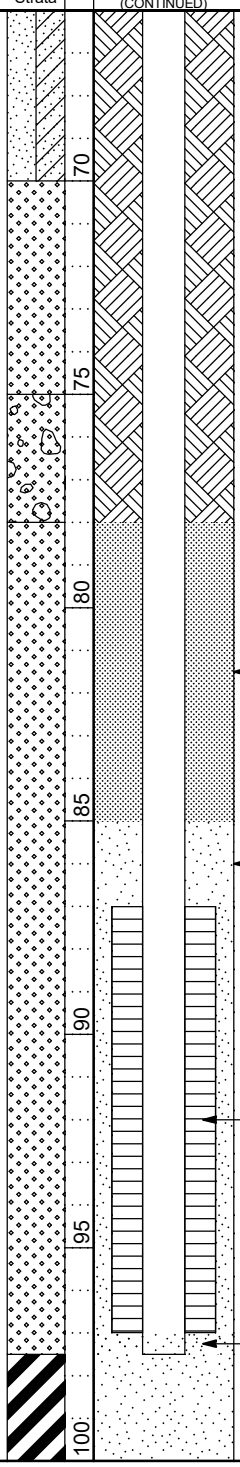
SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	



(CONTINUED)

(DEPTH)

(78.0)

Annular Seal: Pel-Plug 3/8 Bentonite Non-Coated Pellets (1.5 - 5 gal buckets)

(85.0)

Filter: Filter Media 1 Silica Sand (4 - 50 lbs bags)

(87.0)

Well: 2" OD PVC (SCH 40)
Screen: 10 ft. 0.010" Slot Prepack

Sump:0.50 ft.

(97.0)

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SOUTHERN COMPANY

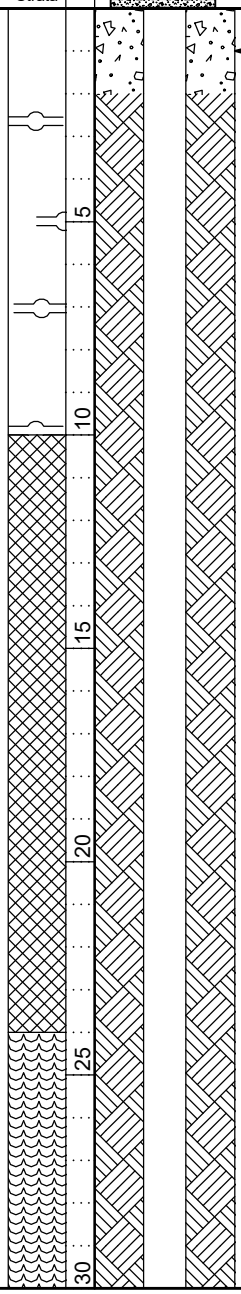
RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/31/2020 **COMPLETED** 4/10/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 115 ft. **GROUND WATER DEPTH: DURING** **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. = (DEPTH)	



Surface Seal: concrete

(2.0)

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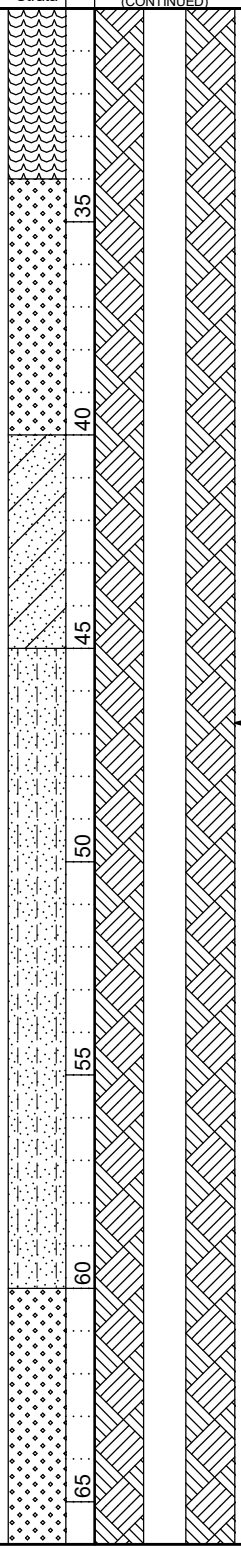
SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED) (DEPTH)	



Annular Fill: Aquaguard bentonite grout (6 bags grout, 150 gallons water)

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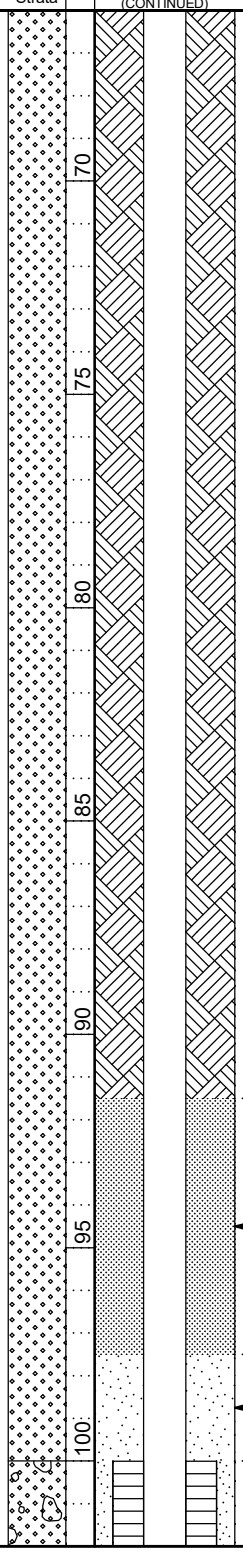
SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	



(DEPTH)

(91.5)

Annular Seal: Pel-Plug 3/8 Bentonite Non-Coated Pellets (1.5 - 5 gal buckets)

(97.5)

Filter: Filter Media 1 Silica Sand (5 - 50 lbs bags)

(100.0)

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RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED)	(DEPTH)
	105	**Well: 2" OD PVC (SCH 40)** **Screen: 10 ft. 0.010" Slot Prepack**	
	110	Sump:0.50 ft.	(110.0) (110.5)
	115		

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SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 4/1/2020 **COMPLETED** 4/23/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 135 ft. **GROUND WATER DEPTH: DURING** 36.5 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 4-foot square concrete pad Top of casing Elev. = (DEPTH)	
		Surface Seal: concrete (2.0)	
	5		
	10		
	15		
	20		
	25		
	30		

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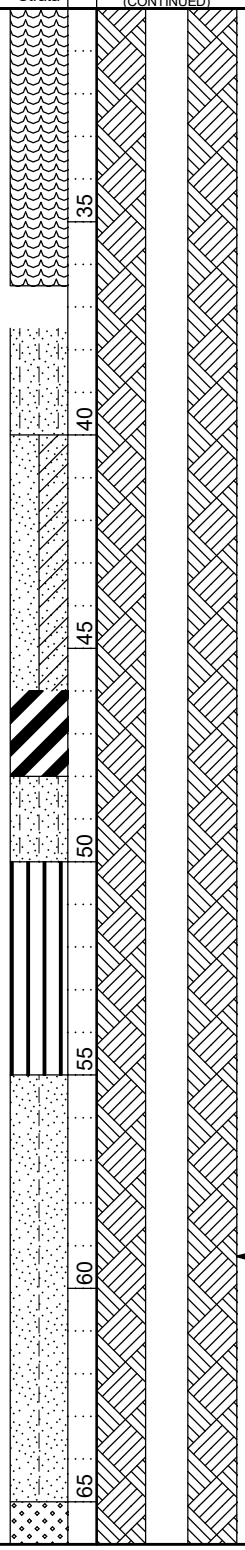
SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 4-foot square concrete pad Top of casing Elev. =	
		(CONTINUED) (DEPTH)	



Annular Fill: cement-bentonite grout

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SOUTHERN COMPANY

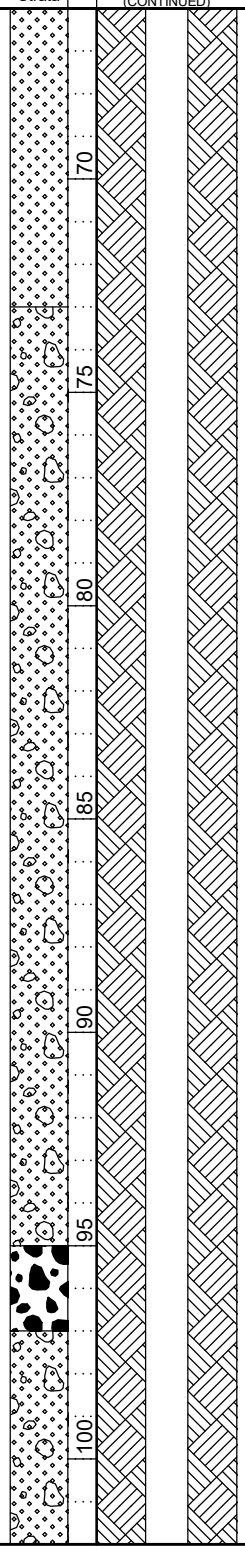
RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 4-foot square concrete pad Top of casing Elev. =	

(CONTINUED) (DEPTH)



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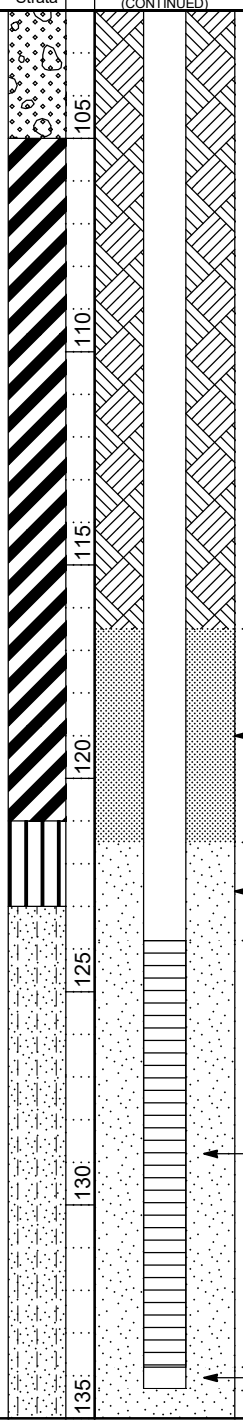
SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 4-foot square concrete pad Top of casing Elev. =	



(CONTINUED) (DEPTH)

(116.5)

Annular Seal: Pel-Plug 3/8 Bentonite Non-Coated Pellets (1 - 5 gal bucket)

(121.5)

Filter: Filter Media 1 Silica Sand (4.5 - 50 lbs bags)

(123.8)

Well: 2" OD PVC (SCH 40)
Screen: 10 ft. 0.010" Slot Prepack

Sump:0.50 ft.

(133.8)
(134.3)

2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

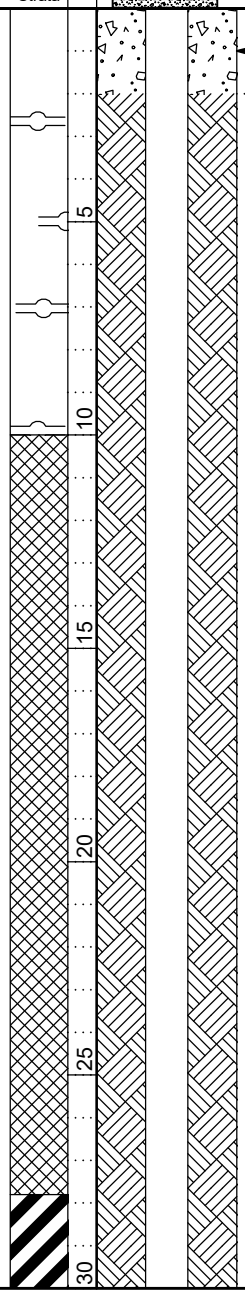
RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 4/8/2020 **COMPLETED** 4/11/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 100 ft. **GROUND WATER DEPTH: DURING** 30 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 4-foot square concrete pad Top of casing Elev. = (DEPTH)	
		Surface Seal: concrete (2.0)	
	5		
	10		
	15		
	20		
	25		
	30		



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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 4-foot square concrete pad Top of casing Elev. =	
		(CONTINUED) (DEPTH)	
	35		
		Annular Fill: Aquaguard bentonite grout (4 bags grout, 100 gallons water)	
	40		
	45		
	50		
	55		
	60		
	65		

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

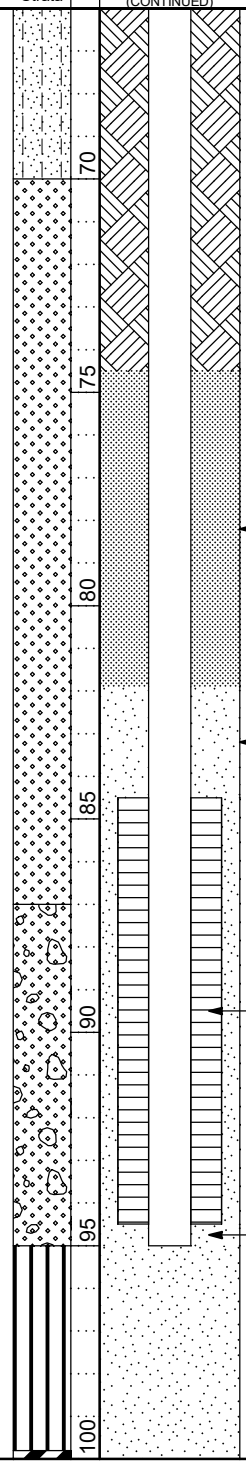
SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 4-foot square concrete pad Top of casing Elev. =	
		(CONTINUED)	(DEPTH)



(74.5)

Annular Seal: Pel-Plug 3/8 Bentonite Non-Coated Pellets (1.5 - 5 gal buckets)

(81.9)

Filter: Filter Media 1 Silica Sand (4 - 50 lbs bags)

(84.5)

Well: 2" OD PVC (SCH 40)
Screen: 10 ft. 0.010" Slot Prepack

Sump:0.50 ft.

(94.5)
(95.0)

2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

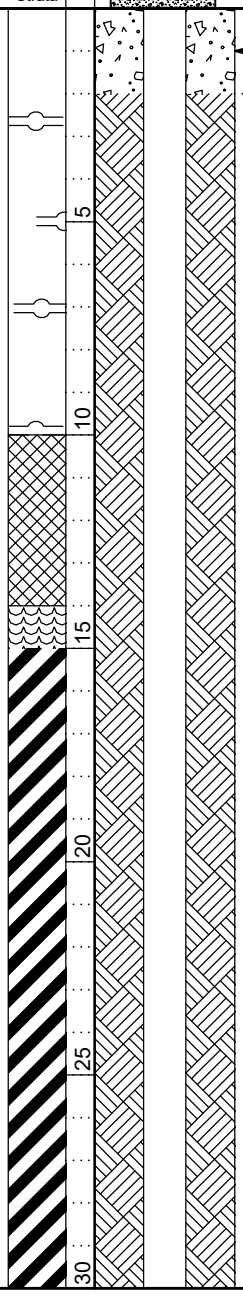
RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/27/2020 **COMPLETED** 4/11/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 100 ft. **GROUND WATER DEPTH: DURING** 40 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. = (DEPTH)	



Surface Seal: concrete
(2.0)

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED) (DEPTH)	
	35		
		←Annular Fill: Aquaguard bentonite grout (4 bags grout, 100 gallons water)	
	40		
	45		
	50		
	55		
	60		
	65		

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED)	(DEPTH)
	70		
			(73.0)
	75		
		Annular Seal: Pel-Plug 3/8 Bentonite Non-Coated Pellets (1.5 - 5 gal buckets)	
	80		
			(84.0)
	85	Filter: Filter Media 1 Silica Sand (4 - 50 lbs bags)	
			(86.5)
	90		
		Well: 2" OD PVC (SCH 40) **Screen: 10 ft. 0.010" Slot Prepack**	
	95		
		Sump:0.50 ft.	(96.5) (97.0)
	100		

2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

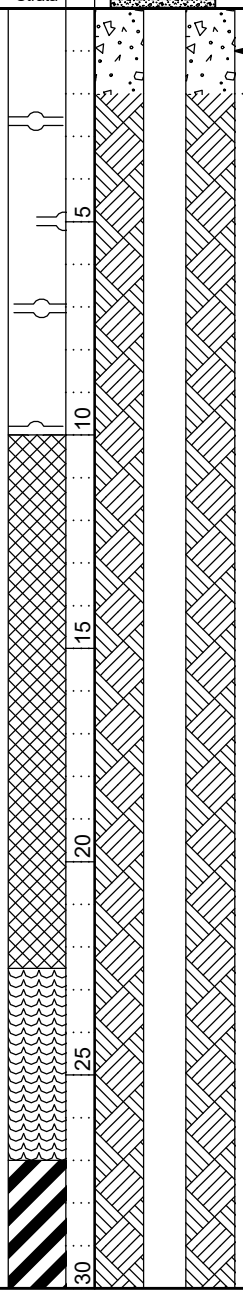
RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/30/2020 **COMPLETED** 4/10/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 105 ft. **GROUND WATER DEPTH: DURING** 22.5 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. = (DEPTH)	



Surface Seal: concrete

(2.0)

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED) (DEPTH)	
	35		
	40		
	45	Annular Fill: Aquaguard bentonite grout (4 bags grout, 100 gallons water)	
	50		
	55		
	60		
	65		

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

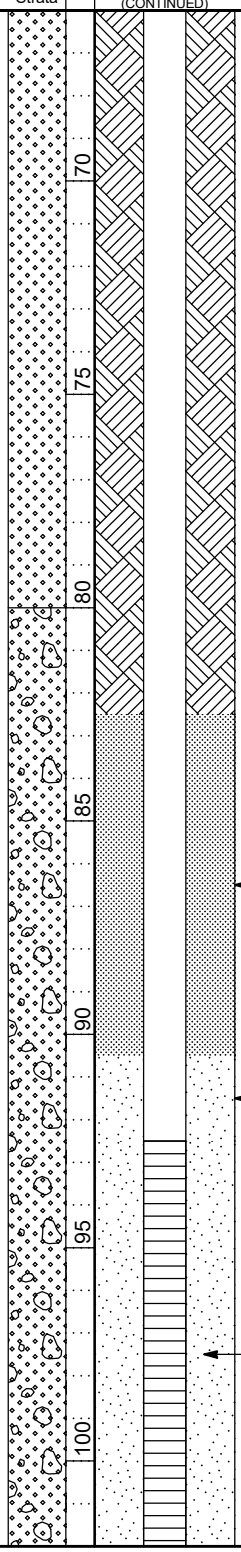
SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	



(DEPTH)

(82.5)

Annular Seal: Pel-Plug 3/8 Bentonite Non-Coated Pellets (1.5 - 5 gal buckets)

(90.5)

Filter: Filter Media 1 Silica Sand (4.25 - 50 lbs bags)

(92.5)

Well: 2" OD PVC (SCH 40)
Screen: 10 ft. 0.010" Slot Prepack

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED) (DEPTH)	
		Sump:0.50 ft. (102.5)	
		(103.0)	
	105	Backfill:Filter Media 1 Silica Sand (0.75 - 50 lbs bags)	

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SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/25/2020 **COMPLETED** 3/25/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 100 ft. **GROUND WATER DEPTH: DURING** 23 ft. **COMP.** **DELAYED**
NOTES Hand augered to 10' BLS to check for utilities. Well installed. Refer to well data sheet.

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. = (DEPTH)	
		Surface Seal: concrete (2.0)	
	5		
	10		
	15		
	20		
	25		
	30		

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED) (DEPTH)	
	35		
	40		
	45	Annular Fill: Aquaguard bentonite grout (4 bags grout, 100 gallons water)	
	50		
	55		
	60		
	65		

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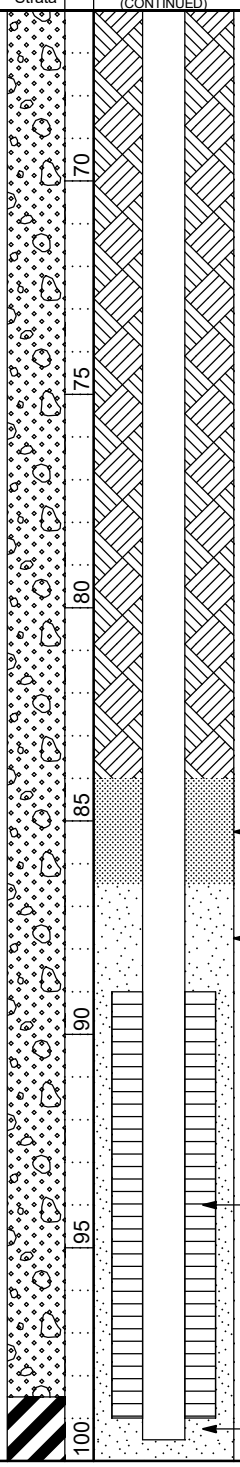
SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	



(DEPTH)

(84.0)

Annular Seal: Pel-Plug 3/8 Bentonite Non-Coated Pellets (0.5 - 5 gal buckets)

(86.5)

Filter: Filter Media 1 Silica Sand (4.5 - 50 lbs bags)

(89.0)

Well: 2" OD PVC (SCH 40)
Screen: 10 ft. 0.010" Slot Prepack

Sump:0.50 ft.

(99.0)
(99.5)

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SOUTHERN COMPANY

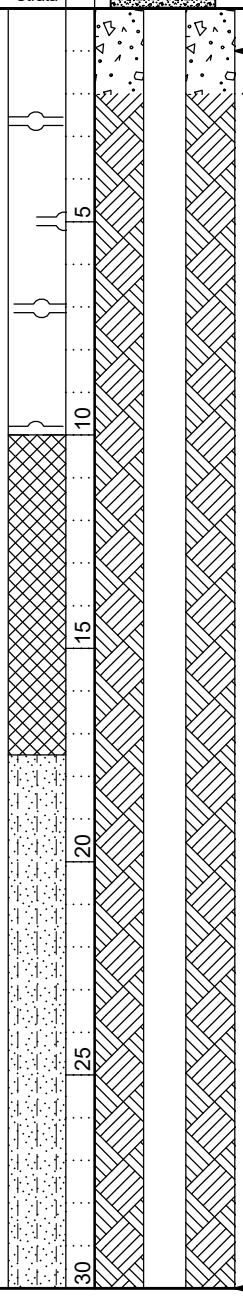
RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 4/13/2020 **COMPLETED** 4/13/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 80 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. = (DEPTH)	



Surface Seal: concrete

(2.0)

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA (Strata)	DEPTH (ft)	WELL DATA	COMMENTS
		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED)	(DEPTH)
		Annular Fill: Aquaguard bentonite grout (4 bags grout, 100 gallons water)	
	35		
	40		
	45		
	50		
	55		
		(58.0)	
	60	Annular Seal: Pel-Plug 3/8 Bentonite Non-Coated Pellets (1 - 5 gal bucket)	
		(64.0)	
	65	Filter: Filter Media 1 Silica Sand (3 - 50 lbs bags)	

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

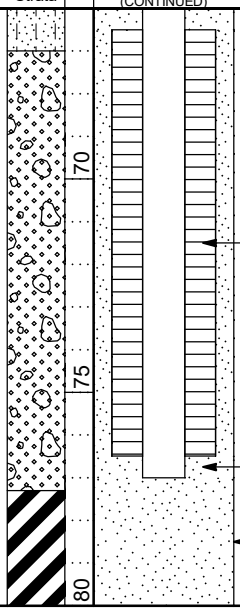
SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	



(CONTINUED) (DEPTH)

(66.5)

Well: 2" OD PVC (SCH 40)
Screen: 10 ft. 0.010" Slot Prepack

Sump:0.50 ft. (76.5)
(77.0)

Backfill:Filter Media 1 Silica Sand (2 - 50 lbs bags)

2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 4/12/2020 **COMPLETED** 4/14/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:**
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 110 ft. **GROUND WATER DEPTH: DURING** 20 ft. **COMP.** **DELAYED**
NOTES Well installed. Refer to well data sheet.

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. = (DEPTH)	
		Surface Seal: concrete (2.0)	
	5		
	10		
	15		
	20		
	25		
	30		

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

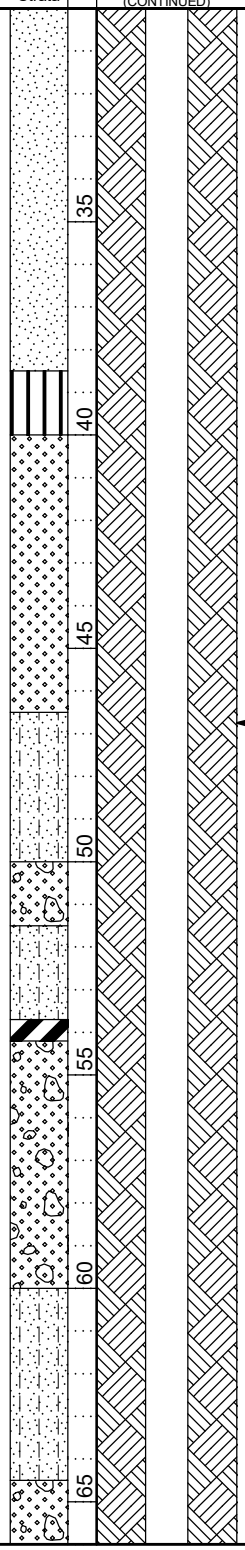
SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED) (DEPTH)	



Annular Fill: Aquaguard bentonite grout (5 bags grout, 125 gallons water)

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SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA (Strata)	DEPTH (ft)	WELL DATA	COMMENTS
		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED)	
	70		
	75		
	80		
	85		
	90		
		(91.5)	
	95	Annular Seal: Pel-Plug 3/8 Bentonite Non-Coated Pellets (1 - 5 gal bucket)	
		(96.5)	
		Filter: Filter Media 1 Silica Sand (5 - 50 lbs bags)	
	100	(99.5)	

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad Top of casing Elev. =	
		(CONTINUED) (DEPTH)	
	105	**Well: 2" OD PVC (SCH 40)** **Screen: 10 ft. 0.010" Slot Prepack**	
	110	Sump:0.50 ft. (109.5)	

Appendix B

BORE HOLE ABANDONMENT REPORT

Southern Company Services is including the following bore hole abandonment report which documents the activities related to the abandonment of one temporary boring for Alabama Power Company's Plant Barry 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 Ash Pond is located east-southeast of the main plant, between the Mobile River and Plant Barry barge canal. **Figure 1, Site Location Map,** depicts the location of the Plant and Ash Pond with respect to the surrounding area.

The field activities were performed on April 15, 2020. The field work consisted of the abandonment of one boring, BY-AP-MW-12VM. Delineation well BY-AP-MW-12VM was not installed due to the thickness of the Unit 4 Miocene Series clay. The Unit 4 clay encountered within this borehole was greater than 25 feet in thickness and targeted Miocene Series sands were absent at the termination depth. This thickness of Unit 4 clay provides sufficient vertical separation between the Unit 3 aquifer and deeper Miocene sand units. Consequently, the boring was abandoned in accordance with Alabama well construction standards described in Administrative Code R. 335-13 and the Alabama Environmental Investigation and Remediation Guidance (AEIRG; Revised 2017).

The temporary boring was abandoned by the Cascade drilling crew. Temporary boring, BY-AP-MW-12VM, was grouted from the total depth to the surface by pressure grouting with the positive displacement method (tremie method) through the drill casing as it were removed from the bore hole. Additionally, 6-inch PVC surface casing was installed to a depth of 94 feet and into the Unit 4 Miocene Series clay. The surface casing was installed in preparation to install a Type III monitoring well. The surface casing was cut off two feet below ground surface and abandoned in place.

The boring and well installation logs, and well abandonment form detailing abandonment activities have been included as Attachment B. The well installation log documents the abandonment of the temporary boring. The boring location is depicted on **Figure 5, Monitor Well Location Map**.

SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/28/2020 **COMPLETED** 4/15/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:** N/A
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 130 ft. **GROUND WATER DEPTH: DURING** 40 ft. **COMP.** **DELAYED**
NOTES Boring Abandoned. Refer to well data sheet documenting grout backfill.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
5, 10		**Utility Clearance (HYDROEXCAVATION)** - Hydroexcavation to 10' BLS to clear utilities.		
15		**Fill (CL)** - mottled light gray (5Y 7/1) and reddish yellow (5YR 6/6) fill dry, very stiff to hard, nonplastic, with sand, cohesive		
20		**Medium to High Plastic Organic Clay or Silt (OH)** - layer of dense wood; possible old cross-ties		
25, 30		**Fat Clay (CH)** - mottled gray (5Y 5/1), olive gray / light olive gray (5Y 5/2) and strong brown (7.5YR 5/8) fill dry to moist, stiff to very stiff, high plasticity, cohesive, with sparse organics - mottled light olive gray (5Y 6/2) and dark gray / olive gray (5Y 4/1) fill dry, stiff, high plasticity, cohesive		

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SIMPLE GEOLOGY LOG - ESEE DATABASE.GDT - 4/23/20 11:45 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
35		**Medium to High Plastic Organic Clay or Silt (OH)** - alluvium dry to moist, very stiff, with abundant organics/wood		
40		**Silt (ML)** - greenish gray (10Y 6/1) and greenish gray (5GY 6/1) alluvium moist, stiff, medium plasticity, sandy, cohesive, fine-grained		
45		**Silty Sand (SM)** - pale yellow (5Y 8/2) and gray / light olive gray (5Y 6/1) alluvium wet, medium dense to dense, nonplastic, silty, fine-grained, with sparse clay nodules and lens, noncohesive		
50		**Poorly-graded Sand (SP)** - light gray (2.5Y 7/2) and pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, fine-grained, subangular to subrounded		
55		**Well-graded Sand (SW)** - light gray (2.5Y 7/2) and pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, nonplastic, fine- to coarse-grained, subangular to subrounded, with sandy clay nodules		
60		- gray / light olive gray (5Y 6/1) and gray (5Y 5/1) alluvium moist, high plasticity, 3" layer of sandy clay, cohesive, at 56' and 1" layer at 56.5' - with sparse, small, angular to subrounded gravel		
65		- light gray / yellowish gray (5Y 7/2) and white / yellowish gray (5Y 8/1) alluvium wet, loose to very loose, fine- to medium-grained, subangular to subrounded, with sparse, small, angular to rounded gravel		

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SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Well-graded Sand (SW) *(Con't)*		
70		- no recovery		
75				
80		- white / yellowish gray (5Y 8/1) and pale yellow (5Y 8/2) alluvium wet, loose to very loose, fine- to medium-grained, subangular to subrounded		
85		- pale yellow (2.5Y 8/2) alluvium wet, loose to very loose, fine- to coarse-grained, with ~10%-15% pea-sized gravel, angular to subrounded, gravel increasing with depth		
		Well-graded Gravel (GW) - pale yellow (2.5Y 8/2) est. ~50% gravel, angular to subrounded, and ~50% sand, for about 1'		
90		**Well-graded Sand (SW)** - pale yellow (2.5Y 8/2) returns to ~15%-20% gravel		
		Lean Clay (CL) - greenish gray (10GY 6/1) marine very stiff to hard, medium plasticity, silty, cohesive		
95		**Fat Clay (CH)** - greenish gray (5GY 6/1) and greenish gray (5G 5/1) marine very stiff to hard, high plasticity, sandy for top 1' only, very fine-grained, cohesive, with sparse olive brown (2.5Y 4/3) mottles		Set 6 1/4" outer PVC casing to 94' BLS and grout in place for minimum of 24 hours before continuing with hole.
100		**Lean Clay (CL)** - greenish gray (10GY 6/1) and brownish yellow / dark yellowish orange (10YR 6/6) marine dry, very stiff to hard, low to medium plasticity, cohesive		

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SOUTHERN COMPANY

LOG OF TEST BORING

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	HCL REACTION (Weak / Moderate / Strong)	COMMENTS
		Lean Clay (CL) *(Con't)*		
105		- with sparse silty layers		
110		- mottled greenish gray (5GY 5/1) and medium dark gray (N4) marine dry, very stiff, medium plasticity, silty, cohesive		
		Fat Clay (CH) - mottled greenish gray (5GY 5/1) and medium dark gray (N4) marine wet, high plasticity, with silty seams, with light yellowish brown (2.5Y 6/3) mottles starting at 116'		
115				
120				
		Silt (ML) - light greenish gray (10Y 7/1) and greenish gray (5GY 6/1) marine moist, medium stiff to stiff, nonplastic, clayey, noncohesive, trace sand		
125				
130				
		Bottom of borehole at 130.0 feet.		
135				

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

WELL: BY-AP-MW-12VM

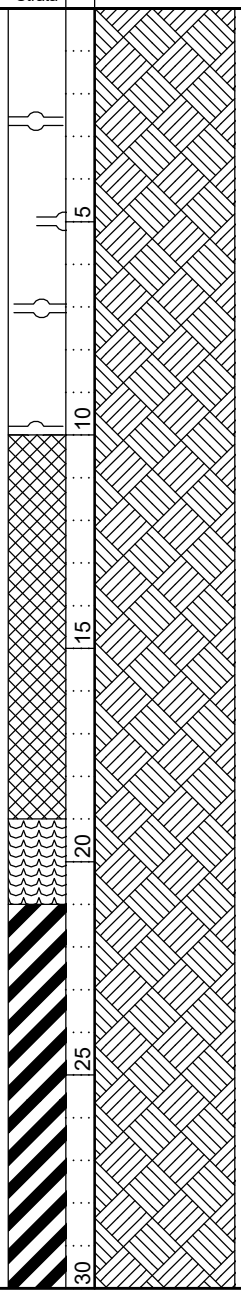
APC892432

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

DATE STARTED 3/28/2020 **COMPLETED** 4/15/2020 **SURF. ELEV.** Not Surveyed **COORDINATES:** N/A
CONTRACTOR Cascade Drilling **EQUIPMENT** CC **METHOD** Sonic
DRILLED BY T. Ardito **LOGGED BY** S. McDonald **CHECKED BY** B. Coates **ANGLE** **BEARING**
BORING DEPTH 130 ft. **GROUND WATER DEPTH: DURING** 40 ft. **COMP.** **DELAYED**
NOTES Boring abandoned. Well data sheet documents grout backfill placement.

BOREHOLE DATA (Strata)	DEPTH (ft)	WELL DATA	COMMENTS
		Protective aluminum cover with bollards 3-foot square concrete pad	



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SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA (Strata)	DEPTH (ft)	WELL DATA	COMMENTS
		Protective aluminum cover with bollards 3-foot square concrete pad	
		(CONTINUED)	
	35		
	40		
	45		
	50		
	55		
	60		
	65	← Annular Fill: Aquaguard bentonite grout (5 bags grout, 125 gallons water)	

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2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

SOUTHERN COMPANY

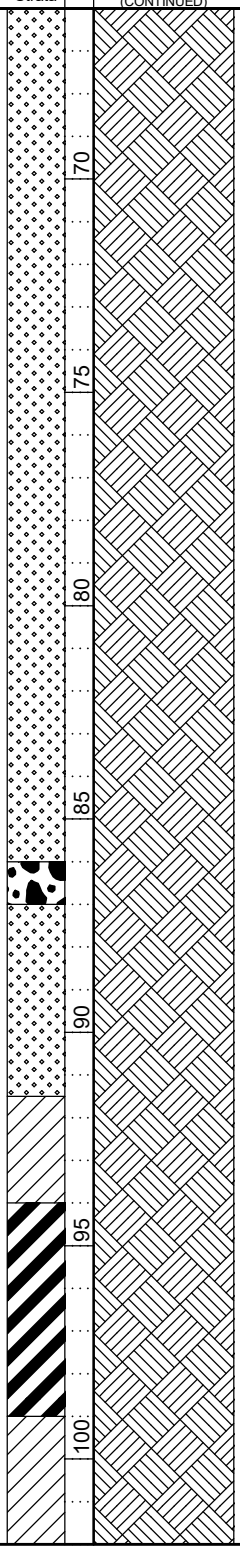
RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		Protective aluminum cover with bollards 3-foot square concrete pad	

(CONTINUED) (DEPTH)



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SOUTHERN COMPANY

RECORD OF WELL CONSTRUCTION

SOUTHERN COMPANY SERVICES, INC.
EARTH SCIENCE AND ENVIRONMENTAL ENGINEERING

PROJECT Plant Barry AP Delineation - Phase II
LOCATION Bucks, Alabama

BOREHOLE DATA	DEPTH (ft)	WELL DATA	COMMENTS
Strata		(CONTINUED)	(DEPTH)
		Protective aluminum cover with bollards 3-foot square concrete pad	
	105		
	110		
	115		
	120		
	125		
	130		

2012 WELL CONSTRUCTION RECORD - ESEE DATABASE.GDT - 4/23/20 11:44 - S:\WORKGROUPS\APC GENERAL SERVICE COMPLEX\CIVIL TECH SUPPORT\DRILLING\PROJECTS\AL-BARRY\BARRY CCR DELINEATION 2020\BORING LOGS\BORING LOGS.GPJ

Monitoring Well Abandonment Form

Southern Company

General Information

Project Name: Plant Barry– Phase II – Deleneation Monitoring Well Installation

Monitoring Well Number: BY-AP-MW-12VM

Plant Name: Plant Barry Ash Pond

Plant Address: 15300 U.S. Highway 43 North, Bucks, AL 36512

Abandoned by: Shannon McDonald, SCS CFS

Project & Task Number: N/A

Date: 4/15/2020

Goal/Task: Hydrogeologic Investigation

Well Details (Check one per section):

Casing Diameter		Borehole Diameter		Well Type	
n/a	2"	X	6" (94' - 130')	n/a	Permanent
n/a	4"	X	8" (0' - 94')	X	Temporary
X	6" (0' - 94')	n/a	12"	n/a	Geoprobe® Screen Point (GSP) or Equiv.
n/a	Other/NA	n/a	Other/NA	130.0	Measured Total Depth
				40.0	Measured Static Water Level

Casing Material

X	PVC (6-inch Schedule 40 PVC surface casing to 94 feet)
n/a	Steel
n/a	Other/NA

Abandonment Details (Check one per section):

Refer to attached boring and well installation logs BY-AP-MW-12VM

Abandonment Method (as detailed in SOW)

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

Materials and Quantity Used

n/a	Type 1 Portland Cement mixed with 3-5% bentonite
n/a	Bentonite Pellets
245 gallons	Neat Cement
n/a	Other

Overdrilled Well Cuttings and Debris

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

Prepared By: Shannon McDonald Date: 5/16/2020

Reviewed By: Greg Budd Date: 7/24/2020

Appendix C

Appendix C
Abbreviations

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

Analytical Data Summary
Plant Barry Ash Pond
Alabama Power Company

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

Analytical Data Summary
Plant Barry Ash Pond
Alabama Power Company

		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-GSA-MW-2	2/23/2016	0.0252(J)	1.11	3.99	0.02(J)	4.79	7.2	30.7	Non-Detect	Non-Detect	0.111	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.02(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	4/19/2016	Non-Detect	1.09	4.08	0.021(J)	4.84	7.22	Non-Detect	Non-Detect	Non-Detect	0.0875	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3	0.021(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	6/7/2016	0.0202(J)	1.16	4.28	0.06(J)	4.81	7.92	35.3	Non-Detect	Non-Detect	0.0979	0.00093(J)	Non-Detect	Non-Detect	Non-Detect	0.652	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	8/30/2016	Non-Detect	1.08	4.26	0.05(J)	4.76	8.17	27.3	Non-Detect	Non-Detect	0.108	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.411(U)	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	10/18/2016	Non-Detect	1.03	4.26	0.04(J)	4.84	7.99	Non-Detect	Non-Detect	Non-Detect	0.103	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	1/31/2017	Non-Detect	1.23	n/a	n/a	4.6	n/a	32.7	0.000898(J)	Non-Detect	0.109	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.398(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	3/20/2017	n/a	n/a	4.1	Non-Detect	4.71	6.1	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-2	5/2/2017	Non-Detect	1.28	5	0.04(J)	4.8	5	30.7	Non-Detect	Non-Detect	0.125	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.66	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	6/6/2017	Non-Detect	1.25	3.9	0.04(J)	4.72	5.3	34.7	Non-Detect	Non-Detect	0.108	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.639	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	9/13/2017	Non-Detect	1.6	4.3	0.043(J)	4.71	4.9(J)	39.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.043(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-GSA-MW-2	1/23/2018	n/a	n/a	n/a	0.04(J)	4.67	n/a	n/a	Non-Detect	Non-Detect	0.153	Non-Detect	Non-Detect	0.00596(J)	0.0021(J)	0.669(U)	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	5/1/2018	Non-Detect	1.58	3.7	0.04(J)	4.61	4.2(J)	42	Non-Detect	Non-Detect	0.167	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.06	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	11/27/2018	0.0207(J)	1.49	3.2	Non-Detect	4.72	3.7(J)	31.3	Non-Detect	Non-Detect	0.158	0.000801(J)	Non-Detect	Non-Detect	0.00209(J)	0.636	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	5/29/2019	Non-Detect	1.59	2.93	Non-Detect	4.58	5.94	40	Non-Detect	Non-Detect	0.172	Non-Detect	Non-Detect	Non-Detect	0.00248(J)	0.579(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	10/2/2019	Non-Detect	1.7	2.75	Non-Detect	4.43	6.04	41.3	Non-Detect	Non-Detect	0.183	Non-Detect	Non-Detect	Non-Detect	0.00244(J)	1.33	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	3/31/2020	Non-Detect	1.43	2.72	Non-Detect	4.6	6.83	40	Non-Detect	Non-Detect	0.171	Non-Detect	Non-Detect	Non-Detect	0.00224(J)	0.814	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-GSA-MW-2	9/9/2020	Non-Detect	1.5	2.32	Non-Detect	4.67	6.08	40.7	Non-Detect	Non-Detect	0.172	Non-Detect	Non-Detect	Non-Detect	0.00219(J)	0.653(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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

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

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-1	3/2/2016	2.03	46.5	2.18	0.03(J)	5.78	0.31(J)	426	Non-Detect	0.076	0.219	Non-Detect	Non-Detect	0.00591(J)	Non-Detect	Non-Detect	0.03(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	4/19/2016	2.2	49	9.01	0.052(J)	5.8	0.335(J)	442	Non-Detect	0.0973	0.201	Non-Detect	Non-Detect	0.0077(J)	Non-Detect	3.0268	0.052(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	6/8/2016	1.61	33.5	21	0.069(J)	5.83	0.556(J)	461	Non-Detect	0.0605	0.274	Non-Detect	Non-Detect	0.00264(J)	Non-Detect	1.59	0.069(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	8/31/2016	1.55	34.2	21	0.043(J)	5.85	Non-Detect	456	Non-Detect	0.0687	0.296	Non-Detect	Non-Detect	0.00246(J)	Non-Detect	2.19	0.043(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	10/19/2016	1.59	35.1	21.4	Non-Detect	5.87	Non-Detect	444	Non-Detect	0.0701	0.281	Non-Detect	Non-Detect	0.00248(J)	Non-Detect	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	1/31/2017	1.84	38.5	n/a	n/a	5.83	n/a	422	0.000687(J)	0.0669	0.211	Non-Detect	Non-Detect	0.00556(J)	Non-Detect	1.23	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	3/21/2017	n/a	n/a	25	0.04(J)	5.83	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.04(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-1	5/2/2017	1.73	35.1	26	0.05(J)	5.73	6	442	Non-Detect	0.0672	0.29	Non-Detect	Non-Detect	0.00269(J)	Non-Detect	1.62	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	6/6/2017	1.56	32.4	27	0.049(J)	5.83	Non-Detect	433	Non-Detect	0.0527	0.25	Non-Detect	Non-Detect	0.00295(J)	Non-Detect	1.24	0.049(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	9/13/2017	1.87	40.5	24	Non-Detect	5.91	4.7(J)	456	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-1	1/24/2018	n/a	n/a	n/a	0.05(J)	5.9	n/a	n/a	Non-Detect	0.07	0.289	Non-Detect	Non-Detect	0.00278(J)	Non-Detect	1.96(U)	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	5/1/2018	1.81	39.7	25	0.05(J)	5.83	Non-Detect	416	Non-Detect	0.0777	0.28	Non-Detect	Non-Detect	0.00435(J)	Non-Detect	1.6	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	11/28/2018	1.8	35.8	26	Non-Detect	5.82	Non-Detect	408	Non-Detect	0.0677	0.271	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.48	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	5/29/2019	1.75	33.4	27.6	0.0858(J)	5.82	5.75	403	Non-Detect	0.0555	0.29	Non-Detect	Non-Detect	0.00223(J)	Non-Detect	2.25	0.0858(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	10/1/2019	1.91	36.7	24.6	0.0744(J)	5.47	7.82	430	Non-Detect	0.0635	0.293	Non-Detect	Non-Detect	0.00236(J)	Non-Detect	2.84	0.0744(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	3/30/2020	1.77	33.7	24.9	0.0726(J)	5.79	28.4	419	Non-Detect	0.0557	0.279	Non-Detect	Non-Detect	0.00415(J)	Non-Detect	2.31	0.0726(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1	9/1/2020	2.11	40.5	25.7	0.194	5.89	23.1	454	Non-Detect	0.0811	0.33	Non-Detect	Non-Detect	0.00242(J)	Non-Detect	1.3	0.194	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-2	3/2/2016	Non-Detect	3.86	6.08	0.04(J)	6.08	3.3	42	Non-Detect	0.00263(J)	0.0285	Non-Detect	Non-Detect	Non-Detect	0.00842(J)	Non-Detect	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	4/19/2016	Non-Detect	3.22	6.2	0.038(J)	5.92	2.68	51.3	Non-Detect	0.00247(J)	0.0268	Non-Detect	Non-Detect	Non-Detect	0.008(J)	Non-Detect	0.038(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	6/8/2016	Non-Detect	3.17	6.2	0.067(J)	5.9	1.1	46.7	Non-Detect	0.0023(J)	0.0248	Non-Detect	Non-Detect	Non-Detect	0.00796(J)	0.121(U)	0.067(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	8/31/2016	Non-Detect	3.07	6.51	0.05(J)	5.87	Non-Detect	32.7	Non-Detect	0.00237(J)	0.026	Non-Detect	Non-Detect	Non-Detect	0.00752(J)	0.348(U)	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	10/19/2016	Non-Detect	2.91	6.85	Non-Detect	5.82	Non-Detect	37.3	Non-Detect	0.00241(J)	0.0247	Non-Detect	Non-Detect	Non-Detect	0.00778(J)	0.48	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	1/31/2017	Non-Detect	2.94	n/a	n/a	5.87	n/a	47.3	0.000739(J)	0.00185(J)	0.0228	Non-Detect	Non-Detect	Non-Detect	0.00647(J)	0.00333(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	3/21/2017	n/a	n/a	7.2	Non-Detect	5.85	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-2	5/2/2017	Non-Detect	2.82	8.3	0.04(J)	5.61	Non-Detect	44	Non-Detect	0.00194(J)	0.0257	Non-Detect	Non-Detect	Non-Detect	0.00686(J)	0.4(U)	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	6/6/2017	Non-Detect	2.79	8.5	0.04(J)	5.82	Non-Detect	48	Non-Detect	0.00175(J)	0.0219	Non-Detect	Non-Detect	Non-Detect	0.00694(J)	0.083(U)	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	9/12/2017	Non-Detect	2.88	8.6	0.037(J)	5.61	Non-Detect	40.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.037(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-2	1/24/2018	n/a	n/a	n/a	Non-Detect	5.83	n/a	n/a	Non-Detect	0.00158(J)	0.0229	Non-Detect	Non-Detect	Non-Detect	0.00592(J)	0.404(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	5/1/2018	Non-Detect	2.82	7.6	Non-Detect	5.8	Non-Detect	42.7	Non-Detect	0.00166(J)	0.0279	Non-Detect	Non-Detect	Non-Detect	0.00693(J)	0.457	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	11/27/2018	Non-Detect	2.8	8.8	Non-Detect	5.71	Non-Detect	48	Non-Detect	Non-Detect	0.0249	Non-Detect	Non-Detect	Non-Detect	0.0066	0.359(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	5/29/2019	Non-Detect	2.82	8.31	Non-Detect	5.7	0.885(J)	47.3	Non-Detect	0.00132(J)	0.0232	Non-Detect	Non-Detect	Non-Detect	0.00745	1.18	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	10/1/2019	Non-Detect	2.94	8.19	Non-Detect	4.97	Non-Detect	44.7	Non-Detect	0.0014(J)	0.0241	Non-Detect	Non-Detect	Non-Detect	0.00696	0.284(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	3/31/2020	Non-Detect	2.95	8.48	Non-Detect	5.71	1.69	42	Non-Detect	0.00149(J)	0.0264	Non-Detect	Non-Detect	Non-Detect	0.00716	0.699	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-2	8/31/2020	Non-Detect	3	8.3	Non-Detect	5.57	0.576(J)	45.3	Non-Detect	0.00176(J)	0.0275	Non-Detect	Non-Detect	Non-Detect	0.00751	0.0265(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-3	3/2/2016	Non-Detect	1.11	8.04	0.01(J)	5.14	0.79(J)	27.3	Non-Detect	Non-Detect	0.0306	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.01(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	4/19/2016	Non-Detect	1.01	7.6	0.014(J)	5.06	0.674(J)	33.3	Non-Detect	Non-Detect	0.0292	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.014(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	6/7/2016	Non-Detect	1.06	7.7	0.049(J)	5.13	1	44	0.000606(J)	Non-Detect	0.0318	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.455	0.049(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	8/31/2016	Non-Detect	0.978	7.7	0.034(J)	5.11	0.702(J)	29.3	Non-Detect	Non-Detect	0.0324	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.329(U)	0.034(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	10/19/2016	Non-Detect	0.906	7.73	0.023(J)	5.05	0.739(J)	29.3	Non-Detect	Non-Detect	0.0313	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.536	0.023(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	1/31/2017	Non-Detect	1.04	n/a	n/a	5.14	n/a	36.7	0.000637(J)	Non-Detect	0.0306	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.496	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	3/21/2017	n/a	n/a	7.2	Non-Detect	5.13	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-3	5/2/2017	Non-Detect	0.969	8.6	Non-Detect	4.85	Non-Detect	28	Non-Detect	Non-Detect	0.0332	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.149(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	6/6/2017	Non-Detect	0.902	8.3	Non-Detect	5.15	Non-Detect	36.7	Non-Detect	Non-Detect	0.0275	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.191(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	9/12/2017	Non-Detect	0.988	8.5	Non-Detect	4.96	Non-Detect	35.3	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-3	1/24/2018	n/a	n/a	n/a	Non-Detect	5.22	n/a	n/a	Non-Detect	Non-Detect	0.0317	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.543(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	5/1/2018	Non-Detect	1.07	7.6	Non-Detect	5.11	Non-Detect	34.7	Non-Detect	Non-Detect	0.0356	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.372(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	11/27/2018	Non-Detect	0.999	8.4	Non-Detect	5.05	Non-Detect	41.3	Non-Detect	Non-Detect	0.0339	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.591	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	5/29/2019	Non-Detect	1.09	9.01	Non-Detect	5.05	0.747(J)	40	Non-Detect	Non-Detect	0.037	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.31	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	10/1/2019	Non-Detect	1.08	8.05	Non-Detect	4.37	0.61(J)	36.7	Non-Detect	Non-Detect	0.0356	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.52	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	3/31/2020	Non-Detect	1.1	9.07	Non-Detect	5.08	1.02	37.3	Non-Detect	Non-Detect	0.0393	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.478(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-3	9/1/2020	Non-Detect	1.08	8.97	Non-Detect	4.24	0.705(J)	39.3	Non-Detect	Non-Detect	0.038	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.158(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-4	3/1/2016	Non-Detect	1.07	7.74	0.02(J)	5.19	2.58	27.3	Non-Detect	Non-Detect	0.018	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.02(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	4/19/2016	Non-Detect	0.969	7.66	0.016(J)	5.06	2.3	38	Non-Detect	Non-Detect	0.0166	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.016(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	6/7/2016	Non-Detect	1.08	11.3	0.047(J)	4.7	2.58	48.7	0.000869(J)	Non-Detect	0.0271	Non-Detect	Non-Detect	Non-Detect	0.00424(J)	0.287(U)	0.047(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	8/30/2016	Non-Detect	0.952	10.8	0.035(J)	4.77	2.81	32.7	Non-Detect	Non-Detect	0.0312	Non-Detect	Non-Detect	Non-Detect	0.00262(J)	0.585	0.035(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	10/19/2016	Non-Detect	1.17	11.1	0.025(J)	4.67	5.06	36	Non-Detect	Non-Detect	0.0443	Non-Detect	Non-Detect	Non-Detect	0.00469(J)	1.85	0.025(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	1/31/2017	Non-Detect	0.946	n/a	n/a	4.42	n/a	40.7	0.00086(J)	Non-Detect	0.0231	Non-Detect	Non-Detect	Non-Detect	0.0127	0.25(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	3/21/2017	n/a	n/a	11	Non-Detect	4.45	3.4(J)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-4	5/2/2017	Non-Detect	0.826	12	Non-Detect	4.46	2.7(J)	30.7	Non-Detect	Non-Detect	0.0241	Non-Detect	Non-Detect	Non-Detect	0.00891(J)	0.391(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	6/6/2017	Non-Detect	0.834	12	Non-Detect	4.89	1.5(J)	41.3	Non-Detect	Non-Detect	0.0276	Non-Detect	Non-Detect	Non-Detect	0.00217(J)	0.183(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	9/12/2017	Non-Detect	0.884	11	Non-Detect	4.71	1.9(J)	34.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-4	1/24/2018	n/a	n/a	n/a	Non-Detect	5.03	n/a	n/a	Non-Detect	Non-Detect	0.0293	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.622(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	5/1/2018	Non-Detect	0.921	9.2	Non-Detect	4.44	1.4(J)	39.3	Non-Detect	Non-Detect	0.0205	Non-Detect	Non-Detect	Non-Detect	0.0126	0.0917(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	11/27/2018	Non-Detect	1.01	10	Non-Detect	4.78	Non-Detect	32	Non-Detect	Non-Detect	0.0321	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.695	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	5/29/2019	Non-Detect	0.627	8.53	Non-Detect	4.65	2.92	39.3	Non-Detect	Non-Detect	0.0203	Non-Detect	Non-Detect	Non-Detect	0.00549	0.947	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	10/1/2019	Non-Detect	0.645	7.35	Non-Detect	4.28	2.09	32	Non-Detect	Non-Detect	0.0207	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.7	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	3/31/2020	Non-Detect	0.898	9.54	Non-Detect	4.69	4.12	42.7	Non-Detect	Non-Detect	0.0193	Non-Detect	Non-Detect	Non-Detect	0.0205	0.323(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-4	9/1/2020	Non-Detect	0.566	7.82	Non-Detect	4.23	1.83	36	Non-Detect	Non-Detect	0.0131	Non-Detect	Non-Detect	Non-Detect	0.00657	0.39(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-5	3/1/2016	0.0462(J)	15	19.7	0.04(J)	5.99	Non-Detect	273	Non-Detect	0.0277	0.136	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.67764	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	4/20/2016	0.0719(J)	14.3	18.9	0.043(J)	5.96	Non-Detect	269	Non-Detect	0.0307	0.132	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3.0801	0.043(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	6/7/2016	0.0591(J)	14.8	18.5	0.075(J)	6.03	0.583(J)	272	Non-Detect	0.0308	0.141	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.5	0.075(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	8/30/2016	0.0675(J)	13.7	17.9	0.057(J)	6	Non-Detect	244	Non-Detect	0.033	0.136	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.17	0.057(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	10/18/2016	0.0699(J)	13.3	18.2	0.049(J)	5.99	Non-Detect	238	Non-Detect	0.0296	0.125	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.93	0.049(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	1/31/2017	0.0518(J)	13.7	n/a	n/a	5.96	n/a	266	0.000765(J)	0.0264	0.125	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	3/22/2017	n/a	n/a	22	0.04(J)	6.01	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.04(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-5	5/3/2017	0.0737(J)	14.3	22	0.05(J)	5.99	Non-Detect	259	Non-Detect	0.0309	0.146	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.48	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	6/7/2017	0.0518(J)	14.7	21	0.05(J)	6.01	Non-Detect	255	Non-Detect	0.0283	0.126	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.915	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	9/14/2017	0.0825(J)	15.1	21	0.06(J)	6	Non-Detect	276	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.06(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-5	1/24/2018	n/a	n/a	n/a	0.05(J)	5.98	n/a	n/a	Non-Detect	0.0282	0.127	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.74(U)	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	5/2/2018	0.0603(J)	14.5	20	0.05(J)	5.99	Non-Detect	247	Non-Detect	0.0315	0.154	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.58	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	11/27/2018	Non-Detect	13.7	21	Non-Detect	6.01	Non-Detect	248	Non-Detect	0.0283	0.139	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.43	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	5/29/2019	0.0946(J)	14.5	19.7	0.0923(J)	5.93	5.51	259	Non-Detect	0.0301	0.146	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.16	0.0923(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	10/1/2019	0.103	13.8	19.8	0.0557(J)	5.47	7.4	243	Non-Detect	0.0307	0.138	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.14	0.0557(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	3/31/2020	0.0782(J)	14.4	19.8	0.0735(J)	6.01	23.7	243	Non-Detect	0.0329	0.15	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.754	0.0735(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5	9/1/2020	0.115	13.6	19.1	0.0921(J)	5.93	11	253	Non-Detect	0.0372	0.154	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.1	0.0921(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-6	3/1/2016	Non-Detect	1.87	5.77	Non-Detect	5.59	0.36(J)	45.3	Non-Detect	0.00142(J)	0.0278	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	4/19/2016	Non-Detect	1.69	5.57	0.016(J)	5.55	0.435(J)	46	Non-Detect	0.00138(J)	0.0242	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.016(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	6/7/2016	Non-Detect	1.75	5.52	0.048(J)	5.43	1.22	46	Non-Detect	Non-Detect	0.0223	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.353(U)	0.048(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	8/30/2016	Non-Detect	1.77	5.5	0.034(J)	5.39	1.08	30	Non-Detect	Non-Detect	0.0242	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.428(U)	0.034(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	10/19/2016	Non-Detect	1.8	5.55	0.023(J)	5.31	1.01	37.3	Non-Detect	Non-Detect	0.024	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.449(U)	0.023(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	1/31/2017	Non-Detect	1.98	n/a	n/a	5.26	n/a	43.3	0.000852(J)	Non-Detect	0.0248	Non-Detect	Non-Detect	Non-Detect	Non-Detect	-0.0173(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	3/22/2017	n/a	n/a	6	Non-Detect	5.32	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-6	5/3/2017	Non-Detect	1.97	6.4	Non-Detect	5.35	1.4(J)	44.7	Non-Detect	Non-Detect	0.0268	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.447	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	6/7/2017	Non-Detect	1.98	5.9	Non-Detect	5.32	1.5(J)	45.3	Non-Detect	Non-Detect	0.0256	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.572	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	9/14/2017	Non-Detect	2.14	6.5	Non-Detect	5.29	1.8(J)	48.7	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-6	1/24/2018	n/a	n/a	n/a	Non-Detect	5.32	n/a	n/a	Non-Detect	Non-Detect	0.0254	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.09(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	5/2/2018	Non-Detect	2.13	5.5	Non-Detect	5.33	Non-Detect	44	Non-Detect	Non-Detect	0.0276	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.187(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	11/28/2018	Non-Detect	1.91	6.2	Non-Detect	5.46	Non-Detect	50.7	Non-Detect	Non-Detect	0.0231	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.478(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	5/29/2019	Non-Detect	1.72	6.15	Non-Detect	5.31	1.17	48.7	Non-Detect	Non-Detect	0.0244	Non-Detect	Non-Detect	Non-Detect	Non-Detect	-0.276(U)	Non-Detect	0.00185(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	10/1/2019	Non-Detect	1.92	5.99	Non-Detect	4.7	1.04	38	Non-Detect	Non-Detect	0.0257	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.742	Non-Detect	0.00545	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	3/31/2020	Non-Detect	1.68	5.94	Non-Detect	5.22	1.21	42	Non-Detect	Non-Detect	0.0244	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.291(U)	Non-Detect	0.00276(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-6	9/2/2020	Non-Detect	1.8	5.94	Non-Detect	5.16	1.02	37.3	Non-Detect	Non-Detect	0.0282	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.241(U)	Non-Detect	0.00171(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-7	3/1/2016	0.0546(J)	7.65	11.2	0.06(J)	6.36	0.3(J)	129	Non-Detect	0.0166	0.0519	Non-Detect	Non-Detect	Non-Detect	0.011	Non-Detect	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	4/20/2016	0.0472(J)	7.54	10.8	0.078(J)	6.31	0.514(J)	128	Non-Detect	0.02	0.0517	Non-Detect	Non-Detect	Non-Detect	0.0148	Non-Detect	0.078(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	6/7/2016	0.0417(J)	7.71	10.8	0.101(J)	6.3	0.971(J)	140	Non-Detect	0.0223	0.0577	Non-Detect	Non-Detect	Non-Detect	0.0172	0.555(U)	0.101(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	8/31/2016	0.036(J)	8.1	10.8	0.086(J)	6.31	0.445(J)	112	Non-Detect	0.0231	0.0614	Non-Detect	Non-Detect	Non-Detect	0.0175	0.284(U)	0.086(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	10/19/2016	0.0386(J)	8.59	10.8	0.075(J)	6.23	0.366(J)	134	Non-Detect	0.0244	0.0618	Non-Detect	Non-Detect	Non-Detect	0.0189	0.557(U)	0.075(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	1/31/2017	0.0343(J)	8.78	n/a	n/a	6.26	n/a	134	0.00107(J)	0.0197	0.0576	Non-Detect	Non-Detect	Non-Detect	0.0165	0.0949(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	3/22/2017	n/a	n/a	13	0.06(J)	6.32	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.06(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-7	5/3/2017	0.037(J)	8.85	14	0.08(J)	6.29	Non-Detect	127	Non-Detect	0.0212	0.0601	Non-Detect	Non-Detect	Non-Detect	0.0172	0.53	0.08(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	6/7/2017	0.0227(J)	8.99	14	0.08(J)	6.27	Non-Detect	134	Non-Detect	0.0203	0.054	Non-Detect	Non-Detect	Non-Detect	0.0173	-0.231(U)	0.08(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	9/14/2017	0.0471(J)	9.64	13	0.07(J)	6.25	Non-Detect	141	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.07(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-7	1/24/2018	n/a	n/a	n/a	0.09(J)	6.35	n/a	n/a	Non-Detect	0.0214	0.0568	Non-Detect	Non-Detect	Non-Detect	0.0158	0.691(U)	0.09(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	5/2/2018	0.0313(J)	9.14	13	0.08(J)	6.29	Non-Detect	133	Non-Detect	0.0218	0.063	Non-Detect	Non-Detect	0.00328(J)	0.0169	0.535	0.08(J)	Non-Detect	0.0108(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	11/28/2018	Non-Detect	9.66	13	Non-Detect	6.33	Non-Detect	138	Non-Detect	0.0209	0.0654	Non-Detect	Non-Detect	Non-Detect	0.0178	0.62	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	5/29/2019	0.042(J)	8.88	13.3	0.0937(J)	6.18	2.77	132	Non-Detect	0.0178	0.059	Non-Detect	Non-Detect	Non-Detect	0.0197	0.244(U)	0.0937(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	9/30/2019	0.0418(J)	9.8	13.1	0.0925(J)	6.36	2.51	137	Non-Detect	0.0217	0.0648	Non-Detect	Non-Detect	Non-Detect	0.0186	0.388(U)	0.0925(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	3/30/2020	0.0369(J)	10.1	13.3	0.0933(J)	6.32	4.78	135	Non-Detect	0.0215	0.059	Non-Detect	Non-Detect	Non-Detect	0.0172	0.744	0.0933(J)	Non-Detect	0.0102(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7	9/2/2020	0.042(J)	10.4	12.9	0.109	6.25	3.59	129	Non-Detect	0.0234	0.0745	Non-Detect	Non-Detect	Non-Detect	0.0197	0.567	0.109	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-8	3/1/2016	1.72	36.1	24.5	0.03(J)	6.21	Non-Detect	309	Non-Detect	0.036	0.142	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.03(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	4/20/2016	1.7	34.5	22.5	0.043(J)	6.22	Non-Detect	324	Non-Detect	0.0399	0.143	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.0115	0.043(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	6/7/2016	1.57	34.7	21.6	0.069(J)	6.26	0.504(J)	314	Non-Detect	0.0401	0.145	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.853	0.069(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	8/30/2016	1.67	34.1	21.6	0.052(J)	6.21	Non-Detect	308	Non-Detect	0.0387	0.147	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.669	0.052(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	10/18/2016	1.4	33.2	20.2	0.042(J)	6.21	Non-Detect	295	Non-Detect	0.0394	0.14	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.32	0.042(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	1/31/2017	1.46	32.3	n/a	n/a	6.17	n/a	303	0.00074(J)	0.0408	0.134	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.801	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	3/22/2017	n/a	n/a	24	Non-Detect	6.22	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-8	5/3/2017	1.45	34.1	25	0.05(J)	6.22	2.7(J)	300	Non-Detect	0.0416	0.145	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.648	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	6/7/2017	1.41	34.7	24	0.05(J)	6.21	Non-Detect	284	Non-Detect	0.0395	0.128	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.408(U)	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	9/14/2017	1.16	34.4	24	0.05(J)	6.18	Non-Detect	325	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.05(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-8	1/24/2018	n/a	n/a	n/a	0.04(J)	6.16	n/a	n/a	Non-Detect	0.0536	0.129	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.706(U)	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	5/2/2018	1.12	32.3	23	0.04(J)	6.17	Non-Detect	306	Non-Detect	0.0572	0.149	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.572	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	11/27/2018	1.31	32.5	27	Non-Detect	6.18	Non-Detect	303	Non-Detect	0.0536	0.143	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.687	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	5/29/2019	1.44	31.9	27.4	0.0958(J)	6.11	6.01	291	Non-Detect	0.0482	0.138	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.627(U)	0.0958(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	9/30/2019	1.38	33	25.5	0.0559(J)	6.19	5.29	293	Non-Detect	0.0514	0.138	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.321(U)	0.0559(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	3/30/2020	1.12	32.2	22.6	0.0701(J)	6.2	33.1	310	Non-Detect	0.0589	0.141	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.6	0.0701(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8	9/2/2020	1.26	31.5	22.2	Non-Detect	5.89	15.8	298	Non-Detect	0.0629	0.151	Non-Detect	Non-Detect	Non-Detect	Non-Detect	3.95	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-9	3/1/2016	1.79	40.3	20.4	0.04(J)	6.26	Non-Detect	314	Non-Detect	0.0322	0.114	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.5534	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	4/20/2016	2.01	38.2	22.7	0.052(J)	6.26	Non-Detect	338	Non-Detect	0.0354	0.114	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.052(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	6/8/2016	2.23	39.2	25.3	0.077(J)	6.25	0.51(J)	288	Non-Detect	0.0385	0.128	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.837	0.077(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	8/31/2016	2.14	38.2	24.4	0.056(J)	6.29	Non-Detect	334	Non-Detect	0.0404	0.123	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.917	0.056(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	10/19/2016	2.13	38.7	23	0.045(J)	6.22	Non-Detect	333	Non-Detect	0.0412	0.118	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.41	0.045(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	2/1/2017	2.17	39.2	n/a	n/a	6.24	n/a	330	0.000738(J)	0.0374	0.104	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.785	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	3/22/2017	n/a	n/a	26	0.05(J)	6.28	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.05(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-9	5/3/2017	2.28	39.1	26	0.06(J)	6.17	2.7(J)	338	Non-Detect	0.0444	0.126	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.33	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	6/7/2017	2.25	40.3	27	0.06(J)	6.24	Non-Detect	300	Non-Detect	0.0423	0.111	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.758	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	9/14/2017	2.41	40.7	24	0.07(J)	6.24	Non-Detect	350	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.07(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-9	1/23/2018	n/a	n/a	n/a	0.06(J)	6.3	n/a	n/a	Non-Detect	0.0435	0.115	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.06(U)	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	5/2/2018	2.34	40	22	0.05(J)	6.31	Non-Detect	333	Non-Detect	0.0437	0.125	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.983	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	11/28/2018	2.23	39.7	23	Non-Detect	6.32	Non-Detect	330	Non-Detect	0.0422	0.119	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.747	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	5/30/2019	2.45	38.5	27.7	0.0763(J)	6.14	5.91	315	Non-Detect	0.0349	0.112	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.08	0.0763(J)	0.00108(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	9/30/2019	2.34	39.9	21.7	0.0679(J)	6.07	3.77	319	Non-Detect	0.0391	0.117	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.58	0.0679(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	3/31/2020	2.27	40.1	20.6	0.0655(J)	6.31	43.5	330	Non-Detect	0.0393	0.119	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.82	0.0655(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-9	9/2/2020	2.05	38	18.5	0.0804(J)	5.97	21.9	301	Non-Detect	0.0432	0.124	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.25	0.0804(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-10	3/1/2016	1.39	50.6	19.6	0.02(J)	6.33	0.34(J)	326	Non-Detect	0.0264	0.0634	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.02(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	4/20/2016	1.51	49.1	18.8	0.034(J)	6.31	Non-Detect	366	Non-Detect	0.0303	0.0622	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.034(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	6/8/2016	1.62	48.7	18.6	0.061(J)	6.34	0.538(J)	314	Non-Detect	0.0306	0.0642	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.06	0.061(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	8/31/2016	1.73	57.9	18.5	0.04(J)	6.35	Non-Detect	368	Non-Detect	0.0304	0.063	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.871	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	10/19/2016	1.77	52.2	18.7	0.03(J)	6.35	Non-Detect	381	Non-Detect	0.0314	0.0577	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.25	0.03(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	10/19/2016	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.9	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-10	2/1/2017	1.42	47.6	n/a	n/a	6.27	n/a	342	0.000743(J)	0.0274	0.0607	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	3/22/2017	n/a	n/a	21	Non-Detect	6.29	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-10	5/3/2017	1.52	51.3	22	0.04(J)	6.23	4.1(J)	369	Non-Detect	0.03	0.0665	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.07	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	6/7/2017	1.52	51.4	22	0.04(J)	6.27	Non-Detect	340	Non-Detect	0.0303	0.0632	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.254(U)	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	9/14/2017	1.96	54.9	22	0.04(J)	6.27	Non-Detect	391	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.04(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-10	1/23/2018	n/a	n/a	n/a	Non-Detect	6.32	n/a	n/a	Non-Detect	0.0362	0.0673	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.795(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	5/2/2018	2	53.3	23	Non-Detect	6.36	Non-Detect	343	Non-Detect	0.0433	0.0752	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.405	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	11/28/2018	2	54.2	25	Non-Detect	6.32	Non-Detect	378	Non-Detect	0.0536	0.066	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.609	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	5/30/2019	2.11	60.5	25.9	0.0573(J)	6.23	3.76	377	Non-Detect	0.0671	0.063	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.0949(U)	0.0573(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	9/30/2019	2.02	63.1	25.7	Non-Detect	6.11	2.77	361	Non-Detect	0.0704	0.0669	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.965	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	3/31/2020	2.12	63.6	26.1	Non-Detect	6.37	20.1	387	Non-Detect	0.0702	0.0727	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.14	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10	9/1/2020	2.02	57.2	25	0.0794(J)	6.33	15.6	392	Non-Detect	0.0763	0.078	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.68	0.0794(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-11	3/1/2016	0.0482(J)	35.3	21.7	0.06(J)	6.34	1.02	395	Non-Detect	0.01	0.122	Non-Detect	Non-Detect	0.00213(J)	Non-Detect	Non-Detect	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	4/20/2016	0.059(J)	28.9	20.7	0.073(J)	6.31	1.1	376	Non-Detect	0.0127	0.11	Non-Detect	Non-Detect	0.00214(J)	Non-Detect	0.667	0.073(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	6/8/2016	0.0568(J)	27.6	20.4	0.085(J)	6.33	0.701(J)	324	Non-Detect	0.0136	0.105	Non-Detect	Non-Detect	0.00205(J)	Non-Detect	0.704	0.085(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	8/31/2016	0.0651(J)	25.4	20.3	0.064(J)	6.29	Non-Detect	367	Non-Detect	0.0149	0.102	Non-Detect	Non-Detect	0.00221(J)	Non-Detect	0.726	0.064(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	10/19/2016	0.06(J)	25.7	20.3	0.05(J)	6.26	Non-Detect	367	Non-Detect	0.0149	0.0953	Non-Detect	Non-Detect	0.00213(J)	Non-Detect	0.737	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	2/1/2017	0.0638(J)	25.6	n/a	n/a	6.22	n/a	391	0.000812(J)	0.0151	0.0917	Non-Detect	Non-Detect	0.00228(J)	Non-Detect	0.766	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	3/22/2017	n/a	n/a	27	0.05(J)	6.22	2.1(J)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.05(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-11	5/3/2017	0.0655(J)	24	27	0.06(J)	6.15	3.6(J)	373	Non-Detect	0.0155	0.0951	Non-Detect	Non-Detect	0.00229(J)	Non-Detect	0.515	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	6/7/2017	0.0468(J)	25.2	24	0.06(J)	6.21	Non-Detect	367	Non-Detect	0.0145	0.0864	Non-Detect	Non-Detect	0.00233(J)	Non-Detect	1.04	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	9/13/2017	0.0751(J)	25.5	26	Non-Detect	6.26	Non-Detect	378	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-11	1/23/2018	n/a	n/a	n/a	0.06(J)	6.28	n/a	n/a	Non-Detect	0.0154	0.0868	Non-Detect	Non-Detect	0.00248(J)	Non-Detect	1.17(U)	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	5/2/2018	0.0545(J)	25.2	23	0.06(J)	6.33	Non-Detect	330	Non-Detect	0.0158	0.0816	Non-Detect	Non-Detect	0.00273(J)	Non-Detect	0.505	0.06(J)	Non-Detect	0.0384(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	11/28/2018	Non-Detect	24.6	25	Non-Detect	6.28	Non-Detect	357	Non-Detect	0.014	0.0796	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.232(U)	Non-Detect	Non-Detect	0.0262	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	5/29/2019	0.082(J)	23.9	27.8	0.0759(J)	6.24	24.1	367	Non-Detect	0.0132	0.0653	Non-Detect	Non-Detect	0.00211(J)	Non-Detect	0.726	0.0759(J)	Non-Detect	0.0321	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	9/30/2019	0.103	24.6	25	0.0733(J)	5.85	37.4	399	Non-Detect	0.0145	0.0759	Non-Detect	Non-Detect	0.00228(J)	Non-Detect	0.489(U)	0.0733(J)	Non-Detect	0.0228	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	3/31/2020	0.0815(J)	25.1	24.1	0.078(J)	6.26	57.5	393	Non-Detect	0.0158	0.0842	Non-Detect	Non-Detect	0.00358(J)	Non-Detect	0.462(U)	0.078(J)	Non-Detect	0.022	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-11	9/1/2020	0.104	23.9	23.2	0.0841(J)	5.87	42.8	399	Non-Detect	0.0165	0.0923	Non-Detect	Non-Detect	0.00259(J)	Non-Detect	0.752	0.0841(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-12	3/2/2016	0.0502(J)	21	22.2	0.04(J)	6.16	Non-Detect	351	Non-Detect	0.0215	0.0815	Non-Detect	Non-Detect	0.0042(J)	0.00235(J)	Non-Detect	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	4/20/2016	0.0672(J)	20.1	21.7	0.059(J)	6.17	Non-Detect	353	Non-Detect	0.0214	0.0692	Non-Detect	Non-Detect	0.0034(J)	0.00212(J)	Non-Detect	0.059(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	6/7/2016	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	1.08	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-12	6/8/2016	0.0659(J)	20.2	22	0.08(J)	6.25	0.511(J)	330	Non-Detect	0.0221	0.0763	Non-Detect	Non-Detect	0.00308(J)	0.00276(J)	n/a	0.08(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	8/31/2016	0.065(J)	19.9	22.3	0.059(J)	6.23	Non-Detect	354	Non-Detect	0.0223	0.0741	Non-Detect	Non-Detect	0.0032(J)	0.00261(J)	0.528	0.059(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	10/19/2016	0.0721(J)	20.4	20.8	0.045(J)	6.2	Non-Detect	354	Non-Detect	0.0227	0.0727	Non-Detect	Non-Detect	0.0035(J)	0.00256(J)	0.81	0.045(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	2/1/2017	0.06(J)	20.9	n/a	n/a	6.08	n/a	360	0.000838(J)	0.0215	0.0701	Non-Detect	Non-Detect	0.00371(J)	0.00231(J)	1.11	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	3/22/2017	n/a	n/a	23	0.04(J)	6.12	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.04(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-12	5/3/2017	0.0768(J)	20.9	25	0.06(J)	6.12	2.1(J)	341	Non-Detect	0.0227	0.078	Non-Detect	Non-Detect	0.00369(J)	0.00279(J)	0.639	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	6/7/2017	0.0625(J)	21.2	23	0.06(J)	6.13	Non-Detect	337	Non-Detect	0.0211	0.0682	Non-Detect	Non-Detect	0.00372(J)	0.00262(J)	0.705	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	9/13/2017	0.0926(J)	22.1	23	Non-Detect	6.19	Non-Detect	359	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-12	1/23/2018	n/a	n/a	n/a	0.05(J)	6.17	n/a	n/a	Non-Detect	0.0227	0.0744	Non-Detect	Non-Detect	0.00605(J)	0.00248(J)	1.1(U)	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	5/2/2018	0.064(J)	22.2	21	0.06(J)	6.15	Non-Detect	310	Non-Detect	0.0239	0.0814	Non-Detect	Non-Detect	0.00351(J)	0.00271(J)	1.11	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	11/28/2018	Non-Detect	22.1	23	Non-Detect	6.11	Non-Detect	336	Non-Detect	0.0216	0.0788	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.846	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	5/29/2019	0.0952(J)	21.4	24.1	0.0677(J)	6.13	7.04	321	Non-Detect	0.0215	0.0769	Non-Detect	Non-Detect	0.00333(J)	0.00358(J)	2.06	0.0677(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	10/1/2019	0.0967(J)	23.1	26.1	0.0682(J)	6	35.3	344	Non-Detect	0.0221	0.0795	Non-Detect	Non-Detect	0.00325(J)	0.00303(J)	0.984	0.0682(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	3/31/2020	0.0856(J)	22.4	23.9	0.0755(J)	6.21	35.8	331	Non-Detect	0.0246	0.0851	Non-Detect	Non-Detect	0.0056(J)	0.00364(J)	1.26	0.0755(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12	9/1/2020	0.115	22.2	23.4	0.0845(J)	6.19	32.1	356	Non-Detect	0.0246	0.0827	Non-Detect	Non-Detect	0.00332(J)	0.0031(J)	1.2	0.0845(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-13	3/2/2016	0.0328(J)	16.7	47.3	0.05(J)	6.1	Non-Detect	319	Non-Detect	0.0115	0.0947	Non-Detect	Non-Detect	0.00656(J)	Non-Detect	Non-Detect	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	4/20/2016	0.0434(J)	13.1	40.5	0.064(J)	6.14	Non-Detect	305	Non-Detect	0.0123	0.0758	Non-Detect	Non-Detect	0.00661(J)	Non-Detect	0.398	0.064(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	6/7/2016	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.812	n/a	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-13	6/8/2016	0.0391(J)	11.7	37.2	0.082(J)	6.11	0.496(J)	287	0.00111(J)	0.0121	0.071	Non-Detect	Non-Detect	0.0067(J)	Non-Detect	n/a	0.082(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	8/31/2016	0.0401(J)	11.3	38.2	0.062(J)	6.1	Non-Detect	295	Non-Detect	0.0127	0.0722	Non-Detect	Non-Detect	0.00693(J)	Non-Detect	0.46(U)	0.062(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	10/19/2016	0.0427(J)	11.8	39.4	0.049(J)	6.1	Non-Detect	305	Non-Detect	0.0131	0.0707	Non-Detect	Non-Detect	0.00732(J)	Non-Detect	0.601	0.049(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	1/31/2017	0.034(J)	12.5	n/a	n/a	6.07	n/a	325	0.000834(J)	0.0131	0.0686	Non-Detect	Non-Detect	0.00699(J)	Non-Detect	1.1	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	3/22/2017	n/a	n/a	49	0.05(J)	6.07	6.9	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.05(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-13	5/3/2017	0.0416(J)	12	48	0.06(J)	6.1	6.6	306	Non-Detect	0.014	0.0756	Non-Detect	Non-Detect	0.00712(J)	Non-Detect	0.832	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	6/7/2017	0.0277(J)	12.8	49	0.07(J)	6.07	6	320	0.000857(J)	0.0141	0.0695	0.00103(J)	0.00077(J)	0.00752(J)	Non-Detect	0.752	0.07(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.000878(J)
BY-AP-MW-13	9/13/2017	0.044(J)	13.3	42	Non-Detect	6.12	2.2(J)	332	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-13	1/22/2018	n/a	n/a	n/a	0.06(J)	6.12	n/a	n/a	Non-Detect	0.0149	0.0688	Non-Detect	Non-Detect	0.00729(J)	Non-Detect	0.898(U)	0.06(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	5/2/2018	0.0393(J)	13.8	47	0.07(J)	6.13	4.1(J)	320	Non-Detect	0.0175	0.0806	Non-Detect	Non-Detect	0.00642(J)	Non-Detect	0.752	0.07(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	11/28/2018	Non-Detect	15.2	43	Non-Detect	6.04	Non-Detect	304	Non-Detect	0.0141	0.0697	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.523	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	5/29/2019	0.0528(J)	12.8	44	0.0679(J)	6.01	49.5	307	Non-Detect	0.0138	0.0704	Non-Detect	Non-Detect	0.00727(J)	Non-Detect	1.01	0.0679(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	10/1/2019	0.0604 J	13.4	39.6	0.0703 J	6.02	47.7	290	Non-Detect	0.0144	0.0696	Non-Detect	Non-Detect	0.00764 J	Non-Detect	1.07	0.0703 J	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	3/31/2020	0.0505(J)	13.2	44.9	0.0665(J)	5.98	23.2	290	Non-Detect	0.0154	0.0728	Non-Detect	Non-Detect	0.00955(J)	Non-Detect	0.725	0.0665(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13	9/1/2020	0.0642(J)	12.3	39.1	0.0757(J)	5.82	14.2	285	Non-Detect	0.0148	0.0722	Non-Detect	Non-Detect	0.00888(J)	Non-Detect	0.698	0.0757(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-14	3/2/2016	0.0395(J)	9.53	36.6	0.07(J)	6.08	Non-Detect	266	Non-Detect	0.0101	0.0491	Non-Detect	Non-Detect	0.00552(J)	Non-Detect	Non-Detect	0.07(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	4/20/2016	0.0549(J)	9.55	35.5	0.076(J)	6.04	Non-Detect	311	Non-Detect	0.0119	0.049	Non-Detect	Non-Detect	0.00572(J)	Non-Detect	Non-Detect	0.076(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	6/8/2016	0.0593(J)	13.1	43.8	0.105(J)	6.13	0.514(J)	353	Non-Detect	0.0119	0.0627	Non-Detect	Non-Detect	0.00492(J)	Non-Detect	0.631	0.105(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	8/30/2016	0.0534(J)	12.1	41.6	0.083(J)	6.08	Non-Detect	328	Non-Detect	0.0127	0.0635	Non-Detect	Non-Detect	0.00534(J)	Non-Detect	0.693	0.083(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	10/18/2016	0.0597(J)	11.4	39.5	0.067(J)	6.13	Non-Detect	310	Non-Detect	0.0136	0.0603	Non-Detect	Non-Detect	0.00556(J)	Non-Detect	0.626	0.067(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	1/31/2017	0.0479(J)	10.8	n/a	n/a	6.06	n/a	312	0.00086(J)	0.0124	0.0533	Non-Detect	Non-Detect	0.00514(J)	Non-Detect	0.0723(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	3/22/2017	n/a	n/a	46	0.06(J)	6.09	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.06(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-14	5/2/2017	0.0587(J)	11.9	42	0.08(J)	5.94	1.8(J)	300	Non-Detect	0.0131	0.0616	Non-Detect	Non-Detect	0.00524(J)	Non-Detect	0.363(U)	0.08(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	6/6/2017	0.0428(J)	12.2	44	0.077(J)	6.1	Non-Detect	335	Non-Detect	0.0129	0.0585	Non-Detect	Non-Detect	0.00541(J)	Non-Detect	0.198(U)	0.077(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	9/13/2017	0.0647(J)	13.9	43	Non-Detect	6.11	Non-Detect	339	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-14	1/23/2018	n/a	n/a	n/a	0.08(J)	6.12	n/a	n/a	Non-Detect	0.0148	0.0608	Non-Detect	Non-Detect	0.00573(J)	Non-Detect	0.294(U)	0.08(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	5/2/2018	0.0484(J)	10.6	39	0.08(J)	6.13	1.6(J)	301	Non-Detect	0.0156	0.0614	Non-Detect	Non-Detect	0.00534(J)	Non-Detect	0.522	0.08(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	11/27/2018	Non-Detect	10.8	43	Non-Detect	6.07	Non-Detect	295	Non-Detect	0.0145	0.0589	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.576	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	5/29/2019	0.0682(J)	11.2	50.1	0.0781(J)	6.07	67.6	318	Non-Detect	0.014	0.0617	Non-Detect	Non-Detect	0.00455(J)	Non-Detect	0.437(U)	0.0781(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	10/1/2019	0.0701(J)	11.4	44.8	0.0885(J)	6.01	61.6	317	Non-Detect	0.0152	0.0605	Non-Detect	Non-Detect	0.00508(J)	Non-Detect	1.11	0.0885(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	3/31/2020	0.0655(J)	9.04	44.7	0.0867(J)	5.76	34.7	317	Non-Detect	0.0177	0.0619	Non-Detect	Non-Detect	0.00463(J)	Non-Detect	0.941	0.0867(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14	9/2/2020	0.0789(J)	10.8	47.2	0.0957(J)	5.8	18.5	327	Non-Detect	0.0174	0.0687	Non-Detect	Non-Detect	0.00482(J)	Non-Detect	2.12	0.0957(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-15	3/2/2016	0.0447(J)	6.61	20.9	0.18(J)	6.61	Non-Detect	182	Non-Detect	0.0128	0.0468	Non-Detect	Non-Detect	Non-Detect	0.0279	Non-Detect	0.18(J)	Non-Detect	Non-Detect	Non-Detect	0.00238(J)	Non-Detect	Non-Detect
BY-AP-MW-15	4/19/2016	0.0645(J)	5.97	19.8	0.21(J)	6.75	Non-Detect	151	Non-Detect	0.0157	0.043	Non-Detect	Non-Detect	Non-Detect	0.0269	Non-Detect	0.21(J)	Non-Detect	Non-Detect	Non-Detect	0.00203(J)	Non-Detect	Non-Detect
BY-AP-MW-15	6/8/2016	0.0592(J)	6.36	24	0.223(J)	6.63	0.489(J)	168	Non-Detect	0.0168	0.0465	Non-Detect	Non-Detect	Non-Detect	0.0293	0.557	0.223(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	8/31/2016	0.0632(J)	6.28	28	0.196(J)	6.71	Non-Detect	188	Non-Detect	0.0168	0.0464	Non-Detect	Non-Detect	Non-Detect	0.0272	0.765	0.196(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	10/19/2016	0.0637(J)	6.57	21.3	0.166(J)	6.66	Non-Detect	180	Non-Detect	0.0178	0.0481	Non-Detect	Non-Detect	Non-Detect	0.0285	0.654	0.166(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	1/31/2017	0.0536(J)	6.77	n/a	n/a	6.73	n/a	166	0.000746(J)	0.0164	0.0427	Non-Detect	Non-Detect	Non-Detect	0.025	0.402(U)	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	3/21/2017	n/a	n/a	34	0.18	6.62	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.18	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-15	5/2/2017	0.0775(J)	6.94	33	0.18	6.49	Non-Detect	183	Non-Detect	0.0172	0.0473	Non-Detect	Non-Detect	Non-Detect	0.0274	0.578	0.18	Non-Detect	Non-Detect	Non-Detect	0.00201(J)	Non-Detect	Non-Detect
BY-AP-MW-15	6/6/2017	0.0535(J)	6.88	35	0.18	6.7	Non-Detect	187	Non-Detect	0.0158	0.0437	Non-Detect	Non-Detect	Non-Detect	0.0285	0.128(U)	0.18	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	9/13/2017	0.0937(J)	7.43	36	Non-Detect	6.66	Non-Detect	202	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-15	1/22/2018	n/a	n/a	n/a	0.19	6.73	n/a	n/a	Non-Detect	0.0173	0.0501	Non-Detect	Non-Detect	Non-Detect	0.0273	0.768(U)	0.19	Non-Detect	Non-Detect	Non-Detect	0.00211(J)	Non-Detect	Non-Detect
BY-AP-MW-15	5/1/2018	0.0683(J)	7.42	42	0.19	6.62	Non-Detect	197	Non-Detect	0.0181	0.0575	Non-Detect	Non-Detect	Non-Detect	0.0298	0.651	0.19	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	11/27/2018	Non-Detect	7.58	43	0.18	6.58	Non-Detect	190	Non-Detect	0.0158	0.0557	Non-Detect	Non-Detect	Non-Detect	0.0311	0.764	0.18	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	5/29/2019	0.116	7.22	47.2	0.168	6.63	3.27	198	Non-Detect	0.0148	0.0562	Non-Detect	Non-Detect	Non-Detect	0.0343	0.433	0.168	Non-Detect	0.0254	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	10/1/2019	0.116	6.9	56.3	0.185	6.2	1.72	236	Non-Detect	0.017	0.0628	Non-Detect	Non-Detect	Non-Detect	0.0336	0.988	0.185	Non-Detect	0.0248	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	4/1/2020	0.1	7.32	54.7	0.187	6.72	7.5	231	Non-Detect	0.0183	0.0697	Non-Detect	Non-Detect	Non-Detect	0.0344	0.527	0.187	Non-Detect	0.0174(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15	9/2/2020	0.148	7.04	47	0.18	6.57	7.61	208	Non-Detect	0.0206	0.0736	Non-Detect	Non-Detect	Non-Detect	0.0385	1.87	0.18	Non-Detect	Non-Detect	Non-Detect	0.00209(J)	Non-Detect	Non-Detect

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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-16	3/2/2016	1.47	14.6	16.6	0.04(J)	5.79	Non-Detect	263	Non-Detect	0.0102	0.0921	Non-Detect	Non-Detect	Non-Detect	0.0212	Non-Detect	0.04(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	4/19/2016	1.53	13.3	15.7	0.05(J)	5.78	Non-Detect	259	Non-Detect	0.0103	0.0775	Non-Detect	Non-Detect	Non-Detect	0.018	Non-Detect	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	6/8/2016	1.7	13.2	15.1	0.073(J)	5.8	0.514(J)	285	Non-Detect	0.0105	0.0798	Non-Detect	Non-Detect	Non-Detect	0.0176	0.344(U)	0.073(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	8/31/2016	1.68	11.8	15.9	0.051(J)	5.83	Non-Detect	279	Non-Detect	0.0117	0.0801	Non-Detect	Non-Detect	0.00215(J)	0.0134	0.582	0.051(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	10/19/2016	1.53	12.9	15.3	Non-Detect	5.81	Non-Detect	264	Non-Detect	0.0108	0.0766	Non-Detect	Non-Detect	Non-Detect	0.0193	0.448	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	1/31/2017	1.51	13.5	n/a	n/a	5.84	n/a	270	0.000769(J)	0.0102	0.075	Non-Detect	Non-Detect	Non-Detect	0.017	0.653	n/a	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	3/21/2017	n/a	n/a	19	0.04(J)	5.79	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.04(J)	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-16	5/2/2017	1.64	13.5	19	0.05(J)	5.68	Non-Detect	259	Non-Detect	0.0102	0.0761	Non-Detect	Non-Detect	Non-Detect	0.0166	0.698	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	6/6/2017	1.57	13.6	19	0.053(J)	5.8	Non-Detect	278	Non-Detect	0.00982	0.07	Non-Detect	Non-Detect	Non-Detect	0.0172	0.548	0.053(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	9/13/2017	2.18	11.8	21	Non-Detect	5.86	2.6(J)	333	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a	n/a	n/a
BY-AP-MW-16	1/23/2018	n/a	n/a	n/a	0.05(J)	5.86	n/a	n/a	Non-Detect	0.0151	0.0779	Non-Detect	Non-Detect	0.00253(J)	0.00621(J)	0.98(U)	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	5/1/2018	1.57	14	18	0.05(J)	5.85	Non-Detect	274	Non-Detect	0.0114	0.0877	Non-Detect	Non-Detect	Non-Detect	0.0189	0.623	0.05(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	11/27/2018	1.58	13.3	20	Non-Detect	5.76	Non-Detect	250	Non-Detect	0.0108	0.0792	Non-Detect	Non-Detect	Non-Detect	0.0182	0.744	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	5/29/2019	1.7	13.4	20	0.0683(J)	5.76	6.72	264	Non-Detect	0.0106	0.081	Non-Detect	Non-Detect	Non-Detect	0.0206	2.51	0.0683(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	10/1/2019	2.05	11.7	20.3	0.0774(J)	5.23	3.4	295	Non-Detect	0.0138	0.0803	Non-Detect	Non-Detect	Non-Detect	0.0107	0.443(U)	0.0774(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	3/31/2020	1.74	14.2	20.8	0.0602(J)	5.75	17.5	276	Non-Detect	0.012	0.091	Non-Detect	Non-Detect	Non-Detect	0.0199	0.341(U)	0.0602(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16	9/2/2020	1.9	13.1	20.8	Non-Detect	5.47	13.3	279	Non-Detect	0.0137	0.0954	Non-Detect	Non-Detect	Non-Detect	0.0192	2.25	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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		APPENDIX III							APPENDIX IV														
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-1V	1/8/2019	0.0205(J)	15.7	42	0.0548(J)	6.38	20.9	192	0.00125(J)	0.00109(J)	0.0826	Non-Detect	Non-Detect	Non-Detect	0.00911	1.06	0.0548(J)	Non-Detect	0.0219	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1V	10/2/2019	Non-Detect	3.16	60.7	0.0595(J)	5.27	10.5	154	Non-Detect	0.00157(J)	0.0611	Non-Detect	Non-Detect	Non-Detect	0.00289(J)	1.03	0.0595(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1V	3/30/2020	0.0347(J)	3.23	69.1	Non-Detect	5.65	11.1	160	Non-Detect	0.00152(J)	0.062	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.579	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-1V	9/1/2020	0.0368(J)	3.43	69	Non-Detect	5.62	13	175	Non-Detect	0.00179(J)	0.0795	Non-Detect	Non-Detect	Non-Detect	0.00407(J)	0.948	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5V	1/8/2019	0.029(J)	3.7	20.9	Non-Detect	6.07	1.75	76.7	0.00207(J)	Non-Detect	0.0372	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.298(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5V	10/2/2019	0.0336(J)	2.43	25.8	0.0777(J)	5.9	5.8	98	Non-Detect	Non-Detect	0.0338	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.206(U)	0.0777(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5V	3/31/2020	0.0339(J)	1.88	25.8	Non-Detect	6.05	0.98(J)	81.3	Non-Detect	Non-Detect	0.0313	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.024(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-5V	9/1/2020	0.0414(J)	2.13	30.6	0.0807(J)	5.7	1.47	94	Non-Detect	Non-Detect	0.0399	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.741	0.0807(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7V	1/9/2019	0.0615(J)	37	16.9	0.139	7.12	3.69	240	0.000861(J)	Non-Detect	0.112	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.527	0.139	Non-Detect	0.0662	Non-Detect	0.00511(J)	Non-Detect	Non-Detect
BY-AP-MW-7V	10/1/2019	0.0546(J)	18.7	13.2	0.0871(J)	6.67	2	182	Non-Detect	0.00278(J)	0.0541	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.01	0.0871(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7V	12/2/2019	n/a	n/a	n/a	n/a	6.56	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Non-Detect	n/a	n/a	n/a	n/a
BY-AP-MW-7V	3/30/2020	0.0555(J)	20	15.5	0.127	6.69	9.65	204	Non-Detect	0.005	0.0519	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.604	0.127	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-7V	9/2/2020	0.0565(J)	13.9	14.2	0.126	6.49	6.7	168	Non-Detect	0.0024(J)	0.0648	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.12	0.126	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8V	1/9/2019	0.164	27.2	21.9	0.0831(J)	6.38	1.74	276	Non-Detect	0.00121(J)	0.337	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.69	0.0831(J)	Non-Detect	0.0217	Non-Detect	0.00243(J)	Non-Detect	Non-Detect
BY-AP-MW-8V	10/1/2019	0.241	24.2	22.6	0.0832(J)	6.16	7	324	Non-Detect	0.00243(J)	0.264	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.66	0.0832(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8V	3/30/2020	0.247	24.5	22.7	0.0935(J)	6.2	75.8	328	Non-Detect	0.00275(J)	0.264	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.787	0.0935(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-8V	9/2/2020	0.26	23.3	22.6	0.098(J)	5.79	24	318	Non-Detect	0.00346(J)	0.289	Non-Detect	Non-Detect	Non-Detect	Non-Detect	2.89	0.098(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-10V	1/8/2019	0.677	57.2	21.3	0.123	6.5	93.7	462	0.000965(J)	Non-Detect	0.149	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.35	0.123	Non-Detect	0.0313	Non-Detect	0.00335(J)	Non-Detect	Non-Detect
BY-AP-MW-10V	10/1/2019	1.02	61.2	20	0.0517 J	6.05	5.19	393	Non-Detect	Non-Detect	0.167	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.99	0.0517 J	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10V	3/31/2020	1.04	66.6	20.7	Non-Detect	6.38	20.3	413	Non-Detect	Non-Detect	0.184	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.957	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-10V	9/1/2020	1.06	57.3	22.9	0.0695(J)	6.34	30.1	403	Non-Detect	Non-Detect	0.203	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.625(U)	0.0695(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12V	1/8/2019	0.0939(J)	33.8	23.1	0.0729(J)	6.48	10.3	348	0.00117(J)	0.0112	0.144	Non-Detect	Non-Detect	0.0021(J)	Non-Detect	1.04	0.0729(J)	Non-Detect	0.0148(J)	Non-Detect	0.00303(J)	Non-Detect	Non-Detect
BY-AP-MW-12V	10/2/2019	0.134	22.2	28	0.12	5.9	7.18	321	Non-Detect	0.022	0.101	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.896	0.12	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12V	3/31/2020	0.101	21.3	25	0.0828(J)	6.33	61.1	328	Non-Detect	0.025	0.0939	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.923	0.0828(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-12V	9/1/2020	0.149	21	26.4	0.0947(J)	6.2	47.5	338	Non-Detect	0.0257	0.102	Non-Detect	Non-Detect	Non-Detect	Non-Detect	1.03	0.0947(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-13V	6/17/2020	0.0847(J)	20.2	77	0.103	6.25	101	449	Non-Detect	0.00321(J)	0.106	Non-Detect	Non-Detect	0.00537(J)	Non-Detect	1.22	0.103	Non-Detect	Non-Detect	Non-Detect	0.00237(J)	Non-Detect	Non-Detect
BY-AP-MW-13V	9/2/2020	0.112	12.3	51.7	0.0864(J)	6.23	30.6	361	Non-Detect	0.00708	0.109	Non-Detect	Non-Detect	0.00525(J)	Non-Detect	2.49	0.0864(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-14V	6/17/2020	0.426	5.32	240	0.343	7.27	28	546	Non-Detect	0.00208(J)	0.0809	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.726	0.343	Non-Detect	Non-Detect	Non-Detect	0.00451(J)	Non-Detect	Non-Detect
BY-AP-MW-14V	9/2/2020	0.407	4.7	178	0.359	7.02	63.6	498	Non-Detect	0.00433(J)	0.0766	Non-Detect	Non-Detect	Non-Detect	0.00444(J)	1.54	0.359	Non-Detect	Non-Detect	Non-Detect	0.00229(J)	Non-Detect	Non-Detect
BY-AP-MW-15V	7/31/2019	0.0439(J)	9.32	157	0.0515(J)	5.37	2.65	337	0.00094(J)	0.0174	0.144	Non-Detect	Non-Detect	Non-Detect	0.0632	1.09	0.0515(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15V	10/1/2019	0.0824(J)	8.41	195	0.0931(J)	5.68	0.854(J)	321	Non-Detect	0.0243	0.13	Non-Detect	Non-Detect	Non-Detect	0.0629	1.51	0.0931(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15V	5/12/2020	0.0559(J)	8.01	190	0.0946(J)	5.68	1.61	327	Non-Detect	0.0206	0.155	Non-Detect	Non-Detect	Non-Detect	0.0719	1.67	0.0946(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-15V	9/1/2020	0.0907(J)	6.9	170	0.0624(J)	5.91	2.21	318	Non-Detect	0.0401	0.134	Non-Detect	Non-Detect	Non-Detect	0.0665	1.28	0.0624(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16V	6/16/2020	Non-Detect	2.15	77.4	0.0744(J)	5.2	41.5	238	Non-Detect	0.00135(J)	0.0658	Non-Detect	Non-Detect	0.00222(J)	0.0144	0.642	0.0744(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-16V	9/2/2020	Non-Detect	2.02	75.6	Non-Detect	5.23	40	219	Non-Detect	0.0012(J)	0.0733	Non-Detect	Non-Detect	Non-Detect	0.0163	1.15	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-17H	7/31/2019	0.0782(J)	19.1	18	0.178	6.64	23	212	0.000878(J)	0.0221	0.138	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.621	0.178	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-17H	10/2/2019	0.129	13.2	17.7	0.254	6.58	10.6	203	Non-Detect	0.0251	0.117	Non-Detect	Non-Detect	Non-Detect	0.0033(J)	1.14	0.254	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-17H	4/1/2020	0.073(J)	27	17.2	0.151	6.52	19.4	243	Non-Detect	0.0208	0.194	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.797	0.151	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-17H	9/1/2020	0.146	10.8	18.2	0.196	6.56	7.61	236	Non-Detect	0.0371	0.114	Non-Detect	Non-Detect	Non-Detect	0.00258(J)	0.44(U)	0.196	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-17V	6/16/2020	0.176	65.3	734	0.0994(J)	6.43	57.4	1460	Non-Detect	0.0117	0.62	Non-Detect	Non-Detect	0.00475(J)	0.0858	2.17	0.0994(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-17V	9/1/2020	0.124	20.5	273	0.144	6.49	26.6	576	Non-Detect	0.00472(J)	0.277	Non-Detect	Non-Detect	Non-Detect	0.022	1.9	0.144	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-18H	3/20/2019	0.924	28.4	17.6	0.215	6.19	12.8	293	0.00117(J)	0.00831	0.152	Non-Detect	Non-Detect	0.00236(J)	Non-Detect	0.473	0.215	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-18H	10/1/2019	1.05	27.2	20.1	0.071(J)	6.26	8.49	283	Non-Detect	0.0137	0.126	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.6	0.071(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-18H	4/1/2020	0.435	23.1	12.2	0.0722(J)	6.48	24.2	210	Non-Detect	0.00937	0.109	Non-Detect	Non-Detect	Non-Detect	0.013	1.05	0.0722(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-18H	9/1/2020	0.855	25.6	19.8	0.0784(J)	6.15	30.6	281	Non-Detect	0.015	0.123	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.684	0.0784(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-19H	7/31/2019	0.835	31.4	16.4	0.153	6.21	11.4	318	0.00152(J)	0.00118(J)	0.14	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.272 U	0.153	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-19H	10/1/2019	0.931	31.1	16.8	0.0712(J)	6.33	5.9	316	Non-Detect	Non-Detect	0.113	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.817	0.0712(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-19H	5/12/2020	1.22	34.2	17.9	0.0732(J)	6.09	22.9	321	Non-Detect	Non-Detect	0.167	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.69	0.0732(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-19H	9/1/2020	0.895	31.6	17.6	0.0752(J)	6.31	16.9	294	Non-Detect	0.00101(J)	0.159	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.675	0.0752(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20H	7/31/2019	0.0707(J)	30.3	33.4	0.0934(J)	6.22	83.2	481	0.00113(J)	0.0112	0.0928	Non-Detect	Non-Detect	0.00209(J)	0.00433(J)	0.268(U)	0.0934(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20H	10/1/2019	0.101	29.4	44.7	0.0838(J)	6.24	28.9	470	Non-Detect	0.013	0.0913	Non-Detect	Non-Detect	0.0025(J)	0.00431(J)	1.22	0.0838(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20H	4/1/2020	0.046(J)	26	23.1	0.0793(J)	6.45	18.7	319	Non-Detect	0.00508	0.119	Non-Detect	Non-Detect	Non-Detect	0.00541	0.968	0.0793(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20H	9/1/2020	0.106	28.8	34.6	0.0954(J)	6.15	43.5	479	Non-Detect	0.0172	0.11	Non-Detect	Non-Detect	0.00283(J)	0.0046(J)	0.39(U)	0.0954(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20V	6/17/2020	0.118	17.9	29.2	0.155	6.26	10.1	301	Non-Detect	0.00584	0.152	Non-Detect	Non-Detect	Non-Detect	0.00593	0.767	0.155	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-20V	9/1/2020	0.134	14.7	27.1	0.106	6.03	38.3	308	Non-Detect	0.00845	0.115	Non-Detect	Non-Detect	Non-Detect	0.012	1.43	0.106	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

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WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
BY-AP-MW-22H	7/31/2019	0.0643(J)	15	60.3	0.257	6.54	171	345	0.00117(J)	0.0225	0.185	Non-Detect	Non-Detect	Non-Detect	0.00233(J)	0.448	0.257	Non-Detect	Non-Detect	Non-Detect	0.00426(J)	Non-Detect	Non-Detect
BY-AP-MW-22H	10/1/2019	0.105	15.5	70	0.268	6.6	17.2	346	Non-Detect	0.0225	0.213	Non-Detect	Non-Detect	Non-Detect	0.00268(J)	0.508	0.268	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-22H	5/12/2020	0.0807(J)	15	58.3	0.323	6.55	59.5	337	Non-Detect	0.0199	0.222	Non-Detect	Non-Detect	Non-Detect	0.00281(J)	0.61	0.323	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-22H	9/1/2020	0.115	14.8	59.9	0.301	6.48	93.2	362	Non-Detect	0.0217	0.234	Non-Detect	Non-Detect	Non-Detect	0.00294(J)	0.419(U)	0.301	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-23H	7/31/2019	0.0531(J)	25.8	8.03	0.0766(J)	6.08	18.4	241	0.000964(J)	0.0132	0.162	Non-Detect	Non-Detect	Non-Detect	0.0031(J)	0.331(U)	0.0766(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-23H	10/1/2019	0.0856(J)	27.2	6.7	0.0804(J)	6.03	4.89	261	Non-Detect	0.013	0.175	Non-Detect	Non-Detect	Non-Detect	0.00201(J)	1.05	0.0804(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-23H	4/1/2020	Non-Detect	15.8	4.46	0.0607(J)	6.44	18.1	105	Non-Detect	0.00689	0.0629	Non-Detect	Non-Detect	Non-Detect	0.0206	0.618	0.0607(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-23H	9/1/2020	0.0943(J)	35.8	6.96	0.0919(J)	6.14	24.5	271	Non-Detect	0.0226	0.182	Non-Detect	Non-Detect	Non-Detect	0.0273	0.224(U)	0.0919(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-23V	6/16/2020	0.325	1.25	120	0.393	8.08	28.6	479	Non-Detect	0.00193(J)	0.02	Non-Detect	Non-Detect	0.0221	0.00302(J)	0.752(U)	0.393	0.00222(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-23V	9/1/2020	0.307	1.27	117	0.401	7.98	9.25	391	Non-Detect	Non-Detect	0.00933(J)	Non-Detect	Non-Detect	0.00284(J)	Non-Detect	0.323(U)	0.401	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-24H	1/8/2019	0.213	38	44.6	0.147	6.51	31.2	504	0.00116(J)	0.0306	0.294	Non-Detect	Non-Detect	Non-Detect	0.00243(J)	1.49	0.147	Non-Detect	0.0183(J)	Non-Detect	0.00399(J)	Non-Detect	Non-Detect
BY-AP-MW-24H	10/2/2019	0.344	18.4	53	0.183	6.21	92.3	430	Non-Detect	0.0673	0.229	Non-Detect	Non-Detect	Non-Detect	0.00513	1.24	0.183	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-24H	3/31/2020	0.325	18.1	47.5	0.148	6.23	84.5	418	Non-Detect	0.0729	0.243	Non-Detect	Non-Detect	Non-Detect	0.00528	0.577	0.148	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-24H	9/2/2020	0.382	17.6	43.7	0.158	6.01	59.7	471	Non-Detect	0.0783	0.26	Non-Detect	Non-Detect	Non-Detect	0.0061	1.5(U)	0.158	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-25H	6/17/2020	Non-Detect	0.793	4.81	Non-Detect	5.27	6.1	44	Non-Detect	Non-Detect	0.0189	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.554	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-25H	9/2/2020	Non-Detect	0.875	4.62	Non-Detect	5.39	4.39	36	Non-Detect	Non-Detect	0.0204	Non-Detect	Non-Detect	Non-Detect	0.00246(J)	0.0187(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-25VM	6/17/2020	Non-Detect	0.842	4.04	Non-Detect	5.27	2.39	37.3	Non-Detect	Non-Detect	0.0132	Non-Detect	Non-Detect	Non-Detect	0.0026(J)	0.479	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
BY-AP-MW-25VM	9/2/2020	Non-Detect	0.547	3.85	Non-Detect	5.32	2.26	34	Non-Detect	Non-Detect	0.0111	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.596	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Appendix D

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

Field Case Narrative

Plant Barry Gypsum Pond

2020 Compliance Event 1

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

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

Field quality control procedures were performed as follows:

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

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

Analytical Report

Alabama Power

Sample Group : WMWBARG_1270

Project/Site : Barry Gypsum
Bucks, AL 36512

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

Attention : Dustin Brooks & Greg Dyer

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

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

Alabama Power

April 22, 2020

Dear Dustin Brooks,

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

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

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

Sincerely,

Quality Control: Laura Midkiff

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

Supervision: T. Durant Maske

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

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

Case Narrative

Alabama Power

Metals ICP

Barry Gypsum

WMWBARG_1270

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

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

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

General Quality Control Procedures:

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

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

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

Metals ICPMS

Barry Gypsum

WMWBARG_1270

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

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

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

General Quality Control Procedures:

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

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

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

Mercury

Barry Gypsum

WMWBARG_1270

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

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

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

General Quality Control Procedures:

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

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

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

TDS

Barry Gypsum

WMWBARG_1270

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

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

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

General Quality Control Procedures:

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

Case Narrative

Anions

Barry Gypsum

WMWBARG_1270

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

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

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

General Quality Control Procedures:

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

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

Matrix Specific Quality Control Procedures:

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

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

7. All samples were analyzed without dilution.

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-7

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

Laboratory ID Number: BA06216

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-7

Laboratory ID Number: BA06216

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

Comments:

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

Batch QC Summary

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

Description: Barry Gypsum - MW-7

Laboratory ID Number: BA06216

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-7 DUP

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

Laboratory ID Number: BA06217

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-7 DUP

Laboratory ID Number: BA06217

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

Comments:

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

Batch QC Summary

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

Description: Barry Gypsum - MW-7 DUP

Laboratory ID Number: BA06217

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 3/30/20 15:42
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06218

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-6

Laboratory ID Number: BA06218

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

Comments:

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

Batch QC Summary

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

Description: Barry Gypsum - MW-6

Laboratory ID Number: BA06218

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 3/30/20 16:32
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06219

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-5

Laboratory ID Number: BA06219

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

Comments:

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

Batch QC Summary

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

Description: Barry Gypsum - MW-5

Laboratory ID Number: BA06219

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum Field Blank

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

Laboratory ID Number: BA06220

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum Field Blank

Laboratory ID Number: BA06220

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

Comments:

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

Batch QC Summary

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

Description: Barry Gypsum Field Blank

Laboratory ID Number: BA06220

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 3/30/20 17:13
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06221

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-8

Laboratory ID Number: BA06221

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

Comments:

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

Batch QC Summary

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

Description: Barry Gypsum - MW-8

Laboratory ID Number: BA06221

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 3/31/20 08:45
Customer ID:
Submittal Date: 4/1/20 14:45

Laboratory ID Number: BA06222

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-9

Laboratory ID Number: BA06222

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

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

Description: Barry Gypsum - MW-9

Laboratory ID Number: BA06222

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum Field Blank

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

Laboratory ID Number: BA06223

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum Field Blank

Laboratory ID Number: BA06223

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

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

Description: Barry Gypsum Field Blank

Laboratory ID Number: BA06223

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-10

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

Laboratory ID Number: BA06224

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-10

Laboratory ID Number: BA06224

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

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

Description: Barry Gypsum - MW-10

Laboratory ID Number: BA06224

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-10 DUP

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

Laboratory ID Number: BA06225

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-10 DUP

Laboratory ID Number: BA06225

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

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

Description: Barry Gypsum - MW-10 DUP

Laboratory ID Number: BA06225

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-11

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

Laboratory ID Number: BA06226

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-11

Laboratory ID Number: BA06226

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

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

Description: Barry Gypsum - MW-11

Laboratory ID Number: BA06226

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-4

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

Laboratory ID Number: BA06227

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-4

Laboratory ID Number: BA06227

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

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

Description: Barry Gypsum - MW-4

Laboratory ID Number: BA06227

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-3

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

Laboratory ID Number: BA06228

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-3

Laboratory ID Number: BA06228

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

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

Description: Barry Gypsum - MW-3

Laboratory ID Number: BA06228

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-2

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

Laboratory ID Number: BA06229

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-2

Laboratory ID Number: BA06229

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

Comments:

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

Batch QC Summary

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

Description: Barry Gypsum - MW-2

Laboratory ID Number: BA06229

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-1

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

Laboratory ID Number: BA06230

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum - MW-1

Laboratory ID Number: BA06230

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

Comments:

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

Batch QC Summary

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

Description: Barry Gypsum - MW-1

Laboratory ID Number: BA06230

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

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum Equipment Blank

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

Laboratory ID Number: BA06231

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

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

Comments:

Reported: 4/22/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: BA06231

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

Comments:

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

Batch QC Summary

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

Description: Barry Gypsum Equipment Blank

Laboratory ID Number: BA06231

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

Comments:

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

Definitions

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

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

Chain of Custody Groundwater

APC General Testing Laboratory

☑ Field Complete ☐ Outside Lab

☑ Lab Complete

Lab ETA 04/01/2020 12:30

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

Bottles

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

Comments

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

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

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

All metals and radiological bottles have pH < 2 ☑

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

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA 04/01/2020 12:30

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

Bottles

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

Comments: Matrix Spike Duplicate collected @ MW-6

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

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

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

All metals and radiological bottles have pH < 2 ✔

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

Bottles/Pre-Preserved Bottles are provided by the GTL

eurofins | Environment Testing America

ANALYTICAL REPORT

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

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

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

Attn: Laura Midkiff

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

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

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

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

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Job ID: 400-186364-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-186364-1

RAD

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

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

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

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

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

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

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

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

Job ID: 400-186364-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

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

Method Summary

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

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

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

Protocol References:

None = None

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

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

Laboratory References:

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

Sample Summary

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06232 MW-7

Lab Sample ID: 400-186364-1

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06233 MW-7 DUP

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

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06234 MW-6

Lab Sample ID: 400-186364-3

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06235 MW-5

Lab Sample ID: 400-186364-4

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06236 FB-1

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

Lab Sample ID: 400-186364-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06237 MW-8

Lab Sample ID: 400-186364-6

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06238 MW-9

Lab Sample ID: 400-186364-7

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

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06239 FB-2

Lab Sample ID: 400-186364-8

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06240 MW-10

Lab Sample ID: 400-186364-9

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06241 MW-10 DUP

Lab Sample ID: 400-186364-10

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06242 MW-11

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

Lab Sample ID: 400-186364-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06243 MW-4

Lab Sample ID: 400-186364-12

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06244 MW-3

Lab Sample ID: 400-186364-13

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06245 MW-2

Lab Sample ID: 400-186364-14

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06246 MW-1

Lab Sample ID: 400-186364-15

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Client Sample Results

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

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

Client Sample ID: BA06247 EB-1

Lab Sample ID: 400-186364-16

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

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

Definitions/Glossary

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

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

Qualifiers

Rad

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

Glossary

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

Lab Chronicle

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

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

Client Sample ID: BA06232 MW-7

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

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

Client Sample ID: BA06233 MW-7 DUP

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

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

Client Sample ID: BA06234 MW-6

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

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

Client Sample ID: BA06235 MW-5

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

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

Lab Chronicle

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Lab Chronicle

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

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

Client Sample ID: BA06240 MW-10

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

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

Client Sample ID: BA06241 MW-10 DUP

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

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

Client Sample ID: BA06242 MW-11

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

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

Client Sample ID: BA06243 MW-4

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

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

Lab Chronicle

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

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

Client Sample ID: BA06244 MW-3

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

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

Client Sample ID: BA06245 MW-2

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

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

Client Sample ID: BA06246 MW-1

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

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

Client Sample ID: BA06247 EB-1

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

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

Laboratory References:

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

QC Association Summary

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

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

Rad

Prep Batch: 467278

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

Prep Batch: 467279

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

Prep Batch: 467280

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

QC Association Summary

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

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

Rad

Prep Batch: 467282

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

QC Sample Results

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

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

Method: 9315 - Radium-226 (GFPC)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Method: 9320 - Radium-228 (GFPC)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

400-186364 COC

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

Analysis Requested

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

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

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

Possible Hazard Identification
Unconfirmed

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

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

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

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

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

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

List Source: Eurofins TestAmerica, Pensacola

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

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

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

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

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

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

Accreditation/Certification Summary

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

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

Laboratory: Eurofins TestAmerica, Pensacola

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

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

Accreditation/Certification Summary

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

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

Laboratory: Eurofins TestAmerica, St. Louis

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

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

Alabama Power Company
Plant Barry Gypsum Pond

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

Alabama Power Company
Plant Barry Gypsum Pond

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

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Plant Barry Gypsum Pond

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

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

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

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

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

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

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

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

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

Alabama Power Company
Plant Barry Gypsum Pond

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

Alabama Power Company
Plant Barry Gypsum Pond

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

Alabama Power Company
Plant Barry Gypsum Pond

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

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

Field Case Narrative

Plant Barry Ash Pond

2020 Compliance Event 1

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

Rain showers were present when pumping and sampling wells MW-2, MW-4 and MW-5.

MW-19H, MW-22H and MW-15V were not able to be sampled due to high river elevations. These wells will be collected on a separate event when river elevations recede.

Field quality control procedures were performed as follows:

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

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

Analytical Report

Alabama Power

Sample Group : WMWBARAP_1269

Project/Site : Barry Ash Pond
Bucks, AL 36512

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

Attention : Dustin Brooks & Greg Dyer

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

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

Alabama Power

April 29, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between April 01, 2020 and April 02, 2020. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

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

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

Sincerely,

Quality Control: Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.04.29 14:54:12 -05'00'

Supervision: T. Durant Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.04.30 14:28:12 -05'00'

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

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

Alabama Power Lab & Field SERVICES

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

Case Narrative

Alabama Power

Metals ICP

Barry Ash Pond

WMWBARAP_1269

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

Sample ID	Batch ID	Project ID
BA06255	669872	WMWBARAP_1269
BA06256	669872	WMWBARAP_1269
BA06257	669872	WMWBARAP_1269
BA06258	669872	WMWBARAP_1269
BA06259	669872	WMWBARAP_1269
BA06260	669872	WMWBARAP_1269
BA06261	669872	WMWBARAP_1269
BA06262	669872	WMWBARAP_1269
BA06263	669872	WMWBARAP_1269
BA06264	669872	WMWBARAP_1269
BA06265	669873	WMWBARAP_1269
BA06266	669873	WMWBARAP_1269
BA06267	669873	WMWBARAP_1269
BA06268	669873	WMWBARAP_1269
BA06269	669873	WMWBARAP_1269
BA06270	669873	WMWBARAP_1269
BA06271	669873	WMWBARAP_1269
BA06272	669873	WMWBARAP_1269
BA06273	669873	WMWBARAP_1269
BA06274	669873	WMWBARAP_1269
BA06275	669874	WMWBARAP_1269
BA06276	669874	WMWBARAP_1269
BA06277	669874	WMWBARAP_1269
BA06278	669874	WMWBARAP_1269
BA06279	669874	WMWBARAP_1269
BA06404	669874	WMWBARAP_1269
BA06405	669874	WMWBARAP_1269
BA06406	669874	WMWBARAP_1269
BA06407	669874	WMWBARAP_1269
BA06408	669874	WMWBARAP_1269
BA06409	669875	WMWBARAP_1269

BA06410	669875	WMWBARAP_1269
BA06411	669875	WMWBARAP_1269
BA06412	669875	WMWBARAP_1269

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

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

Sample ID	Analyte	Dilution Factor
BA06261	Calcium	10.15
BA06262	Calcium	10.15

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

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

Case Narrative

Alabama Power

Metals ICPMS

Barry Ash Pond

WMWBARAP_1269

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

Sample ID	Batch ID	Project ID
BA06255	670228	WMWBARAP_1269
BA06256	670228	WMWBARAP_1269
BA06257	670228	WMWBARAP_1269
BA06258	670228	WMWBARAP_1269
BA06259	670228	WMWBARAP_1269
BA06260	670228	WMWBARAP_1269
BA06261	670228	WMWBARAP_1269
BA06262	670228	WMWBARAP_1269
BA06263	670228	WMWBARAP_1269
BA06264	670228	WMWBARAP_1269
BA06265	670229	WMWBARAP_1269
BA06266	670229	WMWBARAP_1269
BA06267	670229	WMWBARAP_1269
BA06268	670229	WMWBARAP_1269
BA06269	670229	WMWBARAP_1269
BA06270	670229	WMWBARAP_1269
BA06271	670229	WMWBARAP_1269
BA06272	670229	WMWBARAP_1269
BA06273	670229	WMWBARAP_1269
BA06274	670229	WMWBARAP_1269
BA06275	670230	WMWBARAP_1269
BA06276	670230	WMWBARAP_1269
BA06277	670230	WMWBARAP_1269
BA06278	670230	WMWBARAP_1269
BA06279	670230	WMWBARAP_1269
BA06404	670230	WMWBARAP_1269
BA06405	670230	WMWBARAP_1269
BA06406	670230	WMWBARAP_1269
BA06407	670230	WMWBARAP_1269
BA06408	670230	WMWBARAP_1269
BA06409	670231	WMWBARAP_1269

BA06410	670231	WMWBARAP_1269
BA06411	670231	WMWBARAP_1269
BA06412	670231	WMWBARAP_1269

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

Mercury

Barry Ash Pond

WMWBARAP_1269

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

Sample ID	Batch ID	Project ID
BA06255	669960	WMWBARAP_1269
BA06256	669960	WMWBARAP_1269
BA06257	669960	WMWBARAP_1269
BA06258	669960	WMWBARAP_1269
BA06259	669960	WMWBARAP_1269
BA06260	669960	WMWBARAP_1269
BA06261	669960	WMWBARAP_1269
BA06262	669960	WMWBARAP_1269
BA06263	669960	WMWBARAP_1269
BA06264	669960	WMWBARAP_1269
BA06265	669961	WMWBARAP_1269
BA06266	669961	WMWBARAP_1269
BA06267	669961	WMWBARAP_1269
BA06268	669961	WMWBARAP_1269
BA06269	669961	WMWBARAP_1269
BA06270	669961	WMWBARAP_1269
BA06271	669961	WMWBARAP_1269
BA06272	669961	WMWBARAP_1269
BA06273	669961	WMWBARAP_1269
BA06274	669961	WMWBARAP_1269
BA06275	669962	WMWBARAP_1269
BA06276	669962	WMWBARAP_1269
BA06277	669962	WMWBARAP_1269
BA06278	669962	WMWBARAP_1269
BA06279	669962	WMWBARAP_1269
BA06404	669962	WMWBARAP_1269
BA06405	669962	WMWBARAP_1269
BA06406	669962	WMWBARAP_1269
BA06407	669962	WMWBARAP_1269
BA06408	669962	WMWBARAP_1269
BA06409	669963	WMWBARAP_1269

BA06410	669963	WMWBARAP_1269
BA06411	669963	WMWBARAP_1269
BA06412	669963	WMWBARAP_1269

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

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

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

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

Case Narrative

Alabama Power

TDS

Barry Ash Pond

WMWBARAP_1269

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

Sample ID	Batch ID	Project ID
BA06255	669825	WMWBARAP_1269
BA06256	669825	WMWBARAP_1269
BA06257	669825	WMWBARAP_1269
BA06258	669825	WMWBARAP_1269
BA06259	669825	WMWBARAP_1269
BA06260	669826	WMWBARAP_1269
BA06261	669826	WMWBARAP_1269
BA06262	669826	WMWBARAP_1269
BA06263	669826	WMWBARAP_1269
BA06264	670043	WMWBARAP_1269
BA06265	670043	WMWBARAP_1269
BA06266	670043	WMWBARAP_1269
BA06267	670043	WMWBARAP_1269
BA06268	670043	WMWBARAP_1269
BA06269	669826	WMWBARAP_1269
BA06270	669826	WMWBARAP_1269
BA06271	669826	WMWBARAP_1269
BA06272	669826	WMWBARAP_1269
BA06273	669826	WMWBARAP_1269
BA06274	669826	WMWBARAP_1269
BA06275	670043	WMWBARAP_1269
BA06276	670043	WMWBARAP_1269
BA06277	670043	WMWBARAP_1269
BA06278	670043	WMWBARAP_1269
BA06279	670043	WMWBARAP_1269
BA06404	670044	WMWBARAP_1269
BA06405	670044	WMWBARAP_1269
BA06406	670044	WMWBARAP_1269
BA06407	670044	WMWBARAP_1269
BA06408	670044	WMWBARAP_1269
BA06409	670044	WMWBARAP_1269

BA06410	670044	WMWBARAP_1269
BA06411	670044	WMWBARAP_1269
BA06412	670044	WMWBARAP_1269

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

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
    - BA06268
    - BA06407
    - BA06409
    - BA06412

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

Case Narrative

Alabama Power

Anions

Barry Ash Pond

WMWBARAP_1269

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

Sample ID	Batch ID	Project ID
BA06255	670142, 670146, & 670150	WMWBARAP_1269
BA06256	670142, 670146, & 670150	WMWBARAP_1269
BA06257	670142, 670146, & 670150	WMWBARAP_1269
BA06258	670142, 670146, & 670150	WMWBARAP_1269
BA06259	670142, 670146, & 670150	WMWBARAP_1269
BA06260	670142, 670146, & 670150	WMWBARAP_1269
BA06261	670142, 670146, & 670150	WMWBARAP_1269
BA06262	670142, 670146, & 670150	WMWBARAP_1269
BA06263	670142, 670146, & 670150	WMWBARAP_1269
BA06264	670142, 670146, & 670150	WMWBARAP_1269
BA06265	670143, 670147, & 670151	WMWBARAP_1269
BA06266	670143, 670147, & 670151	WMWBARAP_1269
BA06267	670143, 670147, & 670151	WMWBARAP_1269
BA06268	670143, 670147, & 670151	WMWBARAP_1269
BA06269	670143, 670147, & 670151	WMWBARAP_1269
BA06270	670143, 670147, & 670151	WMWBARAP_1269
BA06271	670143, 670147, & 670151	WMWBARAP_1269
BA06272	670143, 670147, & 670151	WMWBARAP_1269
BA06273	670143, 670147, & 670151	WMWBARAP_1269
BA06274	670143, 670147, & 670151	WMWBARAP_1269
BA06275	670144, 670148, & 670152	WMWBARAP_1269
BA06276	670144, 670148, & 670152	WMWBARAP_1269
BA06277	670144, 670148, & 670152	WMWBARAP_1269
BA06278	670144, 670148, & 670152	WMWBARAP_1269
BA06279	670144, 670148, & 670152	WMWBARAP_1269
BA06404	670144, 670148, & 670152	WMWBARAP_1269
BA06405	670144, 670148, & 670152	WMWBARAP_1269
BA06406	670144, 670148, & 670152	WMWBARAP_1269
BA06407	670144, 670148, & 670152	WMWBARAP_1269
BA06408	670144, 670148, & 670152	WMWBARAP_1269
BA06409	670145, 670149, & 670153	WMWBARAP_1269

BA06410	670145, 670149, & 670153	WMWBARAP_1269
BA06411	670145, 670149, & 670153	WMWBARAP_1269
BA06412	670145, 670149, & 670153	WMWBARAP_1269

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

General Quality Control Procedures:

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

Matrix Specific Quality Control Procedures:

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

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met, except for the following:
    - BA06264 MS recovery for Chloride was outside of acceptance criteria.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met, except for the following:
    - BA06408 precision was outside of acceptance criteria for Fluoride. However, both the sample and duplicate were less than the reporting limit.

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

Sample ID	Analyte	Dilution Factor
BA06257	Chloride	2
BA06258	Chloride	2
BA06259	Chloride & Sulfate	2 & 3
BA06260	Chloride & Sulfate	2 & 2
BA06261	Chloride	2
BA06262	Chloride	2
BA06263	Chloride & Sulfate	2 & 2
BA06264	Chloride & Sulfate	4 & 4
BA06265	Chloride	2
BA06266	Chloride	5
BA06267	Chloride	5
BA06269	Chloride	2
BA06270	Chloride	5
BA06275	Chloride	2
BA06276	Chloride	2
BA06278	Chloride & Sulfate	4 & 3
BA06279	Chloride	2
BA06404	Chloride	5
BA06405	Chloride	5
BA06411	Chloride	2

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

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP
Collected: 3/30/20 13:05
Customer ID:
Submittal Date: 4/1/20 14:55

Laboratory ID Number: BA06255

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:00		1.015	0.0555	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 12:00		1.015	20.0	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:00		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 13:53		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 13:53		1.015	0.00500	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 13:53		1.015	0.0519	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 13:53		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 13:53		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 13:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 13:53		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 13:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 13:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 13:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 13:53		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	204	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:10	4/6/20 12:10		1	15.5	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:18	4/3/20 13:18		1	0.127	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:05	4/3/20 10:05		1	9.65	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/30/20 13:02	3/30/20 13:02			376.17	uS/cm			FA
pH	3/30/20 13:02	3/30/20 13:02			6.69	SU			FA
Temperature	3/30/20 13:02	3/30/20 13:02			21.84	C			FA
Turbidity	3/30/20 13:02	3/30/20 13:02			1.45	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/30/20 13:05
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: BA06255

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Calcium, Total	mg/L	-0.0165	0.1518	5.00	26.3	26.8	5.23	4.25 to 5.75	100	70 to 130	1.88	20
BA06264	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0955	0.0950	0.102	0.085 to 0.115	95.5	70 to 130	0.525	20
BA06264	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.104	0.103	0.103	0.085 to 0.115	104	70 to 130	0.966	20
BA06264	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0983	0.0984	0.0953	0.085 to 0.115	98.3	70 to 130	0.102	20
BA06264	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.196	0.192	0.101	0.085 to 0.115	102	70 to 130	2.06	20
BA06264	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06264	Mercury, Total by CVAA	mg/L	0.0000250	0.0005	0.004	0.00343	0.00365	0.00375	0.0034 to 0.0046	85.8	70 to 130	6.21	20
BA06264	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.101	0.101	0.107	0.085 to 0.115	101	70 to 130	0.00	20
BA06264	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.10	1.13	1.03	0.85 to 1.15	99.9	70 to 130	2.69	20
BA06264	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.108	0.104	0.104	0.085 to 0.115	108	70 to 130	3.77	20
BA06264	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.216	0.220	0.205	0.17 to 0.23	108	70 to 130	1.83	20
BA06264	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.104	0.104	0.111	0.085 to 0.115	104	70 to 130	0.00	20
BA06264	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.133	0.130	0.105	0.085 to 0.115	108	70 to 130	2.28	20
BA06264	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.105	0.101	0.0997	0.085 to 0.115	105	70 to 130	3.88	20
BA06264	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.106	0.104	0.104	0.085 to 0.115	106	70 to 130	1.90	20

Comments:

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Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/30/20 13:05
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: BA06255

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Sulfate	mg/L	-0.616	0.50	80.0	131	62.1	19.6	18 to 22	87.4	80 to 120	1.62	20
BA06264	Fluoride	mg/L	0.0223	0.05	2.50	2.75	0.0803	2.61	2.25 to 2.75	107	80 to 120	3.07	20
BA06259	Solids, Dissolved	mg/L	1.00	25			322	55.0	40 to 60			0.923	5
BA06264	Chloride	mg/L	-0.00946	0.50	40.0	74.5	29.0	9.88	9 to 11	124	80 to 120	14.8	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-7

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

Laboratory ID Number: BA06256

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:03		1.015	0.0369	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 12:03		1.015	10.1	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:03		1.015	0.0102	mg/L	0.01	0.02	J
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 13:55		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 13:55		1.015	0.0215	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 13:55		1.015	0.0590	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 13:55		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 13:55		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 13:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 13:55		1.015	0.0172	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 13:55		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 13:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 13:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 13:55		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	135	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:11	4/6/20 12:11		1	13.3	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:19	4/3/20 13:19		1	0.0933	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:06	4/3/20 10:06		1	4.78	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/30/20 14:40	3/30/20 14:40			252.35	uS/cm			FA
pH	3/30/20 14:40	3/30/20 14:40			6.32	SU			FA
Temperature	3/30/20 14:40	3/30/20 14:40			21.59	C			FA
Turbidity	3/30/20 14:40	3/30/20 14:40			7.53	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Ash Pond - MW-7

Laboratory ID Number: BA06256

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Calcium, Total	mg/L	-0.0165	0.1518	5.00	26.3	26.8	5.23	4.25 to 5.75	100	70 to 130	1.88	20
BA06264	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.216	0.220	0.205	0.17 to 0.23	108	70 to 130	1.83	20
BA06264	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.104	0.104	0.111	0.085 to 0.115	104	70 to 130	0.00	20
BA06264	Mercury, Total by CVAA	mg/L	0.0000250	0.0005	0.004	0.00343	0.00365	0.00375	0.0034 to 0.0046	85.8	70 to 130	6.21	20
BA06264	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.101	0.101	0.107	0.085 to 0.115	101	70 to 130	0.00	20
BA06264	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.133	0.130	0.105	0.085 to 0.115	108	70 to 130	2.28	20
BA06264	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.105	0.101	0.0997	0.085 to 0.115	105	70 to 130	3.88	20
BA06264	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.106	0.104	0.104	0.085 to 0.115	106	70 to 130	1.90	20
BA06264	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.10	1.13	1.03	0.85 to 1.15	99.9	70 to 130	2.69	20
BA06264	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.108	0.104	0.104	0.085 to 0.115	108	70 to 130	3.77	20
BA06264	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0955	0.0950	0.102	0.085 to 0.115	95.5	70 to 130	0.525	20
BA06264	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.104	0.103	0.103	0.085 to 0.115	104	70 to 130	0.966	20
BA06264	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0983	0.0984	0.0953	0.085 to 0.115	98.3	70 to 130	0.102	20
BA06264	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.196	0.192	0.101	0.085 to 0.115	102	70 to 130	2.06	20
BA06264	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20

Comments:

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

Batch QC Summary

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

Description: Barry Ash Pond - MW-7

Laboratory ID Number: BA06256

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Sulfate	mg/L	-0.616	0.50	80.0	131	62.1	19.6	18 to 22	87.4	80 to 120	1.62	20
BA06264	Fluoride	mg/L	0.0223	0.05	2.50	2.75	0.0803	2.61	2.25 to 2.75	107	80 to 120	3.07	20
BA06259	Solids, Dissolved	mg/L	1.00	25			322	55.0	40 to 60			0.923	5
BA06264	Chloride	mg/L	-0.00946	0.50	40.0	74.5	29.0	9.88	9 to 11	124	80 to 120	14.8	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-8

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

Laboratory ID Number: BA06257

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:06		1.015	1.12	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 12:06		1.015	32.2	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:06		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 13:58		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 13:58		1.015	0.0589	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 13:58		1.015	0.141	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 13:58		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 13:58		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 13:58		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 13:58		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 13:58		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 13:58		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 13:58		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 13:58		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:04		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	310	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:12	4/6/20 12:12		2	22.6	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:20	4/3/20 13:20		1	0.0701	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:07	4/3/20 10:07		1	33.1	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/30/20 16:18	3/30/20 16:18			497.04	uS/cm			FA
pH	3/30/20 16:18	3/30/20 16:18			6.20	SU			FA
Temperature	3/30/20 16:18	3/30/20 16:18			21.16	C			FA
Turbidity	3/30/20 16:18	3/30/20 16:18			3.75	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Ash Pond - MW-8

Laboratory ID Number: BA06257

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Calcium, Total	mg/L	-0.0165	0.1518	5.00	26.3	26.8	5.23	4.25 to 5.75	100	70 to 130	1.88	20
BA06264	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.10	1.13	1.03	0.85 to 1.15	99.9	70 to 130	2.69	20
BA06264	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.108	0.104	0.104	0.085 to 0.115	108	70 to 130	3.77	20
BA06264	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0955	0.0950	0.102	0.085 to 0.115	95.5	70 to 130	0.525	20
BA06264	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.104	0.103	0.103	0.085 to 0.115	104	70 to 130	0.966	20
BA06264	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0983	0.0984	0.0953	0.085 to 0.115	98.3	70 to 130	0.102	20
BA06264	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.196	0.192	0.101	0.085 to 0.115	102	70 to 130	2.06	20
BA06264	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06264	Mercury, Total by CVAA	mg/L	0.0000250	0.0005	0.004	0.00343	0.00365	0.00375	0.0034 to 0.0046	85.8	70 to 130	6.21	20
BA06264	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.101	0.101	0.107	0.085 to 0.115	101	70 to 130	0.00	20
BA06264	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.216	0.220	0.205	0.17 to 0.23	108	70 to 130	1.83	20
BA06264	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.104	0.104	0.111	0.085 to 0.115	104	70 to 130	0.00	20
BA06264	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.133	0.130	0.105	0.085 to 0.115	108	70 to 130	2.28	20
BA06264	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.105	0.101	0.0997	0.085 to 0.115	105	70 to 130	3.88	20
BA06264	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.106	0.104	0.104	0.085 to 0.115	106	70 to 130	1.90	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

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

Description: Barry Ash Pond - MW-8

Laboratory ID Number: BA06257

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Sulfate	mg/L	-0.616	0.50	80.0	131	62.1	19.6	18 to 22	87.4	80 to 120	1.62	20
BA06264	Fluoride	mg/L	0.0223	0.05	2.50	2.75	0.0803	2.61	2.25 to 2.75	107	80 to 120	3.07	20
BA06259	Solids, Dissolved	mg/L	1.00	25			322	55.0	40 to 60			0.923	5
BA06264	Chloride	mg/L	-0.00946	0.50	40.0	74.5	29.0	9.88	9 to 11	124	80 to 120	14.8	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-8 DUP

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

Laboratory ID Number: BA06258

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:09		1.015	1.13	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 12:09		1.015	32.6	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:09		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:00		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:00		1.015	0.0586	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 14:00		1.015	0.144	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:00		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:00		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:00		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:00		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:07		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	306	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:14	4/6/20 12:14		2	22.8	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:21	4/3/20 13:21		1	0.0666	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:08	4/3/20 10:08		1	37.7	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/30/20 16:18	3/30/20 16:18			497.04	uS/cm			FA
pH	3/30/20 16:18	3/30/20 16:18			6.20	SU			FA
Temperature	3/30/20 16:18	3/30/20 16:18			21.16	C			FA
Turbidity	3/30/20 16:18	3/30/20 16:18			3.75	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

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

Description: Barry Ash Pond - MW-8 DUP

Laboratory ID Number: BA06258

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Calcium, Total	mg/L	-0.0165	0.1518	5.00	26.3	26.8	5.23	4.25 to 5.75	100	70 to 130	1.88	20
BA06264	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.196	0.192	0.101	0.085 to 0.115	102	70 to 130	2.06	20
BA06264	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06264	Mercury, Total by CVAA	mg/L	0.0000250	0.0005	0.004	0.00343	0.00365	0.00375	0.0034 to 0.0046	85.8	70 to 130	6.21	20
BA06264	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.101	0.101	0.107	0.085 to 0.115	101	70 to 130	0.00	20
BA06264	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.10	1.13	1.03	0.85 to 1.15	99.9	70 to 130	2.69	20
BA06264	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.108	0.104	0.104	0.085 to 0.115	108	70 to 130	3.77	20
BA06264	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.216	0.220	0.205	0.17 to 0.23	108	70 to 130	1.83	20
BA06264	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.104	0.104	0.111	0.085 to 0.115	104	70 to 130	0.00	20
BA06264	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0955	0.0950	0.102	0.085 to 0.115	95.5	70 to 130	0.525	20
BA06264	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.104	0.103	0.103	0.085 to 0.115	104	70 to 130	0.966	20
BA06264	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0983	0.0984	0.0953	0.085 to 0.115	98.3	70 to 130	0.102	20
BA06264	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.133	0.130	0.105	0.085 to 0.115	108	70 to 130	2.28	20
BA06264	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.105	0.101	0.0997	0.085 to 0.115	105	70 to 130	3.88	20
BA06264	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.106	0.104	0.104	0.085 to 0.115	106	70 to 130	1.90	20

Comments:

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

Batch QC Summary

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

Description: Barry Ash Pond - MW-8 DUP

Laboratory ID Number: BA06258

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Sulfate	mg/L	-0.616	0.50	80.0	131	62.1	19.6	18 to 22	87.4	80 to 120	1.62	20
BA06264	Fluoride	mg/L	0.0223	0.05	2.50	2.75	0.0803	2.61	2.25 to 2.75	107	80 to 120	3.07	20
BA06259	Solids, Dissolved	mg/L	1.00	25			322	55.0	40 to 60			0.923	5
BA06264	Chloride	mg/L	-0.00946	0.50	40.0	74.5	29.0	9.88	9 to 11	124	80 to 120	14.8	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-8V

Location Code: WMWBARAP
Collected: 3/30/20 17:32
Customer ID:
Submittal Date: 4/1/20 14:55

Laboratory ID Number: BA06259

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:12		1.015	0.247	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 12:12		1.015	24.5	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:12		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:03		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:03		1.015	0.00275	mg/L	0.001	0.005	J
* Barium, Total	4/3/20 08:10	4/6/20 14:03		1.015	0.264	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:03		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:03		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:03		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:03		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	328	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:15	4/6/20 12:15		2	22.7	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:22	4/3/20 13:22		1	0.0935	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:09	4/3/20 10:09		3	75.8	mg/L	1.50	3	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/30/20 17:29	3/30/20 17:29			562.17	uS/cm			FA
pH	3/30/20 17:29	3/30/20 17:29			6.20	SU			FA
Temperature	3/30/20 17:29	3/30/20 17:29			20.76	C			FA
Turbidity	3/30/20 17:29	3/30/20 17:29			1.54	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/30/20 17:32
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: BA06259

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Calcium, Total	mg/L	-0.0165	0.1518	5.00	26.3	26.8	5.23	4.25 to 5.75	100	70 to 130	1.88	20
BA06264	Mercury, Total by CVAA	mg/L	0.0000250	0.0005	0.004	0.00343	0.00365	0.00375	0.0034 to 0.0046	85.8	70 to 130	6.21	20
BA06264	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.101	0.101	0.107	0.085 to 0.115	101	70 to 130	0.00	20
BA06264	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0955	0.0950	0.102	0.085 to 0.115	95.5	70 to 130	0.525	20
BA06264	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.104	0.103	0.103	0.085 to 0.115	104	70 to 130	0.966	20
BA06264	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0983	0.0984	0.0953	0.085 to 0.115	98.3	70 to 130	0.102	20
BA06264	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.10	1.13	1.03	0.85 to 1.15	99.9	70 to 130	2.69	20
BA06264	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.108	0.104	0.104	0.085 to 0.115	108	70 to 130	3.77	20
BA06264	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.196	0.192	0.101	0.085 to 0.115	102	70 to 130	2.06	20
BA06264	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06264	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.216	0.220	0.205	0.17 to 0.23	108	70 to 130	1.83	20
BA06264	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.104	0.104	0.111	0.085 to 0.115	104	70 to 130	0.00	20
BA06264	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.133	0.130	0.105	0.085 to 0.115	108	70 to 130	2.28	20
BA06264	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.105	0.101	0.0997	0.085 to 0.115	105	70 to 130	3.88	20
BA06264	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.106	0.104	0.104	0.085 to 0.115	106	70 to 130	1.90	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/30/20 17:32
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: BA06259

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Fluoride	mg/L	0.0223	0.05	2.50	2.75	0.0803	2.61	2.25 to 2.75	107	80 to 120	3.07	20
BA06264	Sulfate	mg/L	-0.616	0.50	80.0	131	62.1	19.6	18 to 22	87.4	80 to 120	1.62	20
BA06259	Solids, Dissolved	mg/L	1.00	25			322	55.0	40 to 60			0.923	5
BA06264	Chloride	mg/L	-0.00946	0.50	40.0	74.5	29.0	9.88	9 to 11	124	80 to 120	14.8	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-9

Location Code: WMWBARAP
Collected: 3/31/20 08:03
Customer ID:
Submittal Date: 4/1/20 14:55

Laboratory ID Number: BA06260

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:15		1.015	2.27	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 12:15		1.015	40.1	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:15		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:06		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:06		1.015	0.0393	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 14:06		1.015	0.119	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:06		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:06		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:06		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:06		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:06		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:06		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:06		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:06		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:11		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	330	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:16	4/6/20 12:16		2	20.6	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:24	4/3/20 13:24		1	0.0655	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:11	4/3/20 10:11		2	43.5	mg/L	1.00	2	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/31/20 08:00	3/31/20 08:00			580.80	uS/cm			FA
pH	3/31/20 08:00	3/31/20 08:00			6.31	SU			FA
Temperature	3/31/20 08:00	3/31/20 08:00			21.24	C			FA
Turbidity	3/31/20 08:00	3/31/20 08:00			2.03	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 08:03
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-9

Laboratory ID Number: BA06260

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Calcium, Total	mg/L	-0.0165	0.1518	5.00	26.3	26.8	5.23	4.25 to 5.75	100	70 to 130	1.88	20
BA06264	Mercury, Total by CVAA	mg/L	0.0000250	0.0005	0.004	0.00343	0.00365	0.00375	0.0034 to 0.0046	85.8	70 to 130	6.21	20
BA06264	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.101	0.101	0.107	0.085 to 0.115	101	70 to 130	0.00	20
BA06264	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.196	0.192	0.101	0.085 to 0.115	102	70 to 130	2.06	20
BA06264	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06264	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.216	0.220	0.205	0.17 to 0.23	108	70 to 130	1.83	20
BA06264	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.104	0.104	0.111	0.085 to 0.115	104	70 to 130	0.00	20
BA06264	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.133	0.130	0.105	0.085 to 0.115	108	70 to 130	2.28	20
BA06264	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.105	0.101	0.0997	0.085 to 0.115	105	70 to 130	3.88	20
BA06264	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.106	0.104	0.104	0.085 to 0.115	106	70 to 130	1.90	20
BA06264	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.10	1.13	1.03	0.85 to 1.15	99.9	70 to 130	2.69	20
BA06264	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.108	0.104	0.104	0.085 to 0.115	108	70 to 130	3.77	20
BA06264	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0955	0.0950	0.102	0.085 to 0.115	95.5	70 to 130	0.525	20
BA06264	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.104	0.103	0.103	0.085 to 0.115	104	70 to 130	0.966	20
BA06264	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0983	0.0984	0.0953	0.085 to 0.115	98.3	70 to 130	0.102	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 08:03
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-9

Laboratory ID Number: BA06260

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Solids, Dissolved	mg/L	1.00	25			46.0	55.0	40 to 60			3.72	5
BA06264	Sulfate	mg/L	-0.616	0.50	80.0	131	62.1	19.6	18 to 22	87.4	80 to 120	1.62	20
BA06264	Fluoride	mg/L	0.0223	0.05	2.50	2.75	0.0803	2.61	2.25 to 2.75	107	80 to 120	3.07	20
BA06264	Chloride	mg/L	-0.00946	0.50	40.0	74.5	29.0	9.88	9 to 11	124	80 to 120	14.8	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-10

Location Code: WMWBARAP
Collected: 3/31/20 08:50
Customer ID:
Submittal Date: 4/1/20 14:55

Laboratory ID Number: BA06261

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:18		1.015	2.12	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 14:57		10.15	63.6	mg/L	1.015	5.075	
* Lithium, Total	4/3/20 09:20	4/6/20 12:18		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:08		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:08		1.015	0.0702	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 14:08		1.015	0.0727	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:08		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:08		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:08		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:08		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:08		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:08		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:08		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:08		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:14		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	387	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:17	4/6/20 12:17		2	26.1	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:25	4/3/20 13:25		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:12	4/3/20 10:12		1	20.1	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/31/20 08:47	3/31/20 08:47			696.72	uS/cm			FA
pH	3/31/20 08:47	3/31/20 08:47			6.37	SU			FA
Temperature	3/31/20 08:47	3/31/20 08:47			21.55	C			FA
Turbidity	3/31/20 08:47	3/31/20 08:47			2.18	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 08:50
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-10

Laboratory ID Number: BA06261

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Calcium, Total	mg/L	-0.0165	0.1518	5.00	26.3	26.8	5.23	4.25 to 5.75	100	70 to 130	1.88	20
BA06264	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0955	0.0950	0.102	0.085 to 0.115	95.5	70 to 130	0.525	20
BA06264	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.104	0.103	0.103	0.085 to 0.115	104	70 to 130	0.966	20
BA06264	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0983	0.0984	0.0953	0.085 to 0.115	98.3	70 to 130	0.102	20
BA06264	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.133	0.130	0.105	0.085 to 0.115	108	70 to 130	2.28	20
BA06264	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.105	0.101	0.0997	0.085 to 0.115	105	70 to 130	3.88	20
BA06264	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.106	0.104	0.104	0.085 to 0.115	106	70 to 130	1.90	20
BA06264	Mercury, Total by CVAA	mg/L	0.0000250	0.0005	0.004	0.00343	0.00365	0.00375	0.0034 to 0.0046	85.8	70 to 130	6.21	20
BA06264	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.101	0.101	0.107	0.085 to 0.115	101	70 to 130	0.00	20
BA06264	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.196	0.192	0.101	0.085 to 0.115	102	70 to 130	2.06	20
BA06264	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06264	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.10	1.13	1.03	0.85 to 1.15	99.9	70 to 130	2.69	20
BA06264	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.108	0.104	0.104	0.085 to 0.115	108	70 to 130	3.77	20
BA06264	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.216	0.220	0.205	0.17 to 0.23	108	70 to 130	1.83	20
BA06264	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.104	0.104	0.111	0.085 to 0.115	104	70 to 130	0.00	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 08:50
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-10

Laboratory ID Number: BA06261

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Sulfate	mg/L	-0.616	0.50	80.0	131	62.1	19.6	18 to 22	87.4	80 to 120	1.62	20
BA06274	Solids, Dissolved	mg/L	1.00	25			46.0	55.0	40 to 60			3.72	5
BA06264	Fluoride	mg/L	0.0223	0.05	2.50	2.75	0.0803	2.61	2.25 to 2.75	107	80 to 120	3.07	20
BA06264	Chloride	mg/L	-0.00946	0.50	40.0	74.5	29.0	9.88	9 to 11	124	80 to 120	14.8	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-10V

Location Code: WMWBARAP
Collected: 3/31/20 09:35
Customer ID:
Submittal Date: 4/1/20 14:55

Laboratory ID Number: BA06262

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:21		1.015	1.04	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 15:00		10.15	66.6	mg/L	1.015	5.075	
* Lithium, Total	4/3/20 09:20	4/6/20 12:21		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:11		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:11		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/3/20 08:10	4/6/20 14:11		1.015	0.184	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:11		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:11		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:11		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:11		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:11		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:11		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:11		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:11		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:16		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	413	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:18	4/6/20 12:18		2	20.7	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:26	4/3/20 13:26		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:13	4/3/20 10:13		1	20.3	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/31/20 09:33	3/31/20 09:33			735.21	uS/cm			FA
pH	3/31/20 09:33	3/31/20 09:33			6.38	SU			FA
Temperature	3/31/20 09:33	3/31/20 09:33			21.20	C			FA
Turbidity	3/31/20 09:33	3/31/20 09:33			2.36	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 09:35
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: BA06262

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Calcium, Total	mg/L	-0.0165	0.1518	5.00	26.3	26.8	5.23	4.25 to 5.75	100	70 to 130	1.88	20
BA06264	Mercury, Total by CVAA	mg/L	0.0000250	0.0005	0.004	0.00343	0.00365	0.00375	0.0034 to 0.0046	85.8	70 to 130	6.21	20
BA06264	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.101	0.101	0.107	0.085 to 0.115	101	70 to 130	0.00	20
BA06264	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.10	1.13	1.03	0.85 to 1.15	99.9	70 to 130	2.69	20
BA06264	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.108	0.104	0.104	0.085 to 0.115	108	70 to 130	3.77	20
BA06264	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0955	0.0950	0.102	0.085 to 0.115	95.5	70 to 130	0.525	20
BA06264	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.104	0.103	0.103	0.085 to 0.115	104	70 to 130	0.966	20
BA06264	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0983	0.0984	0.0953	0.085 to 0.115	98.3	70 to 130	0.102	20
BA06264	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.196	0.192	0.101	0.085 to 0.115	102	70 to 130	2.06	20
BA06264	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06264	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.133	0.130	0.105	0.085 to 0.115	108	70 to 130	2.28	20
BA06264	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.105	0.101	0.0997	0.085 to 0.115	105	70 to 130	3.88	20
BA06264	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.106	0.104	0.104	0.085 to 0.115	106	70 to 130	1.90	20
BA06264	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.216	0.220	0.205	0.17 to 0.23	108	70 to 130	1.83	20
BA06264	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.104	0.104	0.111	0.085 to 0.115	104	70 to 130	0.00	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 09:35
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: BA06262

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Solids, Dissolved	mg/L	1.00	25			46.0	55.0	40 to 60			3.72	5
BA06264	Sulfate	mg/L	-0.616	0.50	80.0	131	62.1	19.6	18 to 22	87.4	80 to 120	1.62	20
BA06264	Chloride	mg/L	-0.00946	0.50	40.0	74.5	29.0	9.88	9 to 11	124	80 to 120	14.8	20
BA06264	Fluoride	mg/L	0.0223	0.05	2.50	2.75	0.0803	2.61	2.25 to 2.75	107	80 to 120	3.07	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-11

Location Code: WMWBARAP
Collected: 3/31/20 11:50
Customer ID:
Submittal Date: 4/1/20 14:55

Laboratory ID Number: BA06263

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:24		1.015	0.0815	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 12:24		1.015	25.1	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:24		1.015	0.0220	mg/L	0.01	0.02	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:14		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:14		1.015	0.0158	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 14:14		1.015	0.0842	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:14		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:14		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:14		1.015	0.00358	mg/L	0.002	0.01	J
* Cobalt, Total	4/3/20 08:10	4/6/20 14:14		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:14		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:14		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	393	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:20	4/6/20 12:20		2	24.1	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:27	4/3/20 13:27		1	0.0780	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:14	4/3/20 10:14		2	57.5	mg/L	1.00	2	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/31/20 11:45	3/31/20 11:45			637.68	uS/cm			FA
pH	3/31/20 11:45	3/31/20 11:45			6.26	SU			FA
Temperature	3/31/20 11:45	3/31/20 11:45			20.91	C			FA
Turbidity	3/31/20 11:45	3/31/20 11:45			9.69	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 11:50
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-11

Laboratory ID Number: BA06263

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Calcium, Total	mg/L	-0.0165	0.1518	5.00	26.3	26.8	5.23	4.25 to 5.75	100	70 to 130	1.88	20
BA06264	Mercury, Total by CVAA	mg/L	0.0000250	0.0005	0.004	0.00343	0.00365	0.00375	0.0034 to 0.0046	85.8	70 to 130	6.21	20
BA06264	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.101	0.101	0.107	0.085 to 0.115	101	70 to 130	0.00	20
BA06264	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.10	1.13	1.03	0.85 to 1.15	99.9	70 to 130	2.69	20
BA06264	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.108	0.104	0.104	0.085 to 0.115	108	70 to 130	3.77	20
BA06264	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.133	0.130	0.105	0.085 to 0.115	108	70 to 130	2.28	20
BA06264	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.105	0.101	0.0997	0.085 to 0.115	105	70 to 130	3.88	20
BA06264	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.106	0.104	0.104	0.085 to 0.115	106	70 to 130	1.90	20
BA06264	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0955	0.0950	0.102	0.085 to 0.115	95.5	70 to 130	0.525	20
BA06264	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.104	0.103	0.103	0.085 to 0.115	104	70 to 130	0.966	20
BA06264	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0983	0.0984	0.0953	0.085 to 0.115	98.3	70 to 130	0.102	20
BA06264	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.216	0.220	0.205	0.17 to 0.23	108	70 to 130	1.83	20
BA06264	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.104	0.104	0.111	0.085 to 0.115	104	70 to 130	0.00	20
BA06264	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.196	0.192	0.101	0.085 to 0.115	102	70 to 130	2.06	20
BA06264	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 11:50
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-11

Laboratory ID Number: BA06263

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Solids, Dissolved	mg/L	1.00	25			46.0	55.0	40 to 60			3.72	5
BA06264	Sulfate	mg/L	-0.616	0.50	80.0	131	62.1	19.6	18 to 22	87.4	80 to 120	1.62	20
BA06264	Chloride	mg/L	-0.00946	0.50	40.0	74.5	29.0	9.88	9 to 11	124	80 to 120	14.8	20
BA06264	Fluoride	mg/L	0.0223	0.05	2.50	2.75	0.0803	2.61	2.25 to 2.75	107	80 to 120	3.07	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-12V

Location Code: WMWBARAP
Collected: 3/31/20 12:55
Customer ID:
Submittal Date: 4/1/20 14:55

Laboratory ID Number: BA06264

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:27		1.015	0.101	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 12:27		1.015	21.3	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:27		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:16		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:16		1.015	0.0250	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 14:16		1.015	0.0939	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:16		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:16		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:16		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:16		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:16		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:16		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:16		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:16		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:21		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	328	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:21	4/6/20 12:21		4	25.0	mg/L	2.00	4	R
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:28	4/3/20 13:28		1	0.0828	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:15	4/3/20 10:15		4	61.1	mg/L	2.00	4	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/31/20 12:50	3/31/20 12:50			620.52	uS/cm			FA
pH	3/31/20 12:50	3/31/20 12:50			6.33	SU			FA
Temperature	3/31/20 12:50	3/31/20 12:50			21.01	C			FA
Turbidity	3/31/20 12:50	3/31/20 12:50			2.15	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 12:55
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: BA06264

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06264	Calcium, Total	mg/L	-0.0165	0.1518	5.00	26.3	26.8	5.23	4.25 to 5.75	100	70 to 130	1.88	20
BA06264	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0955	0.0950	0.102	0.085 to 0.115	95.5	70 to 130	0.525	20
BA06264	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.104	0.103	0.103	0.085 to 0.115	104	70 to 130	0.966	20
BA06264	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0983	0.0984	0.0953	0.085 to 0.115	98.3	70 to 130	0.102	20
BA06264	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.10	1.13	1.03	0.85 to 1.15	99.9	70 to 130	2.69	20
BA06264	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.108	0.104	0.104	0.085 to 0.115	108	70 to 130	3.77	20
BA06264	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.196	0.192	0.101	0.085 to 0.115	102	70 to 130	2.06	20
BA06264	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06264	Mercury, Total by CVAA	mg/L	0.0000250	0.0005	0.004	0.00343	0.00365	0.00375	0.0034 to 0.0046	85.8	70 to 130	6.21	20
BA06264	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.101	0.101	0.107	0.085 to 0.115	101	70 to 130	0.00	20
BA06264	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.216	0.220	0.205	0.17 to 0.23	108	70 to 130	1.83	20
BA06264	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.104	0.104	0.111	0.085 to 0.115	104	70 to 130	0.00	20
BA06264	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.133	0.130	0.105	0.085 to 0.115	108	70 to 130	2.28	20
BA06264	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.105	0.101	0.0997	0.085 to 0.115	105	70 to 130	3.88	20
BA06264	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.106	0.104	0.104	0.085 to 0.115	106	70 to 130	1.90	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 12:55
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: BA06264

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06279	Solids, Dissolved	mg/L	0.0000	25			275	52.0	40 to 60			0.181	5
BA06264	Sulfate	mg/L	-0.616	0.50	80.0	131	62.1	19.6	18 to 22	87.4	80 to 120	1.62	20
BA06264	Fluoride	mg/L	0.0223	0.05	2.50	2.75	0.0803	2.61	2.25 to 2.75	107	80 to 120	3.07	20
BA06264	Chloride	mg/L	-0.00946	0.50	40.0	74.5	29.0	9.88	9 to 11	124	80 to 120	14.8	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-12

Location Code: WMWBARAP
Collected: 3/31/20 13:45
Customer ID:
Submittal Date: 4/1/20 14:55

Laboratory ID Number: BA06265

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:42		1.015	0.0856	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 12:42		1.015	22.4	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:42		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:32		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:32		1.015	0.0246	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 14:32		1.015	0.0851	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:32		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:32		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:32		1.015	0.00560	mg/L	0.002	0.01	J
* Cobalt, Total	4/3/20 08:10	4/6/20 14:32		1.015	0.00364	mg/L	0.002	0.005	J
* Lead, Total	4/3/20 08:10	4/6/20 14:32		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:32		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	331	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:48	4/6/20 12:48		2	23.9	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:40	4/3/20 13:40		1	0.0755	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:28	4/3/20 10:28		1	35.8	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/31/20 13:42	3/31/20 13:42			591.73	uS/cm			FA
pH	3/31/20 13:42	3/31/20 13:42			6.21	SU			FA
Temperature	3/31/20 13:42	3/31/20 13:42			20.94	C			FA
Turbidity	3/31/20 13:42	3/31/20 13:42			7.06	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 13:45
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-12

Laboratory ID Number: BA06265

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.102	0.103	0.111	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.201	0.204	0.205	0.17 to 0.23	100	70 to 130	1.48	20
BA06274	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.930	20
BA06274	Mercury, Total by CVAA	mg/L	0.0000760	0.0005	0.004	0.00376	0.00386	0.00375	0.0034 to 0.0046	94.0	70 to 130	2.62	20
BA06274	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.00	20
BA06274	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.120	0.120	0.0997	0.085 to 0.115	99.5	70 to 130	0.00	20
BA06274	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA06274	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.119	0.119	0.101	0.085 to 0.115	99.7	70 to 130	0.00	20
BA06274	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.00	1.02	1.03	0.85 to 1.15	100	70 to 130	1.98	20
BA06274	Calcium, Total	mg/L	-0.0165	0.1518	5.00	5.89	5.96	5.23	4.25 to 5.75	99.8	70 to 130	1.18	20
BA06274	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06274	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.0986	0.0989	0.107	0.085 to 0.115	98.6	70 to 130	0.304	20
BA06274	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0891	0.0915	0.102	0.085 to 0.115	89.1	70 to 130	2.66	20
BA06274	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0971	0.0985	0.0953	0.085 to 0.115	97.1	70 to 130	1.43	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 13:45
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-12

Laboratory ID Number: BA06265

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Chloride	mg/L	-0.0101	0.50	10.0	19.8	9.50	9.93	9 to 11	103	80 to 120	0.420	20
BA06279	Solids, Dissolved	mg/L	0.0000	25			275	52.0	40 to 60			0.181	5
BA06274	Sulfate	mg/L	-0.513	0.50	20.0	22.8	4.18	19.6	18 to 22	93.4	80 to 120	1.45	20
BA06274	Fluoride	mg/L	0.0226	0.05	2.50	2.48	0.0133	2.62	2.25 to 2.75	99.2	80 to 120	0.00	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-14

Location Code: WMWBARAP
Collected: 3/31/20 15:10
Customer ID:
Submittal Date: 4/1/20 14:55

Laboratory ID Number: BA06266

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:45		1.015	0.0655	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 12:45		1.015	9.04	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:45		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:35		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:35		1.015	0.0177	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 14:35		1.015	0.0619	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:35		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:35		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:35		1.015	0.00463	mg/L	0.002	0.01	J
* Cobalt, Total	4/3/20 08:10	4/6/20 14:35		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:35		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:35		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 08:23	4/7/20 09:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	317	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:49	4/6/20 12:49		5	44.7	mg/L	2.50	5	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:41	4/3/20 13:41		1	0.0867	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:29	4/3/20 10:29		1	34.7	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/31/20 15:08	3/31/20 15:08			505.86	uS/cm			FA
pH	3/31/20 15:08	3/31/20 15:08			5.76	SU			FA
Temperature	3/31/20 15:08	3/31/20 15:08			19.99	C			FA
Turbidity	3/31/20 15:08	3/31/20 15:08			8.37	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 15:10
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-14

Laboratory ID Number: BA06266

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.201	0.204	0.205	0.17 to 0.23	100	70 to 130	1.48	20
BA06274	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.102	0.103	0.111	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.930	20
BA06274	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.120	0.120	0.0997	0.085 to 0.115	99.5	70 to 130	0.00	20
BA06274	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA06274	Mercury, Total by CVAA	mg/L	0.0000760	0.0005	0.004	0.00376	0.00386	0.00375	0.0034 to 0.0046	94.0	70 to 130	2.62	20
BA06274	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.00	20
BA06274	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.119	0.119	0.101	0.085 to 0.115	99.7	70 to 130	0.00	20
BA06274	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.00	1.02	1.03	0.85 to 1.15	100	70 to 130	1.98	20
BA06274	Calcium, Total	mg/L	-0.0165	0.1518	5.00	5.89	5.96	5.23	4.25 to 5.75	99.8	70 to 130	1.18	20
BA06274	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06274	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.0986	0.0989	0.107	0.085 to 0.115	98.6	70 to 130	0.304	20
BA06274	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0891	0.0915	0.102	0.085 to 0.115	89.1	70 to 130	2.66	20
BA06274	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0971	0.0985	0.0953	0.085 to 0.115	97.1	70 to 130	1.43	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 15:10
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-14

Laboratory ID Number: BA06266

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06279	Solids, Dissolved	mg/L	0.0000	25			275	52.0	40 to 60			0.181	5
BA06274	Chloride	mg/L	-0.0101	0.50	10.0	19.8	9.50	9.93	9 to 11	103	80 to 120	0.420	20
BA06274	Fluoride	mg/L	0.0226	0.05	2.50	2.48	0.0133	2.62	2.25 to 2.75	99.2	80 to 120	0.00	20
BA06274	Sulfate	mg/L	-0.513	0.50	20.0	22.8	4.18	19.6	18 to 22	93.4	80 to 120	1.45	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-13

Location Code: WMWBARAP
Collected: 3/31/20 17:25
Customer ID:
Submittal Date: 4/1/20 14:55

Laboratory ID Number: BA06267

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:48		1.015	0.0505	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 12:48		1.015	13.2	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:48		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:37		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:37		1.015	0.0154	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 14:37		1.015	0.0728	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:37		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:37		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:37		1.015	0.00955	mg/L	0.002	0.01	J
* Cobalt, Total	4/3/20 08:10	4/6/20 14:37		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:37		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:37		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 09:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	290	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:50	4/6/20 12:50		5	44.9	mg/L	2.50	5	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:42	4/3/20 13:42		1	0.0665	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:30	4/3/20 10:30		1	23.2	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	3/31/20 17:20	3/31/20 17:20			434.81	uS/cm			FA
pH	3/31/20 17:20	3/31/20 17:20			5.98	SU			FA
Temperature	3/31/20 17:20	3/31/20 17:20			20.48	C			FA
Turbidity	3/31/20 17:20	3/31/20 17:20			9.84	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 17:25
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-13

Laboratory ID Number: BA06267

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.201	0.204	0.205	0.17 to 0.23	100	70 to 130	1.48	20
BA06274	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.102	0.103	0.111	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.930	20
BA06274	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.120	0.120	0.0997	0.085 to 0.115	99.5	70 to 130	0.00	20
BA06274	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA06274	Mercury, Total by CVAA	mg/L	0.0000760	0.0005	0.004	0.00376	0.00386	0.00375	0.0034 to 0.0046	94.0	70 to 130	2.62	20
BA06274	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.00	20
BA06274	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.119	0.119	0.101	0.085 to 0.115	99.7	70 to 130	0.00	20
BA06274	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.00	1.02	1.03	0.85 to 1.15	100	70 to 130	1.98	20
BA06274	Calcium, Total	mg/L	-0.0165	0.1518	5.00	5.89	5.96	5.23	4.25 to 5.75	99.8	70 to 130	1.18	20
BA06274	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06274	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.0986	0.0989	0.107	0.085 to 0.115	98.6	70 to 130	0.304	20
BA06274	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0891	0.0915	0.102	0.085 to 0.115	89.1	70 to 130	2.66	20
BA06274	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0971	0.0985	0.0953	0.085 to 0.115	97.1	70 to 130	1.43	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 17:25
Customer ID:
Delivery Date: 4/1/20 14:55

Description: Barry Ash Pond - MW-13

Laboratory ID Number: BA06267

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06279	Solids, Dissolved	mg/L	0.0000	25			275	52.0	40 to 60			0.181	5
BA06274	Fluoride	mg/L	0.0226	0.05	2.50	2.48	0.0133	2.62	2.25 to 2.75	99.2	80 to 120	0.00	20
BA06274	Chloride	mg/L	-0.0101	0.50	10.0	19.8	9.50	9.93	9 to 11	103	80 to 120	0.420	20
BA06274	Sulfate	mg/L	-0.513	0.50	20.0	22.8	4.18	19.6	18 to 22	93.4	80 to 120	1.45	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 3/31/20 17:45
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06268

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:51		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:20	4/6/20 12:51		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	4/3/20 09:20	4/6/20 12:51		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:40		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 09:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:37	4/6/20 12:37		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:43	4/3/20 13:43		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:31	4/3/20 10:31		1	Not Detected	mg/L	0.50	1	U

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPFB
Sample Date: 3/31/20 17:45
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA06268

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.201	0.204	0.205	0.17 to 0.23	100	70 to 130	1.48	20
BA06274	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.102	0.103	0.111	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.930	20
BA06274	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.120	0.120	0.0997	0.085 to 0.115	99.5	70 to 130	0.00	20
BA06274	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA06274	Mercury, Total by CVAA	mg/L	0.0000760	0.0005	0.004	0.00376	0.00386	0.00375	0.0034 to 0.0046	94.0	70 to 130	2.62	20
BA06274	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.00	20
BA06274	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.119	0.119	0.101	0.085 to 0.115	99.7	70 to 130	0.00	20
BA06274	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.00	1.02	1.03	0.85 to 1.15	100	70 to 130	1.98	20
BA06274	Calcium, Total	mg/L	-0.0165	0.1518	5.00	5.89	5.96	5.23	4.25 to 5.75	99.8	70 to 130	1.18	20
BA06274	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06274	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.0986	0.0989	0.107	0.085 to 0.115	98.6	70 to 130	0.304	20
BA06274	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0891	0.0915	0.102	0.085 to 0.115	89.1	70 to 130	2.66	20
BA06274	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0971	0.0985	0.0953	0.085 to 0.115	97.1	70 to 130	1.43	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 3/31/20 17:45
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA06268

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06279	Solids, Dissolved	mg/L	0.0000	25			275	52.0	40 to 60			0.181	5
BA06274	Chloride	mg/L	-0.0101	0.50	10.0	19.8	9.50	9.93	9 to 11	103	80 to 120	0.420	20
BA06274	Fluoride	mg/L	0.0226	0.05	2.50	2.48	0.0133	2.62	2.25 to 2.75	99.2	80 to 120	0.00	20
BA06274	Sulfate	mg/L	-0.513	0.50	20.0	22.8	4.18	19.6	18 to 22	93.4	80 to 120	1.45	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-1

Location Code: WMWBARAP
Collected: 3/30/20 16:26
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06269

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:54		1.015	1.77	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 12:54		1.015	33.7	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:54		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:43		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:43		1.015	0.0557	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 14:43		1.015	0.279	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:43		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:43		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:43		1.015	0.00415	mg/L	0.002	0.01	J
* Cobalt, Total	4/3/20 08:10	4/6/20 14:43		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:43		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:43		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 09:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	419	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:51	4/6/20 12:51		2	24.9	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:45	4/3/20 13:45		1	0.0726	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:33	4/3/20 10:33		1	28.4	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/30/20 16:24	3/30/20 16:24			742.11	uS/cm			FA
pH	3/30/20 16:24	3/30/20 16:24			5.79	SU			FA
Temperature	3/30/20 16:24	3/30/20 16:24			21.70	C			FA
Turbidity	3/30/20 16:24	3/30/20 16:24			7.93	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/30/20 16:26
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-1

Laboratory ID Number: BA06269

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.102	0.103	0.111	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.930	20
BA06274	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.201	0.204	0.205	0.17 to 0.23	100	70 to 130	1.48	20
BA06274	Mercury, Total by CVAA	mg/L	0.0000760	0.0005	0.004	0.00376	0.00386	0.00375	0.0034 to 0.0046	94.0	70 to 130	2.62	20
BA06274	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.00	20
BA06274	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.120	0.120	0.0997	0.085 to 0.115	99.5	70 to 130	0.00	20
BA06274	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA06274	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.119	0.119	0.101	0.085 to 0.115	99.7	70 to 130	0.00	20
BA06274	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.00	1.02	1.03	0.85 to 1.15	100	70 to 130	1.98	20
BA06274	Calcium, Total	mg/L	-0.0165	0.1518	5.00	5.89	5.96	5.23	4.25 to 5.75	99.8	70 to 130	1.18	20
BA06274	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06274	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.0986	0.0989	0.107	0.085 to 0.115	98.6	70 to 130	0.304	20
BA06274	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0891	0.0915	0.102	0.085 to 0.115	89.1	70 to 130	2.66	20
BA06274	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0971	0.0985	0.0953	0.085 to 0.115	97.1	70 to 130	1.43	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/30/20 16:26
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-1

Laboratory ID Number: BA06269

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Solids, Dissolved	mg/L	1.00	25			46.0	55.0	40 to 60			3.72	5
BA06274	Chloride	mg/L	-0.0101	0.50	10.0	19.8	9.50	9.93	9 to 11	103	80 to 120	0.420	20
BA06274	Fluoride	mg/L	0.0226	0.05	2.50	2.48	0.0133	2.62	2.25 to 2.75	99.2	80 to 120	0.00	20
BA06274	Sulfate	mg/L	-0.513	0.50	20.0	22.8	4.18	19.6	18 to 22	93.4	80 to 120	1.45	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-1V

Location Code: WMWBARAP
Collected: 3/30/20 17:14
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06270

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 12:57		1.015	0.0347	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 12:57		1.015	3.23	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 12:57		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:45		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:45		1.015	0.00152	mg/L	0.001	0.005	J
* Barium, Total	4/3/20 08:10	4/6/20 14:45		1.015	0.0620	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:45		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:45		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:45		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:45		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:45		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 09:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	160	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:53	4/6/20 12:53		5	69.1	mg/L	2.50	5	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:46	4/3/20 13:46		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:34	4/3/20 10:34		1	11.1	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/30/20 17:12	3/30/20 17:12			278.35	uS/cm			FA
pH	3/30/20 17:12	3/30/20 17:12			5.65	SU			FA
Temperature	3/30/20 17:12	3/30/20 17:12			21.39	C			FA
Turbidity	3/30/20 17:12	3/30/20 17:12			0.8	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/30/20 17:14
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: BA06270

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.201	0.204	0.205	0.17 to 0.23	100	70 to 130	1.48	20
BA06274	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.930	20
BA06274	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.102	0.103	0.111	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.120	0.120	0.0997	0.085 to 0.115	99.5	70 to 130	0.00	20
BA06274	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA06274	Mercury, Total by CVAA	mg/L	0.0000760	0.0005	0.004	0.00376	0.00386	0.00375	0.0034 to 0.0046	94.0	70 to 130	2.62	20
BA06274	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.00	20
BA06274	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.119	0.119	0.101	0.085 to 0.115	99.7	70 to 130	0.00	20
BA06274	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.00	1.02	1.03	0.85 to 1.15	100	70 to 130	1.98	20
BA06274	Calcium, Total	mg/L	-0.0165	0.1518	5.00	5.89	5.96	5.23	4.25 to 5.75	99.8	70 to 130	1.18	20
BA06274	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06274	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.0986	0.0989	0.107	0.085 to 0.115	98.6	70 to 130	0.304	20
BA06274	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0891	0.0915	0.102	0.085 to 0.115	89.1	70 to 130	2.66	20
BA06274	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0971	0.0985	0.0953	0.085 to 0.115	97.1	70 to 130	1.43	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/30/20 17:14
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: BA06270

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Solids, Dissolved	mg/L	1.00	25			46.0	55.0	40 to 60			3.72	5
BA06274	Chloride	mg/L	-0.0101	0.50	10.0	19.8	9.50	9.93	9 to 11	103	80 to 120	0.420	20
BA06274	Fluoride	mg/L	0.0226	0.05	2.50	2.48	0.0133	2.62	2.25 to 2.75	99.2	80 to 120	0.00	20
BA06274	Sulfate	mg/L	-0.513	0.50	20.0	22.8	4.18	19.6	18 to 22	93.4	80 to 120	1.45	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-2

Location Code: WMWBARAP
Collected: 3/31/20 08:33
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06271

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 13:00		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:20	4/6/20 13:00		1.015	2.95	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 13:00		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:48		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:48		1.015	0.00149	mg/L	0.001	0.005	J
* Barium, Total	4/3/20 08:10	4/6/20 14:48		1.015	0.0264	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:48		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:48		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:48		1.015	0.00716	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 14:48		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:48		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 09:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	42.0	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:41	4/6/20 12:41		1	8.48	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:47	4/3/20 13:47		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:35	4/3/20 10:35		1	1.69	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/31/20 08:30	3/31/20 08:30			55.73	uS/cm			FA
pH	3/31/20 08:30	3/31/20 08:30			5.71	SU			FA
Temperature	3/31/20 08:30	3/31/20 08:30			21.48	C			FA
Turbidity	3/31/20 08:30	3/31/20 08:30			4.11	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 08:33
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-2

Laboratory ID Number: BA06271

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.201	0.204	0.205	0.17 to 0.23	100	70 to 130	1.48	20
BA06274	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.102	0.103	0.111	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.930	20
BA06274	Mercury, Total by CVAA	mg/L	0.0000760	0.0005	0.004	0.00376	0.00386	0.00375	0.0034 to 0.0046	94.0	70 to 130	2.62	20
BA06274	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.00	20
BA06274	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.120	0.120	0.0997	0.085 to 0.115	99.5	70 to 130	0.00	20
BA06274	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA06274	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.119	0.119	0.101	0.085 to 0.115	99.7	70 to 130	0.00	20
BA06274	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.00	1.02	1.03	0.85 to 1.15	100	70 to 130	1.98	20
BA06274	Calcium, Total	mg/L	-0.0165	0.1518	5.00	5.89	5.96	5.23	4.25 to 5.75	99.8	70 to 130	1.18	20
BA06274	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06274	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.0986	0.0989	0.107	0.085 to 0.115	98.6	70 to 130	0.304	20
BA06274	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0891	0.0915	0.102	0.085 to 0.115	89.1	70 to 130	2.66	20
BA06274	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0971	0.0985	0.0953	0.085 to 0.115	97.1	70 to 130	1.43	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 08:33
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-2

Laboratory ID Number: BA06271

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Solids, Dissolved	mg/L	1.00	25			46.0	55.0	40 to 60			3.72	5
BA06274	Fluoride	mg/L	0.0226	0.05	2.50	2.48	0.0133	2.62	2.25 to 2.75	99.2	80 to 120	0.00	20
BA06274	Chloride	mg/L	-0.0101	0.50	10.0	19.8	9.50	9.93	9 to 11	103	80 to 120	0.420	20
BA06274	Sulfate	mg/L	-0.513	0.50	20.0	22.8	4.18	19.6	18 to 22	93.4	80 to 120	1.45	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-2 DUP

Location Code: WMWBARAP
Collected: 3/31/20 08:33
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06272

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 13:03		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:20	4/6/20 13:03		1.015	2.88	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 13:03		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:51		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:51		1.015	0.00143	mg/L	0.001	0.005	J
* Barium, Total	4/3/20 08:10	4/6/20 14:51		1.015	0.0268	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:51		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:51		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:51		1.015	0.00710	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 14:51		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:51		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 09:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	47.3	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:42	4/6/20 12:42		1	8.37	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:48	4/3/20 13:48		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:36	4/3/20 10:36		1	1.39	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/31/20 08:30	3/31/20 08:30			55.73	uS/cm			FA
pH	3/31/20 08:30	3/31/20 08:30			5.71	SU			FA
Temperature	3/31/20 08:30	3/31/20 08:30			21.48	C			FA
Turbidity	3/31/20 08:30	3/31/20 08:30			4.11	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 08:33
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-2 DUP

Laboratory ID Number: BA06272

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.201	0.204	0.205	0.17 to 0.23	100	70 to 130	1.48	20
BA06274	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.102	0.103	0.111	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.930	20
BA06274	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.120	0.120	0.0997	0.085 to 0.115	99.5	70 to 130	0.00	20
BA06274	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA06274	Mercury, Total by CVAA	mg/L	0.0000760	0.0005	0.004	0.00376	0.00386	0.00375	0.0034 to 0.0046	94.0	70 to 130	2.62	20
BA06274	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.00	20
BA06274	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.119	0.119	0.101	0.085 to 0.115	99.7	70 to 130	0.00	20
BA06274	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.00	1.02	1.03	0.85 to 1.15	100	70 to 130	1.98	20
BA06274	Calcium, Total	mg/L	-0.0165	0.1518	5.00	5.89	5.96	5.23	4.25 to 5.75	99.8	70 to 130	1.18	20
BA06274	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06274	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.0986	0.0989	0.107	0.085 to 0.115	98.6	70 to 130	0.304	20
BA06274	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0891	0.0915	0.102	0.085 to 0.115	89.1	70 to 130	2.66	20
BA06274	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0971	0.0985	0.0953	0.085 to 0.115	97.1	70 to 130	1.43	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 08:33
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-2 DUP

Laboratory ID Number: BA06272

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Solids, Dissolved	mg/L	1.00	25			46.0	55.0	40 to 60			3.72	5
BA06274	Chloride	mg/L	-0.0101	0.50	10.0	19.8	9.50	9.93	9 to 11	103	80 to 120	0.420	20
BA06274	Fluoride	mg/L	0.0226	0.05	2.50	2.48	0.0133	2.62	2.25 to 2.75	99.2	80 to 120	0.00	20
BA06274	Sulfate	mg/L	-0.513	0.50	20.0	22.8	4.18	19.6	18 to 22	93.4	80 to 120	1.45	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-3

Location Code: WMWBARAP
Collected: 3/31/20 09:44
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06273

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 13:06		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:20	4/6/20 13:06		1.015	1.10	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 13:06		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:53		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/3/20 08:10	4/6/20 14:53		1.015	0.0393	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:53		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:53		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:53		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 14:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:53		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 09:56		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	37.3	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:43	4/6/20 12:43		1	9.07	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:49	4/3/20 13:49		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:37	4/3/20 10:37		1	1.02	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/31/20 09:40	3/31/20 09:40			43.02	uS/cm			FA
pH	3/31/20 09:40	3/31/20 09:40			5.08	SU			FA
Temperature	3/31/20 09:40	3/31/20 09:40			21.24	C			FA
Turbidity	3/31/20 09:40	3/31/20 09:40			1.82	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 09:44
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-3

Laboratory ID Number: BA06273

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.201	0.204	0.205	0.17 to 0.23	100	70 to 130	1.48	20
BA06274	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.930	20
BA06274	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.102	0.103	0.111	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.120	0.120	0.0997	0.085 to 0.115	99.5	70 to 130	0.00	20
BA06274	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA06274	Mercury, Total by CVAA	mg/L	0.0000760	0.0005	0.004	0.00376	0.00386	0.00375	0.0034 to 0.0046	94.0	70 to 130	2.62	20
BA06274	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.00	20
BA06274	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.119	0.119	0.101	0.085 to 0.115	99.7	70 to 130	0.00	20
BA06274	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.00	1.02	1.03	0.85 to 1.15	100	70 to 130	1.98	20
BA06274	Calcium, Total	mg/L	-0.0165	0.1518	5.00	5.89	5.96	5.23	4.25 to 5.75	99.8	70 to 130	1.18	20
BA06274	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06274	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.0986	0.0989	0.107	0.085 to 0.115	98.6	70 to 130	0.304	20
BA06274	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0891	0.0915	0.102	0.085 to 0.115	89.1	70 to 130	2.66	20
BA06274	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0971	0.0985	0.0953	0.085 to 0.115	97.1	70 to 130	1.43	20

Comments:

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 09:44
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-3

Laboratory ID Number: BA06273

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Solids, Dissolved	mg/L	1.00	25			46.0	55.0	40 to 60			3.72	5
BA06274	Fluoride	mg/L	0.0226	0.05	2.50	2.48	0.0133	2.62	2.25 to 2.75	99.2	80 to 120	0.00	20
BA06274	Chloride	mg/L	-0.0101	0.50	10.0	19.8	9.50	9.93	9 to 11	103	80 to 120	0.420	20
BA06274	Sulfate	mg/L	-0.513	0.50	20.0	22.8	4.18	19.6	18 to 22	93.4	80 to 120	1.45	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-4

Location Code: WMWBARAP
Collected: 3/31/20 11:13
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06274

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 13:09		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:20	4/6/20 13:09		1.015	0.898	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 13:09		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 14:56		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 14:56		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/3/20 08:10	4/6/20 14:56		1.015	0.0193	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 14:56		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 14:56		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 14:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 14:56		1.015	0.0205	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 14:56		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 14:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 14:56		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 14:56		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 09:59		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/2/20 14:10	4/6/20 11:30		1	42.7	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 12:44	4/6/20 12:44		1	9.54	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 13:51	4/3/20 13:51		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:39	4/3/20 10:39		1	4.12	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/31/20 11:10	3/31/20 11:10			45.68	uS/cm			FA
pH	3/31/20 11:10	3/31/20 11:10			4.69	SU			FA
Temperature	3/31/20 11:10	3/31/20 11:10			21.36	C			FA
Turbidity	3/31/20 11:10	3/31/20 11:10			2.26	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 11:13
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-4

Laboratory ID Number: BA06274

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Lithium, Total	mg/L	0.0000195	0.0154	0.20	0.201	0.204	0.205	0.17 to 0.23	100	70 to 130	1.48	20
BA06274	Thallium, Total	mg/L	0.00000115	0.0001474	0.10	0.102	0.103	0.111	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Arsenic, Total	mg/L	0.00000224	0.0001474	0.10	0.107	0.108	0.105	0.085 to 0.115	107	70 to 130	0.930	20
BA06274	Cobalt, Total	mg/L	0.00000095	0.0001474	0.10	0.120	0.120	0.0997	0.085 to 0.115	99.5	70 to 130	0.00	20
BA06274	Chromium, Total	mg/L	0.0000877	0.00044	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA06274	Mercury, Total by CVAA	mg/L	0.0000760	0.0005	0.004	0.00376	0.00386	0.00375	0.0034 to 0.0046	94.0	70 to 130	2.62	20
BA06274	Selenium, Total	mg/L	0.0000948	0.00066	0.10	0.104	0.104	0.104	0.085 to 0.115	104	70 to 130	0.00	20
BA06274	Barium, Total	mg/L	-0.0000246	0.0002	0.10	0.119	0.119	0.101	0.085 to 0.115	99.7	70 to 130	0.00	20
BA06274	Boron, Total	mg/L	0.00431	0.0650254	1.00	1.00	1.02	1.03	0.85 to 1.15	100	70 to 130	1.98	20
BA06274	Calcium, Total	mg/L	-0.0165	0.1518	5.00	5.89	5.96	5.23	4.25 to 5.75	99.8	70 to 130	1.18	20
BA06274	Cadmium, Total	mg/L	0.0000119	0.0001474	0.10	0.102	0.103	0.103	0.085 to 0.115	102	70 to 130	0.976	20
BA06274	Molybdenum, Total	mg/L	0.0000118	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.08	20
BA06274	Lead, Total	mg/L	0.00000956	0.0001474	0.10	0.0986	0.0989	0.107	0.085 to 0.115	98.6	70 to 130	0.304	20
BA06274	Beryllium, Total	mg/L	0.0000693	0.00088	0.10	0.0891	0.0915	0.102	0.085 to 0.115	89.1	70 to 130	2.66	20
BA06274	Antimony, Total	mg/L	0.000274	0.00066	0.10	0.0971	0.0985	0.0953	0.085 to 0.115	97.1	70 to 130	1.43	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 11:13
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-4

Laboratory ID Number: BA06274

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06274	Solids, Dissolved	mg/L	1.00	25			46.0	55.0	40 to 60			3.72	5
BA06274	Chloride	mg/L	-0.0101	0.50	10.0	19.8	9.50	9.93	9 to 11	103	80 to 120	0.420	20
BA06274	Fluoride	mg/L	0.0226	0.05	2.50	2.48	0.0133	2.62	2.25 to 2.75	99.2	80 to 120	0.00	20
BA06274	Sulfate	mg/L	-0.513	0.50	20.0	22.8	4.18	19.6	18 to 22	93.4	80 to 120	1.45	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-5

Location Code: WMWBARAP
Collected: 3/31/20 12:29
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06275

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 13:46		1.015	0.0782	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 13:46		1.015	14.4	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 13:46		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:17		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:17		1.015	0.0329	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 15:17		1.015	0.150	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 15:17		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:17		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:17		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 15:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:17		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:15		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	243	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:29	4/6/20 13:29		2	19.8	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:10	4/3/20 14:10		1	0.0735	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:50	4/3/20 10:50		1	23.7	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/31/20 12:25	3/31/20 12:25			426.47	uS/cm			FA
pH	3/31/20 12:25	3/31/20 12:25			6.01	SU			FA
Temperature	3/31/20 12:25	3/31/20 12:25			22.11	C			FA
Turbidity	3/31/20 12:25	3/31/20 12:25			4.5	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 12:29
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-5

Laboratory ID Number: BA06275

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Calcium, Total	mg/L	-0.0177	0.1518	5.00	20.8	20.6	5.19	4.25 to 5.75	100	70 to 130	0.966	20
BA06408	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.1000	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06408	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.04	1.03	1.02	0.85 to 1.15	104	70 to 130	0.966	20
BA06408	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.207	0.207	0.201	0.17 to 0.23	104	70 to 130	0.00	20
BA06408	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.107	0.106	0.104	0.085 to 0.115	107	70 to 130	0.939	20
BA06408	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	1.90	20
BA06408	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.121	0.120	0.0994	0.085 to 0.115	100	70 to 130	0.830	20
BA06408	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.112	0.115	0.106	0.085 to 0.115	105	70 to 130	2.64	20
BA06408	Mercury, Total by CVAA	mg/L	0.00000676	0.0005	0.004	0.00366	0.00364	0.00369	0.0034 to 0.0046	91.5	70 to 130	0.548	20
BA06408	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA06408	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.0985	0.101	0.101	0.085 to 0.115	98.5	70 to 130	2.51	20
BA06408	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0969	0.0957	0.0941	0.085 to 0.115	96.9	70 to 130	1.25	20
BA06408	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.164	0.162	0.101	0.085 to 0.115	101	70 to 130	1.23	20
BA06408	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0926	0.0944	0.0912	0.085 to 0.115	92.6	70 to 130	1.93	20
BA06408	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 12:29
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-5

Laboratory ID Number: BA06275

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06279	Solids, Dissolved	mg/L	0.0000	25			275	52.0	40 to 60			0.181	5
BA06408	Fluoride	mg/L	0.0196	0.05	2.50	2.70	0.041	2.61	2.25 to 2.75	106	80 to 120	38.7	20
BA06408	Sulfate	mg/L	-0.467	0.50	20.0	36.9	18.1	19.6	18 to 22	94.0	80 to 120	0.00	20
BA06408	Chloride	mg/L	-0.00892	0.50	10.0	14.9	4.48	9.93	9 to 11	104	80 to 120	0.447	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-5V

Location Code: WMWBARAP
Collected: 3/31/20 13:23
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06276

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 13:49		1.015	0.0339	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 13:49		1.015	1.88	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 13:49		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:20		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:20		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/3/20 08:10	4/6/20 15:20		1.015	0.0313	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 15:20		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:20		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:20		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 15:20		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:20		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	81.3	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:30	4/6/20 13:30		2	25.8	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:11	4/3/20 14:11		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:51	4/3/20 10:51		1	0.980	mg/L	0.50	1	J
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/31/20 13:20	3/31/20 13:20			121.62	uS/cm			FA
pH	3/31/20 13:20	3/31/20 13:20			6.05	SU			FA
Temperature	3/31/20 13:20	3/31/20 13:20			21.91	C			FA
Turbidity	3/31/20 13:20	3/31/20 13:20			2.93	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 13:23
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: BA06276

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Calcium, Total	mg/L	-0.0177	0.1518	5.00	20.8	20.6	5.19	4.25 to 5.75	100	70 to 130	0.966	20
BA06408	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.1000	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06408	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.04	1.03	1.02	0.85 to 1.15	104	70 to 130	0.966	20
BA06408	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.207	0.207	0.201	0.17 to 0.23	104	70 to 130	0.00	20
BA06408	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.107	0.106	0.104	0.085 to 0.115	107	70 to 130	0.939	20
BA06408	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	1.90	20
BA06408	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.121	0.120	0.0994	0.085 to 0.115	100	70 to 130	0.830	20
BA06408	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.164	0.162	0.101	0.085 to 0.115	101	70 to 130	1.23	20
BA06408	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0926	0.0944	0.0912	0.085 to 0.115	92.6	70 to 130	1.93	20
BA06408	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06408	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.112	0.115	0.106	0.085 to 0.115	105	70 to 130	2.64	20
BA06408	Mercury, Total by CVAA	mg/L	0.00000676	0.0005	0.004	0.00366	0.00364	0.00369	0.0034 to 0.0046	91.5	70 to 130	0.548	20
BA06408	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA06408	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.0985	0.101	0.101	0.085 to 0.115	98.5	70 to 130	2.51	20
BA06408	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0969	0.0957	0.0941	0.085 to 0.115	96.9	70 to 130	1.25	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 13:23
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: BA06276

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06279	Solids, Dissolved	mg/L	0.0000	25			275	52.0	40 to 60			0.181	5
BA06408	Fluoride	mg/L	0.0196	0.05	2.50	2.70	0.041	2.61	2.25 to 2.75	106	80 to 120	38.7	20
BA06408	Sulfate	mg/L	-0.467	0.50	20.0	36.9	18.1	19.6	18 to 22	94.0	80 to 120	0.00	20
BA06408	Chloride	mg/L	-0.00892	0.50	10.0	14.9	4.48	9.93	9 to 11	104	80 to 120	0.447	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-6

Location Code: WMWBARAP
Collected: 3/31/20 14:20
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06277

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 13:52		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:20	4/6/20 13:52		1.015	1.68	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 13:52		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:22		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:22		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/3/20 08:10	4/6/20 15:22		1.015	0.0244	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 15:22		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:22		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:22		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 15:22		1.015	0.00276	mg/L	0.001	0.005	J
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:22		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	42.0	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:31	4/6/20 13:31		1	5.94	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:12	4/3/20 14:12		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:52	4/3/20 10:52		1	1.21	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/31/20 14:18	3/31/20 14:18			54.12	uS/cm			FA
pH	3/31/20 14:18	3/31/20 14:18			5.22	SU			FA
Temperature	3/31/20 14:18	3/31/20 14:18			21.55	C			FA
Turbidity	3/31/20 14:18	3/31/20 14:18			0.94	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 14:20
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-6

Laboratory ID Number: BA06277

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Calcium, Total	mg/L	-0.0177	0.1518	5.00	20.8	20.6	5.19	4.25 to 5.75	100	70 to 130	0.966	20
BA06408	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.1000	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06408	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.04	1.03	1.02	0.85 to 1.15	104	70 to 130	0.966	20
BA06408	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.207	0.207	0.201	0.17 to 0.23	104	70 to 130	0.00	20
BA06408	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.164	0.162	0.101	0.085 to 0.115	101	70 to 130	1.23	20
BA06408	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0926	0.0944	0.0912	0.085 to 0.115	92.6	70 to 130	1.93	20
BA06408	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06408	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.107	0.106	0.104	0.085 to 0.115	107	70 to 130	0.939	20
BA06408	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	1.90	20
BA06408	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.112	0.115	0.106	0.085 to 0.115	105	70 to 130	2.64	20
BA06408	Mercury, Total by CVAA	mg/L	0.00000676	0.0005	0.004	0.00366	0.00364	0.00369	0.0034 to 0.0046	91.5	70 to 130	0.548	20
BA06408	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA06408	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.0985	0.101	0.101	0.085 to 0.115	98.5	70 to 130	2.51	20
BA06408	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0969	0.0957	0.0941	0.085 to 0.115	96.9	70 to 130	1.25	20
BA06408	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.121	0.120	0.0994	0.085 to 0.115	100	70 to 130	0.830	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 14:20
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-6

Laboratory ID Number: BA06277

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Chloride	mg/L	-0.00892	0.50	10.0	14.9	4.48	9.93	9 to 11	104	80 to 120	0.447	20
BA06408	Sulfate	mg/L	-0.467	0.50	20.0	36.9	18.1	19.6	18 to 22	94.0	80 to 120	0.00	20
BA06279	Solids, Dissolved	mg/L	0.0000	25			275	52.0	40 to 60			0.181	5
BA06408	Fluoride	mg/L	0.0196	0.05	2.50	2.70	0.041	2.61	2.25 to 2.75	106	80 to 120	38.7	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-24H

Location Code: WMWBARAP
Collected: 3/31/20 15:30
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06278

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 13:55		1.015	0.325	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 13:55		1.015	18.1	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 13:55		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:25		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:25		1.015	0.0729	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 15:25		1.015	0.243	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 15:25		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:25		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:25		1.015	0.00528	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 15:25		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:25		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	418	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:33	4/6/20 13:33		4	47.5	mg/L	2.00	4	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:14	4/3/20 14:14		1	0.148	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 11:01	4/3/20 11:01		3	84.5	mg/L	1.50	3	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/31/20 15:27	3/31/20 15:27			800.01	uS/cm			FA
pH	3/31/20 15:27	3/31/20 15:27			6.23	SU			FA
Temperature	3/31/20 15:27	3/31/20 15:27			21.74	C			FA
Turbidity	3/31/20 15:27	3/31/20 15:27			2.35	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 15:30
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: BA06278

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Calcium, Total	mg/L	-0.0177	0.1518	5.00	20.8	20.6	5.19	4.25 to 5.75	100	70 to 130	0.966	20
BA06408	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.1000	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06408	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.04	1.03	1.02	0.85 to 1.15	104	70 to 130	0.966	20
BA06408	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.121	0.120	0.0994	0.085 to 0.115	100	70 to 130	0.830	20
BA06408	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.207	0.207	0.201	0.17 to 0.23	104	70 to 130	0.00	20
BA06408	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.164	0.162	0.101	0.085 to 0.115	101	70 to 130	1.23	20
BA06408	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0926	0.0944	0.0912	0.085 to 0.115	92.6	70 to 130	1.93	20
BA06408	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06408	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.107	0.106	0.104	0.085 to 0.115	107	70 to 130	0.939	20
BA06408	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	1.90	20
BA06408	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.112	0.115	0.106	0.085 to 0.115	105	70 to 130	2.64	20
BA06408	Mercury, Total by CVAA	mg/L	0.00000676	0.0005	0.004	0.00366	0.00364	0.00369	0.0034 to 0.0046	91.5	70 to 130	0.548	20
BA06408	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA06408	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.0985	0.101	0.101	0.085 to 0.115	98.5	70 to 130	2.51	20
BA06408	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0969	0.0957	0.0941	0.085 to 0.115	96.9	70 to 130	1.25	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 15:30
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: BA06278

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Fluoride	mg/L	0.0196	0.05	2.50	2.70	0.041	2.61	2.25 to 2.75	106	80 to 120	38.7	20
BA06279	Solids, Dissolved	mg/L	0.0000	25			275	52.0	40 to 60			0.181	5
BA06408	Sulfate	mg/L	-0.467	0.50	20.0	36.9	18.1	19.6	18 to 22	94.0	80 to 120	0.00	20
BA06408	Chloride	mg/L	-0.00892	0.50	10.0	14.9	4.48	9.93	9 to 11	104	80 to 120	0.447	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-16

Location Code: WMWBARAP
Collected: 3/31/20 16:50
Customer ID:
Submittal Date: 4/1/20 14:56

Laboratory ID Number: BA06279

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 13:58		1.015	1.74	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 13:58		1.015	14.2	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 13:58		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:28		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:28		1.015	0.0120	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 15:28		1.015	0.0910	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 15:28		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:28		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:28		1.015	0.0199	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 15:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:28		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	276	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:34	4/6/20 13:34		2	20.8	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:15	4/3/20 14:15		1	0.0602	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:55	4/3/20 10:55		1	17.5	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	3/31/20 16:47	3/31/20 16:47			417.47	uS/cm			FA
pH	3/31/20 16:47	3/31/20 16:47			5.75	SU			FA
Temperature	3/31/20 16:47	3/31/20 16:47			21.48	C			FA
Turbidity	3/31/20 16:47	3/31/20 16:47			6.36	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 3/31/20 16:50
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-16

Laboratory ID Number: BA06279

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Calcium, Total	mg/L	-0.0177	0.1518	5.00	20.8	20.6	5.19	4.25 to 5.75	100	70 to 130	0.966	20
BA06408	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.04	1.03	1.02	0.85 to 1.15	104	70 to 130	0.966	20
BA06408	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.207	0.207	0.201	0.17 to 0.23	104	70 to 130	0.00	20
BA06408	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.1000	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06408	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.164	0.162	0.101	0.085 to 0.115	101	70 to 130	1.23	20
BA06408	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0926	0.0944	0.0912	0.085 to 0.115	92.6	70 to 130	1.93	20
BA06408	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06408	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.121	0.120	0.0994	0.085 to 0.115	100	70 to 130	0.830	20
BA06408	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.107	0.106	0.104	0.085 to 0.115	107	70 to 130	0.939	20
BA06408	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	1.90	20
BA06408	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.112	0.115	0.106	0.085 to 0.115	105	70 to 130	2.64	20
BA06408	Mercury, Total by CVAA	mg/L	0.00000676	0.0005	0.004	0.00366	0.00364	0.00369	0.0034 to 0.0046	91.5	70 to 130	0.548	20
BA06408	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA06408	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.0985	0.101	0.101	0.085 to 0.115	98.5	70 to 130	2.51	20
BA06408	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0969	0.0957	0.0941	0.085 to 0.115	96.9	70 to 130	1.25	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 3/31/20 16:50
Customer ID:
Delivery Date: 4/1/20 14:56

Description: Barry Ash Pond - MW-16

Laboratory ID Number: BA06279

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06279	Solids, Dissolved	mg/L	0.0000	25			275	52.0	40 to 60			0.181	5
BA06408	Chloride	mg/L	-0.00892	0.50	10.0	14.9	4.48	9.93	9 to 11	104	80 to 120	0.447	20
BA06408	Sulfate	mg/L	-0.467	0.50	20.0	36.9	18.1	19.6	18 to 22	94.0	80 to 120	0.00	20
BA06408	Fluoride	mg/L	0.0196	0.05	2.50	2.70	0.041	2.61	2.25 to 2.75	106	80 to 120	38.7	20

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-15

Location Code: WMWBARAP
Collected: 4/1/20 09:15
Customer ID:
Submittal Date: 4/2/20 13:56

Laboratory ID Number: BA06404

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 14:01		1.015	0.100	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 14:01		1.015	7.32	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 14:01		1.015	0.0174	mg/L	0.01	0.02	J
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:30		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:30		1.015	0.0183	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 15:30		1.015	0.0697	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 15:30		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:30		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:30		1.015	0.0344	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 15:30		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:30		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:27		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	231	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:35	4/6/20 13:35		5	54.7	mg/L	2.50	5	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:16	4/3/20 14:16		1	0.187	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:56	4/3/20 10:56		1	7.50	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	4/1/20 09:13	4/1/20 09:13			505.46	uS/cm			FA
pH	4/1/20 09:13	4/1/20 09:13			6.72	SU			FA
Temperature	4/1/20 09:13	4/1/20 09:13			20.61	C			FA
Turbidity	4/1/20 09:13	4/1/20 09:13			4.23	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 4/1/20 09:15
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-15

Laboratory ID Number: BA06404

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Calcium, Total	mg/L	-0.0177	0.1518	5.00	20.8	20.6	5.19	4.25 to 5.75	100	70 to 130	0.966	20
BA06408	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.04	1.03	1.02	0.85 to 1.15	104	70 to 130	0.966	20
BA06408	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.207	0.207	0.201	0.17 to 0.23	104	70 to 130	0.00	20
BA06408	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.1000	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06408	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.121	0.120	0.0994	0.085 to 0.115	100	70 to 130	0.830	20
BA06408	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.164	0.162	0.101	0.085 to 0.115	101	70 to 130	1.23	20
BA06408	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0926	0.0944	0.0912	0.085 to 0.115	92.6	70 to 130	1.93	20
BA06408	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06408	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.107	0.106	0.104	0.085 to 0.115	107	70 to 130	0.939	20
BA06408	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	1.90	20
BA06408	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.112	0.115	0.106	0.085 to 0.115	105	70 to 130	2.64	20
BA06408	Mercury, Total by CVAA	mg/L	0.00000676	0.0005	0.004	0.00366	0.00364	0.00369	0.0034 to 0.0046	91.5	70 to 130	0.548	20
BA06408	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA06408	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.0985	0.101	0.101	0.085 to 0.115	98.5	70 to 130	2.51	20
BA06408	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0969	0.0957	0.0941	0.085 to 0.115	96.9	70 to 130	1.25	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/1/20 09:15
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-15

Laboratory ID Number: BA06404

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Sulfate	mg/L	-0.467	0.50	20.0	36.9	18.1	19.6	18 to 22	94.0	80 to 120	0.00	20
BA06408	Fluoride	mg/L	0.0196	0.05	2.50	2.70	0.041	2.61	2.25 to 2.75	106	80 to 120	38.7	20
BA06408	Chloride	mg/L	-0.00892	0.50	10.0	14.9	4.48	9.93	9 to 11	104	80 to 120	0.447	20
BA06411	Solids, Dissolved	mg/L	0.0000	25			322	52.0	40 to 60			0.468	5

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-15 DUP

Location Code: WMWBARAP
Collected: 4/1/20 09:15
Customer ID:
Submittal Date: 4/2/20 13:56

Laboratory ID Number: BA06405

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 14:04		1.015	0.0961	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 14:04		1.015	7.25	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 14:04		1.015	0.0172	mg/L	0.01	0.02	J
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:33		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:33		1.015	0.0181	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 15:33		1.015	0.0684	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 15:33		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:33		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:33		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:33		1.015	0.0338	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 15:33		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:33		1.015	0.00204	mg/L	0.002	0.01	J
* Selenium, Total	4/3/20 08:10	4/6/20 15:33		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:33		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:29		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	210	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:36	4/6/20 13:36		5	56.4	mg/L	2.50	5	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:17	4/3/20 14:17		1	0.184	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:57	4/3/20 10:57		1	7.61	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	4/1/20 09:13	4/1/20 09:13			505.46	uS/cm			FA
pH	4/1/20 09:13	4/1/20 09:13			6.72	SU			FA
Temperature	4/1/20 09:13	4/1/20 09:13			20.61	C			FA
Turbidity	4/1/20 09:13	4/1/20 09:13			4.23	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 4/1/20 09:15
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-15 DUP

Laboratory ID Number: BA06405

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.04	1.03	1.02	0.85 to 1.15	104	70 to 130	0.966	20
BA06408	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.207	0.207	0.201	0.17 to 0.23	104	70 to 130	0.00	20
BA06408	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.1000	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06408	Calcium, Total	mg/L	-0.0177	0.1518	5.00	20.8	20.6	5.19	4.25 to 5.75	100	70 to 130	0.966	20
BA06408	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.107	0.106	0.104	0.085 to 0.115	107	70 to 130	0.939	20
BA06408	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	1.90	20
BA06408	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.164	0.162	0.101	0.085 to 0.115	101	70 to 130	1.23	20
BA06408	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0926	0.0944	0.0912	0.085 to 0.115	92.6	70 to 130	1.93	20
BA06408	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06408	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.112	0.115	0.106	0.085 to 0.115	105	70 to 130	2.64	20
BA06408	Mercury, Total by CVAA	mg/L	0.00000676	0.0005	0.004	0.00366	0.00364	0.00369	0.0034 to 0.0046	91.5	70 to 130	0.548	20
BA06408	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA06408	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.0985	0.101	0.101	0.085 to 0.115	98.5	70 to 130	2.51	20
BA06408	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0969	0.0957	0.0941	0.085 to 0.115	96.9	70 to 130	1.25	20
BA06408	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.121	0.120	0.0994	0.085 to 0.115	100	70 to 130	0.830	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/1/20 09:15
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-15 DUP

Laboratory ID Number: BA06405

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Fluoride	mg/L	0.0196	0.05	2.50	2.70	0.041	2.61	2.25 to 2.75	106	80 to 120	38.7	20
BA06408	Sulfate	mg/L	-0.467	0.50	20.0	36.9	18.1	19.6	18 to 22	94.0	80 to 120	0.00	20
BA06408	Chloride	mg/L	-0.00892	0.50	10.0	14.9	4.48	9.93	9 to 11	104	80 to 120	0.447	20
BA06411	Solids, Dissolved	mg/L	0.0000	25			322	52.0	40 to 60			0.468	5

Comments:

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

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-17H

Location Code: WMWBARAP
Collected: 4/1/20 10:30
Customer ID:
Submittal Date: 4/2/20 13:56

Laboratory ID Number: BA06406

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 14:07		1.015	0.0730	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 14:07		1.015	27.0	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 14:07		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:36		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:36		1.015	0.0208	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 15:36		1.015	0.194	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 15:36		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:36		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:36		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 15:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:36		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:32		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	243	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:37	4/6/20 13:37		1	17.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:18	4/3/20 14:18		1	0.151	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 10:58	4/3/20 10:58		1	19.4	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: TJD***								
Conductivity	4/1/20 10:26	4/1/20 10:26			478.49	uS/cm			FA
pH	4/1/20 10:26	4/1/20 10:26			6.52	SU			FA
Temperature	4/1/20 10:26	4/1/20 10:26			21.00	C			FA
Turbidity	4/1/20 10:26	4/1/20 10:26			8.11	NTU			FA

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

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

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

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 4/1/20 10:30
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: BA06406

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Calcium, Total	mg/L	-0.0177	0.1518	5.00	20.8	20.6	5.19	4.25 to 5.75	100	70 to 130	0.966	20
BA06408	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.1000	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06408	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.207	0.207	0.201	0.17 to 0.23	104	70 to 130	0.00	20
BA06408	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.04	1.03	1.02	0.85 to 1.15	104	70 to 130	0.966	20
BA06408	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.107	0.106	0.104	0.085 to 0.115	107	70 to 130	0.939	20
BA06408	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	1.90	20
BA06408	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.121	0.120	0.0994	0.085 to 0.115	100	70 to 130	0.830	20
BA06408	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.164	0.162	0.101	0.085 to 0.115	101	70 to 130	1.23	20
BA06408	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0926	0.0944	0.0912	0.085 to 0.115	92.6	70 to 130	1.93	20
BA06408	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06408	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.112	0.115	0.106	0.085 to 0.115	105	70 to 130	2.64	20
BA06408	Mercury, Total by CVAA	mg/L	0.00000676	0.0005	0.004	0.00366	0.00364	0.00369	0.0034 to 0.0046	91.5	70 to 130	0.548	20
BA06408	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA06408	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.0985	0.101	0.101	0.085 to 0.115	98.5	70 to 130	2.51	20
BA06408	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0969	0.0957	0.0941	0.085 to 0.115	96.9	70 to 130	1.25	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/1/20 10:30
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: BA06406

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Fluoride	mg/L	0.0196	0.05	2.50	2.70	0.041	2.61	2.25 to 2.75	106	80 to 120	38.7	20
BA06408	Sulfate	mg/L	-0.467	0.50	20.0	36.9	18.1	19.6	18 to 22	94.0	80 to 120	0.00	20
BA06408	Chloride	mg/L	-0.00892	0.50	10.0	14.9	4.48	9.93	9 to 11	104	80 to 120	0.447	20
BA06411	Solids, Dissolved	mg/L	0.0000	25			322	52.0	40 to 60			0.468	5

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 4/1/20 10:50
Customer ID:
Submittal Date: 4/2/20 13:56

Laboratory ID Number: BA06407

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 14:10		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:20	4/6/20 14:10		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	4/3/20 09:20	4/6/20 14:10		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:38		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:34		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:39	4/6/20 13:39		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:20	4/3/20 14:20		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 11:00	4/3/20 11:00		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPFB
Sample Date: 4/1/20 10:50
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA06407

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Calcium, Total	mg/L	-0.0177	0.1518	5.00	20.8	20.6	5.19	4.25 to 5.75	100	70 to 130	0.966	20
BA06408	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.207	0.207	0.201	0.17 to 0.23	104	70 to 130	0.00	20
BA06408	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.1000	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06408	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.04	1.03	1.02	0.85 to 1.15	104	70 to 130	0.966	20
BA06408	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.164	0.162	0.101	0.085 to 0.115	101	70 to 130	1.23	20
BA06408	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0926	0.0944	0.0912	0.085 to 0.115	92.6	70 to 130	1.93	20
BA06408	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06408	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.121	0.120	0.0994	0.085 to 0.115	100	70 to 130	0.830	20
BA06408	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.107	0.106	0.104	0.085 to 0.115	107	70 to 130	0.939	20
BA06408	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	1.90	20
BA06408	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.112	0.115	0.106	0.085 to 0.115	105	70 to 130	2.64	20
BA06408	Mercury, Total by CVAA	mg/L	0.00000676	0.0005	0.004	0.00366	0.00364	0.00369	0.0034 to 0.0046	91.5	70 to 130	0.548	20
BA06408	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA06408	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.0985	0.101	0.101	0.085 to 0.115	98.5	70 to 130	2.51	20
BA06408	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0969	0.0957	0.0941	0.085 to 0.115	96.9	70 to 130	1.25	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 4/1/20 10:50
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA06407

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Fluoride	mg/L	0.0196	0.05	2.50	2.70	0.041	2.61	2.25 to 2.75	106	80 to 120	38.7	20
BA06408	Sulfate	mg/L	-0.467	0.50	20.0	36.9	18.1	19.6	18 to 22	94.0	80 to 120	0.00	20
BA06408	Chloride	mg/L	-0.00892	0.50	10.0	14.9	4.48	9.93	9 to 11	104	80 to 120	0.447	20
BA06411	Solids, Dissolved	mg/L	0.0000	25			322	52.0	40 to 60			0.468	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-23H

Location Code: WMWBARAP
Collected: 4/1/20 10:00
Customer ID:
Submittal Date: 4/2/20 13:56

Laboratory ID Number: BA06408

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 14:13		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:20	4/6/20 14:13		1.015	15.8	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 14:13		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:41		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:41		1.015	0.00689	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 15:41		1.015	0.0629	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 15:41		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:41		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:41		1.015	0.0206	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 15:41		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:41		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	105	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:40	4/6/20 13:40		1	4.46	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:21	4/3/20 14:21		1	0.0607	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 11:02	4/3/20 11:02		1	18.1	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/1/20 09:58	4/1/20 09:58			1.76	uS/cm			FA
pH	4/1/20 09:58	4/1/20 09:58			6.44	SU			FA
Temperature	4/1/20 09:58	4/1/20 09:58			19.41	C			FA
Turbidity	4/1/20 09:58	4/1/20 09:58			8.08	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Precision for Fluoride is invalid due to sample concentration is an estimate. LBM 4/14/20

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 4/1/20 10:00
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: BA06408

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Calcium, Total	mg/L	-0.0177	0.1518	5.00	20.8	20.6	5.19	4.25 to 5.75	100	70 to 130	0.966	20
BA06408	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.1000	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA06408	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.04	1.03	1.02	0.85 to 1.15	104	70 to 130	0.966	20
BA06408	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.207	0.207	0.201	0.17 to 0.23	104	70 to 130	0.00	20
BA06408	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.121	0.120	0.0994	0.085 to 0.115	100	70 to 130	0.830	20
BA06408	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.164	0.162	0.101	0.085 to 0.115	101	70 to 130	1.23	20
BA06408	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0926	0.0944	0.0912	0.085 to 0.115	92.6	70 to 130	1.93	20
BA06408	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.103	0.104	0.104	0.085 to 0.115	103	70 to 130	0.966	20
BA06408	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.107	0.106	0.104	0.085 to 0.115	107	70 to 130	0.939	20
BA06408	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.104	0.106	0.103	0.085 to 0.115	104	70 to 130	1.90	20
BA06408	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.112	0.115	0.106	0.085 to 0.115	105	70 to 130	2.64	20
BA06408	Mercury, Total by CVAA	mg/L	0.00000676	0.0005	0.004	0.00366	0.00364	0.00369	0.0034 to 0.0046	91.5	70 to 130	0.548	20
BA06408	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.100	0.101	0.101	0.085 to 0.115	100	70 to 130	0.995	20
BA06408	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.0985	0.101	0.101	0.085 to 0.115	98.5	70 to 130	2.51	20
BA06408	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0969	0.0957	0.0941	0.085 to 0.115	96.9	70 to 130	1.25	20

Comments: Precision for Fluoride is invalid due to sample concentration is an estimate. LBM 4/14/20

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/1/20 10:00
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: BA06408

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06408	Sulfate	mg/L	-0.467	0.50	20.0	36.9	18.1	19.6	18 to 22	94.0	80 to 120	0.00	20
BA06408	Fluoride	mg/L	0.0196	0.05	2.50	2.70	0.041	2.61	2.25 to 2.75	106	80 to 120	38.7	20
BA06408	Chloride	mg/L	-0.00892	0.50	10.0	14.9	4.48	9.93	9 to 11	104	80 to 120	0.447	20
BA06411	Solids, Dissolved	mg/L	0.0000	25			322	52.0	40 to 60			0.468	5

Comments: Precision for Fluoride is invalid due to sample concentration is an estimate. LBM 4/14/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 4/1/20 10:42
Customer ID:
Submittal Date: 4/2/20 13:56

Laboratory ID Number: BA06409

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 14:28		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:20	4/6/20 14:28		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	4/3/20 09:20	4/6/20 14:28		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:57		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:53		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:51	4/6/20 13:51		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:34	4/3/20 14:34		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 11:14	4/3/20 11:14		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPFB
Sample Date: 4/1/20 10:42
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA06409

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06412	Calcium, Total	mg/L	-0.0177	0.1518	5.00	5.16	5.22	5.19	4.25 to 5.75	103	70 to 130	1.16	20
BA06412	Mercury, Total by CVAA	mg/L	0.00000638	0.0005	0.004	0.00371	0.00367	0.00373	0.0034 to 0.0046	92.8	70 to 130	1.08	20
BA06412	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA06412	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA06412	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06412	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.01	1.01	1.02	0.85 to 1.15	101	70 to 130	0.00	20
BA06412	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.198	0.199	0.201	0.17 to 0.23	99.0	70 to 130	0.504	20
BA06412	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.101	0.102	0.0994	0.085 to 0.115	101	70 to 130	0.985	20
BA06412	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06412	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0972	0.0959	0.0941	0.085 to 0.115	97.2	70 to 130	1.35	20
BA06412	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.109	0.105	0.106	0.085 to 0.115	109	70 to 130	3.74	20
BA06412	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.106	0.106	0.104	0.085 to 0.115	106	70 to 130	0.00	20
BA06412	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0924	0.0937	0.0912	0.085 to 0.115	92.4	70 to 130	1.40	20
BA06412	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA06412	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.108	0.106	0.102	0.085 to 0.115	108	70 to 130	1.87	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 4/1/20 10:42
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA06409

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06412	Fluoride	mg/L	0.0125	0.05	2.50	2.61	0.0127	2.64	2.25 to 2.75	104	80 to 120	0.00	20
BA06412	Sulfate	mg/L	-0.511	0.50	20.0	19.3	-0.557	19.4	18 to 22	96.5	80 to 120	0.00	20
BA06411	Solids, Dissolved	mg/L	0.0000	25			322	52.0	40 to 60			0.468	5
BA06412	Chloride	mg/L	0.0193	0.50	10.0	9.99	0.0679	9.94	9 to 11	99.9	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-18H

Location Code: WMWBARAP
Collected: 4/1/20 10:58
Customer ID:
Submittal Date: 4/2/20 13:56

Laboratory ID Number: BA06410

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 14:31		1.015	0.435	mg/L	0.03	0.1	
* Calcium, Total	4/3/20 09:20	4/6/20 14:31		1.015	23.1	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 14:31		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 15:59		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 15:59		1.015	0.00937	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 15:59		1.015	0.109	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 15:59		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 15:59		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 15:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 15:59		1.015	0.0130	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 15:59		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 15:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 15:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 15:59		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:55		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	210	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:52	4/6/20 13:52		1	12.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:35	4/3/20 14:35		1	0.0722	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 11:15	4/3/20 11:15		1	24.2	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/1/20 10:55	4/1/20 10:55			1.45	uS/cm			FA
pH	4/1/20 10:55	4/1/20 10:55			6.48	SU			FA
Temperature	4/1/20 10:55	4/1/20 10:55			19.48	C			FA
Turbidity	4/1/20 10:55	4/1/20 10:55			4.83	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 4/1/20 10:58
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: BA06410

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06412	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA06412	Mercury, Total by CVAA	mg/L	0.00000638	0.0005	0.004	0.00371	0.00367	0.00373	0.0034 to 0.0046	92.8	70 to 130	1.08	20
BA06412	Calcium, Total	mg/L	-0.0177	0.1518	5.00	5.16	5.22	5.19	4.25 to 5.75	103	70 to 130	1.16	20
BA06412	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA06412	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06412	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.01	1.01	1.02	0.85 to 1.15	101	70 to 130	0.00	20
BA06412	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.198	0.199	0.201	0.17 to 0.23	99.0	70 to 130	0.504	20
BA06412	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.101	0.102	0.0994	0.085 to 0.115	101	70 to 130	0.985	20
BA06412	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06412	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0972	0.0959	0.0941	0.085 to 0.115	97.2	70 to 130	1.35	20
BA06412	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0924	0.0937	0.0912	0.085 to 0.115	92.4	70 to 130	1.40	20
BA06412	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA06412	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.108	0.106	0.102	0.085 to 0.115	108	70 to 130	1.87	20
BA06412	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.109	0.105	0.106	0.085 to 0.115	109	70 to 130	3.74	20
BA06412	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.106	0.106	0.104	0.085 to 0.115	106	70 to 130	0.00	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/1/20 10:58
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: BA06410

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06412	Sulfate	mg/L	-0.511	0.50	20.0	19.3	-0.557	19.4	18 to 22	96.5	80 to 120	0.00	20
BA06412	Fluoride	mg/L	0.0125	0.05	2.50	2.61	0.0127	2.64	2.25 to 2.75	104	80 to 120	0.00	20
BA06411	Solids, Dissolved	mg/L	0.0000	25			322	52.0	40 to 60			0.468	5
BA06412	Chloride	mg/L	0.0193	0.50	10.0	9.99	0.0679	9.94	9 to 11	99.9	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-20H

Location Code: WMWBARAP
Collected: 4/1/20 12:02
Customer ID:
Submittal Date: 4/2/20 13:56

Laboratory ID Number: BA06411

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 14:34		1.015	0.0460	mg/L	0.03	0.1	J
* Calcium, Total	4/3/20 09:20	4/6/20 14:34		1.015	26.0	mg/L	0.1	0.5	
* Lithium, Total	4/3/20 09:20	4/6/20 14:34		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 16:02		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 16:02		1.015	0.00508	mg/L	0.001	0.005	
* Barium, Total	4/3/20 08:10	4/6/20 16:02		1.015	0.119	mg/L	0.002	0.01	
* Beryllium, Total	4/3/20 08:10	4/6/20 16:02		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 16:02		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 16:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 16:02		1.015	0.00541	mg/L	0.002	0.005	
* Lead, Total	4/3/20 08:10	4/6/20 16:02		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 16:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 16:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 16:02		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 10:58		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	319	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:54	4/6/20 13:54		2	23.1	mg/L	1.00	2	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:36	4/3/20 14:36		1	0.0793	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 11:17	4/3/20 11:17		1	18.7	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	4/1/20 11:59	4/1/20 11:59			1.67	uS/cm			FA
pH	4/1/20 11:59	4/1/20 11:59			6.45	SU			FA
Temperature	4/1/20 11:59	4/1/20 11:59			19.68	C			FA
Turbidity	4/1/20 11:59	4/1/20 11:59			3.7	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 4/1/20 12:02
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: BA06411

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06412	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA06412	Mercury, Total by CVAA	mg/L	0.00000638	0.0005	0.004	0.00371	0.00367	0.00373	0.0034 to 0.0046	92.8	70 to 130	1.08	20
BA06412	Calcium, Total	mg/L	-0.0177	0.1518	5.00	5.16	5.22	5.19	4.25 to 5.75	103	70 to 130	1.16	20
BA06412	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA06412	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06412	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.01	1.01	1.02	0.85 to 1.15	101	70 to 130	0.00	20
BA06412	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.198	0.199	0.201	0.17 to 0.23	99.0	70 to 130	0.504	20
BA06412	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0924	0.0937	0.0912	0.085 to 0.115	92.4	70 to 130	1.40	20
BA06412	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA06412	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.108	0.106	0.102	0.085 to 0.115	108	70 to 130	1.87	20
BA06412	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.101	0.102	0.0994	0.085 to 0.115	101	70 to 130	0.985	20
BA06412	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06412	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0972	0.0959	0.0941	0.085 to 0.115	97.2	70 to 130	1.35	20
BA06412	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.109	0.105	0.106	0.085 to 0.115	109	70 to 130	3.74	20
BA06412	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.106	0.106	0.104	0.085 to 0.115	106	70 to 130	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 4/1/20 12:02
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: BA06411

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06412	Sulfate	mg/L	-0.511	0.50	20.0	19.3	-0.557	19.4	18 to 22	96.5	80 to 120	0.00	20
BA06412	Fluoride	mg/L	0.0125	0.05	2.50	2.61	0.0127	2.64	2.25 to 2.75	104	80 to 120	0.00	20
BA06411	Solids, Dissolved	mg/L	0.0000	25			322	52.0	40 to 60			0.468	5
BA06412	Chloride	mg/L	0.0193	0.50	10.0	9.99	0.0679	9.94	9 to 11	99.9	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Equipment Blank

Location Code: WMWBARAPEB
Collected: 4/1/20 12:40
Customer ID:
Submittal Date: 4/2/20 13:56

Laboratory ID Number: BA06412

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: ABB***				***Preparation Method: EPA 1638***				
* Boron, Total	4/3/20 09:20	4/6/20 14:37		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	4/3/20 09:20	4/6/20 14:37		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	4/3/20 09:20	4/6/20 14:37		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	4/3/20 08:10	4/6/20 16:05		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	4/6/20 10:33	4/7/20 11:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	4/6/20 13:50	4/8/20 09:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	4/6/20 13:55	4/6/20 13:55		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	4/3/20 14:37	4/3/20 14:37		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	4/3/20 11:18	4/3/20 11:18		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPEB
Sample Date: 4/1/20 12:40
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: BA06412

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06412	Cadmium, Total	mg/L	0.00000415	0.0001474	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA06412	Mercury, Total by CVAA	mg/L	0.00000638	0.0005	0.004	0.00371	0.00367	0.00373	0.0034 to 0.0046	92.8	70 to 130	1.08	20
BA06412	Calcium, Total	mg/L	-0.0177	0.1518	5.00	5.16	5.22	5.19	4.25 to 5.75	103	70 to 130	1.16	20
BA06412	Barium, Total	mg/L	-0.0000236	0.0002	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA06412	Molybdenum, Total	mg/L	0.0000104	0.0001474	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA06412	Boron, Total	mg/L	0.00352	0.0650254	1.00	1.01	1.01	1.02	0.85 to 1.15	101	70 to 130	0.00	20
BA06412	Lithium, Total	mg/L	-0.0000505	0.0154	0.20	0.198	0.199	0.201	0.17 to 0.23	99.0	70 to 130	0.504	20
BA06412	Cobalt, Total	mg/L	-0.00000211	0.0001474	0.10	0.101	0.102	0.0994	0.085 to 0.115	101	70 to 130	0.985	20
BA06412	Lead, Total	mg/L	0.00000933	0.0001474	0.10	0.102	0.101	0.101	0.085 to 0.115	102	70 to 130	0.985	20
BA06412	Antimony, Total	mg/L	0.000380	0.00066	0.10	0.0972	0.0959	0.0941	0.085 to 0.115	97.2	70 to 130	1.35	20
BA06412	Beryllium, Total	mg/L	0.0000330	0.00088	0.10	0.0924	0.0937	0.0912	0.085 to 0.115	92.4	70 to 130	1.40	20
BA06412	Selenium, Total	mg/L	0.0000802	0.00066	0.10	0.103	0.103	0.103	0.085 to 0.115	103	70 to 130	0.00	20
BA06412	Thallium, Total	mg/L	0.00000289	0.0001474	0.10	0.108	0.106	0.102	0.085 to 0.115	108	70 to 130	1.87	20
BA06412	Arsenic, Total	mg/L	0.00000792	0.0001474	0.10	0.109	0.105	0.106	0.085 to 0.115	109	70 to 130	3.74	20
BA06412	Chromium, Total	mg/L	0.0000336	0.00044	0.10	0.106	0.106	0.104	0.085 to 0.115	106	70 to 130	0.00	20

Comments:

Reported: 4/29/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPEB
Sample Date: 4/1/20 12:40
Customer ID:
Delivery Date: 4/2/20 13:56

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: BA06412

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA06412	Fluoride	mg/L	0.0125	0.05	2.50	2.61	0.0127	2.64	2.25 to 2.75	104	80 to 120	0.00	20
BA06412	Sulfate	mg/L	-0.511	0.50	20.0	19.3	-0.557	19.4	18 to 22	96.5	80 to 120	0.00	20
BA06411	Solids, Dissolved	mg/L	0.0000	25			322	52.0	40 to 60			0.468	5
BA06412	Chloride	mg/L	0.0193	0.50	10.0	9.99	0.0679	9.94	9 to 11	99.9	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Definitions

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
R	Matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
U	Compound was analyzed, but not detected.

Chain of Custody Groundwater

APC General Testing Laboratory

☑ Field Complete ☐ Outside Lab

☑ Lab Complete

Lab ETA 04/01/2020 12:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments: Correcting time on MW-1V per Gentry. LBM 04/01/2020

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	03/30/2020	16:26	4	Groundwater		BA06269
MW-1V	03/30/2020	17:14	4	Groundwater		BA06270
MW-2	03/31/2020	08:33	4	Groundwater		BA06271
MW-2 dup	03/31/2020	08:33	4	Sample Duplicate		BA06272
MW-3	03/31/2020	09:44	4	Groundwater		BA06273
MW-4	03/31/2020	11:13	4	Groundwater		BA06274
MW-5	03/31/2020	12:29	4	Groundwater		BA06275
MW-5V	03/31/2020	13:23	4	Groundwater		BA06276
MW-6	03/31/2020	14:20	4	Groundwater		BA06277
MW-24H	03/31/2020	15:30	4	Groundwater		BA06278
MW-16	03/31/2020	16:50	4	Groundwater		BA06279

Relinquished By	Received By	Date/Time
		04/01/2020 07:09
		04/01/2020 09:28
		04/01/2020 11:25

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1269

All metals and radiological bottles have pH < 2 ☑

Cooler Temp	0.5 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	7901-43572-2-1; 7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ☐ Outside Lab

✔ Lab Complete

Lab ETA 04/01/2020 12:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7V	03/30/2020	13:05	4	Groundwater		BA06255
MW-7	03/30/2020	14:45	4	Groundwater		BA06256
MW-8	03/30/2020	16:20	4	Groundwater		BA06257
MW-8 Dup	03/30/2020	16:20	4	Sample Duplicate		BA06258
MW-8V	03/30/2020	17:32	4	Groundwater		BA06259
MW-9	03/31/2020	08:03	4	Groundwater		BA06260
MW-10	03/31/2020	08:50	4	Groundwater		BA06261
MW-10V	03/31/2020	09:35	4	Groundwater		BA06262
MW-11	03/31/2020	11:50	4	Groundwater		BA06263
MW-12V	03/31/2020	12:55	4	Groundwater		BA06264
MW-12	03/31/2020	13:45	4	Groundwater		BA06265
MW-14	03/31/2020	15:10	4	Groundwater		BA06266
MW-13	03/31/2020	17:25	4	Groundwater		BA06267
FB-2	03/31/2020	17:45	4	Field Blank		BA06268

Relinquished By	Received By	Date/Time
		04/01/2020 07:14
		04/01/2020 09:35
		04/01/2020 11:24

SmarTroll ID	7586-41444-5-3
Turbidity ID	4677-23342-4-1
Sample Event	1269

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	0.5 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	7901-43572-2-1

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

☑ Field Complete ☐ Outside Lab

☑ Lab Complete

Lab ETA 04/02/2020 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	04/01/2020	09:15	4	Groundwater		BA06404
MW-15 Dup	04/01/2020	09:15	4	Sample Duplicate		BA06405
MW-17H	04/01/2020	10:30	4	Groundwater		BA06406
FB-3	04/01/2020	10:50	4	Field Blank		BA06407

Relinquished By	Received By	Date/Time
		04/02/2020 12:26

SmarTroll ID	7586-41444-5-3
Turbidity ID	4677-23342-4-1
Sample Event	1269

All metals and radiological bottles have pH < 2 ☑

Cooler Temp	0.2 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

✔ Field Complete
✔ Lab Complete
☐ Outside Lab

Lab ETA: 04/02/2020 13:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-23H	04/01/2020	10:00	4	Groundwater		BA06408
FB-1	04/01/2020	10:42	4	Field Blank		BA06409
MW-18H	04/01/2020	10:58	4	Groundwater		BA06410
MW-20H	04/01/2020	12:02	4	Groundwater		BA06411
EB-1	04/01/2020	12:40	4	Equipment Blank		BA06412

Relinquished By	Received By	Date/Time
[signature]	[signature]	04/02/2020 12:26

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1269

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	0.0 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

7.1

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA 04/01/2020 12:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Radium	N/A	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium MS/MSD collected at MW-1
Correcting time on MW-1V per Gentry. LBM 04/01/2020

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-1	03/30/2020	16:26	3	Groundwater		BA06294
MW-1V	03/30/2020	17:14	1	Groundwater		BA06295
MW-2	03/31/2020	08:33	1	Groundwater		BA06296
MW-2 dup	03/31/2020	08:33	1	Sample Duplicate		BA06297
MW-3	03/31/2020	09:44	1	Groundwater		BA06298
MW-4	03/31/2020	11:13	1	Groundwater		BA06299
MW-5	03/31/2020	12:29	1	Groundwater		BA06300
MW-5V	03/31/2020	13:23	1	Groundwater		BA06301
MW-6	03/31/2020	14:20	1	Groundwater		BA06302
MW-24H	03/31/2020	15:30	1	Groundwater		BA06303
MW-16	03/31/2020	16:50	1	Groundwater		BA06304

Relinquished By	Received By	Date/Time
		04/01/2020 07:10
		04/01/2020 09:32
		04/01/2020 11:24

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1269

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7901-43572-2-1; 7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA 04/01/2020 12:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Rad MS/MSD collected at MW-8V

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-7V	03/30/2020	13:05	1	Groundwater		BA06280
MW-7	03/30/2020	14:45	1	Groundwater		BA06281
MW-8	03/30/2020	16:20	1	Groundwater		BA06282
MW-8 Dup	03/30/2020	16:20	1	Sample Duplicate		BA06283
MW-8V	03/30/2020	17:32	3	Groundwater		BA06284
MW-9	03/31/2020	08:03	1	Groundwater		BA06285
MW-10	03/31/2020	08:50	1	Groundwater		BA06286
MW-10V	03/31/2020	09:35	1	Groundwater		BA06287
MW-11	03/31/2020	11:50	1	Groundwater		BA06288
MW-12V	03/31/2020	12:55	1	Groundwater		BA06289
MW-12	03/31/2020	13:45	1	Groundwater		BA06290
MW-14	03/31/2020	15:10	1	Groundwater		BA06291
MW-13	03/31/2020	17:25	1	Groundwater		BA06292
FB-2	03/31/2020	17:45	1	Field Blank		BA06293

Relinquished By	Received By	Date/Time
		04/01/2020 07:16
		04/01/2020 09:36
		04/01/2020 11:24

SmarTroll ID	7586-41444-5-3
Turbidity ID	4677-23342-4-1
Sample Event	1269

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7901-43572-2-1

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA 04/02/2020 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	04/01/2020	09:15	1	Groundwater		BA06413
MW-15 Dup	04/01/2020	09:15	1	Sample Duplicate		BA06414
MW-17H	04/01/2020	10:30	1	Groundwater		BA06415
FB-3	04/01/2020	10:50	1	Field Blank		BA06416

Relinquished By	Received By	Date/Time
		04/02/2020 12:26

SmarTroll ID	7586-41444-5-3
Turbidity ID	4677-23342-4-1
Sample Event	1269

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA 04/02/2020 13:30

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-23H	04/01/2020	10:00	1	Groundwater		BA06417
FB-1	04/01/2020	10:42	1	Field Blank		BA06418
MW-18H	04/01/2020	10:58	1	Groundwater		BA06419
MW-20H	04/01/2020	12:02	1	Groundwater		BA06420
EB-1	04/01/2020	12:40	1	Equipment Blank		BA06421

Relinquished By	Received By	Date/Time
		04/02/2020 12:27

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1269

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-186365-1
Laboratory Sample Delivery Group: Barry Ash Pond 1269
Client Project/Site: CCR Plant Barry

For:
Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff

Authorized for release by:
5/5/2020 2:21:01 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-186365-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-186365-1

RAD

Method 9315: Radium-226 Prep Batch 160-467295. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06295 MW-1V (400-186365-16), BA06296 MW-2 (400-186365-17), BA06297 MW-2 DUP (400-186365-18), BA06298 MW-3 (400-186365-19), BA06299 MW-4 (400-186365-20), BA06300 MW-5 (400-186365-21), BA06301 MW-5V (400-186365-22), BA06302 MW-6 (400-186365-23), BA06303 MW-24H (400-186365-24), BA06304 MW-16 (400-186365-25), BA06413 MW-15 (400-186365-26), BA06414 MW-15 DUP (400-186365-27), BA06415 MW-17H (400-186365-28), BA06416 FB-3 (400-186365-29), BA06417 MW-23H (400-186365-30), BA06418 FB-1 (400-186365-31), BA06419 MW-18H (400-186365-32), BA06420 MW-20H (400-186365-33), BA06421 EB-1 (400-186365-34), (LCS 160-467295/1-A), (LCSD 160-467295/2-A) and (MB 160-467295/22-A)

Method 9315: Radium-226 Prep Batch 160-467280. The matrix spike duplicate (MSD) recoveries (74%) for preparation batch 160-467280 and analytical batch 160-469282 were outside control limits (75%-138%). All other QC were within acceptable limits. The data is reported with this narrative.

Method 9315: Radium-226 Prep Batch 160-467280. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06280 MW-7V (400-186365-1), BA06281 MW-7 (400-186365-2), BA06282 MW-8 (400-186365-3), BA06283 MW-8 DUP (400-186365-4), BA06284 MW-8V (400-186365-5), BA06284 MW-8V (400-186365-5[MS]), BA06284 MW-8V (400-186365-5[MSD]), BA06285 MW-9 (400-186365-6), BA06286 MW-10 (400-186365-7), BA06287 MW-10V (400-186365-8), BA06288 MW-11 (400-186365-9), BA06289 MW-12V (400-186365-10), BA06290 MW-12 (400-186365-11), BA06291 MW-14 (400-186365-12), BA06292 MW-13 (400-186365-13), BA06293 FB-2 (400-186365-14), BA06294 MW-1 (400-186365-15), BA06294 MW-1 (400-186365-15[MS]), BA06294 MW-1 (400-186365-15[MSD]), (LCS 160-467280/1-A) and (MB 160-467280/23-A)

Method 9320: Radium-228 Prep Batch 160-467282. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06280 MW-7V (400-186365-1), BA06281 MW-7 (400-186365-2), BA06282 MW-8 (400-186365-3), BA06283 MW-8 DUP (400-186365-4), BA06284 MW-8V (400-186365-5), BA06284 MW-8V (400-186365-5[MS]), BA06284 MW-8V (400-186365-5[MSD]), BA06285 MW-9 (400-186365-6), BA06286 MW-10 (400-186365-7), BA06287 MW-10V (400-186365-8), BA06288 MW-11 (400-186365-9), BA06289 MW-12V (400-186365-10), BA06290 MW-12 (400-186365-11), BA06291 MW-14 (400-186365-12), BA06292 MW-13 (400-186365-13), BA06293 FB-2 (400-186365-14), BA06294 MW-1 (400-186365-15), BA06294 MW-1 (400-186365-15[MS]), BA06294 MW-1 (400-186365-15[MSD]), (LCS 160-467282/1-A) and (MB 160-467282/23-A)

Method 9320: Radium-228 Prep Batch 160-467298. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA06295 MW-1V (400-186365-16), BA06296 MW-2 (400-186365-17), BA06297 MW-2 DUP (400-186365-18), BA06298 MW-3 (400-186365-19), BA06299 MW-4 (400-186365-20), BA06300 MW-5 (400-186365-21), BA06301 MW-5V (400-186365-22), BA06302 MW-6 (400-186365-23), BA06303 MW-24H (400-186365-24), BA06304 MW-16 (400-186365-25), BA06413 MW-15 (400-186365-26), BA06414 MW-15 DUP (400-186365-27), BA06415 MW-17H (400-186365-28), BA06416 FB-3 (400-186365-29), BA06417 MW-23H (400-186365-30), BA06418 FB-1 (400-186365-31), BA06419 MW-18H (400-186365-32), BA06420 MW-20H (400-186365-33), BA06421 EB-1 (400-186365-34), (LCS 160-467298/1-A), (LCSD 160-467298/2-A) and (MB 160-467298/22-A)

Method PrecSep_0: Radium 228 Prep Batch 160-467282. The following samples were prepared at a reduced aliquot due to limited volume: BA06280 MW-7V (400-186365-1), BA06281 MW-7 (400-186365-2), BA06282 MW-8 (400-186365-3), BA06283 MW-8 DUP (400-186365-4), BA06284 MW-8V (400-186365-5), BA06284 MW-8V (400-186365-5[MS]), BA06284 MW-8V (400-186365-5[MSD]), BA06285 MW-9 (400-186365-6), BA06286 MW-10 (400-186365-7), BA06287 MW-10V (400-186365-8), BA06288 MW-11 (400-186365-9), BA06289 MW-12V (400-186365-10), BA06290 MW-12 (400-186365-11), BA06291 MW-14 (400-186365-12), BA06292 MW-13 (400-186365-13), BA06293 FB-2 (400-186365-14), BA06294 MW-1 (400-186365-15), BA06294 MW-1 (400-186365-15[MS]) and BA06294 MW-1 (400-186365-15[MSD]). Also samples 400-186365-3, 400-186365-4, 400-186365-5, 400-186365-5 MS, 400-186365-5

Job ID: 400-186365-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

MSD, 400-186365-6, 400-186365-7, 400-186365-8, 400-186365-9, 400-186365-10, 400-186365-11, 400-186365-12, 400-186365-13, 400-186365-15, 400-186365-15 MS, and 400-186365-15 MSD all have a yellow discoloration.

Method PrecSep_0: Radium 228 Prep Batch 160-467298. The following samples were prepared at a reduced aliquot due to limited volume: BA06295 MW-1V (400-186365-16), BA06296 MW-2 (400-186365-17), BA06297 MW-2 DUP (400-186365-18), BA06298 MW-3 (400-186365-19), BA06299 MW-4 (400-186365-20), BA06300 MW-5 (400-186365-21), BA06301 MW-5V (400-186365-22), BA06302 MW-6 (400-186365-23), BA06303 MW-24H (400-186365-24), BA06304 MW-16 (400-186365-25), BA06413 MW-15 (400-186365-26), BA06414 MW-15 DUP (400-186365-27), BA06415 MW-17H (400-186365-28), BA06416 FB-3 (400-186365-29), BA06417 MW-23H (400-186365-30), BA06418 FB-1 (400-186365-31), BA06419 MW-18H (400-186365-32), BA06420 MW-20H (400-186365-33) and BA06421 EB-1 (400-186365-34). Samples 400-186365-24, 400-186365-25, 400-186365-27, 400-186365-28, 400-186365-30, 400-186365-32, and 400-186365-33 all have a yellow discoloration.

Method PrecSep_0: Radium 228 Prep Batch 160-467298. Insufficient sample volume was available to perform a sample duplicate for the following samples: BA06295 MW-1V (400-186365-16), BA06296 MW-2 (400-186365-17), BA06297 MW-2 DUP (400-186365-18), BA06298 MW-3 (400-186365-19), BA06299 MW-4 (400-186365-20), BA06300 MW-5 (400-186365-21), BA06301 MW-5V (400-186365-22), BA06302 MW-6 (400-186365-23), BA06303 MW-24H (400-186365-24), BA06304 MW-16 (400-186365-25), BA06413 MW-15 (400-186365-26), BA06414 MW-15 DUP (400-186365-27), BA06415 MW-17H (400-186365-28), BA06416 FB-3 (400-186365-29), BA06417 MW-23H (400-186365-30), BA06418 FB-1 (400-186365-31), BA06419 MW-18H (400-186365-32), BA06420 MW-20H (400-186365-33) and BA06421 EB-1 (400-186365-34). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-467280. The following samples were prepared at a reduced aliquot due to limited volume: BA06280 MW-7V (400-186365-1), BA06281 MW-7 (400-186365-2), BA06282 MW-8 (400-186365-3), BA06283 MW-8 DUP (400-186365-4), BA06284 MW-8V (400-186365-5), BA06284 MW-8V (400-186365-5[MS]), BA06284 MW-8V (400-186365-5[MSD]), BA06285 MW-9 (400-186365-6), BA06286 MW-10 (400-186365-7), BA06287 MW-10V (400-186365-8), BA06288 MW-11 (400-186365-9), BA06289 MW-12V (400-186365-10), BA06290 MW-12 (400-186365-11), BA06291 MW-14 (400-186365-12), BA06292 MW-13 (400-186365-13), BA06293 FB-2 (400-186365-14), BA06294 MW-1 (400-186365-15), BA06294 MW-1 (400-186365-15[MS]) and BA06294 MW-1 (400-186365-15[MSD]). Also samples 400-186365-3, 400-186365-4, 400-186365-5, 400-186365-5 MS, 400-186365-5 MSD, 400-186365-6, 400-186365-7, 400-186365-8, 400-186365-9, 400-186365-10, 400-186365-11, 400-186365-12, 400-186365-13, 400-186365-15, 400-186365-15 MS, and 400-186365-15 MSD all have a yellow discoloration.

Method PrecSep-21: Radium 226 Prep Batch 160-467295. The following samples were prepared at a reduced aliquot due to limited volume: BA06295 MW-1V (400-186365-16), BA06296 MW-2 (400-186365-17), BA06297 MW-2 DUP (400-186365-18), BA06298 MW-3 (400-186365-19), BA06299 MW-4 (400-186365-20), BA06300 MW-5 (400-186365-21), BA06301 MW-5V (400-186365-22), BA06302 MW-6 (400-186365-23), BA06303 MW-24H (400-186365-24), BA06304 MW-16 (400-186365-25), BA06413 MW-15 (400-186365-26), BA06414 MW-15 DUP (400-186365-27), BA06415 MW-17H (400-186365-28), BA06416 FB-3 (400-186365-29), BA06417 MW-23H (400-186365-30), BA06418 FB-1 (400-186365-31), BA06419 MW-18H (400-186365-32), BA06420 MW-20H (400-186365-33) and BA06421 EB-1 (400-186365-34). Samples 400-186365-24, 400-186365-25, 400-186365-27, 400-186365-28, 400-186365-30, 400-186365-32, and 400-186365-33 all have a yellow discoloration.

Method PrecSep-21: Radium 226 Prep Batch 160-467295. Insufficient sample volume was available to perform a sample duplicate for the following samples: BA06295 MW-1V (400-186365-16), BA06296 MW-2 (400-186365-17), BA06297 MW-2 DUP (400-186365-18), BA06298 MW-3 (400-186365-19), BA06299 MW-4 (400-186365-20), BA06300 MW-5 (400-186365-21), BA06301 MW-5V (400-186365-22), BA06302 MW-6 (400-186365-23), BA06303 MW-24H (400-186365-24), BA06304 MW-16 (400-186365-25), BA06413 MW-15 (400-186365-26), BA06414 MW-15 DUP (400-186365-27), BA06415 MW-17H (400-186365-28), BA06416 FB-3 (400-186365-29), BA06417 MW-23H (400-186365-30), BA06418 FB-1 (400-186365-31), BA06419 MW-18H (400-186365-32), BA06420 MW-20H (400-186365-33) and BA06421 EB-1 (400-186365-34). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-186365-1	BA06280 MW-7V	Water	03/30/20 13:05	04/06/20 14:00	
400-186365-2	BA06281 MW-7	Water	03/30/20 14:45	04/06/20 14:00	
400-186365-3	BA06282 MW-8	Water	03/30/20 16:20	04/06/20 14:00	
400-186365-4	BA06283 MW-8 DUP	Water	03/30/20 16:20	04/06/20 14:00	
400-186365-5	BA06284 MW-8V	Water	03/30/20 17:32	04/06/20 14:00	
400-186365-6	BA06285 MW-9	Water	03/31/20 08:03	04/06/20 14:00	
400-186365-7	BA06286 MW-10	Water	03/31/20 08:50	04/06/20 14:00	
400-186365-8	BA06287 MW-10V	Water	03/31/20 09:35	04/06/20 14:00	
400-186365-9	BA06288 MW-11	Water	03/31/20 11:50	04/06/20 14:00	
400-186365-10	BA06289 MW-12V	Water	03/31/20 12:55	04/06/20 14:00	
400-186365-11	BA06290 MW-12	Water	03/31/20 13:45	04/06/20 14:00	
400-186365-12	BA06291 MW-14	Water	03/31/20 15:10	04/06/20 14:00	
400-186365-13	BA06292 MW-13	Water	03/31/20 17:25	04/06/20 14:00	
400-186365-14	BA06293 FB-2	Water	03/31/20 17:45	04/06/20 14:00	
400-186365-15	BA06294 MW-1	Water	03/30/20 16:26	04/06/20 14:00	
400-186365-16	BA06295 MW-1V	Water	03/30/20 17:14	04/06/20 14:00	
400-186365-17	BA06296 MW-2	Water	03/31/20 08:33	04/06/20 14:00	
400-186365-18	BA06297 MW-2 DUP	Water	03/31/20 08:33	04/06/20 14:00	
400-186365-19	BA06298 MW-3	Water	03/31/20 09:44	04/06/20 14:00	
400-186365-20	BA06299 MW-4	Water	03/31/20 11:13	04/06/20 14:00	
400-186365-21	BA06300 MW-5	Water	03/31/20 12:29	04/06/20 14:00	
400-186365-22	BA06301 MW-5V	Water	03/31/20 13:23	04/06/20 14:00	
400-186365-23	BA06302 MW-6	Water	03/31/20 14:20	04/06/20 14:00	
400-186365-24	BA06303 MW-24H	Water	03/31/20 15:30	04/06/20 14:00	
400-186365-25	BA06304 MW-16	Water	03/31/20 16:50	04/06/20 14:00	
400-186365-26	BA06413 MW-15	Water	04/01/20 09:15	04/06/20 14:00	
400-186365-27	BA06414 MW-15 DUP	Water	04/01/20 09:15	04/06/20 14:00	
400-186365-28	BA06415 MW-17H	Water	04/01/20 10:30	04/06/20 14:00	
400-186365-29	BA06416 FB-3	Water	04/01/20 10:50	04/06/20 14:00	
400-186365-30	BA06417 MW-23H	Water	04/01/20 10:00	04/06/20 14:00	
400-186365-31	BA06418 FB-1	Water	04/01/20 10:42	04/06/20 14:00	
400-186365-32	BA06419 MW-18H	Water	04/01/20 10:58	04/06/20 14:00	
400-186365-33	BA06420 MW-20H	Water	04/01/20 12:02	04/06/20 14:00	
400-186365-34	BA06421 EB-1	Water	04/01/20 12:40	04/06/20 14:00	

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06280 MW-7V

Lab Sample ID: 400-186365-1

Date Collected: 03/30/20 13:05
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0435	U	0.0790	0.0791	1.00	0.140	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.560**		0.333	0.337	1.00	0.502	pCi/L	04/09/20 08:55	04/22/20 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:44*	*1*
Y Carrier	*78.9*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:44*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.604**		0.342	0.346	5.00	0.502	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06281 MW-7

Lab Sample ID: 400-186365-2

Date Collected: 03/30/20 14:45
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0527	U	0.0760	0.0761	1.00	0.129	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.691**		0.337	0.343	1.00	0.489	pCi/L	04/09/20 08:55	04/22/20 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:44*	*1*
Y Carrier	*80.4*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:44*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.744**		0.345	0.351	5.00	0.489	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06282 MW-8

Lab Sample ID: 400-186365-3

Date Collected: 03/30/20 16:20
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.141	U	0.101	0.102	1.00	0.144	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.459	U	0.314	0.317	1.00	0.487	pCi/L	04/09/20 08:55	04/22/20 12:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:45*	*1*
Y Carrier	*83.4*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.600**		0.330	0.333	5.00	0.487	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06283 MW-8 DUP

Lab Sample ID: 400-186365-4

Date Collected: 03/30/20 16:20
Matrix: Water
Date Received: 04/06/20 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.146		0.102	0.103	1.00	0.144	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.311	U	0.317	0.319	1.00	0.517	pCi/L	04/09/20 08:55	04/22/20 12:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.8*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:45*	*1*
Y Carrier	*83.4*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.457	U	0.333	0.335	5.00	0.517	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06284 MW-8V

Lab Sample ID: 400-186365-5

Date Collected: 03/30/20 17:32
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.383**		0.138	0.142	1.00	0.150	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.404	U	0.296	0.298	1.00	0.464	pCi/L	04/09/20 08:55	04/22/20 12:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:45*	*1*
Y Carrier	*88.6*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.787**		0.327	0.330	5.00	0.464	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06285 MW-9

Lab Sample ID: 400-186365-6

Date Collected: 03/31/20 08:03
Matrix: Water
Date Received: 04/06/20 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.283		0.114	0.117	1.00	0.116	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.537		0.312	0.316	1.00	0.472	pCi/L	04/09/20 08:55	04/22/20 12:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:45*	*1*
Y Carrier	*88.6*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.820		0.332	0.337	5.00	0.472	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06286 MW-10

Lab Sample ID: 400-186365-7

Date Collected: 03/31/20 08:50
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.196		0.118	0.120	1.00	0.161	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.949		0.373	0.384	1.00	0.528	pCi/L	04/09/20 08:55	04/22/20 12:45	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*103*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:45*	*1*
Y Carrier	*83.7*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:45*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.14		0.391	0.402	5.00	0.528	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06287 MW-10V

Lab Sample ID: 400-186365-8

Date Collected: 03/31/20 09:35
Matrix: Water
Date Received: 04/06/20 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.255		0.110	0.112	1.00	0.120	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.702		0.334	0.341	1.00	0.477	pCi/L	04/09/20 08:55	04/22/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:46*	*1*
Y Carrier	*80.0*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.957		0.352	0.359	5.00	0.477	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06288 MW-11

Lab Sample ID: 400-186365-9

Date Collected: 03/31/20 11:50
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.150	U	0.118	0.118	1.00	0.175	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.3*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.312	U	0.340	0.341	1.00	0.556	pCi/L	04/09/20 08:55	04/22/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.3*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:46*	*1*
Y Carrier	*78.9*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.462	U	0.360	0.361	5.00	0.556	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06289 MW-12V

Lab Sample ID: 400-186365-10

Date Collected: 03/31/20 12:55
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.370**		0.138	0.142	1.00	0.143	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.554	U	0.370	0.374	1.00	0.575	pCi/L	04/09/20 08:55	04/22/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*98.5*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:46*	*1*
Y Carrier	*80.4*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.923**		0.395	0.400	5.00	0.575	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06290 MW-12

Date Collected: 03/31/20 13:45
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.324		0.125	0.129	1.00	0.132	pCi/L	04/09/20 08:25	05/01/20 08:56	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:56*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.941		0.443	0.452	1.00	0.661	pCi/L	04/09/20 08:55	04/22/20 12:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.1*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:41*	*1*
Y Carrier	*80.4*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.26		0.460	0.470	5.00	0.661	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06291 MW-14

Lab Sample ID: 400-186365-12

Date Collected: 03/31/20 15:10
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.181		0.114	0.115	1.00	0.158	pCi/L	04/09/20 08:25	05/01/20 08:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.1*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.759		0.390	0.396	1.00	0.582	pCi/L	04/09/20 08:55	04/22/20 12:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.1*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:41*	*1*
Y Carrier	*82.2*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:41*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.941		0.406	0.412	5.00	0.582	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06292 MW-13

Date Collected: 03/31/20 17:25
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-13

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.342**		0.140	0.143	1.00	0.149	pCi/L	04/09/20 08:25	05/01/20 08:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.383	U	0.408	0.409	1.00	0.668	pCi/L	04/09/20 08:55	04/22/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:42*	*1*
Y Carrier	*82.2*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.725**		0.431	0.433	5.00	0.668	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06293 FB-2

Date Collected: 03/31/20 17:45
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-14

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00474	U	0.0746	0.0746	1.00	0.153	pCi/L	04/09/20 08:25	05/01/20 08:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.559	U	0.413	0.416	1.00	0.655	pCi/L	04/09/20 08:55	04/22/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*100*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:42*	*1*
Y Carrier	*79.3*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.554	U	0.420	0.423	5.00	0.655	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06294 MW-1

Date Collected: 03/30/20 16:26
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.585		0.169	0.177	1.00	0.155	pCi/L	04/09/20 08:25	05/01/20 08:57	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.4*		*40 - 110*	*04/09/20 08:25*	*05/01/20 08:57*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.72		0.428	0.457	1.00	0.526	pCi/L	04/09/20 08:55	04/22/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*99.4*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:42*	*1*
Y Carrier	*84.9*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.31		0.460	0.490	5.00	0.526	pCi/L		05/04/20 07:21	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06295 MW-1V

Lab Sample ID: 400-186365-16

Date Collected: 03/30/20 17:14
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.426**		0.160	0.164	1.00	0.170	pCi/L	04/09/20 11:36	05/01/20 05:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.2*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.152	U	0.338	0.339	1.00	0.578	pCi/L	04/09/20 12:13	04/23/20 07:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.2*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:24*	*1*
Y Carrier	*85.6*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:24*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.579**		0.374	0.377	5.00	0.578	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06296 MW-2

Date Collected: 03/31/20 08:33
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-17

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.155	U	0.113	0.114	1.00	0.163	pCi/L	04/09/20 11:36	05/01/20 05:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.4*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.544**		0.309	0.313	1.00	0.463	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.4*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*87.1*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.699**		0.329	0.333	5.00	0.463	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06297 MW-2 DUP

Lab Sample ID: 400-186365-18

Date Collected: 03/31/20 08:33
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00496	U	0.0833	0.0833	1.00	0.169	pCi/L	04/09/20 11:36	05/01/20 05:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.0*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.385	U	0.289	0.291	1.00	0.452	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.0*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*87.1*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.380	U	0.301	0.303	5.00	0.452	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06298 MW-3

Date Collected: 03/31/20 09:44
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-19

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.188**		0.109	0.110	1.00	0.135	pCi/L	04/09/20 11:36	05/01/20 05:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.290	U	0.311	0.312	1.00	0.508	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*84.9*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.478	U	0.330	0.331	5.00	0.508	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06299 MW-4

Date Collected: 03/31/20 11:13
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-20

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.105	U	0.0873	0.0878	1.00	0.127	pCi/L	04/09/20 11:36	05/01/20 05:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.218	U	0.284	0.284	1.00	0.472	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*86.4*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.323	U	0.297	0.297	5.00	0.472	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06300 MW-5

Date Collected: 03/31/20 12:29
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-21

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.441**		0.147	0.152	1.00	0.131	pCi/L	04/09/20 11:36	05/01/20 05:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.1*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.313	U	0.299	0.300	1.00	0.483	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.1*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*88.6*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.754**		0.333	0.336	5.00	0.483	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06301 MW-5V

Lab Sample ID: 400-186365-22

Date Collected: 03/31/20 13:23
Matrix: Water
Date Received: 04/06/20 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.111	U	0.121	0.122	1.00	0.196	pCi/L	04/09/20 11:36	05/01/20 05:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.7*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0866	U	0.296	0.296	1.00	0.546	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.7*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*84.9*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0240	U	0.320	0.320	5.00	0.546	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06302 MW-6

Date Collected: 03/31/20 14:20
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-23

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0708	U	0.0822	0.0824	1.00	0.133	pCi/L	04/09/20 11:36	05/01/20 05:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.220	U	0.280	0.281	1.00	0.465	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*86.0*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.291	U	0.292	0.293	5.00	0.465	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06303 MW-24H

Lab Sample ID: 400-186365-24

Date Collected: 03/31/20 15:30
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.236**		0.129	0.131	1.00	0.169	pCi/L	04/09/20 11:36	05/01/20 05:18	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:18*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.341	U	0.277	0.279	1.00	0.440	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*88.2*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.577**		0.306	0.308	5.00	0.440	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06304 MW-16

Lab Sample ID: 400-186365-25

Date Collected: 03/31/20 16:50
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.116	U	0.101	0.101	1.00	0.151	pCi/L	04/09/20 11:36	05/01/20 05:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.1*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.225	U	0.298	0.299	1.00	0.496	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.1*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*88.6*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.341	U	0.315	0.316	5.00	0.496	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06413 MW-15

Date Collected: 04/01/20 09:15
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-26

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.291**		0.127	0.130	1.00	0.142	pCi/L	04/09/20 11:36	05/01/20 05:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.236	U	0.255	0.255	1.00	0.416	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.6*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*90.5*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.527**		0.285	0.286	5.00	0.416	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06414 MW-15 DUP

Lab Sample ID: 400-186365-27

Date Collected: 04/01/20 09:15
Matrix: Water
Date Received: 04/06/20 14:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.231**		0.127	0.129	1.00	0.167	pCi/L	04/09/20 11:36	05/01/20 05:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.347	U	0.286	0.288	1.00	0.454	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*92.7*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*89.3*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.578**		0.313	0.316	5.00	0.454	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06415 MW-17H

Lab Sample ID: 400-186365-28

Date Collected: 04/01/20 10:30
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.519**		0.164	0.170	1.00	0.149	pCi/L	04/09/20 11:36	05/01/20 05:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.278	U	0.309	0.310	1.00	0.507	pCi/L	04/09/20 12:13	04/23/20 07:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*
Y Carrier	*86.4*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:25*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.797**		0.350	0.354	5.00	0.507	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06416 FB-3

Date Collected: 04/01/20 10:50
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-29

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0801	U	0.0621	0.0625	1.00	0.172	pCi/L	04/09/20 11:36	05/01/20 05:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.639**		0.381	0.385	1.00	0.587	pCi/L	04/09/20 12:13	04/23/20 07:27	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:27*	*1*
Y Carrier	*88.6*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:27*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.559	U	0.386	0.390	5.00	0.587	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06417 MW-23H

Lab Sample ID: 400-186365-30

Date Collected: 04/01/20 10:00
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.187**		0.123	0.124	1.00	0.171	pCi/L	04/09/20 11:36	05/01/20 05:19	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*04/09/20 11:36*	*05/01/20 05:19*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.431	U	0.363	0.365	1.00	0.582	pCi/L	04/09/20 12:13	04/23/20 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*
Y Carrier	*90.8*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.618**		0.383	0.385	5.00	0.582	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06418 FB-1

Date Collected: 04/01/20 10:42
Date Received: 04/06/20 14:00

Lab Sample ID: 400-186365-31

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00770	U	0.0830	0.0830	1.00	0.166	pCi/L	04/09/20 11:36	05/01/20 07:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*04/09/20 11:36*	*05/01/20 07:08*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.225	U	0.323	0.324	1.00	0.541	pCi/L	04/09/20 12:13	04/23/20 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*
Y Carrier	*92.7*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.233	U	0.333	0.334	5.00	0.541	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06419 MW-18H

Lab Sample ID: 400-186365-32

Date Collected: 04/01/20 10:58
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.239		0.120	0.122	1.00	0.145	pCi/L	04/09/20 11:36	05/01/20 07:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*04/09/20 11:36*	*05/01/20 07:08*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.807		0.360	0.367	1.00	0.524	pCi/L	04/09/20 12:13	04/23/20 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*
Y Carrier	*90.5*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.05		0.379	0.387	5.00	0.524	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06420 MW-20H

Lab Sample ID: 400-186365-33

Date Collected: 04/01/20 12:02
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.353		0.139	0.143	1.00	0.153	pCi/L	04/09/20 11:36	05/01/20 07:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*04/09/20 11:36*	*05/01/20 07:08*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.615		0.330	0.335	1.00	0.499	pCi/L	04/09/20 12:13	04/23/20 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*
Y Carrier	*93.1*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.968		0.358	0.364	5.00	0.499	pCi/L		05/01/20 09:40	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06421 EB-1

Lab Sample ID: 400-186365-34

Date Collected: 04/01/20 12:40
Date Received: 04/06/20 14:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00196	U	0.0742	0.0742	1.00	0.152	pCi/L	04/09/20 11:36	05/01/20 07:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*04/09/20 11:36*	*05/01/20 07:08*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.122	U	0.299	0.300	1.00	0.515	pCi/L	04/09/20 12:13	04/23/20 07:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*95.4*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*
Y Carrier	*87.1*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.120	U	0.308	0.309	5.00	0.515	pCi/L		05/01/20 09:40	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Qualifiers

Rad

Qualifier	Qualifier Description
F1	MS and/or MSD recovery exceeds control limits.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06280 MW-7V — Lab Sample ID: 400-186365-1

Date Collected: 03/30/20 13:05 — **Matrix: Water**
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:44	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06281 MW-7 — Lab Sample ID: 400-186365-2

Date Collected: 03/30/20 14:45 — **Matrix: Water**
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:44	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06282 MW-8 — Lab Sample ID: 400-186365-3

Date Collected: 03/30/20 16:20 — **Matrix: Water**
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:45	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06283 MW-8 DUP — Lab Sample ID: 400-186365-4

Date Collected: 03/30/20 16:20 — **Matrix: Water**
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:45	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06284 MW-8V

Lab Sample ID: 400-186365-5
Date Collected: 03/30/20 17:32
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:45	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06285 MW-9

Lab Sample ID: 400-186365-6
Date Collected: 03/31/20 08:03
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:45	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06286 MW-10

Lab Sample ID: 400-186365-7
Date Collected: 03/31/20 08:50
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:45	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06287 MW-10V

Lab Sample ID: 400-186365-8
Date Collected: 03/31/20 09:35
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:46	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06288 MW-11

Lab Sample ID: 400-186365-9
Date Collected: 03/31/20 11:50
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:46	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06289 MW-12V

Lab Sample ID: 400-186365-10
Date Collected: 03/31/20 12:55
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468602	04/22/20 12:46	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06290 MW-12

Lab Sample ID: 400-186365-11
Date Collected: 03/31/20 13:45
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:56	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468601	04/22/20 12:41	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06291 MW-14

Lab Sample ID: 400-186365-12
Date Collected: 03/31/20 15:10
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:57	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468601	04/22/20 12:41	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06292 MW-13

Lab Sample ID: 400-186365-13
Date Collected: 03/31/20 17:25
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:57	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468601	04/22/20 12:42	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06293 FB-2

Lab Sample ID: 400-186365-14
Date Collected: 03/31/20 17:45
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:57	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468601	04/22/20 12:42	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06294 MW-1

Lab Sample ID: 400-186365-15
Date Collected: 03/30/20 16:26
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467280	04/09/20 08:25	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 08:57	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467282	04/09/20 08:55	RBR	TAL SL
Total/NA	Analysis	9320		1	468601	04/22/20 12:42	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469477	05/04/20 07:21	SMP	TAL SL

Client Sample ID: BA06295 MW-1V

Lab Sample ID: 400-186365-16
Date Collected: 03/30/20 17:14
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:24	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06296 MW-2

Lab Sample ID: 400-186365-17
Date Collected: 03/31/20 08:33
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06297 MW-2 DUP

Lab Sample ID: 400-186365-18
Date Collected: 03/31/20 08:33
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06298 MW-3

Lab Sample ID: 400-186365-19
Date Collected: 03/31/20 09:44
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06299 MW-4

Lab Sample ID: 400-186365-20
Date Collected: 03/31/20 11:13
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06300 MW-5

Lab Sample ID: 400-186365-21
Date Collected: 03/31/20 12:29
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06301 MW-5V

Lab Sample ID: 400-186365-22
Date Collected: 03/31/20 13:23
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06302 MW-6

Lab Sample ID: 400-186365-23
Date Collected: 03/31/20 14:20
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06303 MW-24H

Lab Sample ID: 400-186365-24
Date Collected: 03/31/20 15:30
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:18	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06304 MW-16

Lab Sample ID: 400-186365-25
Date Collected: 03/31/20 16:50
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:19	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06413 MW-15

Lab Sample ID: 400-186365-26
Date Collected: 04/01/20 09:15
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:19	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06414 MW-15 DUP

Lab Sample ID: 400-186365-27
Date Collected: 04/01/20 09:15
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:19	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06415 MW-17H

Lab Sample ID: 400-186365-28
Date Collected: 04/01/20 10:30
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:19	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468687	04/23/20 07:25	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06416 FB-3 — Lab Sample ID: 400-186365-29

Date Collected: 04/01/20 10:50 — **Matrix: Water**
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:19	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468686	04/23/20 07:27	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06417 MW-23H — Lab Sample ID: 400-186365-30

Date Collected: 04/01/20 10:00 — **Matrix: Water**
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 05:19	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468686	04/23/20 07:28	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06418 FB-1 — Lab Sample ID: 400-186365-31

Date Collected: 04/01/20 10:42 — **Matrix: Water**
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 07:08	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468686	04/23/20 07:28	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06419 MW-18H — Lab Sample ID: 400-186365-32

Date Collected: 04/01/20 10:58 — **Matrix: Water**
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 07:08	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468686	04/23/20 07:28	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Client Sample ID: BA06420 MW-20H

Lab Sample ID: 400-186365-33
Date Collected: 04/01/20 12:02
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 07:08	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468686	04/23/20 07:28	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Client Sample ID: BA06421 EB-1

Lab Sample ID: 400-186365-34
Date Collected: 04/01/20 12:40
Matrix: Water
Date Received: 04/06/20 14:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			467295	04/09/20 11:36	RBR	TAL SL
Total/NA	Analysis	9315		1	469282	05/01/20 07:08	KLS	TAL SL
Total/NA	Prep	PrecSep_0			467298	04/09/20 12:13	RBR	TAL SL
Total/NA	Analysis	9320		1	468686	04/23/20 07:28	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	469289	05/01/20 09:40	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Rad

Prep Batch: 467280

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186365-1	BA06280 MW-7V	Total/NA	Water	PrecSep-21	
400-186365-2	BA06281 MW-7	Total/NA	Water	PrecSep-21	
400-186365-3	BA06282 MW-8	Total/NA	Water	PrecSep-21	
400-186365-4	BA06283 MW-8 DUP	Total/NA	Water	PrecSep-21	
400-186365-5	BA06284 MW-8V	Total/NA	Water	PrecSep-21	
400-186365-6	BA06285 MW-9	Total/NA	Water	PrecSep-21	
400-186365-7	BA06286 MW-10	Total/NA	Water	PrecSep-21	
400-186365-8	BA06287 MW-10V	Total/NA	Water	PrecSep-21	
400-186365-9	BA06288 MW-11	Total/NA	Water	PrecSep-21	
400-186365-10	BA06289 MW-12V	Total/NA	Water	PrecSep-21	
400-186365-11	BA06290 MW-12	Total/NA	Water	PrecSep-21	
400-186365-12	BA06291 MW-14	Total/NA	Water	PrecSep-21	
400-186365-13	BA06292 MW-13	Total/NA	Water	PrecSep-21	
400-186365-14	BA06293 FB-2	Total/NA	Water	PrecSep-21	
400-186365-15	BA06294 MW-1	Total/NA	Water	PrecSep-21	
MB 160-467280/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-467280/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-186365-5 MS	BA06284 MW-8V	Total/NA	Water	PrecSep-21	
400-186365-5 MSD	BA06284 MW-8V	Total/NA	Water	PrecSep-21	
400-186365-15 MS	BA06294 MW-1	Total/NA	Water	PrecSep-21	
400-186365-15 MSD	BA06294 MW-1	Total/NA	Water	PrecSep-21	

Prep Batch: 467282

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186365-1	BA06280 MW-7V	Total/NA	Water	PrecSep_0	
400-186365-2	BA06281 MW-7	Total/NA	Water	PrecSep_0	
400-186365-3	BA06282 MW-8	Total/NA	Water	PrecSep_0	
400-186365-4	BA06283 MW-8 DUP	Total/NA	Water	PrecSep_0	
400-186365-5	BA06284 MW-8V	Total/NA	Water	PrecSep_0	
400-186365-6	BA06285 MW-9	Total/NA	Water	PrecSep_0	
400-186365-7	BA06286 MW-10	Total/NA	Water	PrecSep_0	
400-186365-8	BA06287 MW-10V	Total/NA	Water	PrecSep_0	
400-186365-9	BA06288 MW-11	Total/NA	Water	PrecSep_0	
400-186365-10	BA06289 MW-12V	Total/NA	Water	PrecSep_0	
400-186365-11	BA06290 MW-12	Total/NA	Water	PrecSep_0	
400-186365-12	BA06291 MW-14	Total/NA	Water	PrecSep_0	
400-186365-13	BA06292 MW-13	Total/NA	Water	PrecSep_0	
400-186365-14	BA06293 FB-2	Total/NA	Water	PrecSep_0	
400-186365-15	BA06294 MW-1	Total/NA	Water	PrecSep_0	
MB 160-467282/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-467282/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-186365-5 MS	BA06284 MW-8V	Total/NA	Water	PrecSep_0	
400-186365-5 MSD	BA06284 MW-8V	Total/NA	Water	PrecSep_0	
400-186365-15 MS	BA06294 MW-1	Total/NA	Water	PrecSep_0	
400-186365-15 MSD	BA06294 MW-1	Total/NA	Water	PrecSep_0	

Prep Batch: 467295

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186365-16	BA06295 MW-1V	Total/NA	Water	PrecSep-21	
400-186365-17	BA06296 MW-2	Total/NA	Water	PrecSep-21	
400-186365-18	BA06297 MW-2 DUP	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 467295 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186365-19	BA06298 MW-3	Total/NA	Water	PrecSep-21	
400-186365-20	BA06299 MW-4	Total/NA	Water	PrecSep-21	
400-186365-21	BA06300 MW-5	Total/NA	Water	PrecSep-21	
400-186365-22	BA06301 MW-5V	Total/NA	Water	PrecSep-21	
400-186365-23	BA06302 MW-6	Total/NA	Water	PrecSep-21	
400-186365-24	BA06303 MW-24H	Total/NA	Water	PrecSep-21	
400-186365-25	BA06304 MW-16	Total/NA	Water	PrecSep-21	
400-186365-26	BA06413 MW-15	Total/NA	Water	PrecSep-21	
400-186365-27	BA06414 MW-15 DUP	Total/NA	Water	PrecSep-21	
400-186365-28	BA06415 MW-17H	Total/NA	Water	PrecSep-21	
400-186365-29	BA06416 FB-3	Total/NA	Water	PrecSep-21	
400-186365-30	BA06417 MW-23H	Total/NA	Water	PrecSep-21	
400-186365-31	BA06418 FB-1	Total/NA	Water	PrecSep-21	
400-186365-32	BA06419 MW-18H	Total/NA	Water	PrecSep-21	
400-186365-33	BA06420 MW-20H	Total/NA	Water	PrecSep-21	
400-186365-34	BA06421 EB-1	Total/NA	Water	PrecSep-21	
MB 160-467295/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-467295/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-467295/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 467298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-186365-16	BA06295 MW-1V	Total/NA	Water	PrecSep_0	
400-186365-17	BA06296 MW-2	Total/NA	Water	PrecSep_0	
400-186365-18	BA06297 MW-2 DUP	Total/NA	Water	PrecSep_0	
400-186365-19	BA06298 MW-3	Total/NA	Water	PrecSep_0	
400-186365-20	BA06299 MW-4	Total/NA	Water	PrecSep_0	
400-186365-21	BA06300 MW-5	Total/NA	Water	PrecSep_0	
400-186365-22	BA06301 MW-5V	Total/NA	Water	PrecSep_0	
400-186365-23	BA06302 MW-6	Total/NA	Water	PrecSep_0	
400-186365-24	BA06303 MW-24H	Total/NA	Water	PrecSep_0	
400-186365-25	BA06304 MW-16	Total/NA	Water	PrecSep_0	
400-186365-26	BA06413 MW-15	Total/NA	Water	PrecSep_0	
400-186365-27	BA06414 MW-15 DUP	Total/NA	Water	PrecSep_0	
400-186365-28	BA06415 MW-17H	Total/NA	Water	PrecSep_0	
400-186365-29	BA06416 FB-3	Total/NA	Water	PrecSep_0	
400-186365-30	BA06417 MW-23H	Total/NA	Water	PrecSep_0	
400-186365-31	BA06418 FB-1	Total/NA	Water	PrecSep_0	
400-186365-32	BA06419 MW-18H	Total/NA	Water	PrecSep_0	
400-186365-33	BA06420 MW-20H	Total/NA	Water	PrecSep_0	
400-186365-34	BA06421 EB-1	Total/NA	Water	PrecSep_0	
MB 160-467298/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-467298/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-467298/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-467280/23-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 469282 — **Prep Batch: 467280**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.08923	U	0.0937	0.0941	1.00	0.149	pCi/L	04/09/20 08:25	05/01/20 10:42	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.9*		*40 - 110*	*04/09/20 08:25*	*05/01/20 10:42*	*1*

Lab Sample ID: LCS 160-467280/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 469282 — **Prep Batch: 467280**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	12.09		1.30	1.00	0.143	pCi/L	80	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.6*		*40 - 110*

Lab Sample ID: 400-186365-5 MS — **Client Sample ID: BA06284 MW-8V**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 469282 — **Prep Batch: 467280**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.383		15.1	12.10		1.27	1.00	0.115	pCi/L	77	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*

Lab Sample ID: 400-186365-5 MSD — **Client Sample ID: BA06284 MW-8V**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 469282 — **Prep Batch: 467280**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.383		15.1	11.53	F1	1.23	1.00	0.127	pCi/L	74	75 - 138	0.23	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*93.3*		*40 - 110*

Lab Sample ID: 400-186365-15 MS — **Client Sample ID: BA06294 MW-1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 469282 — **Prep Batch: 467280**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.585		15.1	12.07		1.27	1.00	0.132	pCi/L	76	75 - 138		

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 400-186365-15 MS
Matrix: Water
Analysis Batch: 469282

Client Sample ID: BA06294 MW-1
Prep Type: Total/NA
Prep Batch: 467280

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	105		40 - 110

Lab Sample ID: 400-186365-15 MSD
Matrix: Water
Analysis Batch: 469282

Client Sample ID: BA06294 MW-1
Prep Type: Total/NA
Prep Batch: 467280

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.585		15.1	12.71		1.33	1.00	0.127	pCi/L	80	75 - 138	0.25	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	103		40 - 110

Lab Sample ID: MB 160-467295/22-A
Matrix: Water
Analysis Batch: 469282

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 467295

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.08411	U	0.0615	0.0619	1.00	0.168	pCi/L	04/09/20 11:36	05/01/20 07:08	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.0		40 - 110	04/09/20 11:36	05/01/20 07:08	1

Lab Sample ID: LCS 160-467295/1-A
Matrix: Water
Analysis Batch: 469282

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 467295

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	13.40		1.43	1.00	0.162	pCi/L	89	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.0		40 - 110

Lab Sample ID: LCSD 160-467295/2-A
Matrix: Water
Analysis Batch: 469282

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 467295

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			15.1	14.31		1.50	1.00	0.151	pCi/L	95	75 - 125	0.31	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	87.5		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-467282/23-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468601 — **Prep Batch: 467282**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.5568	U	0.391	0.395	1.00	0.614	pCi/L	04/09/20 08:55	04/22/20 12:42	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.9*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:42*	*1*
Y Carrier	*83.7*		*40 - 110*	*04/09/20 08:55*	*04/22/20 12:42*	*1*

Lab Sample ID: LCS 160-467282/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468602 — **Prep Batch: 467282**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			11.9	12.59		1.49	1.00	0.598	pCi/L	106	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*96.6*		*40 - 110*
Y Carrier	*78.9*		*40 - 110*

Lab Sample ID: 400-186365-5 MS — **Client Sample ID: BA06284 MW-8V**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468602 — **Prep Batch: 467282**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.404	U	11.9	12.15		1.42	1.00	0.518	pCi/L	99	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*
Y Carrier	*80.4*		*40 - 110*

Lab Sample ID: 400-186365-5 MSD — **Client Sample ID: BA06284 MW-8V**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468602 — **Prep Batch: 467282**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.404	U	11.9	14.05		1.62	1.00	0.536	pCi/L	115	45 - 150	0.62	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*93.3*		*40 - 110*
Y Carrier	*79.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-186365-15 MS — **Client Sample ID: BA06294 MW-1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468601 — **Prep Batch: 467282**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	1.72		11.9	12.53		1.45	1.00	0.532	pCi/L	91	45 - 150

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*105*		*40 - 110*
Y Carrier	*83.7*		*40 - 110*

Lab Sample ID: 400-186365-15 MSD — **Client Sample ID: BA06294 MW-1**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468601 — **Prep Batch: 467282**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	1.72		11.9	12.70		1.48	1.00	0.571	pCi/L	92	45 - 150	0.06	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*103*		*40 - 110*
Y Carrier	*83.0*		*40 - 110*

Lab Sample ID: MB 160-467298/22-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468686 — **Prep Batch: 467298**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01632	U	0.279	0.279	1.00	0.497	pCi/L	04/09/20 12:13	04/23/20 07:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.0*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*
Y Carrier	*89.0*		*40 - 110*	*04/09/20 12:13*	*04/23/20 07:28*	*1*

Lab Sample ID: LCS 160-467298/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 468687 — **Prep Batch: 467298**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228			11.9	12.20		1.45	1.00	0.588	pCi/L	103	75 - 125

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*85.0*		*40 - 110*
Y Carrier	*83.7*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-467298/2-A
Matrix: Water
Analysis Batch: 468687

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 467298

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			11.9	13.67		1.57	1.00	0.527	pCi/L	115	75 - 125	0.49	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*87.5*		*40 - 110*
Y Carrier	*84.5*		*40 - 110*

TestAmerica Pensacola
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Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

400-186365 COC

Client Information (Sub Contract Lab)	Sampler: TJ Daugherty	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 1 of 4
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1269	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA06280	3/30/20	13:05	G	Water						X	1	MW-7V
BA06281	3/30/20	14:45	G	Water						X	1	MW-7
BA06282	3/30/20	16:20	G	Water						X	1	MW-8
BA06283	3/30/20	16:20	G	Water						X	1	MW-8 DUP (Sample Duplicate)
BA06284	3/30/20	17:32	G	Water		X				X	3	MW-8V
BA06285	3/31/20	08:03	G	Water						X	1	MW-9
BA06286	3/31/20	08:50	G	Water						X	1	MW-10
BA06287	3/31/20	09:35	G	Water						X	1	MW-10V
BA06288	3/31/20	11:50	G	Water						X	1	MW-11
BA06289	3/31/20	12:55	G	Water						X	1	MW-12V
BA06290	3/31/20	13:45	G	Water						X	1	MW-12
BA06291	3/31/20	15:10	G	Water						X	1	MW-14
BA06292	3/31/20	17:25	G	Water						X	1	MW-13
BA06293	3/31/20	17:45	G	Water						X	1	FB-2 (Field Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification *Unconfirmed*	***Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)*** ☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*
Deliverable Requested: I, II, III, IV, Other (specify) 43599	Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Laura Midkiff	Date/Time: 4/03/2020 10:00	Water APC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Kathy Berry	Date/Time: 4-6-20 1400	Company: ETA
Custody Seals Intact:	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 23.8°c, 24.6°C IR7		

Ver: 09/20/2016

5/5/2020

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: Dallas Gentry	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 2 of 4
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1269	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA06294	3/30/20	16:26	G	Water		X				X	3	MW-1
BA06295	3/30/20	17:14	G	Water						X	1	MW-1V
BA06296	3/31/20	08:33	G	Water						X	1	MW-2
BA06297	3/31/20	08:33	G	Water						X	1	MW-2 DUP (Sample Duplicate)
BA06298	3/31/20	09:44	G	Water						X	1	MW-3
BA06299	3/31/20	11:13	G	Water						X	1	MW-4
BA06300	3/31/20	12:29	G	Water						X	1	MW-5
BA06301	3/31/20	13:23	G	Water						X	1	MW-5V
BA06302	3/31/20	14:20	G	Water						X	1	MW-6
BA06303	3/31/20	15:30	G	Water						X	1	MW-24H
BA06304	3/31/20	16:50	G	Water						X	1	MW-16

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 43599 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: Laura Midkiff	Date/Time: 4/03/2020 10:00	Water APC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Kathy R Avery	Date/Time: 4-6-20 1400	Company: ETA
Custody Seals Intact:	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

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Pensacola, FL 32514
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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: TJ Daugherty	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 3 of 4
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1269	SSOW#:			

Analysis Requested

Preservation Codes:

A - HCL	M - Hexane
B - NaOH	N - None
C - Zn Acetate	O - AsNaO2
D - Nitric Acid	P - Na2O4S
E - NaHSO4	Q - Na2SO3
F - MeOH	R - Na2S2O3
G - Amchlor	S - H2SO4
H - Ascorbic Acid	T - TSP Dodecahydrate
I - Ice	U - Acetone
J - DI Water	V - MCAA
K - EDTA	W - pH 4-5
L - EDA	Z - other (specify)

Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA06413	4/1/20	09:15	G	Water						X	1	MW-15
BA06414	4/1/20	09:15	G	Water						X	1	MW-15 DUP
BA06415	4/1/20	10:30	G	Water						X	1	MW-17H
BA06416	4/1/20	10:50	G	Water						X	1	FB-3 (Field Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 43599 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:		Time:	Method of Shipment:	
Relinquished by: Laura Midkiff	Date/Time: 4/03/2020 10:00	Water APC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: Kathy R Cary	Date/Time: 4-6-20 1400	Company ETA
Custody Seals Intact:	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
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Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: Dallas Gentry	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 4 of 4
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1269	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 CL_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA06417	4/1/20	10:00	G	Water						X	1	MW-23H
BA06418	4/1/20	10:42	G	Water						X	1	FB-1 (Field Blank)
BA06419	4/1/20	10:58	G	Water						X	1	MW-18H
BA06420	4/1/20	12:02	G	Water						X	1	MW-20H
BA06421	4/1/20	12:40	G	Water						X	1	EB-1 (Equipment Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 43598 Special Instructions/QC Requirements:

Empty Kit Relinquished by: | Date: | Time: | Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Laura Midkiff	4/03/2020 10:00	Water APC			
			Kathy R Clary	4.6.20 1400	ETA

Custody Seals Intact: | Custody Seal No.: | Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-186365-1
SDG Number: Barry Ash Pond 1269

Login Number: 186365
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	23.8°C, 24.6°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-186365-1
SDG Number: Barry Ash Pond 1269

Login Number: 186365
List Number: 2
Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis
List Creation: 04/08/20 12:34 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-20
Iowa	State	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-20
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-186365-1
SDG: Barry Ash Pond 1269

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

Alabama Power 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 Ash Pond

2020 Event 1 (19H, 22H & 15V)

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report

Alabama Power

Sample Group : WMWBARAP_1278

Project/Site : Barry Ash Pond
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Alabama Power

June 08, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on May 14, 2020.
All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2020

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.06.09 09:54:05 -05'00'

Supervision: T. Durant Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.06.09 11:42:36 -05'00'

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

Alabama Power Lab & Field SERVICES

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Metals ICP

Barry Ash Pond

WMWBARAP_1278

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA08805	673501	WMWBARAP_1278
BA08806	673501	WMWBARAP_1278
BA08807	673501	WMWBARAP_1278
BA08808	673501	WMWBARAP_1278
BA08809	673501	WMWBARAP_1278
BA08810	673501	WMWBARAP_1278

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Metals ICPMS

Barry Ash Pond

WMWBARAP_1278

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA08805	673349	WMWBARAP_1278
BA08806	673349	WMWBARAP_1278
BA08807	673349	WMWBARAP_1278
BA08808	673349	WMWBARAP_1278
BA08809	673349	WMWBARAP_1278
BA08810	673349	WMWBARAP_1278

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Mercury

Barry Ash Pond

WMWBARAP_1278

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA08805	673222	WMWBARAP_1278
BA08806	673222	WMWBARAP_1278
BA08807	673222	WMWBARAP_1278
BA08808	673222	WMWBARAP_1278
BA08809	673222	WMWBARAP_1278
BA08810	673222	WMWBARAP_1278

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

TDS

Barry Ash Pond

WMWBARAP_1278

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA08805	673256	WMWBARAP_1278
BA08806	673256	WMWBARAP_1278
BA08807	673256	WMWBARAP_1278
BA08808	673256	WMWBARAP_1278
BA08809	673256	WMWBARAP_1278
BA08810	673256	WMWBARAP_1278

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
  - BA08808
  - BA08810

Case Narrative

Anions

Barry Ash Pond

WMWBARAP_1278

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA08805	673433, 673434, & 673734	WMWBARAP_1278
BA08806	673433, 673434, & 673734	WMWBARAP_1278
BA08807	673433, 673434, & 673734	WMWBARAP_1278
BA08808	673433, 673434, & 673734	WMWBARAP_1278
BA08809	673433, 673434, & 673734	WMWBARAP_1278
BA08810	673433, 673434, & 673734	WMWBARAP_1278

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below half the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA08805	Chloride & Sulfate	4 & 3
BA08806	Chloride	10
BA08807	Chloride	10

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-22H

Location Code: WMWBARAP
Collected: 5/12/20 10:04
Customer ID:
Submittal Date: 5/14/20 16:22

Laboratory ID Number: BA08805

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	5/19/20 10:45	5/20/20 11:31		1.015	0.0807	mg/L	0.03	0.1	J
* Calcium, Total	5/19/20 10:45	5/20/20 11:31		1.015	15.0	mg/L	0.1	0.5	
* Lithium, Total	5/19/20 10:45	5/20/20 11:31		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	5/15/20 10:53	5/18/20 10:50		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	5/15/20 10:53	5/18/20 10:50		1.015	0.0199	mg/L	0.001	0.005	
* Barium, Total	5/15/20 10:53	5/18/20 10:50		1.015	0.222	mg/L	0.002	0.01	
* Beryllium, Total	5/15/20 10:53	5/18/20 10:50		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	5/15/20 10:53	5/18/20 10:50		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	5/15/20 10:53	5/18/20 10:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	5/15/20 10:53	5/18/20 10:50		1.015	0.00281	mg/L	0.002	0.005	J
* Lead, Total	5/15/20 10:53	5/18/20 10:50		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	5/15/20 10:53	5/18/20 10:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	5/15/20 10:53	5/18/20 10:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	5/15/20 10:53	5/18/20 10:50		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	5/18/20 10:40	5/20/20 13:55		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	5/18/20 14:28	5/20/20 09:42		1	337	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	5/19/20 13:30	5/19/20 13:30		4	58.3	mg/L	2.00	4	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	5/19/20 14:55	5/19/20 14:55		1	0.323	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	5/26/20 13:55	5/26/20 13:55		3	59.5	mg/L	1.50	3	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	5/12/20 10:00	5/12/20 10:00			662.31	uS/cm			FA
pH	5/12/20 10:00	5/12/20 10:00			6.55	SU			FA
Temperature	5/12/20 10:00	5/12/20 10:00			19.96	C			FA
Turbidity	5/12/20 10:00	5/12/20 10:00			7.26	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 6/8/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 5/12/20 10:04
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: BA08805

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08810	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.101	0.0938	0.0992	0.085 to 0.115	101	70 to 130	7.39	20
BA08810	Chromium, Total	mg/L	-0.0000747	0.00044	0.10	0.102	0.105	0.103	0.085 to 0.115	102	70 to 130	2.90	20
BA08810	Antimony, Total	mg/L	0.000326	0.00066	0.10	0.0961	0.0907	0.0965	0.085 to 0.115	96.1	70 to 130	5.78	20
BA08810	Thallium, Total	mg/L	-0.0000674	0.0001474	0.10	0.111	0.102	0.105	0.085 to 0.115	111	70 to 130	8.45	20
BA08810	Lithium, Total	mg/L	-0.000503	0.0154	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.05	20
BA08810	Beryllium, Total	mg/L	0.0000182	0.00088	0.10	0.0980	0.0964	0.0969	0.085 to 0.115	98.0	70 to 130	1.65	20
BA08810	Calcium, Total	mg/L	-0.000797	0.1518	5.00	5.07	5.00	5.04	4.25 to 5.75	101	70 to 130	1.39	20
BA08810	Selenium, Total	mg/L	0.000144	0.00066	0.10	0.102	0.0969	0.101	0.085 to 0.115	102	70 to 130	5.13	20
BA08810	Arsenic, Total	mg/L	0.00000513	0.0001474	0.10	0.105	0.102	0.105	0.085 to 0.115	105	70 to 130	2.90	20
BA08810	Boron, Total	mg/L	-0.00235	0.0650254	1.00	1.00	1.01	1.02	0.85 to 1.15	100	70 to 130	0.995	20
BA08810	Barium, Total	mg/L	0.0000138	0.0002	0.10	0.101	0.0954	0.103	0.085 to 0.115	101	70 to 130	5.70	20
BA08810	Cadmium, Total	mg/L	0.00000385	0.0001474	0.10	0.102	0.0968	0.101	0.085 to 0.115	102	70 to 130	5.23	20
BA08810	Cobalt, Total	mg/L	-0.0000538	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.939	20
BA08810	Mercury, Total by CVAA	mg/L	0.0000155	0.0005	0.004	0.00399	0.00410	0.00404	0.0034 to 0.0046	99.8	70 to 130	2.72	20
BA08810	Lead, Total	mg/L	-0.00000221	0.0001474	0.10	0.110	0.105	0.107	0.085 to 0.115	110	70 to 130	4.65	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 5/12/20 10:04
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: BA08805

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08810	Chloride	mg/L	-0.034	0.50	10.0	9.98	0.153	10.6	9 to 11	99.8	80 to 120	0.00	20
BA08806	Solids, Dissolved	mg/L	2.00	25			331	51.0	40 to 60			0.608	5
BA08810	Fluoride	mg/L	0.0286	0.05	2.50	2.60	0.0221	2.73	2.25 to 2.75	104	80 to 120	0.00	20
BA08810	Sulfate	mg/L	-0.336	0.50	20.0	19.3	-0.424	20.2	18 to 22	96.5	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-15V

Location Code: WMWBARAP
Collected: 5/12/20 11:21
Customer ID:
Submittal Date: 5/14/20 16:22

Laboratory ID Number: BA08806

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	5/19/20 10:45	5/20/20 11:33		1.015	0.0559	mg/L	0.03	0.1	J
* Calcium, Total	5/19/20 10:45	5/20/20 11:33		1.015	8.01	mg/L	0.1	0.5	
* Lithium, Total	5/19/20 10:45	5/20/20 11:33		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	5/15/20 10:53	5/18/20 10:53		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	5/15/20 10:53	5/18/20 10:53		1.015	0.0206	mg/L	0.001	0.005	
* Barium, Total	5/15/20 10:53	5/18/20 10:53		1.015	0.155	mg/L	0.002	0.01	
* Beryllium, Total	5/15/20 10:53	5/18/20 10:53		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	5/15/20 10:53	5/18/20 10:53		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	5/15/20 10:53	5/18/20 10:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	5/15/20 10:53	5/18/20 10:53		1.015	0.0719	mg/L	0.002	0.005	
* Lead, Total	5/15/20 10:53	5/18/20 10:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	5/15/20 10:53	5/18/20 10:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	5/15/20 10:53	5/18/20 10:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	5/15/20 10:53	5/18/20 10:53		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	5/18/20 10:40	5/20/20 13:57		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	5/18/20 14:28	5/20/20 09:42		1	327	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	5/19/20 13:36	5/19/20 13:36		10	190	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	5/19/20 14:56	5/19/20 14:56		1	0.0946	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	5/26/20 13:47	5/26/20 13:47		1	1.61	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	5/12/20 11:18	5/12/20 11:18			614.89	uS/cm			FA
pH	5/12/20 11:18	5/12/20 11:18			5.68	SU			FA
Temperature	5/12/20 11:18	5/12/20 11:18			20.77	C			FA
Turbidity	5/12/20 11:18	5/12/20 11:18			6.18	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 6/8/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 5/12/20 11:21
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: BA08806

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08810	Chromium, Total	mg/L	-0.0000747	0.00044	0.10	0.102	0.105	0.103	0.085 to 0.115	102	70 to 130	2.90	20
BA08810	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.101	0.0938	0.0992	0.085 to 0.115	101	70 to 130	7.39	20
BA08810	Cobalt, Total	mg/L	-0.0000538	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.939	20
BA08810	Mercury, Total by CVAA	mg/L	0.0000155	0.0005	0.004	0.00399	0.00410	0.00404	0.0034 to 0.0046	99.8	70 to 130	2.72	20
BA08810	Lead, Total	mg/L	-0.00000221	0.0001474	0.10	0.110	0.105	0.107	0.085 to 0.115	110	70 to 130	4.65	20
BA08810	Arsenic, Total	mg/L	0.00000513	0.0001474	0.10	0.105	0.102	0.105	0.085 to 0.115	105	70 to 130	2.90	20
BA08810	Boron, Total	mg/L	-0.00235	0.0650254	1.00	1.00	1.01	1.02	0.85 to 1.15	100	70 to 130	0.995	20
BA08810	Lithium, Total	mg/L	-0.000503	0.0154	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.05	20
BA08810	Barium, Total	mg/L	0.0000138	0.0002	0.10	0.101	0.0954	0.103	0.085 to 0.115	101	70 to 130	5.70	20
BA08810	Cadmium, Total	mg/L	0.00000385	0.0001474	0.10	0.102	0.0968	0.101	0.085 to 0.115	102	70 to 130	5.23	20
BA08810	Antimony, Total	mg/L	0.000326	0.00066	0.10	0.0961	0.0907	0.0965	0.085 to 0.115	96.1	70 to 130	5.78	20
BA08810	Thallium, Total	mg/L	-0.0000674	0.0001474	0.10	0.111	0.102	0.105	0.085 to 0.115	111	70 to 130	8.45	20
BA08810	Beryllium, Total	mg/L	0.0000182	0.00088	0.10	0.0980	0.0964	0.0969	0.085 to 0.115	98.0	70 to 130	1.65	20
BA08810	Calcium, Total	mg/L	-0.000797	0.1518	5.00	5.07	5.00	5.04	4.25 to 5.75	101	70 to 130	1.39	20
BA08810	Selenium, Total	mg/L	0.000144	0.00066	0.10	0.102	0.0969	0.101	0.085 to 0.115	102	70 to 130	5.13	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 5/12/20 11:21
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: BA08806

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08810	Chloride	mg/L	-0.034	0.50	10.0	9.98	0.153	10.6	9 to 11	99.8	80 to 120	0.00	20
BA08806	Solids, Dissolved	mg/L	2.00	25			331	51.0	40 to 60			0.608	5
BA08810	Fluoride	mg/L	0.0286	0.05	2.50	2.60	0.0221	2.73	2.25 to 2.75	104	80 to 120	0.00	20
BA08810	Sulfate	mg/L	-0.336	0.50	20.0	19.3	-0.424	20.2	18 to 22	96.5	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-15V DUP

Location Code: WMWBARAP
Collected: 5/12/20 11:21
Customer ID:
Submittal Date: 5/14/20 16:22

Laboratory ID Number: BA08807

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	5/19/20 10:45	5/20/20 11:36		1.015	0.0567	mg/L	0.03	0.1	J
* Calcium, Total	5/19/20 10:45	5/20/20 11:36		1.015	8.03	mg/L	0.1	0.5	
* Lithium, Total	5/19/20 10:45	5/20/20 11:36		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	5/15/20 10:53	5/18/20 10:55		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	5/15/20 10:53	5/18/20 10:55		1.015	0.0209	mg/L	0.001	0.005	
* Barium, Total	5/15/20 10:53	5/18/20 10:55		1.015	0.150	mg/L	0.002	0.01	
* Beryllium, Total	5/15/20 10:53	5/18/20 10:55		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	5/15/20 10:53	5/18/20 10:55		1.015	0.000328	mg/L	0.0003	0.001	J
* Chromium, Total	5/15/20 10:53	5/18/20 10:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	5/15/20 10:53	5/18/20 10:55		1.015	0.0721	mg/L	0.002	0.005	
* Lead, Total	5/15/20 10:53	5/18/20 10:55		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	5/15/20 10:53	5/18/20 10:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	5/15/20 10:53	5/18/20 10:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	5/15/20 10:53	5/18/20 10:55		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	5/18/20 10:40	5/20/20 14:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	5/18/20 14:28	5/20/20 09:42		1	313	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	5/19/20 13:37	5/19/20 13:37		10	177	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	5/19/20 14:58	5/19/20 14:58		1	0.0695	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	5/26/20 13:48	5/26/20 13:48		1	1.49	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	5/12/20 11:18	5/12/20 11:18			614.89	uS/cm			FA
pH	5/12/20 11:18	5/12/20 11:18			5.68	SU			FA
Temperature	5/12/20 11:18	5/12/20 11:18			20.77	C			FA
Turbidity	5/12/20 11:18	5/12/20 11:18			6.18	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 6/8/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 5/12/20 11:21
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond - MW-15V DUP

Laboratory ID Number: BA08807

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08810	Chromium, Total	mg/L	-0.0000747	0.00044	0.10	0.102	0.105	0.103	0.085 to 0.115	102	70 to 130	2.90	20
BA08810	Lithium, Total	mg/L	-0.000503	0.0154	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.05	20
BA08810	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.101	0.0938	0.0992	0.085 to 0.115	101	70 to 130	7.39	20
BA08810	Cobalt, Total	mg/L	-0.0000538	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.939	20
BA08810	Mercury, Total by CVAA	mg/L	0.0000155	0.0005	0.004	0.00399	0.00410	0.00404	0.0034 to 0.0046	99.8	70 to 130	2.72	20
BA08810	Lead, Total	mg/L	-0.00000221	0.0001474	0.10	0.110	0.105	0.107	0.085 to 0.115	110	70 to 130	4.65	20
BA08810	Beryllium, Total	mg/L	0.0000182	0.00088	0.10	0.0980	0.0964	0.0969	0.085 to 0.115	98.0	70 to 130	1.65	20
BA08810	Calcium, Total	mg/L	-0.000797	0.1518	5.00	5.07	5.00	5.04	4.25 to 5.75	101	70 to 130	1.39	20
BA08810	Selenium, Total	mg/L	0.000144	0.00066	0.10	0.102	0.0969	0.101	0.085 to 0.115	102	70 to 130	5.13	20
BA08810	Barium, Total	mg/L	0.0000138	0.0002	0.10	0.101	0.0954	0.103	0.085 to 0.115	101	70 to 130	5.70	20
BA08810	Cadmium, Total	mg/L	0.00000385	0.0001474	0.10	0.102	0.0968	0.101	0.085 to 0.115	102	70 to 130	5.23	20
BA08810	Antimony, Total	mg/L	0.000326	0.00066	0.10	0.0961	0.0907	0.0965	0.085 to 0.115	96.1	70 to 130	5.78	20
BA08810	Thallium, Total	mg/L	-0.0000674	0.0001474	0.10	0.111	0.102	0.105	0.085 to 0.115	111	70 to 130	8.45	20
BA08810	Arsenic, Total	mg/L	0.00000513	0.0001474	0.10	0.105	0.102	0.105	0.085 to 0.115	105	70 to 130	2.90	20
BA08810	Boron, Total	mg/L	-0.00235	0.0650254	1.00	1.00	1.01	1.02	0.85 to 1.15	100	70 to 130	0.995	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 5/12/20 11:21
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond - MW-15V DUP

Laboratory ID Number: BA08807

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08810	Chloride	mg/L	-0.034	0.50	10.0	9.98	0.153	10.6	9 to 11	99.8	80 to 120	0.00	20
BA08806	Solids, Dissolved	mg/L	2.00	25			331	51.0	40 to 60			0.608	5
BA08810	Fluoride	mg/L	0.0286	0.05	2.50	2.60	0.0221	2.73	2.25 to 2.75	104	80 to 120	0.00	20
BA08810	Sulfate	mg/L	-0.336	0.50	20.0	19.3	-0.424	20.2	18 to 22	96.5	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 5/12/20 11:43
Customer ID:
Submittal Date: 5/14/20 16:22

Laboratory ID Number: BA08808

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	5/19/20 10:45	5/20/20 11:39		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	5/19/20 10:45	5/20/20 11:39		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	5/19/20 10:45	5/20/20 11:39		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	5/15/20 10:53	5/18/20 10:58		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	5/18/20 10:40	5/20/20 14:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	5/18/20 14:28	5/20/20 09:42		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	5/19/20 13:33	5/19/20 13:33		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	5/19/20 14:59	5/19/20 14:59		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	5/26/20 13:49	5/26/20 13:49		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 6/8/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPFB
Sample Date: 5/12/20 11:43
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA08808

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08810	Chromium, Total	mg/L	-0.0000747	0.00044	0.10	0.102	0.105	0.103	0.085 to 0.115	102	70 to 130	2.90	20
BA08810	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.101	0.0938	0.0992	0.085 to 0.115	101	70 to 130	7.39	20
BA08810	Lithium, Total	mg/L	-0.000503	0.0154	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.05	20
BA08810	Beryllium, Total	mg/L	0.0000182	0.00088	0.10	0.0980	0.0964	0.0969	0.085 to 0.115	98.0	70 to 130	1.65	20
BA08810	Calcium, Total	mg/L	-0.000797	0.1518	5.00	5.07	5.00	5.04	4.25 to 5.75	101	70 to 130	1.39	20
BA08810	Selenium, Total	mg/L	0.000144	0.00066	0.10	0.102	0.0969	0.101	0.085 to 0.115	102	70 to 130	5.13	20
BA08810	Cobalt, Total	mg/L	-0.0000538	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.939	20
BA08810	Mercury, Total by CVAA	mg/L	0.0000155	0.0005	0.004	0.00399	0.00410	0.00404	0.0034 to 0.0046	99.8	70 to 130	2.72	20
BA08810	Lead, Total	mg/L	-0.00000221	0.0001474	0.10	0.110	0.105	0.107	0.085 to 0.115	110	70 to 130	4.65	20
BA08810	Antimony, Total	mg/L	0.000326	0.00066	0.10	0.0961	0.0907	0.0965	0.085 to 0.115	96.1	70 to 130	5.78	20
BA08810	Thallium, Total	mg/L	-0.0000674	0.0001474	0.10	0.111	0.102	0.105	0.085 to 0.115	111	70 to 130	8.45	20
BA08810	Arsenic, Total	mg/L	0.00000513	0.0001474	0.10	0.105	0.102	0.105	0.085 to 0.115	105	70 to 130	2.90	20
BA08810	Boron, Total	mg/L	-0.00235	0.0650254	1.00	1.00	1.01	1.02	0.85 to 1.15	100	70 to 130	0.995	20
BA08810	Barium, Total	mg/L	0.0000138	0.0002	0.10	0.101	0.0954	0.103	0.085 to 0.115	101	70 to 130	5.70	20
BA08810	Cadmium, Total	mg/L	0.00000385	0.0001474	0.10	0.102	0.0968	0.101	0.085 to 0.115	102	70 to 130	5.23	20

Comments:

Reported: 6/8/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 5/12/20 11:43
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA08808

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08806	Solids, Dissolved	mg/L	2.00	25			331	51.0	40 to 60			0.608	5
BA08810	Chloride	mg/L	-0.034	0.50	10.0	9.98	0.153	10.6	9 to 11	99.8	80 to 120	0.00	20
BA08810	Fluoride	mg/L	0.0286	0.05	2.50	2.60	0.0221	2.73	2.25 to 2.75	104	80 to 120	0.00	20
BA08810	Sulfate	mg/L	-0.336	0.50	20.0	19.3	-0.424	20.2	18 to 22	96.5	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-19H

Location Code: WMWBARAP
Collected: 5/12/20 13:08
Customer ID:
Submittal Date: 5/14/20 16:22

Laboratory ID Number: BA08809

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	5/19/20 10:45	5/20/20 11:42		1.015	1.22	mg/L	0.03	0.1	
* Calcium, Total	5/19/20 10:45	5/20/20 11:42		1.015	34.2	mg/L	0.1	0.5	
* Lithium, Total	5/19/20 10:45	5/20/20 11:42		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	5/15/20 10:53	5/18/20 11:01		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	5/15/20 10:53	5/18/20 11:01		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	5/15/20 10:53	5/18/20 11:01		1.015	0.167	mg/L	0.002	0.01	
* Beryllium, Total	5/15/20 10:53	5/18/20 11:01		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	5/15/20 10:53	5/18/20 11:01		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	5/15/20 10:53	5/18/20 11:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	5/15/20 10:53	5/18/20 11:01		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	5/15/20 10:53	5/18/20 11:01		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	5/15/20 10:53	5/18/20 11:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	5/15/20 10:53	5/18/20 11:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	5/15/20 10:53	5/18/20 11:01		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	5/18/20 10:40	5/20/20 14:04		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	5/18/20 14:28	5/20/20 09:42		1	321	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	5/19/20 13:34	5/19/20 13:34		1	17.9	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	5/19/20 15:00	5/19/20 15:00		1	0.0732	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	5/26/20 13:50	5/26/20 13:50		1	22.9	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	5/12/20 13:04	5/12/20 13:04			585.03	uS/cm			FA
pH	5/12/20 13:04	5/12/20 13:04			6.09	SU			FA
Temperature	5/12/20 13:04	5/12/20 13:04			20.05	C			FA
Turbidity	5/12/20 13:04	5/12/20 13:04			4.91	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 6/8/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 5/12/20 13:08
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: BA08809

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08810	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.101	0.0938	0.0992	0.085 to 0.115	101	70 to 130	7.39	20
BA08810	Chromium, Total	mg/L	-0.0000747	0.00044	0.10	0.102	0.105	0.103	0.085 to 0.115	102	70 to 130	2.90	20
BA08810	Lithium, Total	mg/L	-0.000503	0.0154	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.05	20
BA08810	Antimony, Total	mg/L	0.000326	0.00066	0.10	0.0961	0.0907	0.0965	0.085 to 0.115	96.1	70 to 130	5.78	20
BA08810	Thallium, Total	mg/L	-0.0000674	0.0001474	0.10	0.111	0.102	0.105	0.085 to 0.115	111	70 to 130	8.45	20
BA08810	Barium, Total	mg/L	0.0000138	0.0002	0.10	0.101	0.0954	0.103	0.085 to 0.115	101	70 to 130	5.70	20
BA08810	Cadmium, Total	mg/L	0.00000385	0.0001474	0.10	0.102	0.0968	0.101	0.085 to 0.115	102	70 to 130	5.23	20
BA08810	Arsenic, Total	mg/L	0.00000513	0.0001474	0.10	0.105	0.102	0.105	0.085 to 0.115	105	70 to 130	2.90	20
BA08810	Boron, Total	mg/L	-0.00235	0.0650254	1.00	1.00	1.01	1.02	0.85 to 1.15	100	70 to 130	0.995	20
BA08810	Beryllium, Total	mg/L	0.0000182	0.00088	0.10	0.0980	0.0964	0.0969	0.085 to 0.115	98.0	70 to 130	1.65	20
BA08810	Calcium, Total	mg/L	-0.000797	0.1518	5.00	5.07	5.00	5.04	4.25 to 5.75	101	70 to 130	1.39	20
BA08810	Selenium, Total	mg/L	0.000144	0.00066	0.10	0.102	0.0969	0.101	0.085 to 0.115	102	70 to 130	5.13	20
BA08810	Cobalt, Total	mg/L	-0.0000538	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.939	20
BA08810	Mercury, Total by CVAA	mg/L	0.0000155	0.0005	0.004	0.00399	0.00410	0.00404	0.0034 to 0.0046	99.8	70 to 130	2.72	20
BA08810	Lead, Total	mg/L	-0.00000221	0.0001474	0.10	0.110	0.105	0.107	0.085 to 0.115	110	70 to 130	4.65	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 5/12/20 13:08
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: BA08809

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08810	Chloride	mg/L	-0.034	0.50	10.0	9.98	0.153	10.6	9 to 11	99.8	80 to 120	0.00	20
BA08806	Solids, Dissolved	mg/L	2.00	25			331	51.0	40 to 60			0.608	5
BA08810	Fluoride	mg/L	0.0286	0.05	2.50	2.60	0.0221	2.73	2.25 to 2.75	104	80 to 120	0.00	20
BA08810	Sulfate	mg/L	-0.336	0.50	20.0	19.3	-0.424	20.2	18 to 22	96.5	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Equipment Blank

Location Code: WMWBARAPEB
Collected: 5/12/20 13:30
Customer ID:
Submittal Date: 5/14/20 16:22

Laboratory ID Number: BA08810

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	5/19/20 10:45	5/20/20 11:45		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	5/19/20 10:45	5/20/20 11:45		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	5/19/20 10:45	5/20/20 11:45		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	5/15/20 10:53	5/18/20 11:03		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: ABB***								
* Mercury, Total by CVAA	5/18/20 10:40	5/20/20 14:07		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	5/18/20 14:28	5/20/20 09:42		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	5/19/20 13:38	5/19/20 13:38		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	5/19/20 15:01	5/19/20 15:01		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	5/26/20 13:51	5/26/20 13:51		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 6/8/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPEB
Sample Date: 5/12/20 13:30
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: BA08810

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08810	Chromium, Total	mg/L	-0.0000747	0.00044	0.10	0.102	0.105	0.103	0.085 to 0.115	102	70 to 130	2.90	20
BA08810	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.101	0.0938	0.0992	0.085 to 0.115	101	70 to 130	7.39	20
BA08810	Lithium, Total	mg/L	-0.000503	0.0154	0.20	0.189	0.191	0.191	0.17 to 0.23	94.5	70 to 130	1.05	20
BA08810	Arsenic, Total	mg/L	0.00000513	0.0001474	0.10	0.105	0.102	0.105	0.085 to 0.115	105	70 to 130	2.90	20
BA08810	Boron, Total	mg/L	-0.00235	0.0650254	1.00	1.00	1.01	1.02	0.85 to 1.15	100	70 to 130	0.995	20
BA08810	Cobalt, Total	mg/L	-0.0000538	0.0001474	0.10	0.106	0.107	0.105	0.085 to 0.115	106	70 to 130	0.939	20
BA08810	Mercury, Total by CVAA	mg/L	0.0000155	0.0005	0.004	0.00399	0.00410	0.00404	0.0034 to 0.0046	99.8	70 to 130	2.72	20
BA08810	Lead, Total	mg/L	-0.00000221	0.0001474	0.10	0.110	0.105	0.107	0.085 to 0.115	110	70 to 130	4.65	20
BA08810	Antimony, Total	mg/L	0.000326	0.00066	0.10	0.0961	0.0907	0.0965	0.085 to 0.115	96.1	70 to 130	5.78	20
BA08810	Thallium, Total	mg/L	-0.0000674	0.0001474	0.10	0.111	0.102	0.105	0.085 to 0.115	111	70 to 130	8.45	20
BA08810	Barium, Total	mg/L	0.0000138	0.0002	0.10	0.101	0.0954	0.103	0.085 to 0.115	101	70 to 130	5.70	20
BA08810	Cadmium, Total	mg/L	0.00000385	0.0001474	0.10	0.102	0.0968	0.101	0.085 to 0.115	102	70 to 130	5.23	20
BA08810	Beryllium, Total	mg/L	0.0000182	0.00088	0.10	0.0980	0.0964	0.0969	0.085 to 0.115	98.0	70 to 130	1.65	20
BA08810	Calcium, Total	mg/L	-0.000797	0.1518	5.00	5.07	5.00	5.04	4.25 to 5.75	101	70 to 130	1.39	20
BA08810	Selenium, Total	mg/L	0.000144	0.00066	0.10	0.102	0.0969	0.101	0.085 to 0.115	102	70 to 130	5.13	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPEB
Sample Date: 5/12/20 13:30
Customer ID:
Delivery Date: 5/14/20 16:22

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: BA08810

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA08806	Solids, Dissolved	mg/L	2.00	25			331	51.0	40 to 60			0.608	5
BA08810	Chloride	mg/L	-0.034	0.50	10.0	9.98	0.153	10.6	9 to 11	99.8	80 to 120	0.00	20
BA08810	Fluoride	mg/L	0.0286	0.05	2.50	2.60	0.0221	2.73	2.25 to 2.75	104	80 to 120	0.00	20
BA08810	Sulfate	mg/L	-0.336	0.50	20.0	19.3	-0.424	20.2	18 to 22	96.5	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Definitions

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.

Chain of Custody Groundwater

APC General Testing Laboratory

☑ Field Complete ☐ Outside Lab

☑ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-22H	05/12/2020	10:04	4	Groundwater		BA08805
MW-15V	05/12/2020	11:21	4	Groundwater		BA08806
MW-15V dup	05/12/2020	11:21	4	Sample Duplicate		BA08807
FB-1	05/12/2020	11:43	4	Field Blank		BA08808
MW-19H	05/12/2020	13:08	4	Groundwater		BA08809
EB-1	05/12/2020	13:30	4	Equipment Blank		BA08810

Relinquished By	Received By	Date/Time
		05/14/2020 15:06

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1278

All metals and radiological bottles have pH < 2 ☑

Cooler Temp	0.7 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Rad MS/MSD collected at MW-22H

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-22H	05/12/2020	10:04	3	Groundwater		BA08811
MW-15V	05/12/2020	11:21	1	Groundwater		BA08812
MW-15V dup	05/12/2020	11:21	1	Sample Duplicate		BA08813
FB-1	05/12/2020	11:43	1	Field Blank		BA08814
MW-19H	05/12/2020	13:08	1	Groundwater		BA08815
EB-1	05/12/2020	13:30	1	Equipment Blank		BA08816

Relinquished By	Received By	Date/Time
[signature]	[signature]	05/14/2020 15:07

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1278

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-188179-1
Laboratory Sample Delivery Group: Barry Ash Pond 1278
Client Project/Site: CCR Plant Barry

For:
Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff

Authorized for release by:
6/12/2020 2:06:45 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
cheyenne.whitmire@testamericainc.com

LINKS

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The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-188179-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-188179-1

RAD

Method 9315: Radium-226 Prep Batch 160-471105. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA08811 MW-22H (400-188179-1), BA08811 MW-22H (400-188179-1[MS]), BA08811 MW-22H (400-188179-1[MSD]), BA08812 MW-15V (400-188179-2), BA08813 MW-15V DUP (400-188179-3), BA08814 FB-1 (400-188179-4), BA08815 MW-19H (400-188179-5), BA08816 EB-1 (400-188179-6), (LCS 160-471105/1-A) and (MB 160-471105/22-A)

Method 9320: Ra-228 Prep Batch 160-471106. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA08811 MW-22H (400-188179-1), BA08811 MW-22H (400-188179-1[MS]), BA08811 MW-22H (400-188179-1[MSD]), BA08812 MW-15V (400-188179-2), BA08813 MW-15V DUP (400-188179-3), BA08814 FB-1 (400-188179-4), BA08815 MW-19H (400-188179-5), BA08816 EB-1 (400-188179-6), (LCS 160-471106/1-A) and (MB 160-471106/22-A)

Method PrecSep_0: Radium 228 Prep Batch 160-471106. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA08811 MW-22H (400-188179-1), BA08811 MW-22H (400-188179-1[MS]), BA08811 MW-22H (400-188179-1[MSD]), BA08812 MW-15V (400-188179-2), BA08813 MW-15V DUP (400-188179-3), BA08814 FB-1 (400-188179-4), BA08815 MW-19H (400-188179-5) and BA08816 EB-1 (400-188179-6).

Method PrecSep-21: Radium 226 Prep Batch 160-471105. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA08811 MW-22H (400-188179-1), BA08811 MW-22H (400-188179-1[MS]), BA08811 MW-22H (400-188179-1[MSD]), BA08812 MW-15V (400-188179-2), BA08813 MW-15V DUP (400-188179-3), BA08814 FB-1 (400-188179-4), BA08815 MW-19H (400-188179-5) and BA08816 EB-1 (400-188179-6).

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-188179-1	BA08811 MW-22H	Water	05/12/20 10:04	05/18/20 14:15	
400-188179-2	BA08812 MW-15V	Water	05/12/20 11:21	05/18/20 14:15	
400-188179-3	BA08813 MW-15V DUP	Water	05/12/20 11:21	05/18/20 14:15	
400-188179-4	BA08814 FB-1	Water	05/12/20 11:43	05/18/20 14:15	
400-188179-5	BA08815 MW-19H	Water	05/12/20 13:08	05/18/20 14:15	
400-188179-6	BA08816 EB-1	Water	05/12/20 13:30	05/18/20 14:15	

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Client Sample ID: BA08811 MW-22H

Lab Sample ID: 400-188179-1

Date Collected: 05/12/20 10:04
Date Received: 05/18/20 14:15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.376**		0.162	0.166	1.00	0.186	pCi/L	05/21/20 15:03	06/12/20 04:41	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*05/21/20 15:03*	*06/12/20 04:41*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.234	U	0.352	0.353	1.00	0.591	pCi/L	05/21/20 15:30	06/04/20 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.6*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*
Y Carrier	*83.0*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.610**		0.387	0.390	5.00	0.591	pCi/L		06/12/20 08:24	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Client Sample ID: BA08812 MW-15V

Lab Sample ID: 400-188179-2

Date Collected: 05/12/20 11:21
Matrix: Water
Date Received: 05/18/20 14:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.639		0.197	0.206	1.00	0.197	pCi/L	05/21/20 15:03	06/12/20 04:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.8*		*40 - 110*	*05/21/20 15:03*	*06/12/20 04:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.03		0.372	0.384	1.00	0.505	pCi/L	05/21/20 15:30	06/04/20 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.8*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*
Y Carrier	*83.0*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.67		0.421	0.436	5.00	0.505	pCi/L		06/12/20 08:24	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Client Sample ID: BA08813 MW-15V DUP

Lab Sample ID: 400-188179-3

Date Collected: 05/12/20 11:21
Matrix: Water
Date Received: 05/18/20 14:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.866		0.210	0.224	1.00	0.162	pCi/L	05/21/20 15:03	06/12/20 04:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.3*		*40 - 110*	*05/21/20 15:03*	*06/12/20 04:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.800		0.371	0.379	1.00	0.537	pCi/L	05/21/20 15:30	06/04/20 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.3*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*
Y Carrier	*84.5*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.67		0.426	0.440	5.00	0.537	pCi/L		06/12/20 08:24	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Client Sample ID: BA08814 FB-1

Date Collected: 05/12/20 11:43
Date Received: 05/18/20 14:15

Lab Sample ID: 400-188179-4

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0295	U	0.0945	0.0945	1.00	0.197	pCi/L	05/21/20 15:03	06/12/20 04:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*40 - 110*	*05/21/20 15:03*	*06/12/20 04:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.113	U	0.291	0.291	1.00	0.541	pCi/L	05/21/20 15:30	06/04/20 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*
Y Carrier	*79.6*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.142	U	0.306	0.306	5.00	0.541	pCi/L		06/12/20 08:24	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Client Sample ID: BA08815 MW-19H

Lab Sample ID: 400-188179-5

Date Collected: 05/12/20 13:08
Matrix: Water
Date Received: 05/18/20 14:15

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.437**		0.167	0.172	1.00	0.167	pCi/L	05/21/20 15:03	06/12/20 04:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.2*		*40 - 110*	*05/21/20 15:03*	*06/12/20 04:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.254	U	0.357	0.358	1.00	0.597	pCi/L	05/21/20 15:30	06/04/20 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.2*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*
Y Carrier	*81.1*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.691**		0.394	0.397	5.00	0.597	pCi/L		06/12/20 08:24	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Client Sample ID: BA08816 EB-1

Date Collected: 05/12/20 13:30
Date Received: 05/18/20 14:15

Lab Sample ID: 400-188179-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0141	U	0.0856	0.0856	1.00	0.179	pCi/L	05/21/20 15:03	06/12/20 04:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*40 - 110*	*05/21/20 15:03*	*06/12/20 04:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.201	U	0.309	0.310	1.00	0.520	pCi/L	05/21/20 15:30	06/04/20 15:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*
Y Carrier	*83.0*		*40 - 110*	*05/21/20 15:30*	*06/04/20 15:01*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.187	U	0.321	0.322	5.00	0.520	pCi/L		06/12/20 08:24	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Client Sample ID: BA08811 MW-22H — Lab Sample ID: 400-188179-1

Date Collected: 05/12/20 10:04 — **Matrix: Water**
Date Received: 05/18/20 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			471105	05/21/20 15:03	MNH	TAL SL
Total/NA	Analysis	9315		1	473204	06/12/20 04:41	KLS	TAL SL
Total/NA	Prep	PrecSep_0			471106	05/21/20 15:30	MNH	TAL SL
Total/NA	Analysis	9320		1	471995	06/04/20 15:01	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	473223	06/12/20 08:24	SMP	TAL SL

Client Sample ID: BA08812 MW-15V — Lab Sample ID: 400-188179-2

Date Collected: 05/12/20 11:21 — **Matrix: Water**
Date Received: 05/18/20 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			471105	05/21/20 15:03	MNH	TAL SL
Total/NA	Analysis	9315		1	473204	06/12/20 04:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			471106	05/21/20 15:30	MNH	TAL SL
Total/NA	Analysis	9320		1	471995	06/04/20 15:01	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	473223	06/12/20 08:24	SMP	TAL SL

Client Sample ID: BA08813 MW-15V DUP — Lab Sample ID: 400-188179-3

Date Collected: 05/12/20 11:21 — **Matrix: Water**
Date Received: 05/18/20 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			471105	05/21/20 15:03	MNH	TAL SL
Total/NA	Analysis	9315		1	473204	06/12/20 04:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			471106	05/21/20 15:30	MNH	TAL SL
Total/NA	Analysis	9320		1	471995	06/04/20 15:01	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	473223	06/12/20 08:24	SMP	TAL SL

Client Sample ID: BA08814 FB-1 — Lab Sample ID: 400-188179-4

Date Collected: 05/12/20 11:43 — **Matrix: Water**
Date Received: 05/18/20 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			471105	05/21/20 15:03	MNH	TAL SL
Total/NA	Analysis	9315		1	473204	06/12/20 04:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			471106	05/21/20 15:30	MNH	TAL SL
Total/NA	Analysis	9320		1	471995	06/04/20 15:01	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	473223	06/12/20 08:24	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Client Sample ID: BA08815 MW-19H

Lab Sample ID: 400-188179-5

Date Collected: 05/12/20 13:08
Matrix: Water
Date Received: 05/18/20 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			471105	05/21/20 15:03	MNH	TAL SL
Total/NA	Analysis	9315		1	473204	06/12/20 04:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			471106	05/21/20 15:30	MNH	TAL SL
Total/NA	Analysis	9320		1	471995	06/04/20 15:01	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	473223	06/12/20 08:24	SMP	TAL SL

Client Sample ID: BA08816 EB-1

Lab Sample ID: 400-188179-6

Date Collected: 05/12/20 13:30
Matrix: Water
Date Received: 05/18/20 14:15

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			471105	05/21/20 15:03	MNH	TAL SL
Total/NA	Analysis	9315		1	473204	06/12/20 04:42	KLS	TAL SL
Total/NA	Prep	PrecSep_0			471106	05/21/20 15:30	MNH	TAL SL
Total/NA	Analysis	9320		1	471995	06/04/20 15:01	AJD	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	473223	06/12/20 08:24	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Rad

Prep Batch: 471105

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-188179-1	BA08811 MW-22H	Total/NA	Water	PrecSep-21	
400-188179-2	BA08812 MW-15V	Total/NA	Water	PrecSep-21	
400-188179-3	BA08813 MW-15V DUP	Total/NA	Water	PrecSep-21	
400-188179-4	BA08814 FB-1	Total/NA	Water	PrecSep-21	
400-188179-5	BA08815 MW-19H	Total/NA	Water	PrecSep-21	
400-188179-6	BA08816 EB-1	Total/NA	Water	PrecSep-21	
MB 160-471105/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-471105/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-188179-1 MS	BA08811 MW-22H	Total/NA	Water	PrecSep-21	
400-188179-1 MSD	BA08811 MW-22H	Total/NA	Water	PrecSep-21	

Prep Batch: 471106

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-188179-1	BA08811 MW-22H	Total/NA	Water	PrecSep_0	
400-188179-2	BA08812 MW-15V	Total/NA	Water	PrecSep_0	
400-188179-3	BA08813 MW-15V DUP	Total/NA	Water	PrecSep_0	
400-188179-4	BA08814 FB-1	Total/NA	Water	PrecSep_0	
400-188179-5	BA08815 MW-19H	Total/NA	Water	PrecSep_0	
400-188179-6	BA08816 EB-1	Total/NA	Water	PrecSep_0	
MB 160-471106/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-471106/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-188179-1 MS	BA08811 MW-22H	Total/NA	Water	PrecSep_0	
400-188179-1 MSD	BA08811 MW-22H	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-471105/22-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 473203 — **Prep Batch: 471105**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.08984	U	0.0816	0.0820	1.00	0.119	pCi/L	05/21/20 15:03	06/12/20 04:50	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.9*		*40 - 110*	*05/21/20 15:03*	*06/12/20 04:50*	*1*

Lab Sample ID: LCS 160-471105/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 473204 — **Prep Batch: 471105**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	13.83		1.49	1.00	0.173	pCi/L	91	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*77.2*		*40 - 110*

Lab Sample ID: 400-188179-1 MS — **Client Sample ID: BA08811 MW-22H**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 473204 — **Prep Batch: 471105**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.376		15.1	15.04		1.59	1.00	0.170	pCi/L	97	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*80.7*		*40 - 110*

Lab Sample ID: 400-188179-1 MSD — **Client Sample ID: BA08811 MW-22H**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 473204 — **Prep Batch: 471105**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.376		15.1	14.80		1.57	1.00	0.173	pCi/L	95	75 - 138	0.08	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*78.6*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-471106/22-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 472403 — **Prep Batch: 471106**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.002976	U	0.348	0.348	1.00	0.618	pCi/L	05/21/20 15:30	06/04/20 14:58	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	84.9		40 - 110	05/21/20 15:30	06/04/20 14:58	1
Y Carrier	86.4		40 - 110	05/21/20 15:30	06/04/20 14:58	1

Lab Sample ID: LCS 160-471106/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 471995 — **Prep Batch: 471106**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	11.7	13.32		1.63	1.00	0.709	pCi/L	114	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	77.2		40 - 110
Y Carrier	71.8		40 - 110

Lab Sample ID: 400-188179-1 MS — **Client Sample ID: BA08811 MW-22H**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 471995 — **Prep Batch: 471106**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	0.234	U	11.7	11.68		1.40	1.00	0.579	pCi/L	98	45 - 150

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	80.7		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: 400-188179-1 MSD — **Client Sample ID: BA08811 MW-22H**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 471995 — **Prep Batch: 471106**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.234	U	11.7	12.49		1.52	1.00	0.618	pCi/L	105	45 - 150	0.28	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	78.6		40 - 110
Y Carrier	75.1		40 - 110

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: Dallas Gentry	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 1 of 1
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1278	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

400-188179 COC

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA08811	5/12/20	10:04	G	Water		X				X	3	MW-22H
BA08812	5/12/20	11:21	G	Water						X	1	MW-15V
BA08813	5/12/20	11:21	G	Water						X	1	MW-15V DUP (Sample Duplicate)
BA08814	5/12/20	11:43	G	Water						X	1	FB-1 (Field Blank)
BA08815	5/12/20	13:08	G	Water						X	1	MW-19H
BA08816	5/12/20	13:30	G	Water						X	1	EB-1 (Equipment Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 43599 Special Instructions/QC Requirements:

Empty Kit Relinquished by: Date: Time: Method of Shipment:

Relinquished by	Date/Time	Company	Received by	Date/Time	Company
Laura Midkiff	5/15/2020 10:00	Water APC			
				5-18-20	14:15

Custody Seals Intact: Custody Seal No.: Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

25.5 : 1R 7

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-188179-1
SDG Number: Barry Ash Pond 1278

Login Number: 188179
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	25.5°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-188179-1
SDG Number: Barry Ash Pond 1278

Login Number: 188179
List Number: 2
Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis
List Creation: 05/20/20 04:32 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Laboratory: Eurofins TestAmerica, Pensacola

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alabama	State	40150	07-01-20
ANAB	ISO/IEC 17025	L2471	02-23-23
Arizona	State	AZ0710	01-13-21
Arkansas DEQ	State	88-0689	09-01-20
California	State	2510	07-01-20
Florida	NELAP	E81010	06-30-20
Georgia	State	E81010(FL)	06-30-20
Illinois	NELAP	004586	10-09-20
Iowa	State	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State	53	06-30-20
Kentucky (WW)	State	KY98030	12-31-20
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	State	LA017	12-31-20
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	06-30-20
Minnesota	NELAP	012-999-481	12-31-20
New Jersey	NELAP	FL006	06-30-20
New York	NELAP	12115	04-01-21
North Carolina (WW/SW)	State	314	12-31-20
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-21
Rhode Island	State	LAO00307	12-30-20
South Carolina	State	96026002	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-18-00148	05-17-21
Virginia	NELAP	460166	06-14-20
Washington	State	C915	05-15-21
West Virginia DEP	State	136	06-30-20

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-188179-1
SDG: Barry Ash Pond 1278

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-20
California	State	2886	06-30-20
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-20
HI - RadChem Recognition	State	n/a	06-30-20
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
MI - RadChem Recognition	State	9005	06-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-20
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-20
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-20
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

Alabama Power 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 Ash Pond

Phase II Delineation Event 1

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Turbidity levels less than 10 NTU were not able to be achieved after extended pumping for wells MW-17V and MW-23V. A complete sample set for totals analysis was collected followed by a field filtered set for dissolved analysis.

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report

Alabama Power

Sample Group : WMWBARAP_1281

Project/Site : Barry Ash Pond
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkwa
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Alabama Power

July 13, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on June 18, 2020.
All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2021

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.07.13 14:05:57 -05'00'

Supervision: T. Durant Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.07.13 15:17:44 -05'00'

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

Alabama Power Lab & Field SERVICES

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICP

Barry Ash Pond

WMWBARAP_1281

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA10999	675421	WMWBARAP_1281
BA11000	675421	WMWBARAP_1281
BA11002	675421	WMWBARAP_1281
BA11004	675421	WMWBARAP_1281
BA11005	675421	WMWBARAP_1281
BA11006	675421	WMWBARAP_1281
BA11007	675421	WMWBARAP_1281
BA11008	675421	WMWBARAP_1281
BA11009	675421	WMWBARAP_1281
BA11010	675421	WMWBARAP_1281
BA11011	675422	WMWBARAP_1281

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.

- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA11000	Calcium	10.15

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICP

Barry Ash Pond

WMWBARAP_1281

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA11001	675424	WMWBARAP_1281
BA11003	675424	WMWBARAP_1281

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA11001	Calcium	10.15

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICPMS

Barry Ash Pond

WMWBARAP_1281

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA10999	675563	WMWBARAP_1281
BA11000	675563	WMWBARAP_1281
BA11002	675563	WMWBARAP_1281
BA11004	675563	WMWBARAP_1281
BA11005	675563	WMWBARAP_1281
BA11006	675563	WMWBARAP_1281
BA11007	675563	WMWBARAP_1281
BA11008	675563	WMWBARAP_1281
BA11009	675563	WMWBARAP_1281
BA11010	675563	WMWBARAP_1281
BA11011	675564	WMWBARAP_1281

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICPMS

Barry Ash Pond

WMWBARAP_1281

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA11001	675526	WMWBARAP_1281
BA11003	675526	WMWBARAP_1281

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Mercury

Barry Ash Pond

WMWBARAP_1281

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA10999	675462	WMWBARAP_1281
BA11000	675462	WMWBARAP_1281
BA11002	675462	WMWBARAP_1281
BA11004	675462	WMWBARAP_1281
BA11005	675462	WMWBARAP_1281
BA11006	675462	WMWBARAP_1281
BA11007	675462	WMWBARAP_1281
BA11008	675462	WMWBARAP_1281
BA11009	675462	WMWBARAP_1281
BA11010	675462	WMWBARAP_1281
BA11011	675463	WMWBARAP_1281

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Case Narrative

Dissolved Mercury

Barry Ash Pond

WMWBARAP_1281

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA11001	675464	WMWBARAP_1281
BA11003	675464	WMWBARAP_1281

4. All of the above samples were analyzed and prepared by EPA 245.1 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

TDS

Barry Ash Pond

WMWBARAP_1281

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA10999	675449	WMWBARAP_1281
BA11000	675449	WMWBARAP_1281
BA11001	675449	WMWBARAP_1281
BA11002	675450	WMWBARAP_1281
BA11003	675450	WMWBARAP_1281
BA11004	675450	WMWBARAP_1281
BA11005	675450	WMWBARAP_1281
BA11006	675450	WMWBARAP_1281
BA11007	675450	WMWBARAP_1281
BA11008	675450	WMWBARAP_1281
BA11009	675450	WMWBARAP_1281
BA11010	675450 & 675655	WMWBARAP_1281
BA11011	675450 & 675655	WMWBARAP_1281

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
    - BA11004
    - BA11011

7. BA11010 and BA11011 beakers were swapped upon analysis indicated by difference of conductivity and concentration results. Samples were rerun in batch #675655. Not enough sample remained to be used as the QC point.

Anions

Barry Ash Pond

WMWBARAP_1281

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA10999	675736, 675738, & 675839	WMWBARAP_1281
BA11000	675736, 675738, & 675839	WMWBARAP_1281
BA11001	675736, 675738, & 675839	WMWBARAP_1281
BA11002	675736, 675738, & 675839	WMWBARAP_1281
BA11003	675736, 675738, & 675839	WMWBARAP_1281
BA11004	675736, 675738, & 675839	WMWBARAP_1281
BA11005	675736, 675738, & 675839	WMWBARAP_1281
BA11006	675736, 675738, & 675839	WMWBARAP_1281
BA11007	675736, 675738, & 675839	WMWBARAP_1281
BA11008	675736, 675738, & 675839	WMWBARAP_1281
BA11009	675737, 675739, & 675840	WMWBARAP_1281
BA11010	675737, 675739, & 675840	WMWBARAP_1281
BA11011	675737, 675739, & 675840	WMWBARAP_1281

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below half the limit of quantitation for the requested analyte.

- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. The following sample was diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution factor
BA10999	Chloride & Sulfate	10 & 2
BA11000	Chloride & Sulfate	50 & 3
BA11001	Chloride & Sulfate	50 & 3
BA11002	Chloride	10
BA11003	Chloride	10
BA11005	Chloride	16
BA11006	Chloride	8
BA11007	Chloride	8
BA11008	Chloride & Sulfate	16 & 10

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-16V

Location Code: WMWBARAP
Collected: 6/16/20 10:06
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA10999

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:09		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	6/22/20 10:00	6/23/20 09:09		1.015	2.15	mg/L	0.1	0.5	
* Lithium, Total	6/22/20 10:00	6/23/20 09:09		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 10:21		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 10:21		1.015	0.00135	mg/L	0.001	0.005	J
* Barium, Total	6/19/20 07:44	6/26/20 10:21		1.015	0.0658	mg/L	0.002	0.01	
* Beryllium, Total	6/19/20 07:44	6/26/20 10:21		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 10:21		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 10:21		1.015	0.00222	mg/L	0.002	0.01	J
* Cobalt, Total	6/19/20 07:44	6/26/20 10:21		1.015	0.0144	mg/L	0.002	0.005	
* Lead, Total	6/19/20 07:44	6/26/20 10:21		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	6/19/20 07:44	6/26/20 10:21		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	6/19/20 07:44	6/26/20 10:21		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 10:21		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 11:50		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	238	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:00	6/24/20 14:00		10	77.4	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:23	6/24/20 15:23		1	0.0744	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 13:58	6/29/20 13:58		2	41.5	mg/L	1.00	2	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/16/20 10:03	6/16/20 10:03			411.97	uS/cm			FA
pH	6/16/20 10:03	6/16/20 10:03			5.20	SU			FA
Temperature	6/16/20 10:03	6/16/20 10:03			22.08	C			FA
Turbidity	6/16/20 10:03	6/16/20 10:03			4.86	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/16/20 10:06
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-16V

Laboratory ID Number: BA10999

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11010	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.107	0.105	0.104	0.085 to 0.115	107	70 to 130	1.89	20
BA11010	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA11010	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.105	0.102	0.085 to 0.115	101	70 to 130	0.957	20
BA11010	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.106	0.101	0.101	0.085 to 0.115	106	70 to 130	4.83	20
BA11010	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.104	0.100	0.103	0.085 to 0.115	104	70 to 130	3.92	20
BA11010	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA11010	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA11010	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0931	0.0936	0.0932	0.085 to 0.115	93.1	70 to 130	0.536	20
BA11010	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00389	0.00401	0.00361	0.0034 to 0.0046	97.2	70 to 130	3.04	20
BA11010	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0988	0.0977	0.0983	0.085 to 0.115	98.8	70 to 130	1.12	20
BA11010	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.112	0.114	0.0993	0.085 to 0.115	98.8	70 to 130	1.77	20
BA11010	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.210	0.205	0.202	0.17 to 0.23	105	70 to 130	2.41	20
BA11010	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.105	0.103	0.102	0.085 to 0.115	105	70 to 130	1.92	20
BA11010	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.04	1.03	1.01	0.85 to 1.15	104	70 to 130	0.966	20
BA11010	Calcium, Total	mg/L	0.0135	0.1518	5.00	6.13	6.00	5.15	4.25 to 5.75	106	70 to 130	2.14	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/16/20 10:06
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-16V

Laboratory ID Number: BA10999

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11001	Solids, Dissolved	mg/L	-1.00	25			1440	48.0	40 to 60			0.00	5
BA11008	Sulfate	mg/L	-0.520	0.50	200	283	99.0	18.9	18 to 22	91.0	80 to 120	2.00	20
BA11008	Fluoride	mg/L	0.0342	0.05	2.50	2.71	0.0972	2.56	2.25 to 2.75	104	80 to 120	5.79	20
BA11008	Chloride	mg/L	-0.0346	0.50	160	243	69.6	10.0	9 to 11	104	80 to 120	10.1	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-17V

Location Code: WMWBARAP
Collected: 6/16/20 13:48
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11000

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:12		1.015	0.176	mg/L	0.03	0.1	
* Calcium, Total	6/22/20 10:00	6/23/20 10:16		10.15	65.3	mg/L	1.015	5.075	
* Lithium, Total	6/22/20 10:00	6/23/20 09:12		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 10:23		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 10:23		1.015	0.0117	mg/L	0.001	0.005	
* Barium, Total	6/19/20 07:44	6/26/20 10:23		1.015	0.620	mg/L	0.002	0.01	
* Beryllium, Total	6/19/20 07:44	6/26/20 10:23		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 10:23		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 10:23		1.015	0.00475	mg/L	0.002	0.01	J
* Cobalt, Total	6/19/20 07:44	6/26/20 10:23		1.015	0.0858	mg/L	0.002	0.005	
* Lead, Total	6/19/20 07:44	6/26/20 10:23		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	6/19/20 07:44	6/26/20 10:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	6/19/20 07:44	6/26/20 10:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 10:23		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 11:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	1460	mg/L		125	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:01	6/24/20 14:01		50	734	mg/L	25.00	50	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:24	6/24/20 15:24		1	0.0994	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 13:59	6/29/20 13:59		3	57.4	mg/L	1.50	3	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/16/20 13:45	6/16/20 13:45			2505.09	uS/cm			FA
pH	6/16/20 13:45	6/16/20 13:45			6.43	SU			FA
Temperature	6/16/20 13:45	6/16/20 13:45			22.04	C			FA
Turbidity	6/16/20 13:45	6/16/20 13:45			21.8	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/16/20 13:48
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-17V

Laboratory ID Number: BA11000

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11010	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.107	0.105	0.104	0.085 to 0.115	107	70 to 130	1.89	20
BA11010	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.105	0.102	0.085 to 0.115	101	70 to 130	0.957	20
BA11010	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA11010	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA11010	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA11010	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.04	1.03	1.01	0.85 to 1.15	104	70 to 130	0.966	20
BA11010	Calcium, Total	mg/L	0.0135	0.1518	5.00	6.13	6.00	5.15	4.25 to 5.75	106	70 to 130	2.14	20
BA11010	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.112	0.114	0.0993	0.085 to 0.115	98.8	70 to 130	1.77	20
BA11010	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.210	0.205	0.202	0.17 to 0.23	105	70 to 130	2.41	20
BA11010	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.105	0.103	0.102	0.085 to 0.115	105	70 to 130	1.92	20
BA11010	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.106	0.101	0.101	0.085 to 0.115	106	70 to 130	4.83	20
BA11010	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.104	0.100	0.103	0.085 to 0.115	104	70 to 130	3.92	20
BA11010	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0931	0.0936	0.0932	0.085 to 0.115	93.1	70 to 130	0.536	20
BA11010	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00389	0.00401	0.00361	0.0034 to 0.0046	97.2	70 to 130	3.04	20
BA11010	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0988	0.0977	0.0983	0.085 to 0.115	98.8	70 to 130	1.12	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/16/20 13:48
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-17V

Laboratory ID Number: BA11000

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11001	Solids, Dissolved	mg/L	-1.00	25			1440	48.0	40 to 60			0.00	5
BA11008	Chloride	mg/L	-0.0346	0.50	160	243	69.6	10.0	9 to 11	104	80 to 120	10.1	20
BA11008	Sulfate	mg/L	-0.520	0.50	200	283	99.0	18.9	18 to 22	91.0	80 to 120	2.00	20
BA11008	Fluoride	mg/L	0.0342	0.05	2.50	2.71	0.0972	2.56	2.25 to 2.75	104	80 to 120	5.79	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-17V dis

Location Code: WMWBARAP
Collected: 6/16/20 13:48
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11001

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/22/20 10:00	6/23/20 08:45		1.015	0.178	mg/L	0.03	0.1	
* Calcium, Dissolved	6/22/20 10:00	6/23/20 10:07		10.15	66.3	mg/L	1.015	5.075	
* Lithium, Dissolved	6/22/20 10:00	6/23/20 08:45		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	0.00724	mg/L	0.001	0.005	
* Barium, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	0.605	mg/L	0.002	0.01	
* Beryllium, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	0.0798	mg/L	0.002	0.005	
* Lead, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	6/19/20 08:05	6/26/20 09:57		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Dissolved by CVAA	6/23/20 10:48	6/24/20 12:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	1440	mg/L		125	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:02	6/24/20 14:02		50	788	mg/L	25.00	50	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:25	6/24/20 15:25		1	0.101	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:00	6/29/20 14:00		3	55.4	mg/L	1.50	3	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/16/20 13:45	6/16/20 13:45			2505.09	uS/cm			FA
pH	6/16/20 13:45	6/16/20 13:45			6.43	SU			FA
Temperature	6/16/20 13:45	6/16/20 13:45			22.04	C			FA
Turbidity	6/16/20 13:45	6/16/20 13:45			21.8	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 7/13/2020

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/16/20 13:48
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-17V dis

Laboratory ID Number: BA11001

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11003	Selenium, Dissolved	mg/L	0.0000857	0.00066	0.10	0.101	0.103	0.104	0.085 to 0.115	101	70 to 130	1.96	20
BA11003	Lead, Dissolved	mg/L	0.00000469	0.0001474	0.10	0.0997	0.101	0.105	0.085 to 0.115	99.7	70 to 130	1.30	20
BA11003	Cadmium, Dissolved	mg/L	-0.00000849	0.0001474	0.10	0.0994	0.102	0.103	0.085 to 0.115	99.4	70 to 130	2.58	20
BA11003	Mercury, Dissolved by	mg/L	0.00002	0.0005	0.004	0.00393	0.00395	0.00366	0.0034 to 0.0046	98.2	70 to 130	0.508	20
BA11003	Thallium, Dissolved	mg/L	0.00000349	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA11003	Chromium, Dissolved	mg/L	0.0000135	0.00044	0.10	0.0976	0.0999	0.101	0.085 to 0.115	97.6	70 to 130	2.33	20
BA11003	Lithium, Dissolved	mg/L	0.0000716	0.0154	0.20	0.232	0.231	0.203	0.17 to 0.23	116	70 to 130	0.432	20
BA11003	Antimony, Dissolved	mg/L	0.000117	0.00066	0.10	0.0978	0.100	0.1000	0.085 to 0.115	97.8	70 to 130	2.22	20
BA11003	Arsenic, Dissolved	mg/L	0.0000211	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA11003	Barium, Dissolved	mg/L	0.0000347	0.0002	0.10	0.107	0.108	0.101	0.085 to 0.115	99.0	70 to 130	0.930	20
BA11003	Beryllium, Dissolved	mg/L	0.0000555	0.00088	0.10	0.0936	0.0917	0.0936	0.085 to 0.115	93.6	70 to 130	2.05	20
BA11003	Calcium, Dissolved	mg/L	0.00201	0.1518	5.00	6.06	6.06	5.15	4.25 to 5.75	104	70 to 130	0.00	20
BA11003	Boron, Dissolved	mg/L	0.00512	0.0650254	1.00	1.36	1.38	1.03	0.85 to 1.15	104	70 to 130	1.46	20
BA11003	Cobalt, Dissolved	mg/L	0.00000261	0.0001474	0.10	0.0987	0.100	0.103	0.085 to 0.115	98.7	70 to 130	1.31	20
BA11003	Molybdenum, Dissolved	mg/L	0.00000452	0.0001474	0.10	0.102	0.104	0.102	0.085 to 0.115	102	70 to 130	1.94	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 7/13/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/16/20 13:48
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-17V dis

Laboratory ID Number: BA11001

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11001	Solids, Dissolved	mg/L	-1.00	25			1440	48.0	40 to 60			0.00	5
BA11008	Chloride	mg/L	-0.0346	0.50	160	243	69.6	10.0	9 to 11	104	80 to 120	10.1	20
BA11008	Fluoride	mg/L	0.0342	0.05	2.50	2.71	0.0972	2.56	2.25 to 2.75	104	80 to 120	5.79	20
BA11008	Sulfate	mg/L	-0.520	0.50	200	283	99.0	18.9	18 to 22	91.0	80 to 120	2.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 7/13/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-23V

Location Code: WMWBARAP
Collected: 6/16/20 16:56
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11002

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:15		1.015	0.325	mg/L	0.03	0.1	
* Calcium, Total	6/22/20 10:00	6/23/20 09:15		1.015	1.25	mg/L	0.1	0.5	
* Lithium, Total	6/22/20 10:00	6/23/20 09:15		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 10:26		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 10:26		1.015	0.00193	mg/L	0.001	0.005	J
* Barium, Total	6/19/20 07:44	6/26/20 10:26		1.015	0.0200	mg/L	0.002	0.01	
* Beryllium, Total	6/19/20 07:44	6/26/20 10:26		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 10:26		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 10:26		1.015	0.0221	mg/L	0.002	0.01	
* Cobalt, Total	6/19/20 07:44	6/26/20 10:26		1.015	0.00302	mg/L	0.002	0.005	J
* Lead, Total	6/19/20 07:44	6/26/20 10:26		1.015	0.00222	mg/L	0.001	0.005	J
* Molybdenum, Total	6/19/20 07:44	6/26/20 10:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	6/19/20 07:44	6/26/20 10:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 10:26		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 11:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	479	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:04	6/24/20 14:04		10	120	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:26	6/24/20 15:26		1	0.393	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:01	6/29/20 14:01		1	28.6	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/16/20 16:52	6/16/20 16:52			688.81	uS/cm			FA
pH	6/16/20 16:52	6/16/20 16:52			8.08	SU			FA
Temperature	6/16/20 16:52	6/16/20 16:52			20.73	C			FA
Turbidity	6/16/20 16:52	6/16/20 16:52			44.4	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/16/20 16:56
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-23V

Laboratory ID Number: BA11002

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11010	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.107	0.105	0.104	0.085 to 0.115	107	70 to 130	1.89	20
BA11010	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA11010	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA11010	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA11010	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.105	0.102	0.085 to 0.115	101	70 to 130	0.957	20
BA11010	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.106	0.101	0.101	0.085 to 0.115	106	70 to 130	4.83	20
BA11010	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.104	0.100	0.103	0.085 to 0.115	104	70 to 130	3.92	20
BA11010	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.04	1.03	1.01	0.85 to 1.15	104	70 to 130	0.966	20
BA11010	Calcium, Total	mg/L	0.0135	0.1518	5.00	6.13	6.00	5.15	4.25 to 5.75	106	70 to 130	2.14	20
BA11010	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.112	0.114	0.0993	0.085 to 0.115	98.8	70 to 130	1.77	20
BA11010	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.210	0.205	0.202	0.17 to 0.23	105	70 to 130	2.41	20
BA11010	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.105	0.103	0.102	0.085 to 0.115	105	70 to 130	1.92	20
BA11010	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0931	0.0936	0.0932	0.085 to 0.115	93.1	70 to 130	0.536	20
BA11010	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00389	0.00401	0.00361	0.0034 to 0.0046	97.2	70 to 130	3.04	20
BA11010	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0988	0.0977	0.0983	0.085 to 0.115	98.8	70 to 130	1.12	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/16/20 16:56
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-23V

Laboratory ID Number: BA11002

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11008	Sulfate	mg/L	-0.520	0.50	200	283	99.0	18.9	18 to 22	91.0	80 to 120	2.00	20
BA11008	Chloride	mg/L	-0.0346	0.50	160	243	69.6	10.0	9 to 11	104	80 to 120	10.1	20
BA11008	Fluoride	mg/L	0.0342	0.05	2.50	2.71	0.0972	2.56	2.25 to 2.75	104	80 to 120	5.79	20
BA11008	Solids, Dissolved	mg/L	-1.00	25			445	48.0	40 to 60			0.447	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-23V dis

Location Code: WMWBARAP
Collected: 6/16/20 16:56
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11003

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Dissolved	6/22/20 10:00	6/23/20 08:48		1.015	0.320	mg/L	0.03	0.1	
* Calcium, Dissolved	6/22/20 10:00	6/23/20 08:48		1.015	0.885	mg/L	0.1	0.5	
* Lithium, Dissolved	6/22/20 10:00	6/23/20 08:48		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	0.00805	mg/L	0.002	0.01	J
* Beryllium, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	6/19/20 08:05	6/26/20 10:00		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Dissolved by CVAA	6/23/20 10:48	6/24/20 12:46		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	379	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:05	6/24/20 14:05		10	128	mg/L	5.00	10	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:28	6/24/20 15:28		1	0.397	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:03	6/29/20 14:03		1	1.08	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/16/20 16:52	6/16/20 16:52			688.81	uS/cm			FA
pH	6/16/20 16:52	6/16/20 16:52			8.08	SU			FA
Temperature	6/16/20 16:52	6/16/20 16:52			20.73	C			FA
Turbidity	6/16/20 16:52	6/16/20 16:52			44.4	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 7/13/2020

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/16/20 16:56
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-23V dis

Laboratory ID Number: BA11003

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11003	Selenium, Dissolved	mg/L	0.0000857	0.00066	0.10	0.101	0.103	0.104	0.085 to 0.115	101	70 to 130	1.96	20
BA11003	Cadmium, Dissolved	mg/L	-0.00000849	0.0001474	0.10	0.0994	0.102	0.103	0.085 to 0.115	99.4	70 to 130	2.58	20
BA11003	Lead, Dissolved	mg/L	0.00000469	0.0001474	0.10	0.0997	0.101	0.105	0.085 to 0.115	99.7	70 to 130	1.30	20
BA11003	Mercury, Dissolved by	mg/L	0.00002	0.0005	0.004	0.00393	0.00395	0.00366	0.0034 to 0.0046	98.2	70 to 130	0.508	20
BA11003	Thallium, Dissolved	mg/L	0.00000349	0.0001474	0.10	0.100	0.103	0.102	0.085 to 0.115	100	70 to 130	2.96	20
BA11003	Chromium, Dissolved	mg/L	0.0000135	0.00044	0.10	0.0976	0.0999	0.101	0.085 to 0.115	97.6	70 to 130	2.33	20
BA11003	Lithium, Dissolved	mg/L	0.0000716	0.0154	0.20	0.232	0.231	0.203	0.17 to 0.23	116	70 to 130	0.432	20
BA11003	Antimony, Dissolved	mg/L	0.000117	0.00066	0.10	0.0978	0.100	0.1000	0.085 to 0.115	97.8	70 to 130	2.22	20
BA11003	Arsenic, Dissolved	mg/L	0.0000211	0.0001474	0.10	0.105	0.106	0.106	0.085 to 0.115	105	70 to 130	0.948	20
BA11003	Barium, Dissolved	mg/L	0.0000347	0.0002	0.10	0.107	0.108	0.101	0.085 to 0.115	99.0	70 to 130	0.930	20
BA11003	Beryllium, Dissolved	mg/L	0.0000555	0.00088	0.10	0.0936	0.0917	0.0936	0.085 to 0.115	93.6	70 to 130	2.05	20
BA11003	Calcium, Dissolved	mg/L	0.00201	0.1518	5.00	6.06	6.06	5.15	4.25 to 5.75	104	70 to 130	0.00	20
BA11003	Boron, Dissolved	mg/L	0.00512	0.0650254	1.00	1.36	1.38	1.03	0.85 to 1.15	104	70 to 130	1.46	20
BA11003	Cobalt, Dissolved	mg/L	0.00000261	0.0001474	0.10	0.0987	0.100	0.103	0.085 to 0.115	98.7	70 to 130	1.31	20
BA11003	Molybdenum, Dissolved	mg/L	0.00000452	0.0001474	0.10	0.102	0.104	0.102	0.085 to 0.115	102	70 to 130	1.94	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 7/13/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/16/20 16:56
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-23V dis

Laboratory ID Number: BA11003

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11008	Chloride	mg/L	-0.0346	0.50	160	243	69.6	10.0	9 to 11	104	80 to 120	10.1	20
BA11008	Sulfate	mg/L	-0.520	0.50	200	283	99.0	18.9	18 to 22	91.0	80 to 120	2.00	20
BA11008	Fluoride	mg/L	0.0342	0.05	2.50	2.71	0.0972	2.56	2.25 to 2.75	104	80 to 120	5.79	20
BA11008	Solids, Dissolved	mg/L	-1.00	25			445	48.0	40 to 60			0.447	5

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 7/13/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 6/16/20 17:30
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11004

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:18		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	6/22/20 10:00	6/23/20 09:18		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	6/22/20 10:00	6/23/20 09:18		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 10:29		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 11:57		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:06	6/24/20 14:06		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:29	6/24/20 15:29		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:04	6/29/20 14:04		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPFB
Sample Date: 6/16/20 17:30
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA11004

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11010	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.107	0.105	0.104	0.085 to 0.115	107	70 to 130	1.89	20
BA11010	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA11010	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.105	0.102	0.085 to 0.115	101	70 to 130	0.957	20
BA11010	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA11010	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA11010	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.112	0.114	0.0993	0.085 to 0.115	98.8	70 to 130	1.77	20
BA11010	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.210	0.205	0.202	0.17 to 0.23	105	70 to 130	2.41	20
BA11010	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.105	0.103	0.102	0.085 to 0.115	105	70 to 130	1.92	20
BA11010	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.04	1.03	1.01	0.85 to 1.15	104	70 to 130	0.966	20
BA11010	Calcium, Total	mg/L	0.0135	0.1518	5.00	6.13	6.00	5.15	4.25 to 5.75	106	70 to 130	2.14	20
BA11010	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.106	0.101	0.101	0.085 to 0.115	106	70 to 130	4.83	20
BA11010	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.104	0.100	0.103	0.085 to 0.115	104	70 to 130	3.92	20
BA11010	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0931	0.0936	0.0932	0.085 to 0.115	93.1	70 to 130	0.536	20
BA11010	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00389	0.00401	0.00361	0.0034 to 0.0046	97.2	70 to 130	3.04	20
BA11010	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0988	0.0977	0.0983	0.085 to 0.115	98.8	70 to 130	1.12	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 6/16/20 17:30
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA11004

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11008	Chloride	mg/L	-0.0346	0.50	160	243	69.6	10.0	9 to 11	104	80 to 120	10.1	20
BA11008	Sulfate	mg/L	-0.520	0.50	200	283	99.0	18.9	18 to 22	91.0	80 to 120	2.00	20
BA11008	Fluoride	mg/L	0.0342	0.05	2.50	2.71	0.0972	2.56	2.25 to 2.75	104	80 to 120	5.79	20
BA11008	Solids, Dissolved	mg/L	-1.00	25			445	48.0	40 to 60			0.447	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-14V

Location Code: WMWBARAP
Collected: 6/17/20 09:10
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11005

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:21		1.015	0.426	mg/L	0.03	0.1	
* Calcium, Total	6/22/20 10:00	6/23/20 09:21		1.015	5.32	mg/L	0.1	0.5	
* Lithium, Total	6/22/20 10:00	6/23/20 09:21		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 10:31		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 10:31		1.015	0.00208	mg/L	0.001	0.005	J
* Barium, Total	6/19/20 07:44	6/26/20 10:31		1.015	0.0809	mg/L	0.002	0.01	
* Beryllium, Total	6/19/20 07:44	6/26/20 10:31		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 10:31		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 10:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	6/19/20 07:44	6/26/20 10:31		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	6/19/20 07:44	6/26/20 10:31		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	6/19/20 07:44	6/26/20 10:31		1.015	0.00451	mg/L	0.002	0.01	J
* Selenium, Total	6/19/20 07:44	6/26/20 10:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 10:31		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 11:59		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	546	mg/L		50	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:07	6/24/20 14:07		16	240	mg/L	8.00	16	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:30	6/24/20 15:30		1	0.343	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:05	6/29/20 14:05		1	28.0	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/17/20 09:07	6/17/20 09:07			999.38	uS/cm			FA
pH	6/17/20 09:07	6/17/20 09:07			7.27	SU			FA
Temperature	6/17/20 09:07	6/17/20 09:07			22.30	C			FA
Turbidity	6/17/20 09:07	6/17/20 09:07			4.69	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/17/20 09:10
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-14V

Laboratory ID Number: BA11005

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11010	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.107	0.105	0.104	0.085 to 0.115	107	70 to 130	1.89	20
BA11010	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.105	0.102	0.085 to 0.115	101	70 to 130	0.957	20
BA11010	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA11010	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA11010	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA11010	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.106	0.101	0.101	0.085 to 0.115	106	70 to 130	4.83	20
BA11010	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.104	0.100	0.103	0.085 to 0.115	104	70 to 130	3.92	20
BA11010	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.112	0.114	0.0993	0.085 to 0.115	98.8	70 to 130	1.77	20
BA11010	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.210	0.205	0.202	0.17 to 0.23	105	70 to 130	2.41	20
BA11010	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.105	0.103	0.102	0.085 to 0.115	105	70 to 130	1.92	20
BA11010	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0931	0.0936	0.0932	0.085 to 0.115	93.1	70 to 130	0.536	20
BA11010	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00389	0.00401	0.00361	0.0034 to 0.0046	97.2	70 to 130	3.04	20
BA11010	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0988	0.0977	0.0983	0.085 to 0.115	98.8	70 to 130	1.12	20
BA11010	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.04	1.03	1.01	0.85 to 1.15	104	70 to 130	0.966	20
BA11010	Calcium, Total	mg/L	0.0135	0.1518	5.00	6.13	6.00	5.15	4.25 to 5.75	106	70 to 130	2.14	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/17/20 09:10
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-14V

Laboratory ID Number: BA11005

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11008	Chloride	mg/L	-0.0346	0.50	160	243	69.6	10.0	9 to 11	104	80 to 120	10.1	20
BA11008	Sulfate	mg/L	-0.520	0.50	200	283	99.0	18.9	18 to 22	91.0	80 to 120	2.00	20
BA11008	Fluoride	mg/L	0.0342	0.05	2.50	2.71	0.0972	2.56	2.25 to 2.75	104	80 to 120	5.79	20
BA11008	Solids, Dissolved	mg/L	-1.00	25			445	48.0	40 to 60			0.447	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-20V

Location Code: WMWBARAP
Collected: 6/17/20 11:17
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11006

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:24		1.015	0.118	mg/L	0.03	0.1	
* Calcium, Total	6/22/20 10:00	6/23/20 09:24		1.015	17.9	mg/L	0.1	0.5	
* Lithium, Total	6/22/20 10:00	6/23/20 09:24		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 10:34		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 10:34		1.015	0.00584	mg/L	0.001	0.005	
* Barium, Total	6/19/20 07:44	6/26/20 10:34		1.015	0.152	mg/L	0.002	0.01	
* Beryllium, Total	6/19/20 07:44	6/26/20 10:34		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 10:34		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 10:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	6/19/20 07:44	6/26/20 10:34		1.015	0.00593	mg/L	0.002	0.005	
* Lead, Total	6/19/20 07:44	6/26/20 10:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	6/19/20 07:44	6/26/20 10:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	6/19/20 07:44	6/26/20 10:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 10:34		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 12:01		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	301	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:08	6/24/20 14:08		8	29.2	mg/L	4.00	8	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:31	6/24/20 15:31		1	0.155	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:06	6/29/20 14:06		1	10.1	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/17/20 11:12	6/17/20 11:12			599.90	uS/cm			FA
pH	6/17/20 11:12	6/17/20 11:12			6.26	SU			FA
Temperature	6/17/20 11:12	6/17/20 11:12			20.85	C			FA
Turbidity	6/17/20 11:12	6/17/20 11:12			7.7	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/17/20 11:17
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-20V

Laboratory ID Number: BA11006

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11010	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.107	0.105	0.104	0.085 to 0.115	107	70 to 130	1.89	20
BA11010	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.105	0.102	0.085 to 0.115	101	70 to 130	0.957	20
BA11010	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA11010	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA11010	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA11010	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.106	0.101	0.101	0.085 to 0.115	106	70 to 130	4.83	20
BA11010	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.104	0.100	0.103	0.085 to 0.115	104	70 to 130	3.92	20
BA11010	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.112	0.114	0.0993	0.085 to 0.115	98.8	70 to 130	1.77	20
BA11010	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.210	0.205	0.202	0.17 to 0.23	105	70 to 130	2.41	20
BA11010	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.105	0.103	0.102	0.085 to 0.115	105	70 to 130	1.92	20
BA11010	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0931	0.0936	0.0932	0.085 to 0.115	93.1	70 to 130	0.536	20
BA11010	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00389	0.00401	0.00361	0.0034 to 0.0046	97.2	70 to 130	3.04	20
BA11010	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0988	0.0977	0.0983	0.085 to 0.115	98.8	70 to 130	1.12	20
BA11010	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.04	1.03	1.01	0.85 to 1.15	104	70 to 130	0.966	20
BA11010	Calcium, Total	mg/L	0.0135	0.1518	5.00	6.13	6.00	5.15	4.25 to 5.75	106	70 to 130	2.14	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/17/20 11:17
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-20V

Laboratory ID Number: BA11006

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11008	Sulfate	mg/L	-0.520	0.50	200	283	99.0	18.9	18 to 22	91.0	80 to 120	2.00	20
BA11008	Chloride	mg/L	-0.0346	0.50	160	243	69.6	10.0	9 to 11	104	80 to 120	10.1	20
BA11008	Fluoride	mg/L	0.0342	0.05	2.50	2.71	0.0972	2.56	2.25 to 2.75	104	80 to 120	5.79	20
BA11008	Solids, Dissolved	mg/L	-1.00	25			445	48.0	40 to 60			0.447	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-20V DUP

Location Code: WMWBARAP
Collected: 6/17/20 11:17
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11007

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:27		1.015	0.116	mg/L	0.03	0.1	
* Calcium, Total	6/22/20 10:00	6/23/20 09:27		1.015	17.8	mg/L	0.1	0.5	
* Lithium, Total	6/22/20 10:00	6/23/20 09:27		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 10:37		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 10:37		1.015	0.00561	mg/L	0.001	0.005	
* Barium, Total	6/19/20 07:44	6/26/20 10:37		1.015	0.149	mg/L	0.002	0.01	
* Beryllium, Total	6/19/20 07:44	6/26/20 10:37		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 10:37		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 10:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	6/19/20 07:44	6/26/20 10:37		1.015	0.00573	mg/L	0.002	0.005	
* Lead, Total	6/19/20 07:44	6/26/20 10:37		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	6/19/20 07:44	6/26/20 10:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	6/19/20 07:44	6/26/20 10:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 10:37		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 12:04		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	296	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:09	6/24/20 14:09		8	30.9	mg/L	4.00	8	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:32	6/24/20 15:32		1	0.133	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:07	6/29/20 14:07		1	16.9	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/17/20 11:12	6/17/20 11:12			599.90	uS/cm			FA
pH	6/17/20 11:12	6/17/20 11:12			6.26	SU			FA
Temperature	6/17/20 11:12	6/17/20 11:12			20.85	C			FA
Turbidity	6/17/20 11:12	6/17/20 11:12			7.7	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/17/20 11:17
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-20V DUP

Laboratory ID Number: BA11007

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11010	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.107	0.105	0.104	0.085 to 0.115	107	70 to 130	1.89	20
BA11010	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.105	0.102	0.085 to 0.115	101	70 to 130	0.957	20
BA11010	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA11010	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA11010	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA11010	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.106	0.101	0.101	0.085 to 0.115	106	70 to 130	4.83	20
BA11010	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.104	0.100	0.103	0.085 to 0.115	104	70 to 130	3.92	20
BA11010	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.112	0.114	0.0993	0.085 to 0.115	98.8	70 to 130	1.77	20
BA11010	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.210	0.205	0.202	0.17 to 0.23	105	70 to 130	2.41	20
BA11010	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.105	0.103	0.102	0.085 to 0.115	105	70 to 130	1.92	20
BA11010	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.04	1.03	1.01	0.85 to 1.15	104	70 to 130	0.966	20
BA11010	Calcium, Total	mg/L	0.0135	0.1518	5.00	6.13	6.00	5.15	4.25 to 5.75	106	70 to 130	2.14	20
BA11010	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0931	0.0936	0.0932	0.085 to 0.115	93.1	70 to 130	0.536	20
BA11010	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00389	0.00401	0.00361	0.0034 to 0.0046	97.2	70 to 130	3.04	20
BA11010	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0988	0.0977	0.0983	0.085 to 0.115	98.8	70 to 130	1.12	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/17/20 11:17
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-20V DUP

Laboratory ID Number: BA11007

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11008	Chloride	mg/L	-0.0346	0.50	160	243	69.6	10.0	9 to 11	104	80 to 120	10.1	20
BA11008	Sulfate	mg/L	-0.520	0.50	200	283	99.0	18.9	18 to 22	91.0	80 to 120	2.00	20
BA11008	Fluoride	mg/L	0.0342	0.05	2.50	2.71	0.0972	2.56	2.25 to 2.75	104	80 to 120	5.79	20
BA11008	Solids, Dissolved	mg/L	-1.00	25			445	48.0	40 to 60			0.447	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-13V

Location Code: WMWBARAP
Collected: 6/17/20 12:25
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11008

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:30		1.015	0.0847	mg/L	0.03	0.1	J
* Calcium, Total	6/22/20 10:00	6/23/20 09:30		1.015	20.2	mg/L	0.1	0.5	
* Lithium, Total	6/22/20 10:00	6/23/20 09:30		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 10:39		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 10:39		1.015	0.00321	mg/L	0.001	0.005	J
* Barium, Total	6/19/20 07:44	6/26/20 10:39		1.015	0.106	mg/L	0.002	0.01	
* Beryllium, Total	6/19/20 07:44	6/26/20 10:39		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 10:39		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 10:39		1.015	0.00537	mg/L	0.002	0.01	J
* Cobalt, Total	6/19/20 07:44	6/26/20 10:39		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	6/19/20 07:44	6/26/20 10:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	6/19/20 07:44	6/26/20 10:39		1.015	0.00237	mg/L	0.002	0.01	J
* Selenium, Total	6/19/20 07:44	6/26/20 10:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 10:39		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 12:06		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	449	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:11	6/24/20 14:11		16	77.0	mg/L	8.00	16	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:34	6/24/20 15:34		1	0.103	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:09	6/29/20 14:09		10	101	mg/L	5.00	10	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/17/20 12:21	6/17/20 12:21			719.39	uS/cm			FA
pH	6/17/20 12:21	6/17/20 12:21			6.25	SU			FA
Temperature	6/17/20 12:21	6/17/20 12:21			21.58	C			FA
Turbidity	6/17/20 12:21	6/17/20 12:21			3.27	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/17/20 12:25
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-13V

Laboratory ID Number: BA11008

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11010	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.107	0.105	0.104	0.085 to 0.115	107	70 to 130	1.89	20
BA11010	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.105	0.102	0.085 to 0.115	101	70 to 130	0.957	20
BA11010	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA11010	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0931	0.0936	0.0932	0.085 to 0.115	93.1	70 to 130	0.536	20
BA11010	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00389	0.00401	0.00361	0.0034 to 0.0046	97.2	70 to 130	3.04	20
BA11010	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0988	0.0977	0.0983	0.085 to 0.115	98.8	70 to 130	1.12	20
BA11010	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.106	0.101	0.101	0.085 to 0.115	106	70 to 130	4.83	20
BA11010	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.104	0.100	0.103	0.085 to 0.115	104	70 to 130	3.92	20
BA11010	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.112	0.114	0.0993	0.085 to 0.115	98.8	70 to 130	1.77	20
BA11010	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.210	0.205	0.202	0.17 to 0.23	105	70 to 130	2.41	20
BA11010	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.105	0.103	0.102	0.085 to 0.115	105	70 to 130	1.92	20
BA11010	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA11010	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA11010	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.04	1.03	1.01	0.85 to 1.15	104	70 to 130	0.966	20
BA11010	Calcium, Total	mg/L	0.0135	0.1518	5.00	6.13	6.00	5.15	4.25 to 5.75	106	70 to 130	2.14	20

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/17/20 12:25
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-13V

Laboratory ID Number: BA11008

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11008	Chloride	mg/L	-0.0346	0.50	160	243	69.6	10.0	9 to 11	104	80 to 120	10.1	20
BA11008	Sulfate	mg/L	-0.520	0.50	200	283	99.0	18.9	18 to 22	91.0	80 to 120	2.00	20
BA11008	Fluoride	mg/L	0.0342	0.05	2.50	2.71	0.0972	2.56	2.25 to 2.75	104	80 to 120	5.79	20
BA11008	Solids, Dissolved	mg/L	-1.00	25			445	48.0	40 to 60			0.447	5

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-25H

Location Code: WMWBARAP
Collected: 6/17/20 13:38
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11009

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:33		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	6/22/20 10:00	6/23/20 09:33		1.015	0.793	mg/L	0.1	0.5	
* Lithium, Total	6/22/20 10:00	6/23/20 09:33		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 10:42		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 10:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	6/19/20 07:44	6/26/20 10:42		1.015	0.0189	mg/L	0.002	0.01	
* Beryllium, Total	6/19/20 07:44	6/26/20 10:42		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 10:42		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 10:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	6/19/20 07:44	6/26/20 10:42		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	6/19/20 07:44	6/26/20 10:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	6/19/20 07:44	6/26/20 10:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	6/19/20 07:44	6/26/20 10:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 10:42		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 12:09		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/22/20 15:35	6/23/20 15:18		1	44.0	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:24	6/24/20 14:24		1	4.81	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:46	6/24/20 15:46		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:20	6/29/20 14:20		1	6.10	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/17/20 13:35	6/17/20 13:35			50.24	uS/cm			FA
pH	6/17/20 13:35	6/17/20 13:35			5.27	SU			FA
Temperature	6/17/20 13:35	6/17/20 13:35			22.68	C			FA
Turbidity	6/17/20 13:35	6/17/20 13:35			2.53	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/17/20 13:38
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-25H

Laboratory ID Number: BA11009

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11010	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.107	0.105	0.104	0.085 to 0.115	107	70 to 130	1.89	20
BA11010	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.105	0.102	0.085 to 0.115	101	70 to 130	0.957	20
BA11010	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA11010	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA11010	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA11010	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.106	0.101	0.101	0.085 to 0.115	106	70 to 130	4.83	20
BA11010	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.104	0.100	0.103	0.085 to 0.115	104	70 to 130	3.92	20
BA11010	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.04	1.03	1.01	0.85 to 1.15	104	70 to 130	0.966	20
BA11010	Calcium, Total	mg/L	0.0135	0.1518	5.00	6.13	6.00	5.15	4.25 to 5.75	106	70 to 130	2.14	20
BA11010	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.112	0.114	0.0993	0.085 to 0.115	98.8	70 to 130	1.77	20
BA11010	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.210	0.205	0.202	0.17 to 0.23	105	70 to 130	2.41	20
BA11010	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.105	0.103	0.102	0.085 to 0.115	105	70 to 130	1.92	20
BA11010	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0931	0.0936	0.0932	0.085 to 0.115	93.1	70 to 130	0.536	20
BA11010	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00389	0.00401	0.00361	0.0034 to 0.0046	97.2	70 to 130	3.04	20
BA11010	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0988	0.0977	0.0983	0.085 to 0.115	98.8	70 to 130	1.12	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/17/20 13:38
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-25H

Laboratory ID Number: BA11009

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11011	Sulfate	mg/L	-0.511	0.50	20.0	18.6	-0.524	18.8	18 to 22	93.0	80 to 120	0.00	20
BA11011	Chloride	mg/L	-0.0408	0.50	10.0	10.0	0.096	10.0	9 to 11	100	80 to 120	0.00	20
BA11008	Solids, Dissolved	mg/L	-1.00	25			445	48.0	40 to 60			0.447	5
BA11011	Fluoride	mg/L	0.0277	0.05	2.50	2.57	0.0336	2.56	2.25 to 2.75	103	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-25VM

Location Code: WMWBARAP
Collected: 6/17/20 14:40
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11010

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:36		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	6/22/20 10:00	6/23/20 09:36		1.015	0.842	mg/L	0.1	0.5	
* Lithium, Total	6/22/20 10:00	6/23/20 09:36		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 10:44		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 10:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	6/19/20 07:44	6/26/20 10:44		1.015	0.0132	mg/L	0.002	0.01	
* Beryllium, Total	6/19/20 07:44	6/26/20 10:44		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 10:44		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 10:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	6/19/20 07:44	6/26/20 10:44		1.015	0.00260	mg/L	0.002	0.005	J
* Lead, Total	6/19/20 07:44	6/26/20 10:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	6/19/20 07:44	6/26/20 10:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	6/19/20 07:44	6/26/20 10:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 10:44		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 12:11		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/24/20 11:02	6/25/20 16:08		1	37.3	mg/L		25	
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:25	6/24/20 14:25		1	4.04	mg/L	0.50	1	
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:47	6/24/20 15:47		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:21	6/29/20 14:21		1	2.39	mg/L	0.50	1	
Analytical Method: Field Measurements	***Analyst: DKG***								
Conductivity	6/17/20 14:37	6/17/20 14:37			35.39	uS/cm			FA
pH	6/17/20 14:37	6/17/20 14:37			5.27	SU			FA
Temperature	6/17/20 14:37	6/17/20 14:37			22.64	C			FA
Turbidity	6/17/20 14:37	6/17/20 14:37			2.71	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 6/17/20 14:40
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-25VM

Laboratory ID Number: BA11010

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11010	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.107	0.105	0.104	0.085 to 0.115	107	70 to 130	1.89	20
BA11010	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.105	0.102	0.085 to 0.115	101	70 to 130	0.957	20
BA11010	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.100	0.101	0.085 to 0.115	102	70 to 130	1.98	20
BA11010	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.112	0.114	0.0993	0.085 to 0.115	98.8	70 to 130	1.77	20
BA11010	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.210	0.205	0.202	0.17 to 0.23	105	70 to 130	2.41	20
BA11010	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.105	0.103	0.102	0.085 to 0.115	105	70 to 130	1.92	20
BA11010	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	0.985	20
BA11010	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.102	0.102	0.102	0.085 to 0.115	102	70 to 130	0.00	20
BA11010	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.106	0.101	0.101	0.085 to 0.115	106	70 to 130	4.83	20
BA11010	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.104	0.100	0.103	0.085 to 0.115	104	70 to 130	3.92	20
BA11010	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0931	0.0936	0.0932	0.085 to 0.115	93.1	70 to 130	0.536	20
BA11010	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00389	0.00401	0.00361	0.0034 to 0.0046	97.2	70 to 130	3.04	20
BA11010	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0988	0.0977	0.0983	0.085 to 0.115	98.8	70 to 130	1.12	20
BA11010	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.04	1.03	1.01	0.85 to 1.15	104	70 to 130	0.966	20
BA11010	Calcium, Total	mg/L	0.0135	0.1518	5.00	6.13	6.00	5.15	4.25 to 5.75	106	70 to 130	2.14	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 6/17/20 14:40
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond - MW-25VM

Laboratory ID Number: BA11010

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11011	Chloride	mg/L	-0.0408	0.50	10.0	10.0	0.096	10.0	9 to 11	100	80 to 120	0.00	20
BA11011	Sulfate	mg/L	-0.511	0.50	20.0	18.6	-0.524	18.8	18 to 22	93.0	80 to 120	0.00	20
BA11206	Solids, Dissolved	mg/L	-1.00	25			5230	55.0	40 to 60			1.36	5
BA11008	Solids, Dissolved	mg/L	-1.00	25			445	48.0	40 to 60			0.447	5
BA11011	Fluoride	mg/L	0.0277	0.05	2.50	2.57	0.0336	2.56	2.25 to 2.75	103	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Equipment Blank

Location Code: WMWBARAPEB
Collected: 6/17/20 15:45
Customer ID:
Submittal Date: 6/18/20 14:19

Laboratory ID Number: BA11011

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	6/22/20 10:00	6/23/20 09:51		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	6/22/20 10:00	6/23/20 09:51		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	6/22/20 10:00	6/23/20 09:51		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	6/19/20 07:44	6/26/20 11:00		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	6/23/20 10:48	6/24/20 12:27		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	6/24/20 11:02	6/25/20 16:08		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	6/24/20 14:26	6/24/20 14:26		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	6/24/20 15:48	6/24/20 15:48		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	6/29/20 14:23	6/29/20 14:23		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPEB
Sample Date: 6/17/20 15:45
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: BA11011

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11011	Barium, Total	mg/L	0.00000183	0.0002	0.10	0.101	0.100	0.0993	0.085 to 0.115	101	70 to 130	0.995	20
BA11011	Calcium, Total	mg/L	0.0135	0.1518	5.00	5.20	5.07	5.15	4.25 to 5.75	104	70 to 130	2.53	20
BA11011	Cobalt, Total	mg/L	-0.00000180	0.0001474	0.10	0.104	0.103	0.102	0.085 to 0.115	104	70 to 130	0.966	20
BA11011	Molybdenum, Total	mg/L	0.0000112	0.0001474	0.10	0.101	0.101	0.102	0.085 to 0.115	101	70 to 130	0.00	20
BA11011	Cadmium, Total	mg/L	-0.00000849	0.0001474	0.10	0.102	0.102	0.101	0.085 to 0.115	102	70 to 130	0.00	20
BA11011	Chromium, Total	mg/L	0.0000204	0.00044	0.10	0.103	0.101	0.101	0.085 to 0.115	103	70 to 130	1.96	20
BA11011	Arsenic, Total	mg/L	0.0000261	0.0001474	0.10	0.105	0.104	0.104	0.085 to 0.115	105	70 to 130	0.957	20
BA11011	Selenium, Total	mg/L	0.000113	0.00066	0.10	0.102	0.103	0.102	0.085 to 0.115	102	70 to 130	0.976	20
BA11011	Boron, Total	mg/L	0.00456	0.0650254	1.00	1.02	1.00	1.01	0.85 to 1.15	102	70 to 130	1.98	20
BA11011	Mercury, Total by CVAA	mg/L	0.00002	0.0005	0.004	0.00387	0.00384	0.00367	0.0034 to 0.0046	96.8	70 to 130	0.778	20
BA11011	Lead, Total	mg/L	0.00000636	0.0001474	0.10	0.103	0.102	0.101	0.085 to 0.115	103	70 to 130	0.976	20
BA11011	Lithium, Total	mg/L	0.0000395	0.0154	0.20	0.202	0.198	0.202	0.17 to 0.23	101	70 to 130	2.00	20
BA11011	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA11011	Beryllium, Total	mg/L	0.0000351	0.00088	0.10	0.0916	0.0924	0.0932	0.085 to 0.115	91.6	70 to 130	0.870	20
BA11011	Antimony, Total	mg/L	0.000118	0.00066	0.10	0.0978	0.0976	0.0983	0.085 to 0.115	97.8	70 to 130	0.205	20

Comments:

Reported: 7/13/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPEB
Sample Date: 6/17/20 15:45
Customer ID:
Delivery Date: 6/18/20 14:19

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: BA11011

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA11011	Chloride	mg/L	-0.0408	0.50	10.0	10.0	0.096	10.0	9 to 11	100	80 to 120	0.00	20
BA11011	Sulfate	mg/L	-0.511	0.50	20.0	18.6	-0.524	18.8	18 to 22	93.0	80 to 120	0.00	20
BA11206	Solids, Dissolved	mg/L	-1.00	25			5230	55.0	40 to 60			1.36	5
BA11008	Solids, Dissolved	mg/L	-1.00	25			445	48.0	40 to 60			0.447	5
BA11011	Fluoride	mg/L	0.0277	0.05	2.50	2.57	0.0336	2.56	2.25 to 2.75	103	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Definitions

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.

Chain of Custody Groundwater

APC General Testing Laboratory

Alabama Power Lab & Field Services

☑ Field Complete ☐ Outside Lab

☑ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	TDS	500 mL	5	N/A	N/A	7	N/A	N/A
2	Hg	250 mL	4	Anions	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-16V	06/16/2020	10:06	4	Groundwater		BA10999
MW-17V	06/16/2020	13:48	4	Groundwater		BA11000
MW-17V dis	06/16/2020	13:48	4	Groundwater		BA11001
MW-23V	06/16/2020	16:56	4	Groundwater		BA11002
MW-23V dis	06/16/2020	16:56	4	Groundwater		BA11003
FB-1	06/16/2020	17:30	4	Field Blank		BA11004
MW-14V	06/17/2020	09:10	4	Groundwater		BA11005
MW-20V	06/17/2020	11:17	4	Groundwater		BA11006
MW-20V dup	06/17/2020	11:17	4	Sample Duplicate		BA11007
MW-13V	06/17/2020	12:25	4	Groundwater		BA11008
MW-25H	06/17/2020	13:38	4	Groundwater		BA11009
MW-25VM	06/17/2020	14:40	4	Groundwater		BA11010
EB-1	06/17/2020	15:45	4	Equipment Blank		BA11011

Relinquished By	Received By	Date/Time
		06/18/2020 12:55

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1281

All metals and radiological bottles have pH < 2 ☑

Cooler Temp	1.6 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium MS/MSD collected at MW-14V

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-16V	06/16/2020	10:06	1	Groundwater		BA11012
MW-17V	06/16/2020	13:48	1	Groundwater		BA11013
MW-17V dis	06/16/2020	13:48	1	Groundwater		BA11014
MW-23V	06/16/2020	16:56	1	Groundwater		BA11015
MW-23V dis	06/16/2020	16:56	1	Groundwater		BA11016
FB-1	06/16/2020	17:30	1	Field Blank		BA11017
MW-14V	06/17/2020	09:10	3	Groundwater		BA11018
MW-20V	06/17/2020	11:17	1	Groundwater		BA11019
MW-20V dup	06/17/2020	11:17	1	Sample Duplicate		BA11020
MW-13V	06/17/2020	12:25	1	Groundwater		BA11021
MW-25H	06/17/2020	13:38	1	Groundwater		BA11022
MW-25VM	06/17/2020	14:40	1	Groundwater		BA11023
EB-1	06/17/2020	15:45	1	Equipment Blank		BA11024

Relinquished By	Received By	Date/Time
		06/18/2020 12:55

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1281

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7901-43573-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-189961-1
Laboratory Sample Delivery Group: Barry Ash Pond 1281
Client Project/Site: CCR Plant Barry

For:
Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff

Authorized for release by:
7/30/2020 9:22:08 AM

Cheyenne Whitmire, Project Manager II
(850)471-6222
Cheyenne.Whitmire@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-189961-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-189961-1

RAD

Method 9315: Radium-226 Prep Batch 160-474814. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA11012 MW-16V (400-189961-1), BA11013 MW-17V (400-189961-2), BA11014 MW-17V DIS (400-189961-3), BA11016 MW-23V DIS (400-189961-5), BA11017 FB-1 (400-189961-6), BA11018 MW-14V (400-189961-7), BA11018 MW-14V (400-189961-7[MS]), BA11018 MW-14V (400-189961-7[MSD]), BA11019 MW-20V (400-189961-8), BA11020 MW-20V DUP (400-189961-9), BA11021 MW-13V (400-189961-10), BA11022 MW-25H (400-189961-11), BA11023 MW-25VM (400-189961-12), BA11024 EB-1 (400-189961-13), (LCS 160-474814/1-A) and (MB 160-474814/20-A)

Method 9315: Radium-226 prep batch 160-475073. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA11015 MW-23V (400-189961-4), (LCS 160-475073/1-A) and (MB 160-475073/10-A)

Method 9320: Radium 228 Prep Batch 160-474819. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA11012 MW-16V (400-189961-1), BA11013 MW-17V (400-189961-2), BA11014 MW-17V DIS (400-189961-3), BA11016 MW-23V DIS (400-189961-5), BA11017 FB-1 (400-189961-6), BA11018 MW-14V (400-189961-7), BA11018 MW-14V (400-189961-7[MS]), BA11018 MW-14V (400-189961-7[MSD]), BA11019 MW-20V (400-189961-8), BA11020 MW-20V DUP (400-189961-9), BA11021 MW-13V (400-189961-10), BA11022 MW-25H (400-189961-11), BA11023 MW-25VM (400-189961-12), BA11024 EB-1 (400-189961-13), (LCS 160-474819/1-A) and (MB 160-474819/20-A)

Method 9320: Radium-228 prep batch 160-475074. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA11015 MW-23V (400-189961-4), (LCS 160-475074/1-A) and (MB 160-475074/10-A)

Method PrecSep_0: Radium 228 Prep Batch 160-4748149. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA11012 MW-16V (400-189961-1), BA11013 MW-17V (400-189961-2), BA11014 MW-17V DIS (400-189961-3), BA11015 MW-23V (400-189961-4), BA11016 MW-23V DIS (400-189961-5), BA11017 FB-1 (400-189961-6), BA11018 MW-14V (400-189961-7), BA11018 MW-14V (400-189961-7[MS]), BA11018 MW-14V (400-189961-7[MSD]), BA11019 MW-20V (400-189961-8), BA11020 MW-20V DUP (400-189961-9), BA11021 MW-13V (400-189961-10), BA11022 MW-25H (400-189961-11), BA11023 MW-25VM (400-189961-12) and BA11024 EB-1 (400-189961-13).

Samples 400-189961-2, 400-189961-7, 400-189961-7 MS, 400-189961-7 MSD, 400-189961-8, 400-189961-9 and 400-189961-10 all have a yellow discoloration. Sample 400-189961-4 was reduced more due to the yellow discoloration and cloudy appearance. Samples 240-132463-6 and 240-132463-7 both have particles that appear to be vegetation or algae floating in the samples.

Sample 400-189961-4 did not precipitate out during into ingrowth.

Method PrecSep_0: Radium 228 Prep Batch 160-475074. Sample 400-189961-4 was reduced due to yellow discoloration and a cloudy appearance. BA11015 MW-23V (400-189961-4)

Method PrecSep-21: Radium 226 Prep Batch 160-474814. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA11012 MW-16V (400-189961-1), BA11013 MW-17V (400-189961-2), BA11014 MW-17V DIS (400-189961-3), BA11015 MW-23V (400-189961-4), BA11016 MW-23V DIS (400-189961-5), BA11017 FB-1 (400-189961-6), BA11018 MW-14V (400-189961-7), BA11018 MW-14V (400-189961-7[MS]), BA11018 MW-14V (400-189961-7[MSD]), BA11019 MW-20V (400-189961-8), BA11020 MW-20V DUP (400-189961-9), BA11021 MW-13V (400-189961-10), BA11022 MW-25H (400-189961-11), BA11023 MW-25VM (400-189961-12) and BA11024 EB-1 (400-189961-13).

Samples 400-189961-2, 400-189961-7, 400-189961-7 MS, 400-189961-7 MSD, 400-189961-8, 400-189961-9 and 400-189961-10 all have a yellow discoloration. Sample 400-189961-4 was reduced more due to the yellow discoloration and cloudy appearance.

Job ID: 400-189961-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method PrecSep-21: Radium 226 Prep Batch 160-475073. Sample 400-189961-4 was reduced due to yellow discoloration and a cloudy appearance. BA11015 MW-23V (400-189961-4)

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
Ra226_Ra228 (D)	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-189961-1	BA11012 MW-16V	Water	06/16/20 10:06	06/24/20 11:00	
400-189961-2	BA11013 MW-17V	Water	06/16/20 13:48	06/24/20 11:00	
400-189961-3	BA11014 MW-17V DIS	Water	06/16/20 13:48	06/24/20 11:00	
400-189961-4	BA11015 MW-23V	Water	06/16/20 16:56	06/24/20 11:00	
400-189961-5	BA11016 MW-23V DIS	Water	06/16/20 16:56	06/24/20 11:00	
400-189961-6	BA11017 FB-1	Water	06/16/20 17:30	06/24/20 11:00	
400-189961-7	BA11018 MW-14V	Water	06/17/20 09:10	06/24/20 11:00	
400-189961-8	BA11019 MW-20V	Water	06/17/20 11:17	06/24/20 11:00	
400-189961-9	BA11020 MW-20V DUP	Water	06/17/20 11:17	06/24/20 11:00	
400-189961-10	BA11021 MW-13V	Water	06/17/20 12:25	06/24/20 11:00	
400-189961-11	BA11022 MW-25H	Water	06/17/20 13:38	06/24/20 11:00	
400-189961-12	BA11023 MW-25VM	Water	06/17/20 14:40	06/24/20 11:00	
400-189961-13	BA11024 EB-1	Water	06/17/20 15:45	06/24/20 11:00	

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11012 MW-16V

Lab Sample ID: 400-189961-1

Date Collected: 06/16/20 10:06
Date Received: 06/24/20 11:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.251	U	0.192	0.194	1.00	0.284	pCi/L	06/29/20 09:35	07/22/20 06:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.391	U	0.262	0.265	1.00	0.400	pCi/L	06/29/20 10:25	07/20/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*
Y Carrier	*84.9*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.642**		0.325	0.328	5.00	0.400	pCi/L		07/23/20 08:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11013 MW-17V

Date Collected: 06/16/20 13:48
Date Received: 06/24/20 11:00

Lab Sample ID: 400-189961-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.979		0.333	0.345	1.00	0.321	pCi/L	06/29/20 09:35	07/22/20 06:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.4*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.19		0.527	0.538	1.00	0.766	pCi/L	06/29/20 10:25	07/20/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*69.4*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*
Y Carrier	*86.0*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.17		0.623	0.639	5.00	0.766	pCi/L		07/23/20 08:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11014 MW-17V DIS

Lab Sample ID: 400-189961-3

Date Collected: 06/16/20 13:48
Matrix: Water
Date Received: 06/24/20 11:00

Method: 9315 - Radium-226 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.48		0.312	0.339	1.00	0.163	pCi/L	06/29/20 09:35	07/22/20 06:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*108*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:05*	*1*

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	2.22		0.407	0.455	1.00	0.414	pCi/L	06/29/20 10:25	07/20/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*108*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*
Y Carrier	*83.7*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*

Method: Ra226_Ra228 (D) - Combined Radium-226 and Radium-228 - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	3.70		0.513	0.567	5.00	0.414	pCi/L		07/23/20 08:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11015 MW-23V

Lab Sample ID: 400-189961-4

Date Collected: 06/16/20 16:56
Matrix: Water
Date Received: 06/24/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.366	U	0.332	0.333	1.00	0.502	pCi/L	07/01/20 16:37	07/29/20 07:55	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*40 - 110*	*07/01/20 16:37*	*07/29/20 07:55*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.386	U	0.487	0.488	1.00	0.807	pCi/L	07/01/20 16:46	07/28/20 12:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*40 - 110*	*07/01/20 16:46*	*07/28/20 12:34*	*1*
Y Carrier	*82.6*		*40 - 110*	*07/01/20 16:46*	*07/28/20 12:34*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.752	U	0.589	0.591	5.00	0.807	pCi/L		07/30/20 07:24	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11016 MW-23V DIS

Lab Sample ID: 400-189961-5

Date Collected: 06/16/20 16:56
Matrix: Water
Date Received: 06/24/20 11:00

Method: 9315 - Radium-226 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0901	U	0.149	0.149	1.00	0.260	pCi/L	06/29/20 09:35	07/22/20 06:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:05*	*1*

Method: 9320 - Radium-228 (GFPC) - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.134	U	0.240	0.240	1.00	0.461	pCi/L	06/29/20 10:25	07/20/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*97.9*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*
Y Carrier	*85.6*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*

Method: Ra226_Ra228 (D) - Combined Radium-226 and Radium-228 - Dissolved

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0436	U	0.282	0.282	5.00	0.461	pCi/L		07/23/20 08:31	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11017 FB-1

Date Collected: 06/16/20 17:30
Date Received: 06/24/20 11:00

Lab Sample ID: 400-189961-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.131	U	0.139	0.140	1.00	0.219	pCi/L	06/29/20 09:35	07/22/20 06:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.4*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:05*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0527	U	0.260	0.260	1.00	0.460	pCi/L	06/29/20 10:25	07/20/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.4*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*
Y Carrier	*85.6*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.183	U	0.295	0.295	5.00	0.460	pCi/L		07/23/20 08:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11018 MW-14V

Lab Sample ID: 400-189961-7

Date Collected: 06/17/20 09:10
Date Received: 06/24/20 11:00

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.408**		0.199	0.203	1.00	0.235	pCi/L	06/29/20 09:35	07/22/20 06:05	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:05*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.317	U	0.287	0.289	1.00	0.460	pCi/L	06/29/20 10:25	07/20/20 12:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*
Y Carrier	*81.9*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:42*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.726**		0.349	0.353	5.00	0.460	pCi/L		07/23/20 08:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11019 MW-20V

Lab Sample ID: 400-189961-8

Date Collected: 06/17/20 11:17
Matrix: Water
Date Received: 06/24/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.400**		0.187	0.191	1.00	0.186	pCi/L	06/29/20 09:35	07/22/20 06:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.366	U	0.330	0.332	1.00	0.530	pCi/L	06/29/20 10:25	07/20/20 12:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*91.4*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:43*	*1*
Y Carrier	*84.5*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.767**		0.379	0.383	5.00	0.530	pCi/L		07/23/20 08:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11020 MW-20V DUP

Lab Sample ID: 400-189961-9

Date Collected: 06/17/20 11:17
Matrix: Water
Date Received: 06/24/20 11:00

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.455		0.196	0.200	1.00	0.185	pCi/L	06/29/20 09:35	07/22/20 06:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.4*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.527		0.323	0.327	1.00	0.491	pCi/L	06/29/20 10:25	07/20/20 12:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.4*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:43*	*1*
Y Carrier	*84.9*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.981		0.378	0.383	5.00	0.491	pCi/L		07/23/20 08:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11021 MW-13V

Date Collected: 06/17/20 12:25
Date Received: 06/24/20 11:00

Lab Sample ID: 400-189961-10

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.461		0.223	0.227	1.00	0.238	pCi/L	06/29/20 09:35	07/22/20 06:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.758		0.414	0.420	1.00	0.618	pCi/L	06/29/20 10:25	07/20/20 12:43	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.6*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:43*	*1*
Y Carrier	*84.9*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:43*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.22		0.470	0.477	5.00	0.618	pCi/L		07/23/20 08:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11022 MW-25H

Date Collected: 06/17/20 13:38
Date Received: 06/24/20 11:00

Lab Sample ID: 400-189961-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.121	U	0.138	0.139	1.00	0.223	pCi/L	06/29/20 09:35	07/22/20 06:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.433	U	0.307	0.310	1.00	0.480	pCi/L	06/29/20 10:25	07/20/20 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*101*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:44*	*1*
Y Carrier	*86.0*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:44*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.554**		0.337	0.340	5.00	0.480	pCi/L		07/23/20 08:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11023 MW-25VM

Date Collected: 06/17/20 14:40
Date Received: 06/24/20 11:00

Lab Sample ID: 400-189961-12

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.137	U	0.137	0.137	1.00	0.211	pCi/L	06/29/20 09:35	07/22/20 06:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*06/29/20 09:35*	*07/22/20 06:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.342	U	0.267	0.269	1.00	0.421	pCi/L	06/29/20 10:25	07/20/20 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*102*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:44*	*1*
Y Carrier	*88.6*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:44*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.479**		0.300	0.302	5.00	0.421	pCi/L		07/23/20 08:28	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11024 EB-1

Date Collected: 06/17/20 15:45
Date Received: 06/24/20 11:00

Lab Sample ID: 400-189961-13

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.166	U	0.151	0.152	1.00	0.228	pCi/L	06/29/20 09:35	07/22/20 07:42	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*06/29/20 09:35*	*07/22/20 07:42*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0103	U	0.233	0.233	1.00	0.423	pCi/L	06/29/20 10:25	07/20/20 12:44	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*104*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:44*	*1*
Y Carrier	*86.4*		*40 - 110*	*06/29/20 10:25*	*07/20/20 12:44*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.156	U	0.278	0.278	5.00	0.423	pCi/L		07/23/20 08:28	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11012 MW-16V — Lab Sample ID: 400-189961-1

Date Collected: 06/16/20 10:06 — **Matrix: Water**
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Total/NA	Analysis	9315		1	477168	07/22/20 06:00	JLC	TAL SL
Total/NA	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Total/NA	Analysis	9320		1	476767	07/20/20 12:42	JLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477278	07/23/20 08:28	SMP	TAL SL

Client Sample ID: BA11013 MW-17V — Lab Sample ID: 400-189961-2

Date Collected: 06/16/20 13:48 — **Matrix: Water**
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Total/NA	Analysis	9315		1	477168	07/22/20 06:00	JLC	TAL SL
Total/NA	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Total/NA	Analysis	9320		1	476767	07/20/20 12:42	JLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477278	07/23/20 08:28	SMP	TAL SL

Client Sample ID: BA11014 MW-17V DIS — Lab Sample ID: 400-189961-3

Date Collected: 06/16/20 13:48 — **Matrix: Water**
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Dissolved	Analysis	9315		1	476922	07/22/20 06:05	CMM	TAL SL
Dissolved	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Dissolved	Analysis	9320		1	476767	07/20/20 12:42	JLC	TAL SL
Dissolved	Analysis	Ra226_Ra228 (D)		1	477279	07/23/20 08:31	SMP	TAL SL

Client Sample ID: BA11015 MW-23V — Lab Sample ID: 400-189961-4

Date Collected: 06/16/20 16:56 — **Matrix: Water**
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			475073	07/01/20 16:37	MNH	TAL SL
Total/NA	Analysis	9315		1	477696	07/29/20 07:55	SCB	TAL SL
Total/NA	Prep	PrecSep_0			475074	07/01/20 16:46	MNH	TAL SL
Total/NA	Analysis	9320		1	477660	07/28/20 12:34	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477730	07/30/20 07:24	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11016 MW-23V DIS

Lab Sample ID: 400-189961-5
Date Collected: 06/16/20 16:56
Matrix: Water
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Dissolved	Analysis	9315		1	476922	07/22/20 06:05	CMM	TAL SL
Dissolved	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Dissolved	Analysis	9320		1	476767	07/20/20 12:42	JLC	TAL SL
Dissolved	Analysis	Ra226_Ra228 (D)		1	477279	07/23/20 08:31	SMP	TAL SL

Client Sample ID: BA11017 FB-1

Lab Sample ID: 400-189961-6
Date Collected: 06/16/20 17:30
Matrix: Water
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Total/NA	Analysis	9315		1	476922	07/22/20 06:05	CMM	TAL SL
Total/NA	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Total/NA	Analysis	9320		1	476767	07/20/20 12:42	JLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477278	07/23/20 08:28	SMP	TAL SL

Client Sample ID: BA11018 MW-14V

Lab Sample ID: 400-189961-7
Date Collected: 06/17/20 09:10
Matrix: Water
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Total/NA	Analysis	9315		1	476922	07/22/20 06:05	CMM	TAL SL
Total/NA	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Total/NA	Analysis	9320		1	476767	07/20/20 12:42	JLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477278	07/23/20 08:28	SMP	TAL SL

Client Sample ID: BA11019 MW-20V

Lab Sample ID: 400-189961-8
Date Collected: 06/17/20 11:17
Matrix: Water
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Total/NA	Analysis	9315		1	476922	07/22/20 06:06	CMM	TAL SL
Total/NA	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Total/NA	Analysis	9320		1	476767	07/20/20 12:43	JLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477278	07/23/20 08:28	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11020 MW-20V DUP

Lab Sample ID: 400-189961-9
Date Collected: 06/17/20 11:17
Matrix: Water
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Total/NA	Analysis	9315		1	476922	07/22/20 06:06	CMM	TAL SL
Total/NA	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Total/NA	Analysis	9320		1	476767	07/20/20 12:43	JLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477278	07/23/20 08:28	SMP	TAL SL

Client Sample ID: BA11021 MW-13V

Lab Sample ID: 400-189961-10
Date Collected: 06/17/20 12:25
Matrix: Water
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Total/NA	Analysis	9315		1	476922	07/22/20 06:07	CMM	TAL SL
Total/NA	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Total/NA	Analysis	9320		1	476767	07/20/20 12:43	JLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477278	07/23/20 08:28	SMP	TAL SL

Client Sample ID: BA11022 MW-25H

Lab Sample ID: 400-189961-11
Date Collected: 06/17/20 13:38
Matrix: Water
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Total/NA	Analysis	9315		1	476922	07/22/20 06:07	CMM	TAL SL
Total/NA	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Total/NA	Analysis	9320		1	476767	07/20/20 12:44	JLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477278	07/23/20 08:28	SMP	TAL SL

Client Sample ID: BA11023 MW-25VM

Lab Sample ID: 400-189961-12
Date Collected: 06/17/20 14:40
Matrix: Water
Date Received: 06/24/20 11:00

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Total/NA	Analysis	9315		1	476922	07/22/20 06:07	CMM	TAL SL
Total/NA	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Total/NA	Analysis	9320		1	476767	07/20/20 12:44	JLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477278	07/23/20 08:28	SMP	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Client Sample ID: BA11024 EB-1

Date Collected: 06/17/20 15:45
Date Received: 06/24/20 11:00

Lab Sample ID: 400-189961-13

Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			474814	06/29/20 09:35	RBR	TAL SL
Total/NA	Analysis	9315		1	477168	07/22/20 07:42	JLC	TAL SL
Total/NA	Prep	PrecSep_0			474819	06/29/20 10:25	RBR	TAL SL
Total/NA	Analysis	9320		1	476767	07/20/20 12:44	JLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	477278	07/23/20 08:28	SMP	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Rad

Prep Batch: 474814

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-189961-1	BA11012 MW-16V	Total/NA	Water	PrecSep-21	
400-189961-2	BA11013 MW-17V	Total/NA	Water	PrecSep-21	
400-189961-3	BA11014 MW-17V DIS	Dissolved	Water	PrecSep-21	
400-189961-5	BA11016 MW-23V DIS	Dissolved	Water	PrecSep-21	
400-189961-6	BA11017 FB-1	Total/NA	Water	PrecSep-21	
400-189961-7	BA11018 MW-14V	Total/NA	Water	PrecSep-21	
400-189961-8	BA11019 MW-20V	Total/NA	Water	PrecSep-21	
400-189961-9	BA11020 MW-20V DUP	Total/NA	Water	PrecSep-21	
400-189961-10	BA11021 MW-13V	Total/NA	Water	PrecSep-21	
400-189961-11	BA11022 MW-25H	Total/NA	Water	PrecSep-21	
400-189961-12	BA11023 MW-25VM	Total/NA	Water	PrecSep-21	
400-189961-13	BA11024 EB-1	Total/NA	Water	PrecSep-21	
MB 160-474814/20-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-474814/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-189961-7 MS	BA11018 MW-14V	Total/NA	Water	PrecSep-21	
400-189961-7 MSD	BA11018 MW-14V	Total/NA	Water	PrecSep-21	

Prep Batch: 474819

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-189961-1	BA11012 MW-16V	Total/NA	Water	PrecSep_0	
400-189961-2	BA11013 MW-17V	Total/NA	Water	PrecSep_0	
400-189961-3	BA11014 MW-17V DIS	Dissolved	Water	PrecSep_0	
400-189961-5	BA11016 MW-23V DIS	Dissolved	Water	PrecSep_0	
400-189961-6	BA11017 FB-1	Total/NA	Water	PrecSep_0	
400-189961-7	BA11018 MW-14V	Total/NA	Water	PrecSep_0	
400-189961-8	BA11019 MW-20V	Total/NA	Water	PrecSep_0	
400-189961-9	BA11020 MW-20V DUP	Total/NA	Water	PrecSep_0	
400-189961-10	BA11021 MW-13V	Total/NA	Water	PrecSep_0	
400-189961-11	BA11022 MW-25H	Total/NA	Water	PrecSep_0	
400-189961-12	BA11023 MW-25VM	Total/NA	Water	PrecSep_0	
400-189961-13	BA11024 EB-1	Total/NA	Water	PrecSep_0	
MB 160-474819/20-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-474819/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-189961-7 MS	BA11018 MW-14V	Total/NA	Water	PrecSep_0	
400-189961-7 MSD	BA11018 MW-14V	Total/NA	Water	PrecSep_0	

Prep Batch: 475073

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-189961-4	BA11015 MW-23V	Total/NA	Water	PrecSep-21	
MB 160-475073/10-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-475073/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-190166-Q-1-A DU	Duplicate	Total/NA	Water	PrecSep-21	

Prep Batch: 475074

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-189961-4	BA11015 MW-23V	Total/NA	Water	PrecSep_0	
MB 160-475074/10-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-475074/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-190166-Q-1-B DU	Duplicate	Total/NA	Water	PrecSep_0	

QC Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-474814/20-A
Matrix: Water
Analysis Batch: 476922

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474814

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1447	U	0.150	0.151	1.00	0.238	pCi/L	06/29/20 09:35	07/22/20 07:51	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*107*		*40 - 110*	*06/29/20 09:35*	*07/22/20 07:51*	*1*

Lab Sample ID: LCS 160-474814/1-A
Matrix: Water
Analysis Batch: 477168

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474814

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	13.71		1.58	1.00	0.242	pCi/L	91	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*98.2*		*40 - 110*

Lab Sample ID: 400-189961-7 MS
Matrix: Water
Analysis Batch: 476922

Client Sample ID: BA11018 MW-14V
Prep Type: Total/NA
Prep Batch: 474814

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.408		15.1	13.80		1.58	1.00	0.286	pCi/L	89	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*98.2*		*40 - 110*

Lab Sample ID: 400-189961-7 MSD
Matrix: Water
Analysis Batch: 476922

Client Sample ID: BA11018 MW-14V
Prep Type: Total/NA
Prep Batch: 474814

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.408		15.1	13.65		1.57	1.00	0.196	pCi/L	88	75 - 138	0.05	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*95.3*		*40 - 110*

Lab Sample ID: MB 160-475073/10-A
Matrix: Water
Analysis Batch: 477696

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 475073

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.07163	U	0.121	0.121	1.00	0.289	pCi/L	07/01/20 16:37	07/29/20 09:58	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-475073/10-A
Matrix: Water
Analysis Batch: 477696

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 475073

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.4		40 - 110	07/01/20 16:37	07/29/20 09:58	1

Lab Sample ID: LCS 160-475073/1-A
Matrix: Water
Analysis Batch: 477682

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 475073

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.3	10.30		1.26	1.00	0.219	pCi/L	91	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	94.1		40 - 110

Lab Sample ID: 400-190166-Q-1-A DU
Matrix: Water
Analysis Batch: 477696

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 475073

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	1.82		1.966		0.418	1.00	0.239	pCi/L	0.18	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	91.7		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-474819/20-A
Matrix: Water
Analysis Batch: 476767

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 474819

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.01678	U	0.227	0.227	1.00	0.406	pCi/L	06/29/20 10:25	07/20/20 12:44	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110	06/29/20 10:25	07/20/20 12:44	1
Y Carrier	89.7		40 - 110	06/29/20 10:25	07/20/20 12:44	1

Lab Sample ID: LCS 160-474819/1-A
Matrix: Water
Analysis Batch: 476767

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 474819

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	13.7	12.60		1.46	1.00	0.524	pCi/L	92	75 - 125

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-474819/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 476767 — **Prep Batch: 474819**

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	98.2		40 - 110
Y Carrier	82.6		40 - 110

Lab Sample ID: 400-189961-7 MS — **Client Sample ID: BA11018 MW-14V**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 476767 — **Prep Batch: 474819**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.317	U	13.7	13.01		1.49	1.00	0.491	pCi/L	93	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	98.2		40 - 110
Y Carrier	84.1		40 - 110

Lab Sample ID: 400-189961-7 MSD — **Client Sample ID: BA11018 MW-14V**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 476767 — **Prep Batch: 474819**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.317	U	13.7	13.45		1.54	1.00	0.531	pCi/L	96	45 - 150	0.15	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	95.3		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: MB 160-475074/10-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 477660 — **Prep Batch: 475074**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1014	U	0.268	0.268	1.00	0.465	pCi/L	07/01/20 16:46	07/28/20 12:35	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	86.4		40 - 110	07/01/20 16:46	07/28/20 12:35	1
Y Carrier	78.5		40 - 110	07/01/20 16:46	07/28/20 12:35	1

Lab Sample ID: LCS 160-475074/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 477660 — **Prep Batch: 475074**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.2	9.345		1.12	1.00	0.479	pCi/L	91	75 - 125		

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCS 160-475074/1-A
Matrix: Water
Analysis Batch: 477660

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 475074

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*94.1*		*40 - 110*
Y Carrier	*81.5*		*40 - 110*

Lab Sample ID: 400-190166-Q-1-B DU
Matrix: Water
Analysis Batch: 477660

Client Sample ID: Duplicate
Prep Type: Total/NA
Prep Batch: 475074

Analyte	Sample Result	Sample Qual		DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit			RER	RER Limit
Radium-228	2.33			2.259		0.473	1.00	0.458	pCi/L			0.07	1

Carrier	*DU %Yield*	*DU Qualifier*	*Limits*
Ba Carrier	*91.7*		*40 - 110*
Y Carrier	*78.1*		*40 - 110*

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

400-189961 COC

Client Information (Sub Contract Lab)	Sampler: Dallas Gentry	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 1 of 1
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #:			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1281	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA11012	6/16/20	10:06	G	Water						X	1	MW-16V
BA11013	6/16/20	13:48	G	Water						X	1	MW-17V
BA11014	6/16/20	13:48	G	Water	X					X	1	MW-17V DIS
BA11015	6/16/20	16:56	G	Water						X	1	MW-23V
BA11016	6/16/20	16:56	G	Water	X					X	1	MW-23V DIS
BA11017	6/16/20	17:30	G	Water						X	1	FB-1 (Field Blank)
BA11018	6/17/20	09:10	G	Water		X				X	3	MW-14V
BA11019	6/17/20	11:17	G	Water						X	1	MW-20V
BA11020	6/17/20	11:17	G	Water						X	1	MW-20V DUP (Sample Duplicate)
BA11021	6/17/20	12:25	G	Water						X	1	MW-13V
BA11022	6/17/20	13:38	G	Water						X	1	MW-25H
BA11023	6/17/20	14:40	G	Water						X	1	MW-25VM
BA11024	6/17/20	15:45	G	Water						X	1	EB-1 (Equipment Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 43599 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Laura Midkiff	Date/Time: 6/19/2020 09:45	Water APC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time: 6/24/20 ~~09~~ 1100	Company TAPEN
Custody Seals Intact:	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 26.3°C 12-8		

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-189961-1
SDG Number: Barry Ash Pond 1281

Login Number: 189961
List Number: 1
Creator: Conrady, Hank W

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	26.3°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-189961-1
SDG Number: Barry Ash Pond 1281

Login Number: 189961
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 06/26/20 01:52 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	N/A	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-189961-1
SDG: Barry Ash Pond 1281

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
Illinois	NELAP	004553	11-30-20
Iowa	State	373	09-17-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	07-01-21
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-20
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-20
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-20
Pennsylvania	NELAP	68-00540	02-28-21
Texas	NELAP	T104704193-19-13	07-31-20
US Fish & Wildlife	US Federal Programs	058448	07-31-20
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-20
West Virginia DEP	State	381	10-31-20

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7V	3/30/2020 12:47	Conductivity	375.6	uS/cm
BY-AP-MW-7V	3/30/2020 12:47	DO	0.15	mg/L
BY-AP-MW-7V	3/30/2020 12:47	Depth to Water Detail	19.54	ft
BY-AP-MW-7V	3/30/2020 12:47	Oxidation Reduction Potention	-126.76	mv
BY-AP-MW-7V	3/30/2020 12:47	pH	6.71	pH
BY-AP-MW-7V	3/30/2020 12:47	Temperature	21.73	C
BY-AP-MW-7V	3/30/2020 12:47	Turbidity	2.35	NTU
BY-AP-MW-7V	3/30/2020 12:52	Conductivity	375.46	uS/cm
BY-AP-MW-7V	3/30/2020 12:52	DO	0.14	mg/L
BY-AP-MW-7V	3/30/2020 12:52	Depth to Water Detail	19.54	ft
BY-AP-MW-7V	3/30/2020 12:52	Oxidation Reduction Potention	-121.19	mv
BY-AP-MW-7V	3/30/2020 12:52	pH	6.71	pH
BY-AP-MW-7V	3/30/2020 12:52	Temperature	21.73	C
BY-AP-MW-7V	3/30/2020 12:52	Turbidity	0.86	NTU
BY-AP-MW-7V	3/30/2020 12:57	Conductivity	375.43	uS/cm
BY-AP-MW-7V	3/30/2020 12:57	DO	0.14	mg/L
BY-AP-MW-7V	3/30/2020 12:57	Depth to Water Detail	19.54	ft
BY-AP-MW-7V	3/30/2020 12:57	Oxidation Reduction Potention	-115.5	mv
BY-AP-MW-7V	3/30/2020 12:57	pH	6.67	pH
BY-AP-MW-7V	3/30/2020 12:57	Temperature	21.86	C
BY-AP-MW-7V	3/30/2020 12:57	Turbidity	1.09	NTU
BY-AP-MW-7V	3/30/2020 13:02	Conductivity	376.17	uS/cm
BY-AP-MW-7V	3/30/2020 13:02	DO	0.15	mg/L
BY-AP-MW-7V	3/30/2020 13:02	Depth to Water Detail	19.54	ft
BY-AP-MW-7V	3/30/2020 13:02	Oxidation Reduction Potention	-113.29	mv
BY-AP-MW-7V	3/30/2020 13:02	pH	6.69	pH
BY-AP-MW-7V	3/30/2020 13:02	Temperature	21.84	C
BY-AP-MW-7V	3/30/2020 13:02	Turbidity	1.45	NTU

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7	3/30/2020 13:35	Conductivity	272.47	uS/cm
BY-AP-MW-7	3/30/2020 13:35	DO	0.16	mg/L
BY-AP-MW-7	3/30/2020 13:35	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 13:35	Oxidation Reduction Potention	-21.41	mv
BY-AP-MW-7	3/30/2020 13:35	pH	6.36	pH
BY-AP-MW-7	3/30/2020 13:35	Temperature	21.98	C
BY-AP-MW-7	3/30/2020 13:35	Turbidity	11.4	NTU
BY-AP-MW-7	3/30/2020 13:40	Conductivity	267.79	uS/cm
BY-AP-MW-7	3/30/2020 13:40	DO	0.15	mg/L
BY-AP-MW-7	3/30/2020 13:40	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 13:40	Oxidation Reduction Potention	-22.22	mv
BY-AP-MW-7	3/30/2020 13:40	pH	6.36	pH
BY-AP-MW-7	3/30/2020 13:40	Temperature	21.73	C
BY-AP-MW-7	3/30/2020 13:40	Turbidity	17.7	NTU
BY-AP-MW-7	3/30/2020 13:45	Conductivity	265.08	uS/cm
BY-AP-MW-7	3/30/2020 13:45	DO	0.16	mg/L
BY-AP-MW-7	3/30/2020 13:45	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 13:45	Oxidation Reduction Potention	-23.66	mv
BY-AP-MW-7	3/30/2020 13:45	pH	6.38	pH
BY-AP-MW-7	3/30/2020 13:45	Temperature	21.68	C
BY-AP-MW-7	3/30/2020 13:45	Turbidity	16.8	NTU
BY-AP-MW-7	3/30/2020 13:50	Conductivity	263.97	uS/cm
BY-AP-MW-7	3/30/2020 13:50	DO	0.16	mg/L
BY-AP-MW-7	3/30/2020 13:50	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 13:50	Oxidation Reduction Potention	-23.74	mv
BY-AP-MW-7	3/30/2020 13:50	pH	6.38	pH
BY-AP-MW-7	3/30/2020 13:50	Temperature	21.62	C
BY-AP-MW-7	3/30/2020 13:50	Turbidity	33.5	NTU
BY-AP-MW-7	3/30/2020 13:55	Conductivity	260.88	uS/cm
BY-AP-MW-7	3/30/2020 13:55	DO	0.16	mg/L
BY-AP-MW-7	3/30/2020 13:55	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 13:55	Oxidation Reduction Potention	-23.54	mv
BY-AP-MW-7	3/30/2020 13:55	pH	6.37	pH
BY-AP-MW-7	3/30/2020 13:55	Temperature	21.7	C
BY-AP-MW-7	3/30/2020 13:55	Turbidity	56	NTU
BY-AP-MW-7	3/30/2020 14:00	Conductivity	259.21	uS/cm
BY-AP-MW-7	3/30/2020 14:00	DO	0.16	mg/L
BY-AP-MW-7	3/30/2020 14:00	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 14:00	Oxidation Reduction Potention	-23.22	mv
BY-AP-MW-7	3/30/2020 14:00	pH	6.37	pH
BY-AP-MW-7	3/30/2020 14:00	Temperature	21.81	C
BY-AP-MW-7	3/30/2020 14:00	Turbidity	41.3	NTU
BY-AP-MW-7	3/30/2020 14:05	Conductivity	257.95	uS/cm
BY-AP-MW-7	3/30/2020 14:05	DO	0.15	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7	3/30/2020 14:05	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 14:05	Oxidation Reduction Potention	-20.88	mv
BY-AP-MW-7	3/30/2020 14:05	pH	6.32	pH
BY-AP-MW-7	3/30/2020 14:05	Temperature	21.72	C
BY-AP-MW-7	3/30/2020 14:05	Turbidity	35.6	NTU
BY-AP-MW-7	3/30/2020 14:10	Conductivity	257.06	uS/cm
BY-AP-MW-7	3/30/2020 14:10	DO	0.16	mg/L
BY-AP-MW-7	3/30/2020 14:10	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 14:10	Oxidation Reduction Potention	-21.48	mv
BY-AP-MW-7	3/30/2020 14:10	pH	6.33	pH
BY-AP-MW-7	3/30/2020 14:10	Temperature	21.67	C
BY-AP-MW-7	3/30/2020 14:10	Turbidity	35.5	NTU
BY-AP-MW-7	3/30/2020 14:15	Conductivity	255.73	uS/cm
BY-AP-MW-7	3/30/2020 14:15	DO	0.15	mg/L
BY-AP-MW-7	3/30/2020 14:15	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 14:15	Oxidation Reduction Potention	-23.49	mv
BY-AP-MW-7	3/30/2020 14:15	pH	6.35	pH
BY-AP-MW-7	3/30/2020 14:15	Temperature	21.77	C
BY-AP-MW-7	3/30/2020 14:15	Turbidity	35.6	NTU
BY-AP-MW-7	3/30/2020 14:20	Conductivity	255.58	uS/cm
BY-AP-MW-7	3/30/2020 14:20	DO	0.15	mg/L
BY-AP-MW-7	3/30/2020 14:20	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 14:20	Oxidation Reduction Potention	-24.05	mv
BY-AP-MW-7	3/30/2020 14:20	pH	6.36	pH
BY-AP-MW-7	3/30/2020 14:20	Temperature	21.73	C
BY-AP-MW-7	3/30/2020 14:20	Turbidity	26.8	NTU
BY-AP-MW-7	3/30/2020 14:25	Conductivity	254.12	uS/cm
BY-AP-MW-7	3/30/2020 14:25	DO	0.16	mg/L
BY-AP-MW-7	3/30/2020 14:25	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 14:25	Oxidation Reduction Potention	-25.14	mv
BY-AP-MW-7	3/30/2020 14:25	pH	6.37	pH
BY-AP-MW-7	3/30/2020 14:25	Temperature	21.73	C
BY-AP-MW-7	3/30/2020 14:25	Turbidity	15.1	NTU
BY-AP-MW-7	3/30/2020 14:30	Conductivity	253.02	uS/cm
BY-AP-MW-7	3/30/2020 14:30	DO	0.15	mg/L
BY-AP-MW-7	3/30/2020 14:30	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 14:30	Oxidation Reduction Potention	-25.15	mv
BY-AP-MW-7	3/30/2020 14:30	pH	6.37	pH
BY-AP-MW-7	3/30/2020 14:30	Temperature	21.67	C
BY-AP-MW-7	3/30/2020 14:30	Turbidity	11.8	NTU
BY-AP-MW-7	3/30/2020 14:35	Conductivity	252.6	uS/cm
BY-AP-MW-7	3/30/2020 14:35	DO	0.15	mg/L
BY-AP-MW-7	3/30/2020 14:35	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 14:35	Oxidation Reduction Potention	-21.51	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7	3/30/2020 14:35	pH	6.31	pH
BY-AP-MW-7	3/30/2020 14:35	Temperature	21.61	C
BY-AP-MW-7	3/30/2020 14:35	Turbidity	10.37	NTU
BY-AP-MW-7	3/30/2020 14:40	Conductivity	252.35	uS/cm
BY-AP-MW-7	3/30/2020 14:40	DO	0.15	mg/L
BY-AP-MW-7	3/30/2020 14:40	Depth to Water Detail	19.73	ft
BY-AP-MW-7	3/30/2020 14:40	Oxidation Reduction Potention	-22.86	mv
BY-AP-MW-7	3/30/2020 14:40	pH	6.32	pH
BY-AP-MW-7	3/30/2020 14:40	Temperature	21.59	C
BY-AP-MW-7	3/30/2020 14:40	Turbidity	7.53	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-8	3/30/2020 15:28	Conductivity	527	uS/cm
BY-AP-MW-8	3/30/2020 15:28	DO	0.11	mg/L
BY-AP-MW-8	3/30/2020 15:28	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 15:28	Oxidation Reduction Potention	-82.02	mv
BY-AP-MW-8	3/30/2020 15:28	pH	6.2	pH
BY-AP-MW-8	3/30/2020 15:28	Temperature	21.13	C
BY-AP-MW-8	3/30/2020 15:28	Turbidity	8.47	NTU
BY-AP-MW-8	3/30/2020 15:33	Conductivity	526.25	uS/cm
BY-AP-MW-8	3/30/2020 15:33	DO	0.09	mg/L
BY-AP-MW-8	3/30/2020 15:33	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 15:33	Oxidation Reduction Potention	-82.47	mv
BY-AP-MW-8	3/30/2020 15:33	pH	6.14	pH
BY-AP-MW-8	3/30/2020 15:33	Temperature	21.42	C
BY-AP-MW-8	3/30/2020 15:33	Turbidity	3.11	NTU
BY-AP-MW-8	3/30/2020 15:38	Conductivity	507.22	uS/cm
BY-AP-MW-8	3/30/2020 15:38	DO	0.08	mg/L
BY-AP-MW-8	3/30/2020 15:38	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 15:38	Oxidation Reduction Potention	-83.15	mv
BY-AP-MW-8	3/30/2020 15:38	pH	6.12	pH
BY-AP-MW-8	3/30/2020 15:38	Temperature	21.44	C
BY-AP-MW-8	3/30/2020 15:38	Turbidity	4.1	NTU
BY-AP-MW-8	3/30/2020 15:43	Conductivity	490.44	uS/cm
BY-AP-MW-8	3/30/2020 15:43	DO	0.08	mg/L
BY-AP-MW-8	3/30/2020 15:43	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 15:43	Oxidation Reduction Potention	-84.47	mv
BY-AP-MW-8	3/30/2020 15:43	pH	6.13	pH
BY-AP-MW-8	3/30/2020 15:43	Temperature	21.17	C
BY-AP-MW-8	3/30/2020 15:43	Turbidity	4.48	NTU
BY-AP-MW-8	3/30/2020 15:48	Conductivity	457.93	uS/cm
BY-AP-MW-8	3/30/2020 15:48	DO	0.07	mg/L
BY-AP-MW-8	3/30/2020 15:48	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 15:48	Oxidation Reduction Potention	-85.5	mv
BY-AP-MW-8	3/30/2020 15:48	pH	6.14	pH
BY-AP-MW-8	3/30/2020 15:48	Temperature	21.11	C
BY-AP-MW-8	3/30/2020 15:48	Turbidity	5.94	NTU
BY-AP-MW-8	3/30/2020 15:53	Conductivity	470.1	uS/cm
BY-AP-MW-8	3/30/2020 15:53	DO	0.07	mg/L
BY-AP-MW-8	3/30/2020 15:53	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 15:53	Oxidation Reduction Potention	-86.13	mv
BY-AP-MW-8	3/30/2020 15:53	pH	6.15	pH
BY-AP-MW-8	3/30/2020 15:53	Temperature	21.11	C
BY-AP-MW-8	3/30/2020 15:53	Turbidity	4.03	NTU
BY-AP-MW-8	3/30/2020 15:58	Conductivity	497.6	uS/cm
BY-AP-MW-8	3/30/2020 15:58	DO	0.06	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-8	3/30/2020 15:58	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 15:58	Oxidation Reduction Potention	-86.51	mv
BY-AP-MW-8	3/30/2020 15:58	pH	6.15	pH
BY-AP-MW-8	3/30/2020 15:58	Temperature	21.22	C
BY-AP-MW-8	3/30/2020 15:58	Turbidity	2.75	NTU
BY-AP-MW-8	3/30/2020 16:03	Conductivity	482.05	uS/cm
BY-AP-MW-8	3/30/2020 16:03	DO	0.06	mg/L
BY-AP-MW-8	3/30/2020 16:03	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 16:03	Oxidation Reduction Potention	-86.79	mv
BY-AP-MW-8	3/30/2020 16:03	pH	6.16	pH
BY-AP-MW-8	3/30/2020 16:03	Temperature	21.24	C
BY-AP-MW-8	3/30/2020 16:03	Turbidity	2.84	NTU
BY-AP-MW-8	3/30/2020 16:08	Conductivity	520.27	uS/cm
BY-AP-MW-8	3/30/2020 16:08	DO	0.06	mg/L
BY-AP-MW-8	3/30/2020 16:08	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 16:08	Oxidation Reduction Potention	-87.4	mv
BY-AP-MW-8	3/30/2020 16:08	pH	6.17	pH
BY-AP-MW-8	3/30/2020 16:08	Temperature	21.2	C
BY-AP-MW-8	3/30/2020 16:08	Turbidity	2.99	NTU
BY-AP-MW-8	3/30/2020 16:13	Conductivity	509.2	uS/cm
BY-AP-MW-8	3/30/2020 16:13	DO	0.06	mg/L
BY-AP-MW-8	3/30/2020 16:13	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 16:13	Oxidation Reduction Potention	-88.3	mv
BY-AP-MW-8	3/30/2020 16:13	pH	6.19	pH
BY-AP-MW-8	3/30/2020 16:13	Temperature	21.14	C
BY-AP-MW-8	3/30/2020 16:13	Turbidity	9.14	NTU
BY-AP-MW-8	3/30/2020 16:18	Conductivity	497.04	uS/cm
BY-AP-MW-8	3/30/2020 16:18	DO	0.06	mg/L
BY-AP-MW-8	3/30/2020 16:18	Depth to Water Detail	22.54	ft
BY-AP-MW-8	3/30/2020 16:18	Oxidation Reduction Potention	-88.96	mv
BY-AP-MW-8	3/30/2020 16:18	pH	6.2	pH
BY-AP-MW-8	3/30/2020 16:18	Temperature	21.16	C
BY-AP-MW-8	3/30/2020 16:18	Turbidity	3.75	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-8V	3/30/2020 17:14	Conductivity	524.43	uS/cm
BY-AP-MW-8V	3/30/2020 17:14	DO	0.1	mg/L
BY-AP-MW-8V	3/30/2020 17:14	Depth to Water Detail	22.56	ft
BY-AP-MW-8V	3/30/2020 17:14	Oxidation Reduction Potention	-38.92	mv
BY-AP-MW-8V	3/30/2020 17:14	pH	6.18	pH
BY-AP-MW-8V	3/30/2020 17:14	Temperature	20.99	C
BY-AP-MW-8V	3/30/2020 17:14	Turbidity	2.72	NTU
BY-AP-MW-8V	3/30/2020 17:19	Conductivity	551.64	uS/cm
BY-AP-MW-8V	3/30/2020 17:19	DO	0.1	mg/L
BY-AP-MW-8V	3/30/2020 17:19	Depth to Water Detail	22.56	ft
BY-AP-MW-8V	3/30/2020 17:19	Oxidation Reduction Potention	-43.14	mv
BY-AP-MW-8V	3/30/2020 17:19	pH	6.19	pH
BY-AP-MW-8V	3/30/2020 17:19	Temperature	20.87	C
BY-AP-MW-8V	3/30/2020 17:19	Turbidity	1.74	NTU
BY-AP-MW-8V	3/30/2020 17:24	Conductivity	558.89	uS/cm
BY-AP-MW-8V	3/30/2020 17:24	DO	0.11	mg/L
BY-AP-MW-8V	3/30/2020 17:24	Depth to Water Detail	22.56	ft
BY-AP-MW-8V	3/30/2020 17:24	Oxidation Reduction Potention	-44.29	mv
BY-AP-MW-8V	3/30/2020 17:24	pH	6.2	pH
BY-AP-MW-8V	3/30/2020 17:24	Temperature	20.76	C
BY-AP-MW-8V	3/30/2020 17:24	Turbidity	1.68	NTU
BY-AP-MW-8V	3/30/2020 17:29	Conductivity	562.17	uS/cm
BY-AP-MW-8V	3/30/2020 17:29	DO	0.11	mg/L
BY-AP-MW-8V	3/30/2020 17:29	Depth to Water Detail	22.56	ft
BY-AP-MW-8V	3/30/2020 17:29	Oxidation Reduction Potention	-44.48	mv
BY-AP-MW-8V	3/30/2020 17:29	pH	6.2	pH
BY-AP-MW-8V	3/30/2020 17:29	Temperature	20.76	C
BY-AP-MW-8V	3/30/2020 17:29	Turbidity	1.54	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-9	3/31/2020 7:45	Conductivity	586.49	uS/cm
BY-AP-MW-9	3/31/2020 7:45	DO	0.09	mg/L
BY-AP-MW-9	3/31/2020 7:45	Depth to Water Detail	18.61	ft
BY-AP-MW-9	3/31/2020 7:45	Oxidation Reduction Potention	-87.42	mv
BY-AP-MW-9	3/31/2020 7:45	pH	6.29	pH
BY-AP-MW-9	3/31/2020 7:45	Temperature	21.27	C
BY-AP-MW-9	3/31/2020 7:45	Turbidity	4.63	NTU
BY-AP-MW-9	3/31/2020 7:50	Conductivity	583.5	uS/cm
BY-AP-MW-9	3/31/2020 7:50	DO	0.09	mg/L
BY-AP-MW-9	3/31/2020 7:50	Depth to Water Detail	18.61	ft
BY-AP-MW-9	3/31/2020 7:50	Oxidation Reduction Potention	-89.28	mv
BY-AP-MW-9	3/31/2020 7:50	pH	6.28	pH
BY-AP-MW-9	3/31/2020 7:50	Temperature	21.27	C
BY-AP-MW-9	3/31/2020 7:50	Turbidity	2.24	NTU
BY-AP-MW-9	3/31/2020 7:55	Conductivity	582.28	uS/cm
BY-AP-MW-9	3/31/2020 7:55	DO	0.09	mg/L
BY-AP-MW-9	3/31/2020 7:55	Depth to Water Detail	18.61	ft
BY-AP-MW-9	3/31/2020 7:55	Oxidation Reduction Potention	-91.38	mv
BY-AP-MW-9	3/31/2020 7:55	pH	6.3	pH
BY-AP-MW-9	3/31/2020 7:55	Temperature	21.29	C
BY-AP-MW-9	3/31/2020 7:55	Turbidity	2.76	NTU
BY-AP-MW-9	3/31/2020 8:00	Conductivity	580.8	uS/cm
BY-AP-MW-9	3/31/2020 8:00	DO	0.08	mg/L
BY-AP-MW-9	3/31/2020 8:00	Depth to Water Detail	18.61	ft
BY-AP-MW-9	3/31/2020 8:00	Oxidation Reduction Potention	-92.26	mv
BY-AP-MW-9	3/31/2020 8:00	pH	6.31	pH
BY-AP-MW-9	3/31/2020 8:00	Temperature	21.24	C
BY-AP-MW-9	3/31/2020 8:00	Turbidity	2.03	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-10	3/31/2020 8:32	Conductivity	692.11	uS/cm
BY-AP-MW-10	3/31/2020 8:32	DO	0.17	mg/L
BY-AP-MW-10	3/31/2020 8:32	Depth to Water Detail	20.76	ft
BY-AP-MW-10	3/31/2020 8:32	Oxidation Reduction Potention	-79.11	mv
BY-AP-MW-10	3/31/2020 8:32	pH	6.38	pH
BY-AP-MW-10	3/31/2020 8:32	Temperature	21.56	C
BY-AP-MW-10	3/31/2020 8:32	Turbidity	2.07	NTU
BY-AP-MW-10	3/31/2020 8:37	Conductivity	692.04	uS/cm
BY-AP-MW-10	3/31/2020 8:37	DO	0.15	mg/L
BY-AP-MW-10	3/31/2020 8:37	Depth to Water Detail	20.76	ft
BY-AP-MW-10	3/31/2020 8:37	Oxidation Reduction Potention	-82.15	mv
BY-AP-MW-10	3/31/2020 8:37	pH	6.36	pH
BY-AP-MW-10	3/31/2020 8:37	Temperature	21.55	C
BY-AP-MW-10	3/31/2020 8:37	Turbidity	2.13	NTU
BY-AP-MW-10	3/31/2020 8:42	Conductivity	695.43	uS/cm
BY-AP-MW-10	3/31/2020 8:42	DO	0.15	mg/L
BY-AP-MW-10	3/31/2020 8:42	Depth to Water Detail	20.76	ft
BY-AP-MW-10	3/31/2020 8:42	Oxidation Reduction Potention	-84.01	mv
BY-AP-MW-10	3/31/2020 8:42	pH	6.36	pH
BY-AP-MW-10	3/31/2020 8:42	Temperature	21.54	C
BY-AP-MW-10	3/31/2020 8:42	Turbidity	1.55	NTU
BY-AP-MW-10	3/31/2020 8:47	Conductivity	696.72	uS/cm
BY-AP-MW-10	3/31/2020 8:47	DO	0.15	mg/L
BY-AP-MW-10	3/31/2020 8:47	Depth to Water Detail	20.76	ft
BY-AP-MW-10	3/31/2020 8:47	Oxidation Reduction Potention	-86.21	mv
BY-AP-MW-10	3/31/2020 8:47	pH	6.37	pH
BY-AP-MW-10	3/31/2020 8:47	Temperature	21.55	C
BY-AP-MW-10	3/31/2020 8:47	Turbidity	2.18	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-10V	3/31/2020 9:18	Conductivity	733.13	uS/cm
BY-AP-MW-10V	3/31/2020 9:18	DO	0.18	mg/L
BY-AP-MW-10V	3/31/2020 9:18	Depth to Water Detail	19.57	ft
BY-AP-MW-10V	3/31/2020 9:18	Oxidation Reduction Potention	-95.82	mv
BY-AP-MW-10V	3/31/2020 9:18	pH	6.36	pH
BY-AP-MW-10V	3/31/2020 9:18	Temperature	21.26	C
BY-AP-MW-10V	3/31/2020 9:18	Turbidity	2.95	NTU
BY-AP-MW-10V	3/31/2020 9:23	Conductivity	736.43	uS/cm
BY-AP-MW-10V	3/31/2020 9:23	DO	0.17	mg/L
BY-AP-MW-10V	3/31/2020 9:23	Depth to Water Detail	19.57	ft
BY-AP-MW-10V	3/31/2020 9:23	Oxidation Reduction Potention	-97.86	mv
BY-AP-MW-10V	3/31/2020 9:23	pH	6.36	pH
BY-AP-MW-10V	3/31/2020 9:23	Temperature	21.28	C
BY-AP-MW-10V	3/31/2020 9:23	Turbidity	2.01	NTU
BY-AP-MW-10V	3/31/2020 9:28	Conductivity	734.19	uS/cm
BY-AP-MW-10V	3/31/2020 9:28	DO	0.17	mg/L
BY-AP-MW-10V	3/31/2020 9:28	Depth to Water Detail	19.57	ft
BY-AP-MW-10V	3/31/2020 9:28	Oxidation Reduction Potention	-99.27	mv
BY-AP-MW-10V	3/31/2020 9:28	pH	6.37	pH
BY-AP-MW-10V	3/31/2020 9:28	Temperature	21.26	C
BY-AP-MW-10V	3/31/2020 9:28	Turbidity	2.36	NTU
BY-AP-MW-10V	3/31/2020 9:33	Conductivity	735.21	uS/cm
BY-AP-MW-10V	3/31/2020 9:33	DO	0.17	mg/L
BY-AP-MW-10V	3/31/2020 9:33	Depth to Water Detail	19.57	ft
BY-AP-MW-10V	3/31/2020 9:33	Oxidation Reduction Potention	-99.81	mv
BY-AP-MW-10V	3/31/2020 9:33	pH	6.38	pH
BY-AP-MW-10V	3/31/2020 9:33	Temperature	21.2	C
BY-AP-MW-10V	3/31/2020 9:33	Turbidity	2.36	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-11	3/31/2020 10:55	Conductivity	674.54	uS/cm
BY-AP-MW-11	3/31/2020 10:55	DO	0.18	mg/L
BY-AP-MW-11	3/31/2020 10:55	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 10:55	Oxidation Reduction Potention	-47.28	mv
BY-AP-MW-11	3/31/2020 10:55	pH	6.34	pH
BY-AP-MW-11	3/31/2020 10:55	Temperature	21	C
BY-AP-MW-11	3/31/2020 10:55	Turbidity	26.1	NTU
BY-AP-MW-11	3/31/2020 11:00	Conductivity	663.92	uS/cm
BY-AP-MW-11	3/31/2020 11:00	DO	0.16	mg/L
BY-AP-MW-11	3/31/2020 11:00	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 11:00	Oxidation Reduction Potention	-53.46	mv
BY-AP-MW-11	3/31/2020 11:00	pH	6.29	pH
BY-AP-MW-11	3/31/2020 11:00	Temperature	20.99	C
BY-AP-MW-11	3/31/2020 11:00	Turbidity	24.5	NTU
BY-AP-MW-11	3/31/2020 11:05	Conductivity	655.23	uS/cm
BY-AP-MW-11	3/31/2020 11:05	DO	0.15	mg/L
BY-AP-MW-11	3/31/2020 11:05	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 11:05	Oxidation Reduction Potention	-55.57	mv
BY-AP-MW-11	3/31/2020 11:05	pH	6.27	pH
BY-AP-MW-11	3/31/2020 11:05	Temperature	20.97	C
BY-AP-MW-11	3/31/2020 11:05	Turbidity	17.3	NTU
BY-AP-MW-11	3/31/2020 11:10	Conductivity	650.55	uS/cm
BY-AP-MW-11	3/31/2020 11:10	DO	0.17	mg/L
BY-AP-MW-11	3/31/2020 11:10	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 11:10	Oxidation Reduction Potention	-56.04	mv
BY-AP-MW-11	3/31/2020 11:10	pH	6.25	pH
BY-AP-MW-11	3/31/2020 11:10	Temperature	20.95	C
BY-AP-MW-11	3/31/2020 11:10	Turbidity	12.1	NTU
BY-AP-MW-11	3/31/2020 11:15	Conductivity	647.02	uS/cm
BY-AP-MW-11	3/31/2020 11:15	DO	0.16	mg/L
BY-AP-MW-11	3/31/2020 11:15	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 11:15	Oxidation Reduction Potention	-56.68	mv
BY-AP-MW-11	3/31/2020 11:15	pH	6.25	pH
BY-AP-MW-11	3/31/2020 11:15	Temperature	20.95	C
BY-AP-MW-11	3/31/2020 11:15	Turbidity	12.94	NTU
BY-AP-MW-11	3/31/2020 11:20	Conductivity	645.38	uS/cm
BY-AP-MW-11	3/31/2020 11:20	DO	0.17	mg/L
BY-AP-MW-11	3/31/2020 11:20	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 11:20	Oxidation Reduction Potention	-57.42	mv
BY-AP-MW-11	3/31/2020 11:20	pH	6.25	pH
BY-AP-MW-11	3/31/2020 11:20	Temperature	20.92	C
BY-AP-MW-11	3/31/2020 11:20	Turbidity	11.74	NTU
BY-AP-MW-11	3/31/2020 11:25	Conductivity	643.23	uS/cm
BY-AP-MW-11	3/31/2020 11:25	DO	0.16	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-11	3/31/2020 11:25	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 11:25	Oxidation Reduction Potention	-58.07	mv
BY-AP-MW-11	3/31/2020 11:25	pH	6.26	pH
BY-AP-MW-11	3/31/2020 11:25	Temperature	20.9	C
BY-AP-MW-11	3/31/2020 11:25	Turbidity	11.41	NTU
BY-AP-MW-11	3/31/2020 11:30	Conductivity	642.54	uS/cm
BY-AP-MW-11	3/31/2020 11:30	DO	0.15	mg/L
BY-AP-MW-11	3/31/2020 11:30	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 11:30	Oxidation Reduction Potention	-58.57	mv
BY-AP-MW-11	3/31/2020 11:30	pH	6.26	pH
BY-AP-MW-11	3/31/2020 11:30	Temperature	20.91	C
BY-AP-MW-11	3/31/2020 11:30	Turbidity	10.55	NTU
BY-AP-MW-11	3/31/2020 11:35	Conductivity	639.95	uS/cm
BY-AP-MW-11	3/31/2020 11:35	DO	0.15	mg/L
BY-AP-MW-11	3/31/2020 11:35	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 11:35	Oxidation Reduction Potention	-58.72	mv
BY-AP-MW-11	3/31/2020 11:35	pH	6.26	pH
BY-AP-MW-11	3/31/2020 11:35	Temperature	20.91	C
BY-AP-MW-11	3/31/2020 11:35	Turbidity	11.05	NTU
BY-AP-MW-11	3/31/2020 11:40	Conductivity	637.32	uS/cm
BY-AP-MW-11	3/31/2020 11:40	DO	0.15	mg/L
BY-AP-MW-11	3/31/2020 11:40	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 11:40	Oxidation Reduction Potention	-58.24	mv
BY-AP-MW-11	3/31/2020 11:40	pH	6.26	pH
BY-AP-MW-11	3/31/2020 11:40	Temperature	20.92	C
BY-AP-MW-11	3/31/2020 11:40	Turbidity	11.44	NTU
BY-AP-MW-11	3/31/2020 11:45	Conductivity	637.68	uS/cm
BY-AP-MW-11	3/31/2020 11:45	DO	0.14	mg/L
BY-AP-MW-11	3/31/2020 11:45	Depth to Water Detail	20.02	ft
BY-AP-MW-11	3/31/2020 11:45	Oxidation Reduction Potention	-58.6	mv
BY-AP-MW-11	3/31/2020 11:45	pH	6.26	pH
BY-AP-MW-11	3/31/2020 11:45	Temperature	20.91	C
BY-AP-MW-11	3/31/2020 11:45	Turbidity	9.69	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12	3/31/2020 13:22	Conductivity	595.78	uS/cm
BY-AP-MW-12	3/31/2020 13:22	DO	0.12	mg/L
BY-AP-MW-12	3/31/2020 13:22	Depth to Water Detail	17.93	ft
BY-AP-MW-12	3/31/2020 13:22	Oxidation Reduction Potention	-40.28	mv
BY-AP-MW-12	3/31/2020 13:22	pH	6.2	pH
BY-AP-MW-12	3/31/2020 13:22	Temperature	20.91	C
BY-AP-MW-12	3/31/2020 13:22	Turbidity	12	NTU
BY-AP-MW-12	3/31/2020 13:27	Conductivity	591.56	uS/cm
BY-AP-MW-12	3/31/2020 13:27	DO	0.1	mg/L
BY-AP-MW-12	3/31/2020 13:27	Depth to Water Detail	17.93	ft
BY-AP-MW-12	3/31/2020 13:27	Oxidation Reduction Potention	-46.65	mv
BY-AP-MW-12	3/31/2020 13:27	pH	6.2	pH
BY-AP-MW-12	3/31/2020 13:27	Temperature	20.86	C
BY-AP-MW-12	3/31/2020 13:27	Turbidity	12.2	NTU
BY-AP-MW-12	3/31/2020 13:32	Conductivity	592.77	uS/cm
BY-AP-MW-12	3/31/2020 13:32	DO	0.1	mg/L
BY-AP-MW-12	3/31/2020 13:32	Depth to Water Detail	17.93	ft
BY-AP-MW-12	3/31/2020 13:32	Oxidation Reduction Potention	-49.81	mv
BY-AP-MW-12	3/31/2020 13:32	pH	6.2	pH
BY-AP-MW-12	3/31/2020 13:32	Temperature	20.86	C
BY-AP-MW-12	3/31/2020 13:32	Turbidity	12.61	NTU
BY-AP-MW-12	3/31/2020 13:37	Conductivity	592.02	uS/cm
BY-AP-MW-12	3/31/2020 13:37	DO	0.09	mg/L
BY-AP-MW-12	3/31/2020 13:37	Depth to Water Detail	17.93	ft
BY-AP-MW-12	3/31/2020 13:37	Oxidation Reduction Potention	-51.67	mv
BY-AP-MW-12	3/31/2020 13:37	pH	6.21	pH
BY-AP-MW-12	3/31/2020 13:37	Temperature	20.84	C
BY-AP-MW-12	3/31/2020 13:37	Turbidity	11.22	NTU
BY-AP-MW-12	3/31/2020 13:42	Conductivity	591.73	uS/cm
BY-AP-MW-12	3/31/2020 13:42	DO	0.09	mg/L
BY-AP-MW-12	3/31/2020 13:42	Depth to Water Detail	17.93	ft
BY-AP-MW-12	3/31/2020 13:42	Oxidation Reduction Potention	-52.74	mv
BY-AP-MW-12	3/31/2020 13:42	pH	6.21	pH
BY-AP-MW-12	3/31/2020 13:42	Temperature	20.94	C
BY-AP-MW-12	3/31/2020 13:42	Turbidity	7.06	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12V	3/31/2020 12:35	Conductivity	626.77	uS/cm
BY-AP-MW-12V	3/31/2020 12:35	DO	0.11	mg/L
BY-AP-MW-12V	3/31/2020 12:35	Depth to Water Detail	17.58	ft
BY-AP-MW-12V	3/31/2020 12:35	Oxidation Reduction Potention	-53.22	mv
BY-AP-MW-12V	3/31/2020 12:35	pH	6.34	pH
BY-AP-MW-12V	3/31/2020 12:35	Temperature	20.83	C
BY-AP-MW-12V	3/31/2020 12:35	Turbidity	4.31	NTU
BY-AP-MW-12V	3/31/2020 12:40	Conductivity	623.89	uS/cm
BY-AP-MW-12V	3/31/2020 12:40	DO	0.1	mg/L
BY-AP-MW-12V	3/31/2020 12:40	Depth to Water Detail	17.58	ft
BY-AP-MW-12V	3/31/2020 12:40	Oxidation Reduction Potention	-60.39	mv
BY-AP-MW-12V	3/31/2020 12:40	pH	6.34	pH
BY-AP-MW-12V	3/31/2020 12:40	Temperature	21.02	C
BY-AP-MW-12V	3/31/2020 12:40	Turbidity	2.79	NTU
BY-AP-MW-12V	3/31/2020 12:45	Conductivity	624.91	uS/cm
BY-AP-MW-12V	3/31/2020 12:45	DO	0.11	mg/L
BY-AP-MW-12V	3/31/2020 12:45	Depth to Water Detail	17.58	ft
BY-AP-MW-12V	3/31/2020 12:45	Oxidation Reduction Potention	-63.87	mv
BY-AP-MW-12V	3/31/2020 12:45	pH	6.34	pH
BY-AP-MW-12V	3/31/2020 12:45	Temperature	21.03	C
BY-AP-MW-12V	3/31/2020 12:45	Turbidity	1.99	NTU
BY-AP-MW-12V	3/31/2020 12:50	Conductivity	620.52	uS/cm
BY-AP-MW-12V	3/31/2020 12:50	DO	0.11	mg/L
BY-AP-MW-12V	3/31/2020 12:50	Depth to Water Detail	17.58	ft
BY-AP-MW-12V	3/31/2020 12:50	Oxidation Reduction Potention	-64.69	mv
BY-AP-MW-12V	3/31/2020 12:50	pH	6.33	pH
BY-AP-MW-12V	3/31/2020 12:50	Temperature	21.01	C
BY-AP-MW-12V	3/31/2020 12:50	Turbidity	2.15	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-13	3/31/2020 16:00	Conductivity	455.37	uS/cm
BY-AP-MW-13	3/31/2020 16:00	DO	0.14	mg/L
BY-AP-MW-13	3/31/2020 16:00	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:00	Oxidation Reduction Potention	22.06	mv
BY-AP-MW-13	3/31/2020 16:00	pH	5.98	pH
BY-AP-MW-13	3/31/2020 16:00	Temperature	20.89	C
BY-AP-MW-13	3/31/2020 16:00	Turbidity	14.1	NTU
BY-AP-MW-13	3/31/2020 16:05	Conductivity	453.78	uS/cm
BY-AP-MW-13	3/31/2020 16:05	DO	0.13	mg/L
BY-AP-MW-13	3/31/2020 16:05	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:05	Oxidation Reduction Potention	16.38	mv
BY-AP-MW-13	3/31/2020 16:05	pH	5.95	pH
BY-AP-MW-13	3/31/2020 16:05	Temperature	20.78	C
BY-AP-MW-13	3/31/2020 16:05	Turbidity	17.4	NTU
BY-AP-MW-13	3/31/2020 16:10	Conductivity	452.86	uS/cm
BY-AP-MW-13	3/31/2020 16:10	DO	0.12	mg/L
BY-AP-MW-13	3/31/2020 16:10	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:10	Oxidation Reduction Potention	12.55	mv
BY-AP-MW-13	3/31/2020 16:10	pH	5.94	pH
BY-AP-MW-13	3/31/2020 16:10	Temperature	20.74	C
BY-AP-MW-13	3/31/2020 16:10	Turbidity	24	NTU
BY-AP-MW-13	3/31/2020 16:15	Conductivity	452.45	uS/cm
BY-AP-MW-13	3/31/2020 16:15	DO	0.12	mg/L
BY-AP-MW-13	3/31/2020 16:15	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:15	Oxidation Reduction Potention	9.67	mv
BY-AP-MW-13	3/31/2020 16:15	pH	5.93	pH
BY-AP-MW-13	3/31/2020 16:15	Temperature	20.78	C
BY-AP-MW-13	3/31/2020 16:15	Turbidity	22.8	NTU
BY-AP-MW-13	3/31/2020 16:20	Conductivity	451.87	uS/cm
BY-AP-MW-13	3/31/2020 16:20	DO	0.12	mg/L
BY-AP-MW-13	3/31/2020 16:20	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:20	Oxidation Reduction Potention	7.25	mv
BY-AP-MW-13	3/31/2020 16:20	pH	5.93	pH
BY-AP-MW-13	3/31/2020 16:20	Temperature	20.76	C
BY-AP-MW-13	3/31/2020 16:20	Turbidity	38.4	NTU
BY-AP-MW-13	3/31/2020 16:25	Conductivity	451.67	uS/cm
BY-AP-MW-13	3/31/2020 16:25	DO	0.12	mg/L
BY-AP-MW-13	3/31/2020 16:25	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:25	Oxidation Reduction Potention	5.41	mv
BY-AP-MW-13	3/31/2020 16:25	pH	5.93	pH
BY-AP-MW-13	3/31/2020 16:25	Temperature	20.76	C
BY-AP-MW-13	3/31/2020 16:25	Turbidity	40.3	NTU
BY-AP-MW-13	3/31/2020 16:30	Conductivity	452.12	uS/cm
BY-AP-MW-13	3/31/2020 16:30	DO	0.12	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-13	3/31/2020 16:30	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:30	Oxidation Reduction Potention	3.56	mv
BY-AP-MW-13	3/31/2020 16:30	pH	5.94	pH
BY-AP-MW-13	3/31/2020 16:30	Temperature	20.74	C
BY-AP-MW-13	3/31/2020 16:30	Turbidity	34.1	NTU
BY-AP-MW-13	3/31/2020 16:35	Conductivity	451.44	uS/cm
BY-AP-MW-13	3/31/2020 16:35	DO	0.12	mg/L
BY-AP-MW-13	3/31/2020 16:35	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:35	Oxidation Reduction Potention	1.74	mv
BY-AP-MW-13	3/31/2020 16:35	pH	5.95	pH
BY-AP-MW-13	3/31/2020 16:35	Temperature	20.64	C
BY-AP-MW-13	3/31/2020 16:35	Turbidity	30.9	NTU
BY-AP-MW-13	3/31/2020 16:40	Conductivity	448.28	uS/cm
BY-AP-MW-13	3/31/2020 16:40	DO	0.12	mg/L
BY-AP-MW-13	3/31/2020 16:40	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:40	Oxidation Reduction Potention	0.31	mv
BY-AP-MW-13	3/31/2020 16:40	pH	5.96	pH
BY-AP-MW-13	3/31/2020 16:40	Temperature	20.61	C
BY-AP-MW-13	3/31/2020 16:40	Turbidity	25.2	NTU
BY-AP-MW-13	3/31/2020 16:45	Conductivity	447.37	uS/cm
BY-AP-MW-13	3/31/2020 16:45	DO	0.12	mg/L
BY-AP-MW-13	3/31/2020 16:45	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:45	Oxidation Reduction Potention	-0.79	mv
BY-AP-MW-13	3/31/2020 16:45	pH	5.97	pH
BY-AP-MW-13	3/31/2020 16:45	Temperature	20.6	C
BY-AP-MW-13	3/31/2020 16:45	Turbidity	24.7	NTU
BY-AP-MW-13	3/31/2020 16:50	Conductivity	446	uS/cm
BY-AP-MW-13	3/31/2020 16:50	DO	0.11	mg/L
BY-AP-MW-13	3/31/2020 16:50	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:50	Oxidation Reduction Potention	-1.5	mv
BY-AP-MW-13	3/31/2020 16:50	pH	5.97	pH
BY-AP-MW-13	3/31/2020 16:50	Temperature	20.63	C
BY-AP-MW-13	3/31/2020 16:50	Turbidity	22	NTU
BY-AP-MW-13	3/31/2020 16:55	Conductivity	445.11	uS/cm
BY-AP-MW-13	3/31/2020 16:55	DO	0.12	mg/L
BY-AP-MW-13	3/31/2020 16:55	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 16:55	Oxidation Reduction Potention	-2.28	mv
BY-AP-MW-13	3/31/2020 16:55	pH	5.97	pH
BY-AP-MW-13	3/31/2020 16:55	Temperature	20.64	C
BY-AP-MW-13	3/31/2020 16:55	Turbidity	17.8	NTU
BY-AP-MW-13	3/31/2020 17:00	Conductivity	443.56	uS/cm
BY-AP-MW-13	3/31/2020 17:00	DO	0.12	mg/L
BY-AP-MW-13	3/31/2020 17:00	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 17:00	Oxidation Reduction Potention	-3.46	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-13	3/31/2020 17:00	pH	5.98	pH
BY-AP-MW-13	3/31/2020 17:00	Temperature	20.53	C
BY-AP-MW-13	3/31/2020 17:00	Turbidity	14.3	NTU
BY-AP-MW-13	3/31/2020 17:05	Conductivity	441.14	uS/cm
BY-AP-MW-13	3/31/2020 17:05	DO	0.12	mg/L
BY-AP-MW-13	3/31/2020 17:05	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 17:05	Oxidation Reduction Potention	-4.27	mv
BY-AP-MW-13	3/31/2020 17:05	pH	5.99	pH
BY-AP-MW-13	3/31/2020 17:05	Temperature	20.48	C
BY-AP-MW-13	3/31/2020 17:05	Turbidity	14.9	NTU
BY-AP-MW-13	3/31/2020 17:10	Conductivity	439.23	uS/cm
BY-AP-MW-13	3/31/2020 17:10	DO	0.11	mg/L
BY-AP-MW-13	3/31/2020 17:10	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 17:10	Oxidation Reduction Potention	-4.68	mv
BY-AP-MW-13	3/31/2020 17:10	pH	5.99	pH
BY-AP-MW-13	3/31/2020 17:10	Temperature	20.5	C
BY-AP-MW-13	3/31/2020 17:10	Turbidity	12	NTU
BY-AP-MW-13	3/31/2020 17:15	Conductivity	437	uS/cm
BY-AP-MW-13	3/31/2020 17:15	DO	0.11	mg/L
BY-AP-MW-13	3/31/2020 17:15	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 17:15	Oxidation Reduction Potention	-4.97	mv
BY-AP-MW-13	3/31/2020 17:15	pH	5.98	pH
BY-AP-MW-13	3/31/2020 17:15	Temperature	20.51	C
BY-AP-MW-13	3/31/2020 17:15	Turbidity	11.28	NTU
BY-AP-MW-13	3/31/2020 17:20	Conductivity	434.81	uS/cm
BY-AP-MW-13	3/31/2020 17:20	DO	0.11	mg/L
BY-AP-MW-13	3/31/2020 17:20	Depth to Water Detail	18.1	ft
BY-AP-MW-13	3/31/2020 17:20	Oxidation Reduction Potention	-4.91	mv
BY-AP-MW-13	3/31/2020 17:20	pH	5.98	pH
BY-AP-MW-13	3/31/2020 17:20	Temperature	20.48	C
BY-AP-MW-13	3/31/2020 17:20	Turbidity	9.84	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-14	3/31/2020 14:48	Conductivity	520.63	uS/cm
BY-AP-MW-14	3/31/2020 14:48	DO	0.13	mg/L
BY-AP-MW-14	3/31/2020 14:48	Depth to Water Detail	6.51	ft
BY-AP-MW-14	3/31/2020 14:48	Oxidation Reduction Potention	10.86	mv
BY-AP-MW-14	3/31/2020 14:48	pH	5.94	pH
BY-AP-MW-14	3/31/2020 14:48	Temperature	19.9	C
BY-AP-MW-14	3/31/2020 14:48	Turbidity	5.18	NTU
BY-AP-MW-14	3/31/2020 14:53	Conductivity	518.06	uS/cm
BY-AP-MW-14	3/31/2020 14:53	DO	0.12	mg/L
BY-AP-MW-14	3/31/2020 14:53	Depth to Water Detail	6.51	ft
BY-AP-MW-14	3/31/2020 14:53	Oxidation Reduction Potention	7.62	mv
BY-AP-MW-14	3/31/2020 14:53	pH	5.84	pH
BY-AP-MW-14	3/31/2020 14:53	Temperature	19.92	C
BY-AP-MW-14	3/31/2020 14:53	Turbidity	4.55	NTU
BY-AP-MW-14	3/31/2020 14:58	Conductivity	513.41	uS/cm
BY-AP-MW-14	3/31/2020 14:58	DO	0.11	mg/L
BY-AP-MW-14	3/31/2020 14:58	Depth to Water Detail	6.51	ft
BY-AP-MW-14	3/31/2020 14:58	Oxidation Reduction Potention	5.46	mv
BY-AP-MW-14	3/31/2020 14:58	pH	5.78	pH
BY-AP-MW-14	3/31/2020 14:58	Temperature	19.98	C
BY-AP-MW-14	3/31/2020 14:58	Turbidity	9.88	NTU
BY-AP-MW-14	3/31/2020 15:03	Conductivity	508.47	uS/cm
BY-AP-MW-14	3/31/2020 15:03	DO	0.11	mg/L
BY-AP-MW-14	3/31/2020 15:03	Depth to Water Detail	6.51	ft
BY-AP-MW-14	3/31/2020 15:03	Oxidation Reduction Potention	3.48	mv
BY-AP-MW-14	3/31/2020 15:03	pH	5.76	pH
BY-AP-MW-14	3/31/2020 15:03	Temperature	19.91	C
BY-AP-MW-14	3/31/2020 15:03	Turbidity	6.58	NTU
BY-AP-MW-14	3/31/2020 15:08	Conductivity	505.86	uS/cm
BY-AP-MW-14	3/31/2020 15:08	DO	0.11	mg/L
BY-AP-MW-14	3/31/2020 15:08	Depth to Water Detail	6.51	ft
BY-AP-MW-14	3/31/2020 15:08	Oxidation Reduction Potention	1.5	mv
BY-AP-MW-14	3/31/2020 15:08	pH	5.76	pH
BY-AP-MW-14	3/31/2020 15:08	Temperature	19.99	C
BY-AP-MW-14	3/31/2020 15:08	Turbidity	8.37	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15	4/1/2020 8:48	Conductivity	526.5	uS/cm
BY-AP-MW-15	4/1/2020 8:48	DO	0.24	mg/L
BY-AP-MW-15	4/1/2020 8:48	Depth to Water Detail	17.91	ft
BY-AP-MW-15	4/1/2020 8:48	Oxidation Reduction Potention	-81.3	mv
BY-AP-MW-15	4/1/2020 8:48	pH	6.71	pH
BY-AP-MW-15	4/1/2020 8:48	Temperature	20.72	C
BY-AP-MW-15	4/1/2020 8:48	Turbidity	12.9	NTU
BY-AP-MW-15	4/1/2020 8:53	Conductivity	516	uS/cm
BY-AP-MW-15	4/1/2020 8:53	DO	0.2	mg/L
BY-AP-MW-15	4/1/2020 8:53	Depth to Water Detail	17.91	ft
BY-AP-MW-15	4/1/2020 8:53	Oxidation Reduction Potention	-98.01	mv
BY-AP-MW-15	4/1/2020 8:53	pH	6.71	pH
BY-AP-MW-15	4/1/2020 8:53	Temperature	20.7	C
BY-AP-MW-15	4/1/2020 8:53	Turbidity	10.9	NTU
BY-AP-MW-15	4/1/2020 8:58	Conductivity	512.15	uS/cm
BY-AP-MW-15	4/1/2020 8:58	DO	0.19	mg/L
BY-AP-MW-15	4/1/2020 8:58	Depth to Water Detail	17.91	ft
BY-AP-MW-15	4/1/2020 8:58	Oxidation Reduction Potention	-104.6	mv
BY-AP-MW-15	4/1/2020 8:58	pH	6.73	pH
BY-AP-MW-15	4/1/2020 8:58	Temperature	20.58	C
BY-AP-MW-15	4/1/2020 8:58	Turbidity	8.88	NTU
BY-AP-MW-15	4/1/2020 9:03	Conductivity	511.56	uS/cm
BY-AP-MW-15	4/1/2020 9:03	DO	0.18	mg/L
BY-AP-MW-15	4/1/2020 9:03	Depth to Water Detail	17.91	ft
BY-AP-MW-15	4/1/2020 9:03	Oxidation Reduction Potention	-106.2	mv
BY-AP-MW-15	4/1/2020 9:03	pH	6.7	pH
BY-AP-MW-15	4/1/2020 9:03	Temperature	20.67	C
BY-AP-MW-15	4/1/2020 9:03	Turbidity	6.28	NTU
BY-AP-MW-15	4/1/2020 9:08	Conductivity	508.53	uS/cm
BY-AP-MW-15	4/1/2020 9:08	DO	0.18	mg/L
BY-AP-MW-15	4/1/2020 9:08	Depth to Water Detail	17.91	ft
BY-AP-MW-15	4/1/2020 9:08	Oxidation Reduction Potention	-108.93	mv
BY-AP-MW-15	4/1/2020 9:08	pH	6.7	pH
BY-AP-MW-15	4/1/2020 9:08	Temperature	20.57	C
BY-AP-MW-15	4/1/2020 9:08	Turbidity	5.49	NTU
BY-AP-MW-15	4/1/2020 9:13	Conductivity	505.46	uS/cm
BY-AP-MW-15	4/1/2020 9:13	DO	0.18	mg/L
BY-AP-MW-15	4/1/2020 9:13	Depth to Water Detail	17.91	ft
BY-AP-MW-15	4/1/2020 9:13	Oxidation Reduction Potention	-111.55	mv
BY-AP-MW-15	4/1/2020 9:13	pH	6.72	pH
BY-AP-MW-15	4/1/2020 9:13	Temperature	20.61	C
BY-AP-MW-15	4/1/2020 9:13	Turbidity	4.23	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17H	4/1/2020 10:11	Conductivity	492.51	uS/cm
BY-AP-MW-17H	4/1/2020 10:11	DO	0.18	mg/L
BY-AP-MW-17H	4/1/2020 10:11	Depth to Water Detail	13.67	ft
BY-AP-MW-17H	4/1/2020 10:11	Oxidation Reduction Potention	-62.25	mv
BY-AP-MW-17H	4/1/2020 10:11	pH	6.53	pH
BY-AP-MW-17H	4/1/2020 10:11	Temperature	20.93	C
BY-AP-MW-17H	4/1/2020 10:11	Turbidity	9.31	NTU
BY-AP-MW-17H	4/1/2020 10:16	Conductivity	487.94	uS/cm
BY-AP-MW-17H	4/1/2020 10:16	DO	0.15	mg/L
BY-AP-MW-17H	4/1/2020 10:16	Depth to Water Detail	13.74	ft
BY-AP-MW-17H	4/1/2020 10:16	Oxidation Reduction Potention	-71.81	mv
BY-AP-MW-17H	4/1/2020 10:16	pH	6.49	pH
BY-AP-MW-17H	4/1/2020 10:16	Temperature	21.03	C
BY-AP-MW-17H	4/1/2020 10:16	Turbidity	8.57	NTU
BY-AP-MW-17H	4/1/2020 10:21	Conductivity	480.37	uS/cm
BY-AP-MW-17H	4/1/2020 10:21	DO	0.15	mg/L
BY-AP-MW-17H	4/1/2020 10:21	Depth to Water Detail	13.74	ft
BY-AP-MW-17H	4/1/2020 10:21	Oxidation Reduction Potention	-77.48	mv
BY-AP-MW-17H	4/1/2020 10:21	pH	6.5	pH
BY-AP-MW-17H	4/1/2020 10:21	Temperature	21	C
BY-AP-MW-17H	4/1/2020 10:21	Turbidity	10.13	NTU
BY-AP-MW-17H	4/1/2020 10:26	Conductivity	478.49	uS/cm
BY-AP-MW-17H	4/1/2020 10:26	DO	0.15	mg/L
BY-AP-MW-17H	4/1/2020 10:26	Depth to Water Detail	13.74	ft
BY-AP-MW-17H	4/1/2020 10:26	Oxidation Reduction Potention	-82.24	mv
BY-AP-MW-17H	4/1/2020 10:26	pH	6.52	pH
BY-AP-MW-17H	4/1/2020 10:26	Temperature	21	C
BY-AP-MW-17H	4/1/2020 10:26	Turbidity	8.11	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-1	3/30/2020 15:54	Conductivity	735.07	uS/cm
BY-AP-MW-1	3/30/2020 15:54	DO	0.18	mg/L
BY-AP-MW-1	3/30/2020 15:54	Depth to Water Detail	19.07	ft
BY-AP-MW-1	3/30/2020 15:54	Oxidation Reduction Potention	-56.06	mv
BY-AP-MW-1	3/30/2020 15:54	pH	5.79	pH
BY-AP-MW-1	3/30/2020 15:54	Temperature	21.66	C
BY-AP-MW-1	3/30/2020 15:54	Turbidity	23.4	NTU
BY-AP-MW-1	3/30/2020 15:59	Conductivity	737.93	uS/cm
BY-AP-MW-1	3/30/2020 15:59	DO	0.17	mg/L
BY-AP-MW-1	3/30/2020 15:59	Depth to Water Detail	19.07	ft
BY-AP-MW-1	3/30/2020 15:59	Oxidation Reduction Potention	-56.43	mv
BY-AP-MW-1	3/30/2020 15:59	pH	5.79	pH
BY-AP-MW-1	3/30/2020 15:59	Temperature	21.74	C
BY-AP-MW-1	3/30/2020 15:59	Turbidity	21.2	NTU
BY-AP-MW-1	3/30/2020 16:04	Conductivity	740.6	uS/cm
BY-AP-MW-1	3/30/2020 16:04	DO	0.17	mg/L
BY-AP-MW-1	3/30/2020 16:04	Depth to Water Detail	19.07	ft
BY-AP-MW-1	3/30/2020 16:04	Oxidation Reduction Potention	-56.79	mv
BY-AP-MW-1	3/30/2020 16:04	pH	5.81	pH
BY-AP-MW-1	3/30/2020 16:04	Temperature	21.67	C
BY-AP-MW-1	3/30/2020 16:04	Turbidity	16.2	NTU
BY-AP-MW-1	3/30/2020 16:09	Conductivity	738.52	uS/cm
BY-AP-MW-1	3/30/2020 16:09	DO	0.16	mg/L
BY-AP-MW-1	3/30/2020 16:09	Depth to Water Detail	19.07	ft
BY-AP-MW-1	3/30/2020 16:09	Oxidation Reduction Potention	-56.5	mv
BY-AP-MW-1	3/30/2020 16:09	pH	5.82	pH
BY-AP-MW-1	3/30/2020 16:09	Temperature	21.65	C
BY-AP-MW-1	3/30/2020 16:09	Turbidity	12	NTU
BY-AP-MW-1	3/30/2020 16:14	Conductivity	740.9	uS/cm
BY-AP-MW-1	3/30/2020 16:14	DO	0.16	mg/L
BY-AP-MW-1	3/30/2020 16:14	Depth to Water Detail	19.07	ft
BY-AP-MW-1	3/30/2020 16:14	Oxidation Reduction Potention	-55.41	mv
BY-AP-MW-1	3/30/2020 16:14	pH	5.81	pH
BY-AP-MW-1	3/30/2020 16:14	Temperature	21.68	C
BY-AP-MW-1	3/30/2020 16:14	Turbidity	11.3	NTU
BY-AP-MW-1	3/30/2020 16:19	Conductivity	741.65	uS/cm
BY-AP-MW-1	3/30/2020 16:19	DO	0.16	mg/L
BY-AP-MW-1	3/30/2020 16:19	Depth to Water Detail	19.07	ft
BY-AP-MW-1	3/30/2020 16:19	Oxidation Reduction Potention	-55.28	mv
BY-AP-MW-1	3/30/2020 16:19	pH	5.82	pH
BY-AP-MW-1	3/30/2020 16:19	Temperature	21.74	C
BY-AP-MW-1	3/30/2020 16:19	Turbidity	9.45	NTU
BY-AP-MW-1	3/30/2020 16:24	Conductivity	742.11	uS/cm
BY-AP-MW-1	3/30/2020 16:24	DO	0.16	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-1	3/30/2020 16:24	Depth to Water Detail	19.07	ft
BY-AP-MW-1	3/30/2020 16:24	Oxidation Reduction Potention	-53.88	mv
BY-AP-MW-1	3/30/2020 16:24	pH	5.79	pH
BY-AP-MW-1	3/30/2020 16:24	Temperature	21.7	C
BY-AP-MW-1	3/30/2020 16:24	Turbidity	7.93	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-1V	3/30/2020 16:57	Conductivity	280.56	uS/cm
BY-AP-MW-1V	3/30/2020 16:57	DO	0.31	mg/L
BY-AP-MW-1V	3/30/2020 16:57	Depth to Water Detail	18.89	ft
BY-AP-MW-1V	3/30/2020 16:57	Oxidation Reduction Potention	64.83	mv
BY-AP-MW-1V	3/30/2020 16:57	pH	5.56	pH
BY-AP-MW-1V	3/30/2020 16:57	Temperature	21.5	C
BY-AP-MW-1V	3/30/2020 16:57	Turbidity	3.07	NTU
BY-AP-MW-1V	3/30/2020 17:02	Conductivity	280	uS/cm
BY-AP-MW-1V	3/30/2020 17:02	DO	0.27	mg/L
BY-AP-MW-1V	3/30/2020 17:02	Depth to Water Detail	18.89	ft
BY-AP-MW-1V	3/30/2020 17:02	Oxidation Reduction Potention	57.7	mv
BY-AP-MW-1V	3/30/2020 17:02	pH	5.61	pH
BY-AP-MW-1V	3/30/2020 17:02	Temperature	21.42	C
BY-AP-MW-1V	3/30/2020 17:02	Turbidity	1.13	NTU
BY-AP-MW-1V	3/30/2020 17:07	Conductivity	278.94	uS/cm
BY-AP-MW-1V	3/30/2020 17:07	DO	0.25	mg/L
BY-AP-MW-1V	3/30/2020 17:07	Depth to Water Detail	18.89	ft
BY-AP-MW-1V	3/30/2020 17:07	Oxidation Reduction Potention	55.21	mv
BY-AP-MW-1V	3/30/2020 17:07	pH	5.62	pH
BY-AP-MW-1V	3/30/2020 17:07	Temperature	21.37	C
BY-AP-MW-1V	3/30/2020 17:07	Turbidity	1.11	NTU
BY-AP-MW-1V	3/30/2020 17:12	Conductivity	278.35	uS/cm
BY-AP-MW-1V	3/30/2020 17:12	DO	0.24	mg/L
BY-AP-MW-1V	3/30/2020 17:12	Depth to Water Detail	18.89	ft
BY-AP-MW-1V	3/30/2020 17:12	Oxidation Reduction Potention	51.67	mv
BY-AP-MW-1V	3/30/2020 17:12	pH	5.65	pH
BY-AP-MW-1V	3/30/2020 17:12	Temperature	21.39	C
BY-AP-MW-1V	3/30/2020 17:12	Turbidity	0.8	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-2	3/31/2020 8:15	Conductivity	56.75	uS/cm
BY-AP-MW-2	3/31/2020 8:15	DO	0.34	mg/L
BY-AP-MW-2	3/31/2020 8:15	Depth to Water Detail	17.25	ft
BY-AP-MW-2	3/31/2020 8:15	Oxidation Reduction Potention	91.32	mv
BY-AP-MW-2	3/31/2020 8:15	pH	5.76	pH
BY-AP-MW-2	3/31/2020 8:15	Temperature	21.45	C
BY-AP-MW-2	3/31/2020 8:15	Turbidity	2.09	NTU
BY-AP-MW-2	3/31/2020 8:20	Conductivity	57.35	uS/cm
BY-AP-MW-2	3/31/2020 8:20	DO	0.28	mg/L
BY-AP-MW-2	3/31/2020 8:20	Depth to Water Detail	17.25	ft
BY-AP-MW-2	3/31/2020 8:20	Oxidation Reduction Potention	97.85	mv
BY-AP-MW-2	3/31/2020 8:20	pH	5.81	pH
BY-AP-MW-2	3/31/2020 8:20	Temperature	21.46	C
BY-AP-MW-2	3/31/2020 8:20	Turbidity	2.18	NTU
BY-AP-MW-2	3/31/2020 8:25	Conductivity	55.71	uS/cm
BY-AP-MW-2	3/31/2020 8:25	DO	0.26	mg/L
BY-AP-MW-2	3/31/2020 8:25	Depth to Water Detail	17.25	ft
BY-AP-MW-2	3/31/2020 8:25	Oxidation Reduction Potention	101.99	mv
BY-AP-MW-2	3/31/2020 8:25	pH	5.82	pH
BY-AP-MW-2	3/31/2020 8:25	Temperature	21.48	C
BY-AP-MW-2	3/31/2020 8:25	Turbidity	1.95	NTU
BY-AP-MW-2	3/31/2020 8:30	Conductivity	55.73	uS/cm
BY-AP-MW-2	3/31/2020 8:30	DO	0.25	mg/L
BY-AP-MW-2	3/31/2020 8:30	Depth to Water Detail	17.25	ft
BY-AP-MW-2	3/31/2020 8:30	Oxidation Reduction Potention	111.24	mv
BY-AP-MW-2	3/31/2020 8:30	pH	5.71	pH
BY-AP-MW-2	3/31/2020 8:30	Temperature	21.48	C
BY-AP-MW-2	3/31/2020 8:30	Turbidity	4.11	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-3	3/31/2020 9:15	Conductivity	36.75	uS/cm
BY-AP-MW-3	3/31/2020 9:15	DO	2.4	mg/L
BY-AP-MW-3	3/31/2020 9:15	Depth to Water Detail	19.98	ft
BY-AP-MW-3	3/31/2020 9:15	Oxidation Reduction Potention	242	mv
BY-AP-MW-3	3/31/2020 9:15	pH	5.11	pH
BY-AP-MW-3	3/31/2020 9:15	Temperature	21.25	C
BY-AP-MW-3	3/31/2020 9:15	Turbidity	2.76	NTU
BY-AP-MW-3	3/31/2020 9:20	Conductivity	38.56	uS/cm
BY-AP-MW-3	3/31/2020 9:20	DO	2.63	mg/L
BY-AP-MW-3	3/31/2020 9:20	Depth to Water Detail	19.98	ft
BY-AP-MW-3	3/31/2020 9:20	Oxidation Reduction Potention	258.92	mv
BY-AP-MW-3	3/31/2020 9:20	pH	5.12	pH
BY-AP-MW-3	3/31/2020 9:20	Temperature	21.25	C
BY-AP-MW-3	3/31/2020 9:20	Turbidity	2.07	NTU
BY-AP-MW-3	3/31/2020 9:25	Conductivity	39.69	uS/cm
BY-AP-MW-3	3/31/2020 9:25	DO	2.72	mg/L
BY-AP-MW-3	3/31/2020 9:25	Depth to Water Detail	19.98	ft
BY-AP-MW-3	3/31/2020 9:25	Oxidation Reduction Potention	267.22	mv
BY-AP-MW-3	3/31/2020 9:25	pH	5.13	pH
BY-AP-MW-3	3/31/2020 9:25	Temperature	21.28	C
BY-AP-MW-3	3/31/2020 9:25	Turbidity	2.33	NTU
BY-AP-MW-3	3/31/2020 9:30	Conductivity	41.48	uS/cm
BY-AP-MW-3	3/31/2020 9:30	DO	2.77	mg/L
BY-AP-MW-3	3/31/2020 9:30	Depth to Water Detail	19.98	ft
BY-AP-MW-3	3/31/2020 9:30	Oxidation Reduction Potention	281.6	mv
BY-AP-MW-3	3/31/2020 9:30	pH	5.01	pH
BY-AP-MW-3	3/31/2020 9:30	Temperature	21.28	C
BY-AP-MW-3	3/31/2020 9:30	Turbidity	1.94	NTU
BY-AP-MW-3	3/31/2020 9:35	Conductivity	42.48	uS/cm
BY-AP-MW-3	3/31/2020 9:35	DO	2.77	mg/L
BY-AP-MW-3	3/31/2020 9:35	Depth to Water Detail	19.98	ft
BY-AP-MW-3	3/31/2020 9:35	Oxidation Reduction Potention	287.65	mv
BY-AP-MW-3	3/31/2020 9:35	pH	5	pH
BY-AP-MW-3	3/31/2020 9:35	Temperature	21.28	C
BY-AP-MW-3	3/31/2020 9:35	Turbidity	1.76	NTU
BY-AP-MW-3	3/31/2020 9:40	Conductivity	43.02	uS/cm
BY-AP-MW-3	3/31/2020 9:40	DO	2.78	mg/L
BY-AP-MW-3	3/31/2020 9:40	Depth to Water Detail	19.98	ft
BY-AP-MW-3	3/31/2020 9:40	Oxidation Reduction Potention	288.24	mv
BY-AP-MW-3	3/31/2020 9:40	pH	5.08	pH
BY-AP-MW-3	3/31/2020 9:40	Temperature	21.24	C
BY-AP-MW-3	3/31/2020 9:40	Turbidity	1.82	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-4	3/31/2020 10:55	Conductivity	45.87	uS/cm
BY-AP-MW-4	3/31/2020 10:55	DO	0.24	mg/L
BY-AP-MW-4	3/31/2020 10:55	Depth to Water Detail	20.58	ft
BY-AP-MW-4	3/31/2020 10:55	Oxidation Reduction Potention	225.27	mv
BY-AP-MW-4	3/31/2020 10:55	pH	4.74	pH
BY-AP-MW-4	3/31/2020 10:55	Temperature	21.32	C
BY-AP-MW-4	3/31/2020 10:55	Turbidity	4.1	NTU
BY-AP-MW-4	3/31/2020 11:00	Conductivity	45.65	uS/cm
BY-AP-MW-4	3/31/2020 11:00	DO	0.21	mg/L
BY-AP-MW-4	3/31/2020 11:00	Depth to Water Detail	20.58	ft
BY-AP-MW-4	3/31/2020 11:00	Oxidation Reduction Potention	230.11	mv
BY-AP-MW-4	3/31/2020 11:00	pH	4.76	pH
BY-AP-MW-4	3/31/2020 11:00	Temperature	21.35	C
BY-AP-MW-4	3/31/2020 11:00	Turbidity	2.65	NTU
BY-AP-MW-4	3/31/2020 11:05	Conductivity	45.64	uS/cm
BY-AP-MW-4	3/31/2020 11:05	DO	0.21	mg/L
BY-AP-MW-4	3/31/2020 11:05	Depth to Water Detail	20.58	ft
BY-AP-MW-4	3/31/2020 11:05	Oxidation Reduction Potention	232.25	mv
BY-AP-MW-4	3/31/2020 11:05	pH	4.78	pH
BY-AP-MW-4	3/31/2020 11:05	Temperature	21.35	C
BY-AP-MW-4	3/31/2020 11:05	Turbidity	2.21	NTU
BY-AP-MW-4	3/31/2020 11:10	Conductivity	45.68	uS/cm
BY-AP-MW-4	3/31/2020 11:10	DO	0.21	mg/L
BY-AP-MW-4	3/31/2020 11:10	Depth to Water Detail	20.58	ft
BY-AP-MW-4	3/31/2020 11:10	Oxidation Reduction Potention	240.19	mv
BY-AP-MW-4	3/31/2020 11:10	pH	4.69	pH
BY-AP-MW-4	3/31/2020 11:10	Temperature	21.36	C
BY-AP-MW-4	3/31/2020 11:10	Turbidity	2.26	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5	3/31/2020 11:50	Conductivity	442.64	uS/cm
BY-AP-MW-5	3/31/2020 11:50	DO	0.12	mg/L
BY-AP-MW-5	3/31/2020 11:50	Depth to Water Detail	22.83	ft
BY-AP-MW-5	3/31/2020 11:50	Oxidation Reduction Potention	-38.34	mv
BY-AP-MW-5	3/31/2020 11:50	pH	5.99	pH
BY-AP-MW-5	3/31/2020 11:50	Temperature	21.87	C
BY-AP-MW-5	3/31/2020 11:50	Turbidity	9.1	NTU
BY-AP-MW-5	3/31/2020 11:55	Conductivity	432.5	uS/cm
BY-AP-MW-5	3/31/2020 11:55	DO	0.11	mg/L
BY-AP-MW-5	3/31/2020 11:55	Depth to Water Detail	22.83	ft
BY-AP-MW-5	3/31/2020 11:55	Oxidation Reduction Potention	-40.93	mv
BY-AP-MW-5	3/31/2020 11:55	pH	6.01	pH
BY-AP-MW-5	3/31/2020 11:55	Temperature	21.88	C
BY-AP-MW-5	3/31/2020 11:55	Turbidity	5.97	NTU
BY-AP-MW-5	3/31/2020 12:00	Conductivity	420.06	uS/cm
BY-AP-MW-5	3/31/2020 12:00	DO	0.1	mg/L
BY-AP-MW-5	3/31/2020 12:00	Depth to Water Detail	22.83	ft
BY-AP-MW-5	3/31/2020 12:00	Oxidation Reduction Potention	-42.08	mv
BY-AP-MW-5	3/31/2020 12:00	pH	6.02	pH
BY-AP-MW-5	3/31/2020 12:00	Temperature	21.88	C
BY-AP-MW-5	3/31/2020 12:00	Turbidity	5.83	NTU
BY-AP-MW-5	3/31/2020 12:05	Conductivity	409.52	uS/cm
BY-AP-MW-5	3/31/2020 12:05	DO	0.1	mg/L
BY-AP-MW-5	3/31/2020 12:05	Depth to Water Detail	22.83	ft
BY-AP-MW-5	3/31/2020 12:05	Oxidation Reduction Potention	-42.4	mv
BY-AP-MW-5	3/31/2020 12:05	pH	6.02	pH
BY-AP-MW-5	3/31/2020 12:05	Temperature	21.93	C
BY-AP-MW-5	3/31/2020 12:05	Turbidity	4.77	NTU
BY-AP-MW-5	3/31/2020 12:10	Conductivity	396.19	uS/cm
BY-AP-MW-5	3/31/2020 12:10	DO	0.09	mg/L
BY-AP-MW-5	3/31/2020 12:10	Depth to Water Detail	22.83	ft
BY-AP-MW-5	3/31/2020 12:10	Oxidation Reduction Potention	-42.32	mv
BY-AP-MW-5	3/31/2020 12:10	pH	6.02	pH
BY-AP-MW-5	3/31/2020 12:10	Temperature	21.98	C
BY-AP-MW-5	3/31/2020 12:10	Turbidity	5.92	NTU
BY-AP-MW-5	3/31/2020 12:15	Conductivity	445.36	uS/cm
BY-AP-MW-5	3/31/2020 12:15	DO	0.09	mg/L
BY-AP-MW-5	3/31/2020 12:15	Depth to Water Detail	22.83	ft
BY-AP-MW-5	3/31/2020 12:15	Oxidation Reduction Potention	-39.94	mv
BY-AP-MW-5	3/31/2020 12:15	pH	5.99	pH
BY-AP-MW-5	3/31/2020 12:15	Temperature	22.17	C
BY-AP-MW-5	3/31/2020 12:15	Turbidity	5.31	NTU
BY-AP-MW-5	3/31/2020 12:20	Conductivity	434.96	uS/cm
BY-AP-MW-5	3/31/2020 12:20	DO	0.09	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5	3/31/2020 12:20	Depth to Water Detail	22.83	ft
BY-AP-MW-5	3/31/2020 12:20	Oxidation Reduction Potention	-40.07	mv
BY-AP-MW-5	3/31/2020 12:20	pH	5.99	pH
BY-AP-MW-5	3/31/2020 12:20	Temperature	22.04	C
BY-AP-MW-5	3/31/2020 12:20	Turbidity	4.26	NTU
BY-AP-MW-5	3/31/2020 12:25	Conductivity	426.47	uS/cm
BY-AP-MW-5	3/31/2020 12:25	DO	0.09	mg/L
BY-AP-MW-5	3/31/2020 12:25	Depth to Water Detail	22.83	ft
BY-AP-MW-5	3/31/2020 12:25	Oxidation Reduction Potention	-41.15	mv
BY-AP-MW-5	3/31/2020 12:25	pH	6.01	pH
BY-AP-MW-5	3/31/2020 12:25	Temperature	22.11	C
BY-AP-MW-5	3/31/2020 12:25	Turbidity	4.5	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5V	3/31/2020 13:00	Conductivity	133.33	uS/cm
BY-AP-MW-5V	3/31/2020 13:00	DO	1.33	mg/L
BY-AP-MW-5V	3/31/2020 13:00	Depth to Water Detail	22.83	ft
BY-AP-MW-5V	3/31/2020 13:00	Oxidation Reduction Potention	109.56	mv
BY-AP-MW-5V	3/31/2020 13:00	pH	6.08	pH
BY-AP-MW-5V	3/31/2020 13:00	Temperature	22.07	C
BY-AP-MW-5V	3/31/2020 13:00	Turbidity	8.12	NTU
BY-AP-MW-5V	3/31/2020 13:05	Conductivity	115.97	uS/cm
BY-AP-MW-5V	3/31/2020 13:05	DO	1.37	mg/L
BY-AP-MW-5V	3/31/2020 13:05	Depth to Water Detail	22.83	ft
BY-AP-MW-5V	3/31/2020 13:05	Oxidation Reduction Potention	124.53	mv
BY-AP-MW-5V	3/31/2020 13:05	pH	6.08	pH
BY-AP-MW-5V	3/31/2020 13:05	Temperature	22.08	C
BY-AP-MW-5V	3/31/2020 13:05	Turbidity	5.4	NTU
BY-AP-MW-5V	3/31/2020 13:10	Conductivity	125.73	uS/cm
BY-AP-MW-5V	3/31/2020 13:10	DO	1.37	mg/L
BY-AP-MW-5V	3/31/2020 13:10	Depth to Water Detail	22.83	ft
BY-AP-MW-5V	3/31/2020 13:10	Oxidation Reduction Potention	133.15	mv
BY-AP-MW-5V	3/31/2020 13:10	pH	5.99	pH
BY-AP-MW-5V	3/31/2020 13:10	Temperature	22.09	C
BY-AP-MW-5V	3/31/2020 13:10	Turbidity	3.63	NTU
BY-AP-MW-5V	3/31/2020 13:15	Conductivity	122.12	uS/cm
BY-AP-MW-5V	3/31/2020 13:15	DO	1.41	mg/L
BY-AP-MW-5V	3/31/2020 13:15	Depth to Water Detail	22.83	ft
BY-AP-MW-5V	3/31/2020 13:15	Oxidation Reduction Potention	135.91	mv
BY-AP-MW-5V	3/31/2020 13:15	pH	6.02	pH
BY-AP-MW-5V	3/31/2020 13:15	Temperature	22.01	C
BY-AP-MW-5V	3/31/2020 13:15	Turbidity	3.31	NTU
BY-AP-MW-5V	3/31/2020 13:20	Conductivity	121.62	uS/cm
BY-AP-MW-5V	3/31/2020 13:20	DO	1.39	mg/L
BY-AP-MW-5V	3/31/2020 13:20	Depth to Water Detail	22.83	ft
BY-AP-MW-5V	3/31/2020 13:20	Oxidation Reduction Potention	119.11	mv
BY-AP-MW-5V	3/31/2020 13:20	pH	6.05	pH
BY-AP-MW-5V	3/31/2020 13:20	Temperature	21.91	C
BY-AP-MW-5V	3/31/2020 13:20	Turbidity	2.93	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-6	3/31/2020 14:03	Conductivity	54.78	uS/cm
BY-AP-MW-6	3/31/2020 14:03	DO	0.17	mg/L
BY-AP-MW-6	3/31/2020 14:03	Depth to Water Detail	20.36	ft
BY-AP-MW-6	3/31/2020 14:03	Oxidation Reduction Potention	164.22	mv
BY-AP-MW-6	3/31/2020 14:03	pH	5.27	pH
BY-AP-MW-6	3/31/2020 14:03	Temperature	21.41	C
BY-AP-MW-6	3/31/2020 14:03	Turbidity	0.9	NTU
BY-AP-MW-6	3/31/2020 14:08	Conductivity	54.53	uS/cm
BY-AP-MW-6	3/31/2020 14:08	DO	0.18	mg/L
BY-AP-MW-6	3/31/2020 14:08	Depth to Water Detail	20.36	ft
BY-AP-MW-6	3/31/2020 14:08	Oxidation Reduction Potention	162.14	mv
BY-AP-MW-6	3/31/2020 14:08	pH	5.28	pH
BY-AP-MW-6	3/31/2020 14:08	Temperature	21.48	C
BY-AP-MW-6	3/31/2020 14:08	Turbidity	0.91	NTU
BY-AP-MW-6	3/31/2020 14:13	Conductivity	54.18	uS/cm
BY-AP-MW-6	3/31/2020 14:13	DO	0.19	mg/L
BY-AP-MW-6	3/31/2020 14:13	Depth to Water Detail	20.36	ft
BY-AP-MW-6	3/31/2020 14:13	Oxidation Reduction Potention	164.21	mv
BY-AP-MW-6	3/31/2020 14:13	pH	5.32	pH
BY-AP-MW-6	3/31/2020 14:13	Temperature	21.52	C
BY-AP-MW-6	3/31/2020 14:13	Turbidity	0.8	NTU
BY-AP-MW-6	3/31/2020 14:18	Conductivity	54.12	uS/cm
BY-AP-MW-6	3/31/2020 14:18	DO	0.2	mg/L
BY-AP-MW-6	3/31/2020 14:18	Depth to Water Detail	20.36	ft
BY-AP-MW-6	3/31/2020 14:18	Oxidation Reduction Potention	171.64	mv
BY-AP-MW-6	3/31/2020 14:18	pH	5.22	pH
BY-AP-MW-6	3/31/2020 14:18	Temperature	21.55	C
BY-AP-MW-6	3/31/2020 14:18	Turbidity	0.94	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-16	3/31/2020 16:07	Conductivity	455.56	uS/cm
BY-AP-MW-16	3/31/2020 16:07	DO	0.18	mg/L
BY-AP-MW-16	3/31/2020 16:07	Depth to Water Detail	18.7	ft
BY-AP-MW-16	3/31/2020 16:07	Oxidation Reduction Potention	-0.75	mv
BY-AP-MW-16	3/31/2020 16:07	pH	5.77	pH
BY-AP-MW-16	3/31/2020 16:07	Temperature	21.73	C
BY-AP-MW-16	3/31/2020 16:07	Turbidity	80	NTU
BY-AP-MW-16	3/31/2020 16:12	Conductivity	442.9	uS/cm
BY-AP-MW-16	3/31/2020 16:12	DO	0.18	mg/L
BY-AP-MW-16	3/31/2020 16:12	Depth to Water Detail	18.7	ft
BY-AP-MW-16	3/31/2020 16:12	Oxidation Reduction Potention	-1.12	mv
BY-AP-MW-16	3/31/2020 16:12	pH	5.75	pH
BY-AP-MW-16	3/31/2020 16:12	Temperature	21.62	C
BY-AP-MW-16	3/31/2020 16:12	Turbidity	33.2	NTU
BY-AP-MW-16	3/31/2020 16:17	Conductivity	445.31	uS/cm
BY-AP-MW-16	3/31/2020 16:17	DO	0.18	mg/L
BY-AP-MW-16	3/31/2020 16:17	Depth to Water Detail	18.7	ft
BY-AP-MW-16	3/31/2020 16:17	Oxidation Reduction Potention	-1.42	mv
BY-AP-MW-16	3/31/2020 16:17	pH	5.74	pH
BY-AP-MW-16	3/31/2020 16:17	Temperature	21.56	C
BY-AP-MW-16	3/31/2020 16:17	Turbidity	21.3	NTU
BY-AP-MW-16	3/31/2020 16:22	Conductivity	431.2	uS/cm
BY-AP-MW-16	3/31/2020 16:22	DO	0.17	mg/L
BY-AP-MW-16	3/31/2020 16:22	Depth to Water Detail	18.7	ft
BY-AP-MW-16	3/31/2020 16:22	Oxidation Reduction Potention	-1.55	mv
BY-AP-MW-16	3/31/2020 16:22	pH	5.73	pH
BY-AP-MW-16	3/31/2020 16:22	Temperature	21.61	C
BY-AP-MW-16	3/31/2020 16:22	Turbidity	16.9	NTU
BY-AP-MW-16	3/31/2020 16:27	Conductivity	415.36	uS/cm
BY-AP-MW-16	3/31/2020 16:27	DO	0.18	mg/L
BY-AP-MW-16	3/31/2020 16:27	Depth to Water Detail	18.7	ft
BY-AP-MW-16	3/31/2020 16:27	Oxidation Reduction Potention	-2.63	mv
BY-AP-MW-16	3/31/2020 16:27	pH	5.74	pH
BY-AP-MW-16	3/31/2020 16:27	Temperature	21.61	C
BY-AP-MW-16	3/31/2020 16:27	Turbidity	12.5	NTU
BY-AP-MW-16	3/31/2020 16:32	Conductivity	443.49	uS/cm
BY-AP-MW-16	3/31/2020 16:32	DO	0.17	mg/L
BY-AP-MW-16	3/31/2020 16:32	Depth to Water Detail	18.7	ft
BY-AP-MW-16	3/31/2020 16:32	Oxidation Reduction Potention	-3.11	mv
BY-AP-MW-16	3/31/2020 16:32	pH	5.74	pH
BY-AP-MW-16	3/31/2020 16:32	Temperature	21.59	C
BY-AP-MW-16	3/31/2020 16:32	Turbidity	10.64	NTU
BY-AP-MW-16	3/31/2020 16:37	Conductivity	431.89	uS/cm
BY-AP-MW-16	3/31/2020 16:37	DO	0.18	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-16	3/31/2020 16:37	Depth to Water Detail	18.7	ft
BY-AP-MW-16	3/31/2020 16:37	Oxidation Reduction Potention	-3.59	mv
BY-AP-MW-16	3/31/2020 16:37	pH	5.74	pH
BY-AP-MW-16	3/31/2020 16:37	Temperature	21.51	C
BY-AP-MW-16	3/31/2020 16:37	Turbidity	8.65	NTU
BY-AP-MW-16	3/31/2020 16:42	Conductivity	418.36	uS/cm
BY-AP-MW-16	3/31/2020 16:42	DO	0.18	mg/L
BY-AP-MW-16	3/31/2020 16:42	Depth to Water Detail	18.7	ft
BY-AP-MW-16	3/31/2020 16:42	Oxidation Reduction Potention	-4.14	mv
BY-AP-MW-16	3/31/2020 16:42	pH	5.75	pH
BY-AP-MW-16	3/31/2020 16:42	Temperature	21.47	C
BY-AP-MW-16	3/31/2020 16:42	Turbidity	7.46	NTU
BY-AP-MW-16	3/31/2020 16:47	Conductivity	417.47	uS/cm
BY-AP-MW-16	3/31/2020 16:47	DO	0.17	mg/L
BY-AP-MW-16	3/31/2020 16:47	Depth to Water Detail	18.7	ft
BY-AP-MW-16	3/31/2020 16:47	Oxidation Reduction Potention	-4.5	mv
BY-AP-MW-16	3/31/2020 16:47	pH	5.75	pH
BY-AP-MW-16	3/31/2020 16:47	Temperature	21.48	C
BY-AP-MW-16	3/31/2020 16:47	Turbidity	6.36	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-18H	4/1/2020 10:40	Conductivity	1.52	uS/cm
BY-AP-MW-18H	4/1/2020 10:40	DO	9.15	mg/L
BY-AP-MW-18H	4/1/2020 10:40	Depth to Water Detail	4.21	ft
BY-AP-MW-18H	4/1/2020 10:40	Oxidation Reduction Potention	198.33	mv
BY-AP-MW-18H	4/1/2020 10:40	pH	6.57	pH
BY-AP-MW-18H	4/1/2020 10:40	Temperature	19.33	C
BY-AP-MW-18H	4/1/2020 10:40	Turbidity	7.05	NTU
BY-AP-MW-18H	4/1/2020 10:45	Conductivity	1.47	uS/cm
BY-AP-MW-18H	4/1/2020 10:45	DO	9.08	mg/L
BY-AP-MW-18H	4/1/2020 10:45	Depth to Water Detail	4.21	ft
BY-AP-MW-18H	4/1/2020 10:45	Oxidation Reduction Potention	197.86	mv
BY-AP-MW-18H	4/1/2020 10:45	pH	6.52	pH
BY-AP-MW-18H	4/1/2020 10:45	Temperature	19.4	C
BY-AP-MW-18H	4/1/2020 10:45	Turbidity	5.52	NTU
BY-AP-MW-18H	4/1/2020 10:50	Conductivity	1.46	uS/cm
BY-AP-MW-18H	4/1/2020 10:50	DO	9.03	mg/L
BY-AP-MW-18H	4/1/2020 10:50	Depth to Water Detail	4.21	ft
BY-AP-MW-18H	4/1/2020 10:50	Oxidation Reduction Potention	197.51	mv
BY-AP-MW-18H	4/1/2020 10:50	pH	6.49	pH
BY-AP-MW-18H	4/1/2020 10:50	Temperature	19.44	C
BY-AP-MW-18H	4/1/2020 10:50	Turbidity	3.86	NTU
BY-AP-MW-18H	4/1/2020 10:55	Conductivity	1.45	uS/cm
BY-AP-MW-18H	4/1/2020 10:55	DO	8.99	mg/L
BY-AP-MW-18H	4/1/2020 10:55	Depth to Water Detail	4.21	ft
BY-AP-MW-18H	4/1/2020 10:55	Oxidation Reduction Potention	197.12	mv
BY-AP-MW-18H	4/1/2020 10:55	pH	6.48	pH
BY-AP-MW-18H	4/1/2020 10:55	Temperature	19.48	C
BY-AP-MW-18H	4/1/2020 10:55	Turbidity	4.83	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-20H	4/1/2020 11:44	Conductivity	1.66	uS/cm
BY-AP-MW-20H	4/1/2020 11:44	DO	9.26	mg/L
BY-AP-MW-20H	4/1/2020 11:44	Depth to Water Detail	3.48	ft
BY-AP-MW-20H	4/1/2020 11:44	Oxidation Reduction Potention	187.81	mv
BY-AP-MW-20H	4/1/2020 11:44	pH	6.15	pH
BY-AP-MW-20H	4/1/2020 11:44	Temperature	19.99	C
BY-AP-MW-20H	4/1/2020 11:44	Turbidity	10.46	NTU
BY-AP-MW-20H	4/1/2020 11:49	Conductivity	1.66	uS/cm
BY-AP-MW-20H	4/1/2020 11:49	DO	9.26	mg/L
BY-AP-MW-20H	4/1/2020 11:49	Depth to Water Detail	3.48	ft
BY-AP-MW-20H	4/1/2020 11:49	Oxidation Reduction Potention	187.36	mv
BY-AP-MW-20H	4/1/2020 11:49	pH	6.27	pH
BY-AP-MW-20H	4/1/2020 11:49	Temperature	19.83	C
BY-AP-MW-20H	4/1/2020 11:49	Turbidity	6.75	NTU
BY-AP-MW-20H	4/1/2020 11:54	Conductivity	1.65	uS/cm
BY-AP-MW-20H	4/1/2020 11:54	DO	9.24	mg/L
BY-AP-MW-20H	4/1/2020 11:54	Depth to Water Detail	3.48	ft
BY-AP-MW-20H	4/1/2020 11:54	Oxidation Reduction Potention	186.92	mv
BY-AP-MW-20H	4/1/2020 11:54	pH	6.37	pH
BY-AP-MW-20H	4/1/2020 11:54	Temperature	19.74	C
BY-AP-MW-20H	4/1/2020 11:54	Turbidity	5	NTU
BY-AP-MW-20H	4/1/2020 11:59	Conductivity	1.67	uS/cm
BY-AP-MW-20H	4/1/2020 11:59	DO	9.21	mg/L
BY-AP-MW-20H	4/1/2020 11:59	Depth to Water Detail	3.48	ft
BY-AP-MW-20H	4/1/2020 11:59	Oxidation Reduction Potention	186.71	mv
BY-AP-MW-20H	4/1/2020 11:59	pH	6.45	pH
BY-AP-MW-20H	4/1/2020 11:59	Temperature	19.68	C
BY-AP-MW-20H	4/1/2020 11:59	Turbidity	3.7	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23H	4/1/2020 9:23	Conductivity	1.97	uS/cm
BY-AP-MW-23H	4/1/2020 9:23	DO	9.91	mg/L
BY-AP-MW-23H	4/1/2020 9:23	Depth to Water Detail	4.44	ft
BY-AP-MW-23H	4/1/2020 9:23	Oxidation Reduction Potention	209.9	mv
BY-AP-MW-23H	4/1/2020 9:23	pH	6.97	pH
BY-AP-MW-23H	4/1/2020 9:23	Temperature	18.78	C
BY-AP-MW-23H	4/1/2020 9:23	Turbidity	34.8	NTU
BY-AP-MW-23H	4/1/2020 9:28	Conductivity	1.85	uS/cm
BY-AP-MW-23H	4/1/2020 9:28	DO	9.76	mg/L
BY-AP-MW-23H	4/1/2020 9:28	Depth to Water Detail	4.44	ft
BY-AP-MW-23H	4/1/2020 9:28	Oxidation Reduction Potention	208.02	mv
BY-AP-MW-23H	4/1/2020 9:28	pH	6.81	pH
BY-AP-MW-23H	4/1/2020 9:28	Temperature	19.07	C
BY-AP-MW-23H	4/1/2020 9:28	Turbidity	23.2	NTU
BY-AP-MW-23H	4/1/2020 9:33	Conductivity	1.8	uS/cm
BY-AP-MW-23H	4/1/2020 9:33	DO	9.69	mg/L
BY-AP-MW-23H	4/1/2020 9:33	Depth to Water Detail	4.44	ft
BY-AP-MW-23H	4/1/2020 9:33	Oxidation Reduction Potention	207.03	mv
BY-AP-MW-23H	4/1/2020 9:33	pH	6.68	pH
BY-AP-MW-23H	4/1/2020 9:33	Temperature	19.19	C
BY-AP-MW-23H	4/1/2020 9:33	Turbidity	15.4	NTU
BY-AP-MW-23H	4/1/2020 9:38	Conductivity	1.77	uS/cm
BY-AP-MW-23H	4/1/2020 9:38	DO	9.58	mg/L
BY-AP-MW-23H	4/1/2020 9:38	Depth to Water Detail	4.44	ft
BY-AP-MW-23H	4/1/2020 9:38	Oxidation Reduction Potention	206.25	mv
BY-AP-MW-23H	4/1/2020 9:38	pH	6.59	pH
BY-AP-MW-23H	4/1/2020 9:38	Temperature	19.28	C
BY-AP-MW-23H	4/1/2020 9:38	Turbidity	12.9	NTU
BY-AP-MW-23H	4/1/2020 9:43	Conductivity	1.76	uS/cm
BY-AP-MW-23H	4/1/2020 9:43	DO	9.52	mg/L
BY-AP-MW-23H	4/1/2020 9:43	Depth to Water Detail	4.44	ft
BY-AP-MW-23H	4/1/2020 9:43	Oxidation Reduction Potention	205.47	mv
BY-AP-MW-23H	4/1/2020 9:43	pH	6.53	pH
BY-AP-MW-23H	4/1/2020 9:43	Temperature	19.33	C
BY-AP-MW-23H	4/1/2020 9:43	Turbidity	12	NTU
BY-AP-MW-23H	4/1/2020 9:48	Conductivity	1.75	uS/cm
BY-AP-MW-23H	4/1/2020 9:48	DO	9.44	mg/L
BY-AP-MW-23H	4/1/2020 9:48	Depth to Water Detail	4.44	ft
BY-AP-MW-23H	4/1/2020 9:48	Oxidation Reduction Potention	204.76	mv
BY-AP-MW-23H	4/1/2020 9:48	pH	6.48	pH
BY-AP-MW-23H	4/1/2020 9:48	Temperature	19.38	C
BY-AP-MW-23H	4/1/2020 9:48	Turbidity	10.2	NTU
BY-AP-MW-23H	4/1/2020 9:53	Conductivity	1.76	uS/cm
BY-AP-MW-23H	4/1/2020 9:53	DO	9.38	mg/L

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Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23H	4/1/2020 9:53	Depth to Water Detail	4.44	ft
BY-AP-MW-23H	4/1/2020 9:53	Oxidation Reduction Potention	204.14	mv
BY-AP-MW-23H	4/1/2020 9:53	pH	6.46	pH
BY-AP-MW-23H	4/1/2020 9:53	Temperature	19.39	C
BY-AP-MW-23H	4/1/2020 9:53	Turbidity	9.35	NTU
BY-AP-MW-23H	4/1/2020 9:58	Conductivity	1.76	uS/cm
BY-AP-MW-23H	4/1/2020 9:58	DO	9.33	mg/L
BY-AP-MW-23H	4/1/2020 9:58	Depth to Water Detail	4.44	ft
BY-AP-MW-23H	4/1/2020 9:58	Oxidation Reduction Potention	203.56	mv
BY-AP-MW-23H	4/1/2020 9:58	pH	6.44	pH
BY-AP-MW-23H	4/1/2020 9:58	Temperature	19.41	C
BY-AP-MW-23H	4/1/2020 9:58	Turbidity	8.08	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-24H	3/31/2020 15:12	Conductivity	799.5	uS/cm
BY-AP-MW-24H	3/31/2020 15:12	DO	0.17	mg/L
BY-AP-MW-24H	3/31/2020 15:12	Depth to Water Detail	20.21	ft
BY-AP-MW-24H	3/31/2020 15:12	Oxidation Reduction Potention	-84.13	mv
BY-AP-MW-24H	3/31/2020 15:12	pH	6.24	pH
BY-AP-MW-24H	3/31/2020 15:12	Temperature	21.69	C
BY-AP-MW-24H	3/31/2020 15:12	Turbidity	3.81	NTU
BY-AP-MW-24H	3/31/2020 15:17	Conductivity	799.9	uS/cm
BY-AP-MW-24H	3/31/2020 15:17	DO	0.15	mg/L
BY-AP-MW-24H	3/31/2020 15:17	Depth to Water Detail	20.21	ft
BY-AP-MW-24H	3/31/2020 15:17	Oxidation Reduction Potention	-81.74	mv
BY-AP-MW-24H	3/31/2020 15:17	pH	6.2	pH
BY-AP-MW-24H	3/31/2020 15:17	Temperature	21.73	C
BY-AP-MW-24H	3/31/2020 15:17	Turbidity	5.71	NTU
BY-AP-MW-24H	3/31/2020 15:22	Conductivity	798.35	uS/cm
BY-AP-MW-24H	3/31/2020 15:22	DO	0.15	mg/L
BY-AP-MW-24H	3/31/2020 15:22	Depth to Water Detail	20.21	ft
BY-AP-MW-24H	3/31/2020 15:22	Oxidation Reduction Potention	-81.32	mv
BY-AP-MW-24H	3/31/2020 15:22	pH	6.2	pH
BY-AP-MW-24H	3/31/2020 15:22	Temperature	21.78	C
BY-AP-MW-24H	3/31/2020 15:22	Turbidity	2.65	NTU
BY-AP-MW-24H	3/31/2020 15:27	Conductivity	800.01	uS/cm
BY-AP-MW-24H	3/31/2020 15:27	DO	0.15	mg/L
BY-AP-MW-24H	3/31/2020 15:27	Depth to Water Detail	20.21	ft
BY-AP-MW-24H	3/31/2020 15:27	Oxidation Reduction Potention	-82	mv
BY-AP-MW-24H	3/31/2020 15:27	pH	6.23	pH
BY-AP-MW-24H	3/31/2020 15:27	Temperature	21.74	C
BY-AP-MW-24H	3/31/2020 15:27	Turbidity	2.35	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15V	5/12/2020 10:53	Conductivity	603.3	uS/cm
BY-AP-MW-15V	5/12/2020 10:53	DO	0.18	mg/L
BY-AP-MW-15V	5/12/2020 10:53	Depth to Water Detail	4.88	ft
BY-AP-MW-15V	5/12/2020 10:53	Oxidation Reduction Potention	90.85	mv
BY-AP-MW-15V	5/12/2020 10:53	pH	5.35	pH
BY-AP-MW-15V	5/12/2020 10:53	Temperature	20.71	C
BY-AP-MW-15V	5/12/2020 10:53	Turbidity	9.57	NTU
BY-AP-MW-15V	5/12/2020 10:58	Conductivity	597.96	uS/cm
BY-AP-MW-15V	5/12/2020 10:58	DO	0.15	mg/L
BY-AP-MW-15V	5/12/2020 10:58	Depth to Water Detail	4.88	ft
BY-AP-MW-15V	5/12/2020 10:58	Oxidation Reduction Potention	69.63	mv
BY-AP-MW-15V	5/12/2020 10:58	pH	5.48	pH
BY-AP-MW-15V	5/12/2020 10:58	Temperature	20.74	C
BY-AP-MW-15V	5/12/2020 10:58	Turbidity	6.5	NTU
BY-AP-MW-15V	5/12/2020 11:03	Conductivity	599.02	uS/cm
BY-AP-MW-15V	5/12/2020 11:03	DO	0.16	mg/L
BY-AP-MW-15V	5/12/2020 11:03	Depth to Water Detail	4.88	ft
BY-AP-MW-15V	5/12/2020 11:03	Oxidation Reduction Potention	54.67	mv
BY-AP-MW-15V	5/12/2020 11:03	pH	5.59	pH
BY-AP-MW-15V	5/12/2020 11:03	Temperature	20.74	C
BY-AP-MW-15V	5/12/2020 11:03	Turbidity	7.28	NTU
BY-AP-MW-15V	5/12/2020 11:08	Conductivity	607.39	uS/cm
BY-AP-MW-15V	5/12/2020 11:08	DO	0.15	mg/L
BY-AP-MW-15V	5/12/2020 11:08	Depth to Water Detail	4.88	ft
BY-AP-MW-15V	5/12/2020 11:08	Oxidation Reduction Potention	47.76	mv
BY-AP-MW-15V	5/12/2020 11:08	pH	5.64	pH
BY-AP-MW-15V	5/12/2020 11:08	Temperature	20.75	C
BY-AP-MW-15V	5/12/2020 11:08	Turbidity	7.57	NTU
BY-AP-MW-15V	5/12/2020 11:13	Conductivity	612.73	uS/cm
BY-AP-MW-15V	5/12/2020 11:13	DO	0.14	mg/L
BY-AP-MW-15V	5/12/2020 11:13	Depth to Water Detail	4.88	ft
BY-AP-MW-15V	5/12/2020 11:13	Oxidation Reduction Potention	43	mv
BY-AP-MW-15V	5/12/2020 11:13	pH	5.68	pH
BY-AP-MW-15V	5/12/2020 11:13	Temperature	20.76	C
BY-AP-MW-15V	5/12/2020 11:13	Turbidity	5.69	NTU
BY-AP-MW-15V	5/12/2020 11:18	Conductivity	614.89	uS/cm
BY-AP-MW-15V	5/12/2020 11:18	DO	0.13	mg/L
BY-AP-MW-15V	5/12/2020 11:18	Depth to Water Detail	4.88	ft
BY-AP-MW-15V	5/12/2020 11:18	Oxidation Reduction Potention	41.82	mv
BY-AP-MW-15V	5/12/2020 11:18	pH	5.68	pH
BY-AP-MW-15V	5/12/2020 11:18	Temperature	20.77	C
BY-AP-MW-15V	5/12/2020 11:18	Turbidity	6.18	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-19H	5/12/2020 12:49	Conductivity	590.73	uS/cm
BY-AP-MW-19H	5/12/2020 12:49	DO	0.18	mg/L
BY-AP-MW-19H	5/12/2020 12:49	Depth to Water Detail	7.38	ft
BY-AP-MW-19H	5/12/2020 12:49	Oxidation Reduction Potention	-67.08	mv
BY-AP-MW-19H	5/12/2020 12:49	pH	5.95	pH
BY-AP-MW-19H	5/12/2020 12:49	Temperature	20.06	C
BY-AP-MW-19H	5/12/2020 12:49	Turbidity	8.76	NTU
BY-AP-MW-19H	5/12/2020 12:54	Conductivity	595.6	uS/cm
BY-AP-MW-19H	5/12/2020 12:54	DO	0.15	mg/L
BY-AP-MW-19H	5/12/2020 12:54	Depth to Water Detail	7.38	ft
BY-AP-MW-19H	5/12/2020 12:54	Oxidation Reduction Potention	-72.59	mv
BY-AP-MW-19H	5/12/2020 12:54	pH	5.95	pH
BY-AP-MW-19H	5/12/2020 12:54	Temperature	20.04	C
BY-AP-MW-19H	5/12/2020 12:54	Turbidity	5.71	NTU
BY-AP-MW-19H	5/12/2020 12:59	Conductivity	588.02	uS/cm
BY-AP-MW-19H	5/12/2020 12:59	DO	0.13	mg/L
BY-AP-MW-19H	5/12/2020 12:59	Depth to Water Detail	7.38	ft
BY-AP-MW-19H	5/12/2020 12:59	Oxidation Reduction Potention	-79.31	mv
BY-AP-MW-19H	5/12/2020 12:59	pH	6.02	pH
BY-AP-MW-19H	5/12/2020 12:59	Temperature	20.03	C
BY-AP-MW-19H	5/12/2020 12:59	Turbidity	5.79	NTU
BY-AP-MW-19H	5/12/2020 13:04	Conductivity	585.03	uS/cm
BY-AP-MW-19H	5/12/2020 13:04	DO	0.13	mg/L
BY-AP-MW-19H	5/12/2020 13:04	Depth to Water Detail	7.38	ft
BY-AP-MW-19H	5/12/2020 13:04	Oxidation Reduction Potention	-84.7	mv
BY-AP-MW-19H	5/12/2020 13:04	pH	6.09	pH
BY-AP-MW-19H	5/12/2020 13:04	Temperature	20.05	C
BY-AP-MW-19H	5/12/2020 13:04	Turbidity	4.91	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-22H	5/12/2020 9:35	Conductivity	642.23	uS/cm
BY-AP-MW-22H	5/12/2020 9:35	DO	0.23	mg/L
BY-AP-MW-22H	5/12/2020 9:35	Depth to Water Detail	6.26	ft
BY-AP-MW-22H	5/12/2020 9:35	Oxidation Reduction Potention	-79.28	mv
BY-AP-MW-22H	5/12/2020 9:35	pH	6.31	pH
BY-AP-MW-22H	5/12/2020 9:35	Temperature	19.96	C
BY-AP-MW-22H	5/12/2020 9:35	Turbidity	10.55	NTU
BY-AP-MW-22H	5/12/2020 9:40	Conductivity	651.91	uS/cm
BY-AP-MW-22H	5/12/2020 9:40	DO	0.13	mg/L
BY-AP-MW-22H	5/12/2020 9:40	Depth to Water Detail	6.28	ft
BY-AP-MW-22H	5/12/2020 9:40	Oxidation Reduction Potention	-92.96	mv
BY-AP-MW-22H	5/12/2020 9:40	pH	6.45	pH
BY-AP-MW-22H	5/12/2020 9:40	Temperature	19.97	C
BY-AP-MW-22H	5/12/2020 9:40	Turbidity	7.54	NTU
BY-AP-MW-22H	5/12/2020 9:45	Conductivity	656.38	uS/cm
BY-AP-MW-22H	5/12/2020 9:45	DO	0.11	mg/L
BY-AP-MW-22H	5/12/2020 9:45	Depth to Water Detail	6.29	ft
BY-AP-MW-22H	5/12/2020 9:45	Oxidation Reduction Potention	-99.85	mv
BY-AP-MW-22H	5/12/2020 9:45	pH	6.51	pH
BY-AP-MW-22H	5/12/2020 9:45	Temperature	19.97	C
BY-AP-MW-22H	5/12/2020 9:45	Turbidity	11.12	NTU
BY-AP-MW-22H	5/12/2020 9:50	Conductivity	660.66	uS/cm
BY-AP-MW-22H	5/12/2020 9:50	DO	0.13	mg/L
BY-AP-MW-22H	5/12/2020 9:50	Depth to Water Detail	6.29	ft
BY-AP-MW-22H	5/12/2020 9:50	Oxidation Reduction Potention	-103.3	mv
BY-AP-MW-22H	5/12/2020 9:50	pH	6.54	pH
BY-AP-MW-22H	5/12/2020 9:50	Temperature	19.95	C
BY-AP-MW-22H	5/12/2020 9:50	Turbidity	8.9	NTU
BY-AP-MW-22H	5/12/2020 9:55	Conductivity	660.22	uS/cm
BY-AP-MW-22H	5/12/2020 9:55	DO	0.12	mg/L
BY-AP-MW-22H	5/12/2020 9:55	Depth to Water Detail	6.29	ft
BY-AP-MW-22H	5/12/2020 9:55	Oxidation Reduction Potention	-104.29	mv
BY-AP-MW-22H	5/12/2020 9:55	pH	6.54	pH
BY-AP-MW-22H	5/12/2020 9:55	Temperature	19.96	C
BY-AP-MW-22H	5/12/2020 9:55	Turbidity	7.48	NTU
BY-AP-MW-22H	5/12/2020 10:00	Conductivity	662.31	uS/cm
BY-AP-MW-22H	5/12/2020 10:00	DO	0.12	mg/L
BY-AP-MW-22H	5/12/2020 10:00	Depth to Water Detail	6.29	ft
BY-AP-MW-22H	5/12/2020 10:00	Oxidation Reduction Potention	-105.83	mv
BY-AP-MW-22H	5/12/2020 10:00	pH	6.55	pH
BY-AP-MW-22H	5/12/2020 10:00	Temperature	19.96	C
BY-AP-MW-22H	5/12/2020 10:00	Turbidity	7.26	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-13V	6/17/2020 12:01	Conductivity	811.79	uS/cm
BY-AP-MW-13V	6/17/2020 12:01	DO	0.39	mg/L
BY-AP-MW-13V	6/17/2020 12:01	Depth to Water Detail	22.38	ft
BY-AP-MW-13V	6/17/2020 12:01	Oxidation Reduction Potention	-25.82	mv
BY-AP-MW-13V	6/17/2020 12:01	pH	6.31	pH
BY-AP-MW-13V	6/17/2020 12:01	Temperature	21.69	C
BY-AP-MW-13V	6/17/2020 12:01	Turbidity	4.93	NTU
BY-AP-MW-13V	6/17/2020 12:06	Conductivity	777.53	uS/cm
BY-AP-MW-13V	6/17/2020 12:06	DO	0.28	mg/L
BY-AP-MW-13V	6/17/2020 12:06	Depth to Water Detail	22.38	ft
BY-AP-MW-13V	6/17/2020 12:06	Oxidation Reduction Potention	-35.7	mv
BY-AP-MW-13V	6/17/2020 12:06	pH	6.33	pH
BY-AP-MW-13V	6/17/2020 12:06	Temperature	21.33	C
BY-AP-MW-13V	6/17/2020 12:06	Turbidity	2.82	NTU
BY-AP-MW-13V	6/17/2020 12:11	Conductivity	748.02	uS/cm
BY-AP-MW-13V	6/17/2020 12:11	DO	0.25	mg/L
BY-AP-MW-13V	6/17/2020 12:11	Depth to Water Detail	22.38	ft
BY-AP-MW-13V	6/17/2020 12:11	Oxidation Reduction Potention	-39.17	mv
BY-AP-MW-13V	6/17/2020 12:11	pH	6.31	pH
BY-AP-MW-13V	6/17/2020 12:11	Temperature	21.53	C
BY-AP-MW-13V	6/17/2020 12:11	Turbidity	2.76	NTU
BY-AP-MW-13V	6/17/2020 12:16	Conductivity	730.37	uS/cm
BY-AP-MW-13V	6/17/2020 12:16	DO	0.24	mg/L
BY-AP-MW-13V	6/17/2020 12:16	Depth to Water Detail	22.38	ft
BY-AP-MW-13V	6/17/2020 12:16	Oxidation Reduction Potention	-39.75	mv
BY-AP-MW-13V	6/17/2020 12:16	pH	6.27	pH
BY-AP-MW-13V	6/17/2020 12:16	Temperature	21.52	C
BY-AP-MW-13V	6/17/2020 12:16	Turbidity	3.14	NTU
BY-AP-MW-13V	6/17/2020 12:21	Conductivity	719.39	uS/cm
BY-AP-MW-13V	6/17/2020 12:21	DO	0.23	mg/L
BY-AP-MW-13V	6/17/2020 12:21	Depth to Water Detail	22.38	ft
BY-AP-MW-13V	6/17/2020 12:21	Oxidation Reduction Potention	-40.27	mv
BY-AP-MW-13V	6/17/2020 12:21	pH	6.25	pH
BY-AP-MW-13V	6/17/2020 12:21	Temperature	21.58	C
BY-AP-MW-13V	6/17/2020 12:21	Turbidity	3.27	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-14V	6/17/2020 8:17	Conductivity	1141.67	uS/cm
BY-AP-MW-14V	6/17/2020 8:17	DO	0.41	mg/L
BY-AP-MW-14V	6/17/2020 8:17	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 8:17	Oxidation Reduction Potention	-104.14	mv
BY-AP-MW-14V	6/17/2020 8:17	pH	8.59	pH
BY-AP-MW-14V	6/17/2020 8:17	Temperature	21.86	C
BY-AP-MW-14V	6/17/2020 8:17	Turbidity	17.7	NTU
BY-AP-MW-14V	6/17/2020 8:22	Conductivity	1139.98	uS/cm
BY-AP-MW-14V	6/17/2020 8:22	DO	0.51	mg/L
BY-AP-MW-14V	6/17/2020 8:22	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 8:22	Oxidation Reduction Potention	-144.68	mv
BY-AP-MW-14V	6/17/2020 8:22	pH	8.52	pH
BY-AP-MW-14V	6/17/2020 8:22	Temperature	22.5	C
BY-AP-MW-14V	6/17/2020 8:22	Turbidity	14.6	NTU
BY-AP-MW-14V	6/17/2020 8:27	Conductivity	1135.18	uS/cm
BY-AP-MW-14V	6/17/2020 8:27	DO	0.48	mg/L
BY-AP-MW-14V	6/17/2020 8:27	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 8:27	Oxidation Reduction Potention	-166.83	mv
BY-AP-MW-14V	6/17/2020 8:27	pH	8.43	pH
BY-AP-MW-14V	6/17/2020 8:27	Temperature	22.66	C
BY-AP-MW-14V	6/17/2020 8:27	Turbidity	14	NTU
BY-AP-MW-14V	6/17/2020 8:32	Conductivity	1129.54	uS/cm
BY-AP-MW-14V	6/17/2020 8:32	DO	0.47	mg/L
BY-AP-MW-14V	6/17/2020 8:32	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 8:32	Oxidation Reduction Potention	-182.01	mv
BY-AP-MW-14V	6/17/2020 8:32	pH	8.24	pH
BY-AP-MW-14V	6/17/2020 8:32	Temperature	22.75	C
BY-AP-MW-14V	6/17/2020 8:32	Turbidity	14.1	NTU
BY-AP-MW-14V	6/17/2020 8:37	Conductivity	1107.42	uS/cm
BY-AP-MW-14V	6/17/2020 8:37	DO	0.43	mg/L
BY-AP-MW-14V	6/17/2020 8:37	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 8:37	Oxidation Reduction Potention	-187.47	mv
BY-AP-MW-14V	6/17/2020 8:37	pH	7.96	pH
BY-AP-MW-14V	6/17/2020 8:37	Temperature	22.71	C
BY-AP-MW-14V	6/17/2020 8:37	Turbidity	13.9	NTU
BY-AP-MW-14V	6/17/2020 8:42	Conductivity	1088.61	uS/cm
BY-AP-MW-14V	6/17/2020 8:42	DO	0.41	mg/L
BY-AP-MW-14V	6/17/2020 8:42	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 8:42	Oxidation Reduction Potention	-181.67	mv
BY-AP-MW-14V	6/17/2020 8:42	pH	7.71	pH
BY-AP-MW-14V	6/17/2020 8:42	Temperature	22.7	C
BY-AP-MW-14V	6/17/2020 8:42	Turbidity	12.9	NTU
BY-AP-MW-14V	6/17/2020 8:47	Conductivity	1058.62	uS/cm
BY-AP-MW-14V	6/17/2020 8:47	DO	0.36	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-14V	6/17/2020 8:47	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 8:47	Oxidation Reduction Potention	-174.86	mv
BY-AP-MW-14V	6/17/2020 8:47	pH	7.54	pH
BY-AP-MW-14V	6/17/2020 8:47	Temperature	22.19	C
BY-AP-MW-14V	6/17/2020 8:47	Turbidity	10.16	NTU
BY-AP-MW-14V	6/17/2020 8:52	Conductivity	1031.86	uS/cm
BY-AP-MW-14V	6/17/2020 8:52	DO	0.34	mg/L
BY-AP-MW-14V	6/17/2020 8:52	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 8:52	Oxidation Reduction Potention	-166.22	mv
BY-AP-MW-14V	6/17/2020 8:52	pH	7.42	pH
BY-AP-MW-14V	6/17/2020 8:52	Temperature	22.2	C
BY-AP-MW-14V	6/17/2020 8:52	Turbidity	8.17	NTU
BY-AP-MW-14V	6/17/2020 8:57	Conductivity	1017.6	uS/cm
BY-AP-MW-14V	6/17/2020 8:57	DO	0.33	mg/L
BY-AP-MW-14V	6/17/2020 8:57	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 8:57	Oxidation Reduction Potention	-161.71	mv
BY-AP-MW-14V	6/17/2020 8:57	pH	7.36	pH
BY-AP-MW-14V	6/17/2020 8:57	Temperature	22.28	C
BY-AP-MW-14V	6/17/2020 8:57	Turbidity	6.63	NTU
BY-AP-MW-14V	6/17/2020 9:02	Conductivity	1005.25	uS/cm
BY-AP-MW-14V	6/17/2020 9:02	DO	0.33	mg/L
BY-AP-MW-14V	6/17/2020 9:02	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 9:02	Oxidation Reduction Potention	-156.89	mv
BY-AP-MW-14V	6/17/2020 9:02	pH	7.3	pH
BY-AP-MW-14V	6/17/2020 9:02	Temperature	22.28	C
BY-AP-MW-14V	6/17/2020 9:02	Turbidity	6	NTU
BY-AP-MW-14V	6/17/2020 9:07	Conductivity	999.38	uS/cm
BY-AP-MW-14V	6/17/2020 9:07	DO	0.34	mg/L
BY-AP-MW-14V	6/17/2020 9:07	Depth to Water Detail	22.84	ft
BY-AP-MW-14V	6/17/2020 9:07	Oxidation Reduction Potention	-153.73	mv
BY-AP-MW-14V	6/17/2020 9:07	pH	7.27	pH
BY-AP-MW-14V	6/17/2020 9:07	Temperature	22.3	C
BY-AP-MW-14V	6/17/2020 9:07	Turbidity	4.69	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-16V	6/16/2020 8:58	Conductivity	413.42	uS/cm
BY-AP-MW-16V	6/16/2020 8:58	DO	0.28	mg/L
BY-AP-MW-16V	6/16/2020 8:58	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 8:58	Oxidation Reduction Potention	79.94	mv
BY-AP-MW-16V	6/16/2020 8:58	pH	5.3	pH
BY-AP-MW-16V	6/16/2020 8:58	Temperature	21.95	C
BY-AP-MW-16V	6/16/2020 8:58	Turbidity	117	NTU
BY-AP-MW-16V	6/16/2020 9:03	Conductivity	413.06	uS/cm
BY-AP-MW-16V	6/16/2020 9:03	DO	0.19	mg/L
BY-AP-MW-16V	6/16/2020 9:03	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:03	Oxidation Reduction Potention	83.97	mv
BY-AP-MW-16V	6/16/2020 9:03	pH	5.26	pH
BY-AP-MW-16V	6/16/2020 9:03	Temperature	21.89	C
BY-AP-MW-16V	6/16/2020 9:03	Turbidity	124	NTU
BY-AP-MW-16V	6/16/2020 9:08	Conductivity	412.88	uS/cm
BY-AP-MW-16V	6/16/2020 9:08	DO	0.17	mg/L
BY-AP-MW-16V	6/16/2020 9:08	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:08	Oxidation Reduction Potention	88.58	mv
BY-AP-MW-16V	6/16/2020 9:08	pH	5.22	pH
BY-AP-MW-16V	6/16/2020 9:08	Temperature	21.96	C
BY-AP-MW-16V	6/16/2020 9:08	Turbidity	86.1	NTU
BY-AP-MW-16V	6/16/2020 9:13	Conductivity	412.44	uS/cm
BY-AP-MW-16V	6/16/2020 9:13	DO	0.2	mg/L
BY-AP-MW-16V	6/16/2020 9:13	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:13	Oxidation Reduction Potention	93.04	mv
BY-AP-MW-16V	6/16/2020 9:13	pH	5.19	pH
BY-AP-MW-16V	6/16/2020 9:13	Temperature	22.01	C
BY-AP-MW-16V	6/16/2020 9:13	Turbidity	60.6	NTU
BY-AP-MW-16V	6/16/2020 9:18	Conductivity	412.85	uS/cm
BY-AP-MW-16V	6/16/2020 9:18	DO	0.19	mg/L
BY-AP-MW-16V	6/16/2020 9:18	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:18	Oxidation Reduction Potention	96.5	mv
BY-AP-MW-16V	6/16/2020 9:18	pH	5.17	pH
BY-AP-MW-16V	6/16/2020 9:18	Temperature	21.87	C
BY-AP-MW-16V	6/16/2020 9:18	Turbidity	40.9	NTU
BY-AP-MW-16V	6/16/2020 9:23	Conductivity	412.07	uS/cm
BY-AP-MW-16V	6/16/2020 9:23	DO	0.18	mg/L
BY-AP-MW-16V	6/16/2020 9:23	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:23	Oxidation Reduction Potention	99.26	mv
BY-AP-MW-16V	6/16/2020 9:23	pH	5.15	pH
BY-AP-MW-16V	6/16/2020 9:23	Temperature	21.97	C
BY-AP-MW-16V	6/16/2020 9:23	Turbidity	27.6	NTU
BY-AP-MW-16V	6/16/2020 9:28	Conductivity	412.15	uS/cm
BY-AP-MW-16V	6/16/2020 9:28	DO	0.18	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-16V	6/16/2020 9:28	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:28	Oxidation Reduction Potention	101.26	mv
BY-AP-MW-16V	6/16/2020 9:28	pH	5.15	pH
BY-AP-MW-16V	6/16/2020 9:28	Temperature	22.01	C
BY-AP-MW-16V	6/16/2020 9:28	Turbidity	20.1	NTU
BY-AP-MW-16V	6/16/2020 9:33	Conductivity	412.72	uS/cm
BY-AP-MW-16V	6/16/2020 9:33	DO	0.18	mg/L
BY-AP-MW-16V	6/16/2020 9:33	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:33	Oxidation Reduction Potention	102.9	mv
BY-AP-MW-16V	6/16/2020 9:33	pH	5.14	pH
BY-AP-MW-16V	6/16/2020 9:33	Temperature	22.05	C
BY-AP-MW-16V	6/16/2020 9:33	Turbidity	15.4	NTU
BY-AP-MW-16V	6/16/2020 9:38	Conductivity	412.02	uS/cm
BY-AP-MW-16V	6/16/2020 9:38	DO	0.18	mg/L
BY-AP-MW-16V	6/16/2020 9:38	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:38	Oxidation Reduction Potention	104.23	mv
BY-AP-MW-16V	6/16/2020 9:38	pH	5.14	pH
BY-AP-MW-16V	6/16/2020 9:38	Temperature	21.95	C
BY-AP-MW-16V	6/16/2020 9:38	Turbidity	12.1	NTU
BY-AP-MW-16V	6/16/2020 9:43	Conductivity	412.2	uS/cm
BY-AP-MW-16V	6/16/2020 9:43	DO	0.18	mg/L
BY-AP-MW-16V	6/16/2020 9:43	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:43	Oxidation Reduction Potention	104.99	mv
BY-AP-MW-16V	6/16/2020 9:43	pH	5.15	pH
BY-AP-MW-16V	6/16/2020 9:43	Temperature	21.87	C
BY-AP-MW-16V	6/16/2020 9:43	Turbidity	11.25	NTU
BY-AP-MW-16V	6/16/2020 9:48	Conductivity	412.39	uS/cm
BY-AP-MW-16V	6/16/2020 9:48	DO	0.17	mg/L
BY-AP-MW-16V	6/16/2020 9:48	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:48	Oxidation Reduction Potention	105.34	mv
BY-AP-MW-16V	6/16/2020 9:48	pH	5.16	pH
BY-AP-MW-16V	6/16/2020 9:48	Temperature	21.96	C
BY-AP-MW-16V	6/16/2020 9:48	Turbidity	9.2	NTU
BY-AP-MW-16V	6/16/2020 9:53	Conductivity	412.35	uS/cm
BY-AP-MW-16V	6/16/2020 9:53	DO	0.18	mg/L
BY-AP-MW-16V	6/16/2020 9:53	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:53	Oxidation Reduction Potention	104.98	mv
BY-AP-MW-16V	6/16/2020 9:53	pH	5.17	pH
BY-AP-MW-16V	6/16/2020 9:53	Temperature	22.03	C
BY-AP-MW-16V	6/16/2020 9:53	Turbidity	8.17	NTU
BY-AP-MW-16V	6/16/2020 9:58	Conductivity	412.22	uS/cm
BY-AP-MW-16V	6/16/2020 9:58	DO	0.17	mg/L
BY-AP-MW-16V	6/16/2020 9:58	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 9:58	Oxidation Reduction Potention	104.27	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-16V	6/16/2020 9:58	pH	5.18	pH
BY-AP-MW-16V	6/16/2020 9:58	Temperature	22.06	C
BY-AP-MW-16V	6/16/2020 9:58	Turbidity	7.91	NTU
BY-AP-MW-16V	6/16/2020 10:03	Conductivity	411.97	uS/cm
BY-AP-MW-16V	6/16/2020 10:03	DO	0.17	mg/L
BY-AP-MW-16V	6/16/2020 10:03	Depth to Water Detail	20.84	ft
BY-AP-MW-16V	6/16/2020 10:03	Oxidation Reduction Potention	103.97	mv
BY-AP-MW-16V	6/16/2020 10:03	pH	5.2	pH
BY-AP-MW-16V	6/16/2020 10:03	Temperature	22.08	C
BY-AP-MW-16V	6/16/2020 10:03	Turbidity	4.86	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17V	6/16/2020 11:20	Conductivity	2584.96	uS/cm
BY-AP-MW-17V	6/16/2020 11:20	DO	0.29	mg/L
BY-AP-MW-17V	6/16/2020 11:20	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 11:20	Oxidation Reduction Potention	28.94	mv
BY-AP-MW-17V	6/16/2020 11:20	pH	6.38	pH
BY-AP-MW-17V	6/16/2020 11:20	Temperature	21.85	C
BY-AP-MW-17V	6/16/2020 11:20	Turbidity	84.1	NTU
BY-AP-MW-17V	6/16/2020 11:25	Conductivity	2635.22	uS/cm
BY-AP-MW-17V	6/16/2020 11:25	DO	0.22	mg/L
BY-AP-MW-17V	6/16/2020 11:25	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 11:25	Oxidation Reduction Potention	19.57	mv
BY-AP-MW-17V	6/16/2020 11:25	pH	6.32	pH
BY-AP-MW-17V	6/16/2020 11:25	Temperature	21.87	C
BY-AP-MW-17V	6/16/2020 11:25	Turbidity	80.3	NTU
BY-AP-MW-17V	6/16/2020 11:30	Conductivity	2591.15	uS/cm
BY-AP-MW-17V	6/16/2020 11:30	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 11:30	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 11:30	Oxidation Reduction Potention	16.27	mv
BY-AP-MW-17V	6/16/2020 11:30	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 11:30	Temperature	21.83	C
BY-AP-MW-17V	6/16/2020 11:30	Turbidity	100.3	NTU
BY-AP-MW-17V	6/16/2020 11:35	Conductivity	2487.3	uS/cm
BY-AP-MW-17V	6/16/2020 11:35	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 11:35	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 11:35	Oxidation Reduction Potention	13.39	mv
BY-AP-MW-17V	6/16/2020 11:35	pH	6.25	pH
BY-AP-MW-17V	6/16/2020 11:35	Temperature	21.8	C
BY-AP-MW-17V	6/16/2020 11:35	Turbidity	100	NTU
BY-AP-MW-17V	6/16/2020 11:40	Conductivity	2391.43	uS/cm
BY-AP-MW-17V	6/16/2020 11:40	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 11:40	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 11:40	Oxidation Reduction Potention	11.1	mv
BY-AP-MW-17V	6/16/2020 11:40	pH	6.25	pH
BY-AP-MW-17V	6/16/2020 11:40	Temperature	21.84	C
BY-AP-MW-17V	6/16/2020 11:40	Turbidity	95.1	NTU
BY-AP-MW-17V	6/16/2020 11:45	Conductivity	2332.5	uS/cm
BY-AP-MW-17V	6/16/2020 11:45	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 11:45	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 11:45	Oxidation Reduction Potention	9.11	mv
BY-AP-MW-17V	6/16/2020 11:45	pH	6.25	pH
BY-AP-MW-17V	6/16/2020 11:45	Temperature	21.9	C
BY-AP-MW-17V	6/16/2020 11:45	Turbidity	88.9	NTU
BY-AP-MW-17V	6/16/2020 11:50	Conductivity	2314.63	uS/cm
BY-AP-MW-17V	6/16/2020 11:50	DO	0.2	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17V	6/16/2020 11:50	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 11:50	Oxidation Reduction Potention	6.95	mv
BY-AP-MW-17V	6/16/2020 11:50	pH	6.26	pH
BY-AP-MW-17V	6/16/2020 11:50	Temperature	21.93	C
BY-AP-MW-17V	6/16/2020 11:50	Turbidity	86	NTU
BY-AP-MW-17V	6/16/2020 11:55	Conductivity	2522.29	uS/cm
BY-AP-MW-17V	6/16/2020 11:55	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 11:55	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 11:55	Oxidation Reduction Potention	5.98	mv
BY-AP-MW-17V	6/16/2020 11:55	pH	6.28	pH
BY-AP-MW-17V	6/16/2020 11:55	Temperature	21.86	C
BY-AP-MW-17V	6/16/2020 11:55	Turbidity	83.5	NTU
BY-AP-MW-17V	6/16/2020 12:00	Conductivity	2366.95	uS/cm
BY-AP-MW-17V	6/16/2020 12:00	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:00	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:00	Oxidation Reduction Potention	5.33	mv
BY-AP-MW-17V	6/16/2020 12:00	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 12:00	Temperature	21.8	C
BY-AP-MW-17V	6/16/2020 12:00	Turbidity	70.6	NTU
BY-AP-MW-17V	6/16/2020 12:05	Conductivity	2366.15	uS/cm
BY-AP-MW-17V	6/16/2020 12:05	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:05	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:05	Oxidation Reduction Potention	4.55	mv
BY-AP-MW-17V	6/16/2020 12:05	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 12:05	Temperature	21.86	C
BY-AP-MW-17V	6/16/2020 12:05	Turbidity	64.1	NTU
BY-AP-MW-17V	6/16/2020 12:10	Conductivity	2374.5	uS/cm
BY-AP-MW-17V	6/16/2020 12:10	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:10	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:10	Oxidation Reduction Potention	4.17	mv
BY-AP-MW-17V	6/16/2020 12:10	pH	6.28	pH
BY-AP-MW-17V	6/16/2020 12:10	Temperature	21.9	C
BY-AP-MW-17V	6/16/2020 12:10	Turbidity	56.7	NTU
BY-AP-MW-17V	6/16/2020 12:15	Conductivity	2396.38	uS/cm
BY-AP-MW-17V	6/16/2020 12:15	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:15	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:15	Oxidation Reduction Potention	3.68	mv
BY-AP-MW-17V	6/16/2020 12:15	pH	6.28	pH
BY-AP-MW-17V	6/16/2020 12:15	Temperature	21.91	C
BY-AP-MW-17V	6/16/2020 12:15	Turbidity	54.4	NTU
BY-AP-MW-17V	6/16/2020 12:20	Conductivity	2409.88	uS/cm
BY-AP-MW-17V	6/16/2020 12:20	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:20	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:20	Oxidation Reduction Potention	3.79	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17V	6/16/2020 12:20	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 12:20	Temperature	22.02	C
BY-AP-MW-17V	6/16/2020 12:20	Turbidity	49.5	NTU
BY-AP-MW-17V	6/16/2020 12:25	Conductivity	2414.23	uS/cm
BY-AP-MW-17V	6/16/2020 12:25	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:25	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:25	Oxidation Reduction Potention	3.73	mv
BY-AP-MW-17V	6/16/2020 12:25	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 12:25	Temperature	21.8	C
BY-AP-MW-17V	6/16/2020 12:25	Turbidity	44.5	NTU
BY-AP-MW-17V	6/16/2020 12:30	Conductivity	2434.41	uS/cm
BY-AP-MW-17V	6/16/2020 12:30	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:30	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:30	Oxidation Reduction Potention	3.45	mv
BY-AP-MW-17V	6/16/2020 12:30	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 12:30	Temperature	21.84	C
BY-AP-MW-17V	6/16/2020 12:30	Turbidity	43.1	NTU
BY-AP-MW-17V	6/16/2020 12:35	Conductivity	2437.99	uS/cm
BY-AP-MW-17V	6/16/2020 12:35	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:35	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:35	Oxidation Reduction Potention	3.27	mv
BY-AP-MW-17V	6/16/2020 12:35	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 12:35	Temperature	21.91	C
BY-AP-MW-17V	6/16/2020 12:35	Turbidity	42.9	NTU
BY-AP-MW-17V	6/16/2020 12:40	Conductivity	2442.72	uS/cm
BY-AP-MW-17V	6/16/2020 12:40	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:40	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:40	Oxidation Reduction Potention	2.9	mv
BY-AP-MW-17V	6/16/2020 12:40	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 12:40	Temperature	21.94	C
BY-AP-MW-17V	6/16/2020 12:40	Turbidity	35.8	NTU
BY-AP-MW-17V	6/16/2020 12:45	Conductivity	2456.87	uS/cm
BY-AP-MW-17V	6/16/2020 12:45	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:45	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:45	Oxidation Reduction Potention	2.95	mv
BY-AP-MW-17V	6/16/2020 12:45	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 12:45	Temperature	21.97	C
BY-AP-MW-17V	6/16/2020 12:45	Turbidity	37.2	NTU
BY-AP-MW-17V	6/16/2020 12:50	Conductivity	2446.63	uS/cm
BY-AP-MW-17V	6/16/2020 12:50	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:50	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:50	Oxidation Reduction Potention	2.8	mv
BY-AP-MW-17V	6/16/2020 12:50	pH	6.26	pH
BY-AP-MW-17V	6/16/2020 12:50	Temperature	21.97	C

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17V	6/16/2020 12:50	Turbidity	38.9	NTU
BY-AP-MW-17V	6/16/2020 12:55	Conductivity	2456.61	uS/cm
BY-AP-MW-17V	6/16/2020 12:55	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 12:55	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 12:55	Oxidation Reduction Potention	2.52	mv
BY-AP-MW-17V	6/16/2020 12:55	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 12:55	Temperature	21.93	C
BY-AP-MW-17V	6/16/2020 12:55	Turbidity	34.3	NTU
BY-AP-MW-17V	6/16/2020 13:00	Conductivity	2477.69	uS/cm
BY-AP-MW-17V	6/16/2020 13:00	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 13:00	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 13:00	Oxidation Reduction Potention	2.23	mv
BY-AP-MW-17V	6/16/2020 13:00	pH	6.27	pH
BY-AP-MW-17V	6/16/2020 13:00	Temperature	21.87	C
BY-AP-MW-17V	6/16/2020 13:00	Turbidity	30.9	NTU
BY-AP-MW-17V	6/16/2020 13:05	Conductivity	2474.88	uS/cm
BY-AP-MW-17V	6/16/2020 13:05	DO	0.2	mg/L
BY-AP-MW-17V	6/16/2020 13:05	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 13:05	Oxidation Reduction Potention	1.57	mv
BY-AP-MW-17V	6/16/2020 13:05	pH	6.28	pH
BY-AP-MW-17V	6/16/2020 13:05	Temperature	21.95	C
BY-AP-MW-17V	6/16/2020 13:05	Turbidity	29.5	NTU
BY-AP-MW-17V	6/16/2020 13:10	Conductivity	2474.64	uS/cm
BY-AP-MW-17V	6/16/2020 13:10	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 13:10	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 13:10	Oxidation Reduction Potention	0.72	mv
BY-AP-MW-17V	6/16/2020 13:10	pH	6.29	pH
BY-AP-MW-17V	6/16/2020 13:10	Temperature	22.03	C
BY-AP-MW-17V	6/16/2020 13:10	Turbidity	26.6	NTU
BY-AP-MW-17V	6/16/2020 13:15	Conductivity	2485.67	uS/cm
BY-AP-MW-17V	6/16/2020 13:15	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 13:15	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 13:15	Oxidation Reduction Potention	-0.3	mv
BY-AP-MW-17V	6/16/2020 13:15	pH	6.31	pH
BY-AP-MW-17V	6/16/2020 13:15	Temperature	22.09	C
BY-AP-MW-17V	6/16/2020 13:15	Turbidity	25.7	NTU
BY-AP-MW-17V	6/16/2020 13:20	Conductivity	2476.29	uS/cm
BY-AP-MW-17V	6/16/2020 13:20	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 13:20	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 13:20	Oxidation Reduction Potention	-1.86	mv
BY-AP-MW-17V	6/16/2020 13:20	pH	6.34	pH
BY-AP-MW-17V	6/16/2020 13:20	Temperature	22.03	C
BY-AP-MW-17V	6/16/2020 13:20	Turbidity	25	NTU
BY-AP-MW-17V	6/16/2020 13:25	Conductivity	2494.59	uS/cm

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17V	6/16/2020 13:25	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 13:25	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 13:25	Oxidation Reduction Potention	-3.45	mv
BY-AP-MW-17V	6/16/2020 13:25	pH	6.36	pH
BY-AP-MW-17V	6/16/2020 13:25	Temperature	21.95	C
BY-AP-MW-17V	6/16/2020 13:25	Turbidity	24.3	NTU
BY-AP-MW-17V	6/16/2020 13:30	Conductivity	2497.36	uS/cm
BY-AP-MW-17V	6/16/2020 13:30	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 13:30	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 13:30	Oxidation Reduction Potention	-4.91	mv
BY-AP-MW-17V	6/16/2020 13:30	pH	6.39	pH
BY-AP-MW-17V	6/16/2020 13:30	Temperature	22.03	C
BY-AP-MW-17V	6/16/2020 13:30	Turbidity	22.6	NTU
BY-AP-MW-17V	6/16/2020 13:35	Conductivity	2473.19	uS/cm
BY-AP-MW-17V	6/16/2020 13:35	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 13:35	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 13:35	Oxidation Reduction Potention	-6.23	mv
BY-AP-MW-17V	6/16/2020 13:35	pH	6.41	pH
BY-AP-MW-17V	6/16/2020 13:35	Temperature	22.02	C
BY-AP-MW-17V	6/16/2020 13:35	Turbidity	21.8	NTU
BY-AP-MW-17V	6/16/2020 13:40	Conductivity	2500.21	uS/cm
BY-AP-MW-17V	6/16/2020 13:40	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 13:40	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 13:40	Oxidation Reduction Potention	-6.81	mv
BY-AP-MW-17V	6/16/2020 13:40	pH	6.42	pH
BY-AP-MW-17V	6/16/2020 13:40	Temperature	22.06	C
BY-AP-MW-17V	6/16/2020 13:40	Turbidity	21.2	NTU
BY-AP-MW-17V	6/16/2020 13:45	Conductivity	2505.09	uS/cm
BY-AP-MW-17V	6/16/2020 13:45	DO	0.21	mg/L
BY-AP-MW-17V	6/16/2020 13:45	Depth to Water Detail	18.29	ft
BY-AP-MW-17V	6/16/2020 13:45	Oxidation Reduction Potention	-7.28	mv
BY-AP-MW-17V	6/16/2020 13:45	pH	6.43	pH
BY-AP-MW-17V	6/16/2020 13:45	Temperature	22.04	C
BY-AP-MW-17V	6/16/2020 13:45	Turbidity	21.8	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-20V	6/17/2020 10:02	Conductivity	591.65	uS/cm
BY-AP-MW-20V	6/17/2020 10:02	DO	0.33	mg/L
BY-AP-MW-20V	6/17/2020 10:02	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:02	Oxidation Reduction Potention	-80.23	mv
BY-AP-MW-20V	6/17/2020 10:02	pH	6.53	pH
BY-AP-MW-20V	6/17/2020 10:02	Temperature	20.71	C
BY-AP-MW-20V	6/17/2020 10:02	Turbidity	9.03	NTU
BY-AP-MW-20V	6/17/2020 10:07	Conductivity	590.02	uS/cm
BY-AP-MW-20V	6/17/2020 10:07	DO	0.27	mg/L
BY-AP-MW-20V	6/17/2020 10:07	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:07	Oxidation Reduction Potention	-78.41	mv
BY-AP-MW-20V	6/17/2020 10:07	pH	6.39	pH
BY-AP-MW-20V	6/17/2020 10:07	Temperature	20.62	C
BY-AP-MW-20V	6/17/2020 10:07	Turbidity	10.15	NTU
BY-AP-MW-20V	6/17/2020 10:12	Conductivity	591.65	uS/cm
BY-AP-MW-20V	6/17/2020 10:12	DO	0.25	mg/L
BY-AP-MW-20V	6/17/2020 10:12	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:12	Oxidation Reduction Potention	-74.23	mv
BY-AP-MW-20V	6/17/2020 10:12	pH	6.27	pH
BY-AP-MW-20V	6/17/2020 10:12	Temperature	20.57	C
BY-AP-MW-20V	6/17/2020 10:12	Turbidity	13.8	NTU
BY-AP-MW-20V	6/17/2020 10:17	Conductivity	595.71	uS/cm
BY-AP-MW-20V	6/17/2020 10:17	DO	0.24	mg/L
BY-AP-MW-20V	6/17/2020 10:17	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:17	Oxidation Reduction Potention	-72.7	mv
BY-AP-MW-20V	6/17/2020 10:17	pH	6.22	pH
BY-AP-MW-20V	6/17/2020 10:17	Temperature	20.6	C
BY-AP-MW-20V	6/17/2020 10:17	Turbidity	15.2	NTU
BY-AP-MW-20V	6/17/2020 10:22	Conductivity	599.78	uS/cm
BY-AP-MW-20V	6/17/2020 10:22	DO	0.24	mg/L
BY-AP-MW-20V	6/17/2020 10:22	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:22	Oxidation Reduction Potention	-72.49	mv
BY-AP-MW-20V	6/17/2020 10:22	pH	6.2	pH
BY-AP-MW-20V	6/17/2020 10:22	Temperature	20.68	C
BY-AP-MW-20V	6/17/2020 10:22	Turbidity	15.3	NTU
BY-AP-MW-20V	6/17/2020 10:27	Conductivity	602.24	uS/cm
BY-AP-MW-20V	6/17/2020 10:27	DO	0.24	mg/L
BY-AP-MW-20V	6/17/2020 10:27	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:27	Oxidation Reduction Potention	-73.23	mv
BY-AP-MW-20V	6/17/2020 10:27	pH	6.21	pH
BY-AP-MW-20V	6/17/2020 10:27	Temperature	20.7	C
BY-AP-MW-20V	6/17/2020 10:27	Turbidity	13.5	NTU
BY-AP-MW-20V	6/17/2020 10:32	Conductivity	603.65	uS/cm
BY-AP-MW-20V	6/17/2020 10:32	DO	0.24	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-20V	6/17/2020 10:32	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:32	Oxidation Reduction Potention	-73.95	mv
BY-AP-MW-20V	6/17/2020 10:32	pH	6.21	pH
BY-AP-MW-20V	6/17/2020 10:32	Temperature	20.72	C
BY-AP-MW-20V	6/17/2020 10:32	Turbidity	11.3	NTU
BY-AP-MW-20V	6/17/2020 10:37	Conductivity	604.75	uS/cm
BY-AP-MW-20V	6/17/2020 10:37	DO	0.24	mg/L
BY-AP-MW-20V	6/17/2020 10:37	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:37	Oxidation Reduction Potention	-74.91	mv
BY-AP-MW-20V	6/17/2020 10:37	pH	6.23	pH
BY-AP-MW-20V	6/17/2020 10:37	Temperature	20.64	C
BY-AP-MW-20V	6/17/2020 10:37	Turbidity	9.83	NTU
BY-AP-MW-20V	6/17/2020 10:42	Conductivity	603.99	uS/cm
BY-AP-MW-20V	6/17/2020 10:42	DO	0.24	mg/L
BY-AP-MW-20V	6/17/2020 10:42	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:42	Oxidation Reduction Potention	-75.84	mv
BY-AP-MW-20V	6/17/2020 10:42	pH	6.25	pH
BY-AP-MW-20V	6/17/2020 10:42	Temperature	20.65	C
BY-AP-MW-20V	6/17/2020 10:42	Turbidity	10.11	NTU
BY-AP-MW-20V	6/17/2020 10:47	Conductivity	604.27	uS/cm
BY-AP-MW-20V	6/17/2020 10:47	DO	0.24	mg/L
BY-AP-MW-20V	6/17/2020 10:47	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:47	Oxidation Reduction Potention	-76.2	mv
BY-AP-MW-20V	6/17/2020 10:47	pH	6.26	pH
BY-AP-MW-20V	6/17/2020 10:47	Temperature	20.71	C
BY-AP-MW-20V	6/17/2020 10:47	Turbidity	9.39	NTU
BY-AP-MW-20V	6/17/2020 10:52	Conductivity	602.22	uS/cm
BY-AP-MW-20V	6/17/2020 10:52	DO	0.23	mg/L
BY-AP-MW-20V	6/17/2020 10:52	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:52	Oxidation Reduction Potention	-75.9	mv
BY-AP-MW-20V	6/17/2020 10:52	pH	6.26	pH
BY-AP-MW-20V	6/17/2020 10:52	Temperature	20.82	C
BY-AP-MW-20V	6/17/2020 10:52	Turbidity	10.08	NTU
BY-AP-MW-20V	6/17/2020 10:57	Conductivity	602.58	uS/cm
BY-AP-MW-20V	6/17/2020 10:57	DO	0.23	mg/L
BY-AP-MW-20V	6/17/2020 10:57	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 10:57	Oxidation Reduction Potention	-75.74	mv
BY-AP-MW-20V	6/17/2020 10:57	pH	6.26	pH
BY-AP-MW-20V	6/17/2020 10:57	Temperature	20.85	C
BY-AP-MW-20V	6/17/2020 10:57	Turbidity	9.05	NTU
BY-AP-MW-20V	6/17/2020 11:02	Conductivity	600.5	uS/cm
BY-AP-MW-20V	6/17/2020 11:02	DO	0.23	mg/L
BY-AP-MW-20V	6/17/2020 11:02	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 11:02	Oxidation Reduction Potention	-74.84	mv

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BY-AP-MW-20V	6/17/2020 11:02	pH	6.25	pH
BY-AP-MW-20V	6/17/2020 11:02	Temperature	20.8	C
BY-AP-MW-20V	6/17/2020 11:02	Turbidity	8.24	NTU
BY-AP-MW-20V	6/17/2020 11:07	Conductivity	599.62	uS/cm
BY-AP-MW-20V	6/17/2020 11:07	DO	0.23	mg/L
BY-AP-MW-20V	6/17/2020 11:07	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 11:07	Oxidation Reduction Potention	-74.61	mv
BY-AP-MW-20V	6/17/2020 11:07	pH	6.25	pH
BY-AP-MW-20V	6/17/2020 11:07	Temperature	20.81	C
BY-AP-MW-20V	6/17/2020 11:07	Turbidity	7.4	NTU
BY-AP-MW-20V	6/17/2020 11:12	Conductivity	599.9	uS/cm
BY-AP-MW-20V	6/17/2020 11:12	DO	0.23	mg/L
BY-AP-MW-20V	6/17/2020 11:12	Depth to Water Detail	22.81	ft
BY-AP-MW-20V	6/17/2020 11:12	Oxidation Reduction Potention	-74.9	mv
BY-AP-MW-20V	6/17/2020 11:12	pH	6.26	pH
BY-AP-MW-20V	6/17/2020 11:12	Temperature	20.85	C
BY-AP-MW-20V	6/17/2020 11:12	Turbidity	7.7	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23V	6/16/2020 14:35	Conductivity	644.63	uS/cm
BY-AP-MW-23V	6/16/2020 14:35	DO	0.47	mg/L
BY-AP-MW-23V	6/16/2020 14:35	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 14:35	Oxidation Reduction Potention	-141.9	mv
BY-AP-MW-23V	6/16/2020 14:35	pH	8.04	pH
BY-AP-MW-23V	6/16/2020 14:35	Temperature	20.7	C
BY-AP-MW-23V	6/16/2020 14:35	Turbidity	114	NTU
BY-AP-MW-23V	6/16/2020 14:40	Conductivity	685.01	uS/cm
BY-AP-MW-23V	6/16/2020 14:40	DO	0.29	mg/L
BY-AP-MW-23V	6/16/2020 14:40	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 14:40	Oxidation Reduction Potention	-185.83	mv
BY-AP-MW-23V	6/16/2020 14:40	pH	8.22	pH
BY-AP-MW-23V	6/16/2020 14:40	Temperature	20.7	C
BY-AP-MW-23V	6/16/2020 14:40	Turbidity	78	NTU
BY-AP-MW-23V	6/16/2020 14:45	Conductivity	692.59	uS/cm
BY-AP-MW-23V	6/16/2020 14:45	DO	0.25	mg/L
BY-AP-MW-23V	6/16/2020 14:45	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 14:45	Oxidation Reduction Potention	-204.3	mv
BY-AP-MW-23V	6/16/2020 14:45	pH	8.21	pH
BY-AP-MW-23V	6/16/2020 14:45	Temperature	20.69	C
BY-AP-MW-23V	6/16/2020 14:45	Turbidity	72.8	NTU
BY-AP-MW-23V	6/16/2020 14:50	Conductivity	691.69	uS/cm
BY-AP-MW-23V	6/16/2020 14:50	DO	0.23	mg/L
BY-AP-MW-23V	6/16/2020 14:50	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 14:50	Oxidation Reduction Potention	-210.4	mv
BY-AP-MW-23V	6/16/2020 14:50	pH	8.16	pH
BY-AP-MW-23V	6/16/2020 14:50	Temperature	20.68	C
BY-AP-MW-23V	6/16/2020 14:50	Turbidity	67.6	NTU
BY-AP-MW-23V	6/16/2020 14:55	Conductivity	691.26	uS/cm
BY-AP-MW-23V	6/16/2020 14:55	DO	0.21	mg/L
BY-AP-MW-23V	6/16/2020 14:55	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 14:55	Oxidation Reduction Potention	-215.33	mv
BY-AP-MW-23V	6/16/2020 14:55	pH	8.12	pH
BY-AP-MW-23V	6/16/2020 14:55	Temperature	20.56	C
BY-AP-MW-23V	6/16/2020 14:55	Turbidity	63.6	NTU
BY-AP-MW-23V	6/16/2020 15:00	Conductivity	691.52	uS/cm
BY-AP-MW-23V	6/16/2020 15:00	DO	0.39	mg/L
BY-AP-MW-23V	6/16/2020 15:00	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:00	Oxidation Reduction Potention	-198.79	mv
BY-AP-MW-23V	6/16/2020 15:00	pH	8.05	pH
BY-AP-MW-23V	6/16/2020 15:00	Temperature	21.37	C
BY-AP-MW-23V	6/16/2020 15:00	Turbidity	62.1	NTU
BY-AP-MW-23V	6/16/2020 15:05	Conductivity	690.07	uS/cm
BY-AP-MW-23V	6/16/2020 15:05	DO	0.46	mg/L

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BY-AP-MW-23V	6/16/2020 15:05	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:05	Oxidation Reduction Potention	-186.27	mv
BY-AP-MW-23V	6/16/2020 15:05	pH	8.02	pH
BY-AP-MW-23V	6/16/2020 15:05	Temperature	21.45	C
BY-AP-MW-23V	6/16/2020 15:05	Turbidity	66.4	NTU
BY-AP-MW-23V	6/16/2020 15:10	Conductivity	690.22	uS/cm
BY-AP-MW-23V	6/16/2020 15:10	DO	0.26	mg/L
BY-AP-MW-23V	6/16/2020 15:10	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:10	Oxidation Reduction Potention	-198.36	mv
BY-AP-MW-23V	6/16/2020 15:10	pH	8.06	pH
BY-AP-MW-23V	6/16/2020 15:10	Temperature	20.75	C
BY-AP-MW-23V	6/16/2020 15:10	Turbidity	63.3	NTU
BY-AP-MW-23V	6/16/2020 15:15	Conductivity	691.78	uS/cm
BY-AP-MW-23V	6/16/2020 15:15	DO	0.23	mg/L
BY-AP-MW-23V	6/16/2020 15:15	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:15	Oxidation Reduction Potention	-208.58	mv
BY-AP-MW-23V	6/16/2020 15:15	pH	8.06	pH
BY-AP-MW-23V	6/16/2020 15:15	Temperature	20.76	C
BY-AP-MW-23V	6/16/2020 15:15	Turbidity	56.2	NTU
BY-AP-MW-23V	6/16/2020 15:20	Conductivity	689.05	uS/cm
BY-AP-MW-23V	6/16/2020 15:20	DO	0.23	mg/L
BY-AP-MW-23V	6/16/2020 15:20	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:20	Oxidation Reduction Potention	-210.82	mv
BY-AP-MW-23V	6/16/2020 15:20	pH	8.05	pH
BY-AP-MW-23V	6/16/2020 15:20	Temperature	20.73	C
BY-AP-MW-23V	6/16/2020 15:20	Turbidity	58.8	NTU
BY-AP-MW-23V	6/16/2020 15:25	Conductivity	689.13	uS/cm
BY-AP-MW-23V	6/16/2020 15:25	DO	0.23	mg/L
BY-AP-MW-23V	6/16/2020 15:25	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:25	Oxidation Reduction Potention	-211.44	mv
BY-AP-MW-23V	6/16/2020 15:25	pH	8.05	pH
BY-AP-MW-23V	6/16/2020 15:25	Temperature	20.66	C
BY-AP-MW-23V	6/16/2020 15:25	Turbidity	54.8	NTU
BY-AP-MW-23V	6/16/2020 15:27	Conductivity	689.74	uS/cm
BY-AP-MW-23V	6/16/2020 15:27	DO	0.23	mg/L
BY-AP-MW-23V	6/16/2020 15:27	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:27	Oxidation Reduction Potention	-211.71	mv
BY-AP-MW-23V	6/16/2020 15:27	pH	8.04	pH
BY-AP-MW-23V	6/16/2020 15:27	Temperature	20.78	C
BY-AP-MW-23V	6/16/2020 15:27	Turbidity	54.8	NTU
BY-AP-MW-23V	6/16/2020 15:32	Conductivity	690.14	uS/cm
BY-AP-MW-23V	6/16/2020 15:32	DO	0.23	mg/L
BY-AP-MW-23V	6/16/2020 15:32	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:32	Oxidation Reduction Potention	-211.41	mv

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BY-AP-MW-23V	6/16/2020 15:32	pH	8.04	pH
BY-AP-MW-23V	6/16/2020 15:32	Temperature	20.74	C
BY-AP-MW-23V	6/16/2020 15:32	Turbidity	53.9	NTU
BY-AP-MW-23V	6/16/2020 15:37	Conductivity	690.41	uS/cm
BY-AP-MW-23V	6/16/2020 15:37	DO	0.22	mg/L
BY-AP-MW-23V	6/16/2020 15:37	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:37	Oxidation Reduction Potention	-211.23	mv
BY-AP-MW-23V	6/16/2020 15:37	pH	8.03	pH
BY-AP-MW-23V	6/16/2020 15:37	Temperature	20.81	C
BY-AP-MW-23V	6/16/2020 15:37	Turbidity	52.8	NTU
BY-AP-MW-23V	6/16/2020 15:42	Conductivity	689.84	uS/cm
BY-AP-MW-23V	6/16/2020 15:42	DO	0.22	mg/L
BY-AP-MW-23V	6/16/2020 15:42	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:42	Oxidation Reduction Potention	-211.24	mv
BY-AP-MW-23V	6/16/2020 15:42	pH	8.03	pH
BY-AP-MW-23V	6/16/2020 15:42	Temperature	20.87	C
BY-AP-MW-23V	6/16/2020 15:42	Turbidity	52.1	NTU
BY-AP-MW-23V	6/16/2020 15:47	Conductivity	689.37	uS/cm
BY-AP-MW-23V	6/16/2020 15:47	DO	0.22	mg/L
BY-AP-MW-23V	6/16/2020 15:47	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:47	Oxidation Reduction Potention	-210.94	mv
BY-AP-MW-23V	6/16/2020 15:47	pH	8.03	pH
BY-AP-MW-23V	6/16/2020 15:47	Temperature	20.87	C
BY-AP-MW-23V	6/16/2020 15:47	Turbidity	53	NTU
BY-AP-MW-23V	6/16/2020 15:52	Conductivity	690.01	uS/cm
BY-AP-MW-23V	6/16/2020 15:52	DO	0.21	mg/L
BY-AP-MW-23V	6/16/2020 15:52	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:52	Oxidation Reduction Potention	-210.61	mv
BY-AP-MW-23V	6/16/2020 15:52	pH	8.03	pH
BY-AP-MW-23V	6/16/2020 15:52	Temperature	20.91	C
BY-AP-MW-23V	6/16/2020 15:52	Turbidity	49.6	NTU
BY-AP-MW-23V	6/16/2020 15:57	Conductivity	688.62	uS/cm
BY-AP-MW-23V	6/16/2020 15:57	DO	0.22	mg/L
BY-AP-MW-23V	6/16/2020 15:57	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 15:57	Oxidation Reduction Potention	-210.7	mv
BY-AP-MW-23V	6/16/2020 15:57	pH	8.02	pH
BY-AP-MW-23V	6/16/2020 15:57	Temperature	20.75	C
BY-AP-MW-23V	6/16/2020 15:57	Turbidity	51	NTU
BY-AP-MW-23V	6/16/2020 16:02	Conductivity	689.77	uS/cm
BY-AP-MW-23V	6/16/2020 16:02	DO	0.22	mg/L
BY-AP-MW-23V	6/16/2020 16:02	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:02	Oxidation Reduction Potention	-210.48	mv
BY-AP-MW-23V	6/16/2020 16:02	pH	8.02	pH
BY-AP-MW-23V	6/16/2020 16:02	Temperature	20.71	C

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23V	6/16/2020 16:02	Turbidity	49.6	NTU
BY-AP-MW-23V	6/16/2020 16:07	Conductivity	689.32	uS/cm
BY-AP-MW-23V	6/16/2020 16:07	DO	0.22	mg/L
BY-AP-MW-23V	6/16/2020 16:07	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:07	Oxidation Reduction Potention	-210.12	mv
BY-AP-MW-23V	6/16/2020 16:07	pH	8.03	pH
BY-AP-MW-23V	6/16/2020 16:07	Temperature	20.73	C
BY-AP-MW-23V	6/16/2020 16:07	Turbidity	48.7	NTU
BY-AP-MW-23V	6/16/2020 16:12	Conductivity	690.36	uS/cm
BY-AP-MW-23V	6/16/2020 16:12	DO	0.59	mg/L
BY-AP-MW-23V	6/16/2020 16:12	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:12	Oxidation Reduction Potention	-180.06	mv
BY-AP-MW-23V	6/16/2020 16:12	pH	7.96	pH
BY-AP-MW-23V	6/16/2020 16:12	Temperature	22.14	C
BY-AP-MW-23V	6/16/2020 16:12	Turbidity	50.2	NTU
BY-AP-MW-23V	6/16/2020 16:17	Conductivity	687.34	uS/cm
BY-AP-MW-23V	6/16/2020 16:17	DO	0.45	mg/L
BY-AP-MW-23V	6/16/2020 16:17	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:17	Oxidation Reduction Potention	-177.43	mv
BY-AP-MW-23V	6/16/2020 16:17	pH	7.99	pH
BY-AP-MW-23V	6/16/2020 16:17	Temperature	21.28	C
BY-AP-MW-23V	6/16/2020 16:17	Turbidity	55.8	NTU
BY-AP-MW-23V	6/16/2020 16:22	Conductivity	688.3	uS/cm
BY-AP-MW-23V	6/16/2020 16:22	DO	0.33	mg/L
BY-AP-MW-23V	6/16/2020 16:22	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:22	Oxidation Reduction Potention	-186.32	mv
BY-AP-MW-23V	6/16/2020 16:22	pH	8.02	pH
BY-AP-MW-23V	6/16/2020 16:22	Temperature	20.78	C
BY-AP-MW-23V	6/16/2020 16:22	Turbidity	61.1	NTU
BY-AP-MW-23V	6/16/2020 16:27	Conductivity	689	uS/cm
BY-AP-MW-23V	6/16/2020 16:27	DO	0.27	mg/L
BY-AP-MW-23V	6/16/2020 16:27	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:27	Oxidation Reduction Potention	-198.05	mv
BY-AP-MW-23V	6/16/2020 16:27	pH	8.05	pH
BY-AP-MW-23V	6/16/2020 16:27	Temperature	20.74	C
BY-AP-MW-23V	6/16/2020 16:27	Turbidity	48.9	NTU
BY-AP-MW-23V	6/16/2020 16:32	Conductivity	689	uS/cm
BY-AP-MW-23V	6/16/2020 16:32	DO	0.26	mg/L
BY-AP-MW-23V	6/16/2020 16:32	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:32	Oxidation Reduction Potention	-203.13	mv
BY-AP-MW-23V	6/16/2020 16:32	pH	8.06	pH
BY-AP-MW-23V	6/16/2020 16:32	Temperature	20.74	C
BY-AP-MW-23V	6/16/2020 16:32	Turbidity	46.5	NTU
BY-AP-MW-23V	6/16/2020 16:37	Conductivity	688.8	uS/cm

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23V	6/16/2020 16:37	DO	0.26	mg/L
BY-AP-MW-23V	6/16/2020 16:37	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:37	Oxidation Reduction Potention	-203.88	mv
BY-AP-MW-23V	6/16/2020 16:37	pH	8.07	pH
BY-AP-MW-23V	6/16/2020 16:37	Temperature	20.79	C
BY-AP-MW-23V	6/16/2020 16:37	Turbidity	47.4	NTU
BY-AP-MW-23V	6/16/2020 16:42	Conductivity	689.68	uS/cm
BY-AP-MW-23V	6/16/2020 16:42	DO	0.25	mg/L
BY-AP-MW-23V	6/16/2020 16:42	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:42	Oxidation Reduction Potention	-204.8	mv
BY-AP-MW-23V	6/16/2020 16:42	pH	8.07	pH
BY-AP-MW-23V	6/16/2020 16:42	Temperature	20.77	C
BY-AP-MW-23V	6/16/2020 16:42	Turbidity	45.8	NTU
BY-AP-MW-23V	6/16/2020 16:47	Conductivity	687.63	uS/cm
BY-AP-MW-23V	6/16/2020 16:47	DO	0.24	mg/L
BY-AP-MW-23V	6/16/2020 16:47	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:47	Oxidation Reduction Potention	-205.07	mv
BY-AP-MW-23V	6/16/2020 16:47	pH	8.07	pH
BY-AP-MW-23V	6/16/2020 16:47	Temperature	20.76	C
BY-AP-MW-23V	6/16/2020 16:47	Turbidity	45.6	NTU
BY-AP-MW-23V	6/16/2020 16:52	Conductivity	688.81	uS/cm
BY-AP-MW-23V	6/16/2020 16:52	DO	0.25	mg/L
BY-AP-MW-23V	6/16/2020 16:52	Depth to Water Detail	13.26	ft
BY-AP-MW-23V	6/16/2020 16:52	Oxidation Reduction Potention	-205.49	mv
BY-AP-MW-23V	6/16/2020 16:52	pH	8.08	pH
BY-AP-MW-23V	6/16/2020 16:52	Temperature	20.73	C
BY-AP-MW-23V	6/16/2020 16:52	Turbidity	44.4	NTU

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-25H	6/17/2020 13:15	Conductivity	49.6	uS/cm
BY-AP-MW-25H	6/17/2020 13:15	DO	0.47	mg/L
BY-AP-MW-25H	6/17/2020 13:15	Depth to Water Detail	20.62	ft
BY-AP-MW-25H	6/17/2020 13:15	Oxidation Reduction Potention	85.4	mv
BY-AP-MW-25H	6/17/2020 13:15	pH	5.52	pH
BY-AP-MW-25H	6/17/2020 13:15	Temperature	22.75	C
BY-AP-MW-25H	6/17/2020 13:15	Turbidity	2.57	NTU
BY-AP-MW-25H	6/17/2020 13:20	Conductivity	49.92	uS/cm
BY-AP-MW-25H	6/17/2020 13:20	DO	0.39	mg/L
BY-AP-MW-25H	6/17/2020 13:20	Depth to Water Detail	20.62	ft
BY-AP-MW-25H	6/17/2020 13:20	Oxidation Reduction Potention	88.88	mv
BY-AP-MW-25H	6/17/2020 13:20	pH	5.48	pH
BY-AP-MW-25H	6/17/2020 13:20	Temperature	22.77	C
BY-AP-MW-25H	6/17/2020 13:20	Turbidity	2.63	NTU
BY-AP-MW-25H	6/17/2020 13:25	Conductivity	50.2	uS/cm
BY-AP-MW-25H	6/17/2020 13:25	DO	0.37	mg/L
BY-AP-MW-25H	6/17/2020 13:25	Depth to Water Detail	20.62	ft
BY-AP-MW-25H	6/17/2020 13:25	Oxidation Reduction Potention	103.49	mv
BY-AP-MW-25H	6/17/2020 13:25	pH	5.22	pH
BY-AP-MW-25H	6/17/2020 13:25	Temperature	22.8	C
BY-AP-MW-25H	6/17/2020 13:25	Turbidity	2.54	NTU
BY-AP-MW-25H	6/17/2020 13:30	Conductivity	50.31	uS/cm
BY-AP-MW-25H	6/17/2020 13:30	DO	0.36	mg/L
BY-AP-MW-25H	6/17/2020 13:30	Depth to Water Detail	20.62	ft
BY-AP-MW-25H	6/17/2020 13:30	Oxidation Reduction Potention	105.24	mv
BY-AP-MW-25H	6/17/2020 13:30	pH	5.23	pH
BY-AP-MW-25H	6/17/2020 13:30	Temperature	22.83	C
BY-AP-MW-25H	6/17/2020 13:30	Turbidity	2.59	NTU
BY-AP-MW-25H	6/17/2020 13:35	Conductivity	50.24	uS/cm
BY-AP-MW-25H	6/17/2020 13:35	DO	0.36	mg/L
BY-AP-MW-25H	6/17/2020 13:35	Depth to Water Detail	20.62	ft
BY-AP-MW-25H	6/17/2020 13:35	Oxidation Reduction Potention	103.63	mv
BY-AP-MW-25H	6/17/2020 13:35	pH	5.27	pH
BY-AP-MW-25H	6/17/2020 13:35	Temperature	22.68	C
BY-AP-MW-25H	6/17/2020 13:35	Turbidity	2.53	NTU

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-25VM	6/17/2020 14:12	Conductivity	33.46	uS/cm
BY-AP-MW-25VM	6/17/2020 14:12	DO	1.54	mg/L
BY-AP-MW-25VM	6/17/2020 14:12	Depth to Water Detail	20.73	ft
BY-AP-MW-25VM	6/17/2020 14:12	Oxidation Reduction Potention	120.2	mv
BY-AP-MW-25VM	6/17/2020 14:12	pH	5.47	pH
BY-AP-MW-25VM	6/17/2020 14:12	Temperature	22.83	C
BY-AP-MW-25VM	6/17/2020 14:12	Turbidity	4.13	NTU
BY-AP-MW-25VM	6/17/2020 14:17	Conductivity	33.11	uS/cm
BY-AP-MW-25VM	6/17/2020 14:17	DO	1.66	mg/L
BY-AP-MW-25VM	6/17/2020 14:17	Depth to Water Detail	20.73	ft
BY-AP-MW-25VM	6/17/2020 14:17	Oxidation Reduction Potention	123.55	mv
BY-AP-MW-25VM	6/17/2020 14:17	pH	5.46	pH
BY-AP-MW-25VM	6/17/2020 14:17	Temperature	22.83	C
BY-AP-MW-25VM	6/17/2020 14:17	Turbidity	4.11	NTU
BY-AP-MW-25VM	6/17/2020 14:22	Conductivity	33.23	uS/cm
BY-AP-MW-25VM	6/17/2020 14:22	DO	1.79	mg/L
BY-AP-MW-25VM	6/17/2020 14:22	Depth to Water Detail	20.73	ft
BY-AP-MW-25VM	6/17/2020 14:22	Oxidation Reduction Potention	141.07	mv
BY-AP-MW-25VM	6/17/2020 14:22	pH	5.18	pH
BY-AP-MW-25VM	6/17/2020 14:22	Temperature	22.84	C
BY-AP-MW-25VM	6/17/2020 14:22	Turbidity	3.72	NTU
BY-AP-MW-25VM	6/17/2020 14:27	Conductivity	33.76	uS/cm
BY-AP-MW-25VM	6/17/2020 14:27	DO	1.9	mg/L
BY-AP-MW-25VM	6/17/2020 14:27	Depth to Water Detail	20.73	ft
BY-AP-MW-25VM	6/17/2020 14:27	Oxidation Reduction Potention	147.74	mv
BY-AP-MW-25VM	6/17/2020 14:27	pH	5.09	pH
BY-AP-MW-25VM	6/17/2020 14:27	Temperature	22.86	C
BY-AP-MW-25VM	6/17/2020 14:27	Turbidity	3.21	NTU
BY-AP-MW-25VM	6/17/2020 14:32	Conductivity	33.95	uS/cm
BY-AP-MW-25VM	6/17/2020 14:32	DO	1.92	mg/L
BY-AP-MW-25VM	6/17/2020 14:32	Depth to Water Detail	20.73	ft
BY-AP-MW-25VM	6/17/2020 14:32	Oxidation Reduction Potention	143.1	mv
BY-AP-MW-25VM	6/17/2020 14:32	pH	5.2	pH
BY-AP-MW-25VM	6/17/2020 14:32	Temperature	22.67	C
BY-AP-MW-25VM	6/17/2020 14:32	Turbidity	2.87	NTU
BY-AP-MW-25VM	6/17/2020 14:37	Conductivity	35.39	uS/cm
BY-AP-MW-25VM	6/17/2020 14:37	DO	1.93	mg/L
BY-AP-MW-25VM	6/17/2020 14:37	Depth to Water Detail	20.73	ft
BY-AP-MW-25VM	6/17/2020 14:37	Oxidation Reduction Potention	138.83	mv
BY-AP-MW-25VM	6/17/2020 14:37	pH	5.27	pH
BY-AP-MW-25VM	6/17/2020 14:37	Temperature	22.64	C
BY-AP-MW-25VM	6/17/2020 14:37	Turbidity	2.71	NTU

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Field Case Narrative

Plant Barry Ash Pond

2020 Compliance Event 2

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Rain showers were present when pumping and sampling well MW-22H.

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report

Alabama Power

Sample Group : WMWBARAP_1297

Project/Site : Barry Ash Pond
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Alabama Power

October 07, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between September 02, 2020 and September 03, 2020. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2021

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.10.12 13:49:18 -05'00'

Supervision: T. Durant Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.10.12 16:59:43 -05'00'

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

Alabama Power Lab & Field SERVICES

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICP

Barry Ash Pond

WMWBARAP_1297

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA16433	681682	WMWBARAP_1297
BA16434	681682	WMWBARAP_1297
BA16435	681682	WMWBARAP_1297
BA16436	681682	WMWBARAP_1297
BA16437	681682	WMWBARAP_1297
BA16438	681682	WMWBARAP_1297
BA16439	681682	WMWBARAP_1297
BA16440	681682	WMWBARAP_1297
BA16441	681682	WMWBARAP_1297
BA16442	681682	WMWBARAP_1297
BA16443	681683	WMWBARAP_1297
BA16444	681683	WMWBARAP_1297
BA16445	681683	WMWBARAP_1297
BA16446	681683	WMWBARAP_1297
BA16447	681683	WMWBARAP_1297
BA16448	681683	WMWBARAP_1297
BA16449	681683	WMWBARAP_1297
BA16450	681683	WMWBARAP_1297
BA16451	681683	WMWBARAP_1297
BA16452	681683	WMWBARAP_1297
BA16453	681684	WMWBARAP_1297
BA16454	681684	WMWBARAP_1297
BA16455	681684	WMWBARAP_1297
BA16456	681684	WMWBARAP_1297
BA16457	681684	WMWBARAP_1297
BA16458	681684	WMWBARAP_1297
BA16459	681684	WMWBARAP_1297
BA16460	681684	WMWBARAP_1297
BA16643	681684	WMWBARAP_1297
BA16644	681684	WMWBARAP_1297
BA16645	681685	WMWBARAP_1297

BA16646	681685	WMWBARAP_1297
BA16647	681685	WMWBARAP_1297
BA16648	681685	WMWBARAP_1297
BA16649	681685	WMWBARAP_1297
BA16650	681685	WMWBARAP_1297
BA16651	681685	WMWBARAP_1297
BA16652	681685	WMWBARAP_1297
BA16653	681685	WMWBARAP_1297
BA16654	681685	WMWBARAP_1297
BA16655	681686	WMWBARAP_1297
BA16656	681686	WMWBARAP_1297
BA16657	681686	WMWBARAP_1297
BA16658	681686	WMWBARAP_1297
BA16659	681686	WMWBARAP_1297
BA16660	681686	WMWBARAP_1297
BA16661	681686	WMWBARAP_1297

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes, except for the following:
    - The CCV for sodium dilutions failed. All affected samples were reanalyzed with new calibration curve 20200911H with all passing QC.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.

- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met except for the following:
    - BA16452 Sodium MS/MSD spike level was less than 30% of sample concentration.
    - BA16654 & BA16442 Iron MS/MSD spike levels were less than 30% of sample concentrations.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA16435	Iron	50.75
BA16436	Calcium, Iron	50.75
BA16437	Sodium	10.15
BA16440	Iron	101.5
BA16441	Sodium	10.15
BA16442	Iron	101.5
BA16444	Iron	101.5
BA16445	Iron	101.5
BA16446	Iron	101.5
BA16448	Iron, Sodium	101.5
BA16449	Iron, Sodium	101.5
BA16450	Iron, Sodium	101.5
BA16451	Iron	101.5
BA16452	Sodium	101.5
BA16453	Calcium, Iron	50.75
BA16454	Calcium, Iron	50.75
BA16455	Calcium, Iron	50.75
BA16456	Iron, Sodium	50.75
BA16457	Iron, Sodium	50.75
BA16458	Iron, Sodium	50.75
BA16459	Iron, Sodium	50.75
BA16460	Iron, Sodium	10.15
BA16647	Iron	10.15
BA16648	Iron	10.15
BA16650	Iron	101.5
BA16651	Iron	101.5
BA16652	Iron	101.5
BA16653	Iron, Sodium	101.5
BA16654	Iron, Sodium	101.5
BA16655	Iron, Sodium	50.75
BA16656	Iron	50.75
BA16657	Iron, Sodium	50.75
BA16658	Iron	50.75
BA16659	Sodium	50.75

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICP

Barry Ash Pond

WMWBARAP_1297

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA16433	681597	WMWBARAP_1297
BA16435	681597	WMWBARAP_1297
BA16436	681597	WMWBARAP_1297
BA16437	681597	WMWBARAP_1297
BA16438	681597	WMWBARAP_1297
BA16439	681597	WMWBARAP_1297
BA16440	681597	WMWBARAP_1297
BA16441	681597	WMWBARAP_1297
BA16442	681597	WMWBARAP_1297
BA16443	681597	WMWBARAP_1297
BA16444	681598	WMWBARAP_1297
BA16445	681598	WMWBARAP_1297
BA16446	681598	WMWBARAP_1297
BA16448	681598	WMWBARAP_1297
BA16449	681598	WMWBARAP_1297
BA16450	681598	WMWBARAP_1297
BA16451	681598	WMWBARAP_1297
BA16452	681598	WMWBARAP_1297
BA16453	681598	WMWBARAP_1297
BA16454	681598	WMWBARAP_1297
BA16455	681599	WMWBARAP_1297
BA16456	681599	WMWBARAP_1297
BA16457	681599	WMWBARAP_1297
BA16458	681599	WMWBARAP_1297
BA16459	681599	WMWBARAP_1297
BA16460	681599	WMWBARAP_1297
BA16643	681599	WMWBARAP_1297
BA16644	681599	WMWBARAP_1297
BA16645	681599	WMWBARAP_1297
BA16646	681599	WMWBARAP_1297
BA16647	681600	WMWBARAP_1297

BA16648	681600	WMWBARAP_1297
BA16650	681600	WMWBARAP_1297
BA16651	681600	WMWBARAP_1297
BA16652	681600	WMWBARAP_1297
BA16653	681600	WMWBARAP_1297
BA16654	681600	WMWBARAP_1297
BA16655	681600	WMWBARAP_1297
BA16656	681600	WMWBARAP_1297
BA16657	681600	WMWBARAP_1297
BA16658	681601	WMWBARAP_1297
BA16659	681601	WMWBARAP_1297

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met, except for the following:
    - BA16454, BA16657, and BA16659 Iron MS/MSD spike levels were less than 30% of sample concentrations.
- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA16435	Iron	101.5
BA16436	Iron	101.5
BA16440	Iron	101.5
BA16442	Iron	101.5
BA16444	Iron	101.5
BA16445	Iron	101.5
BA16446	Iron	101.5
BA16448	Iron	101.5
BA16449	Iron	101.5
BA16450	Iron	101.5
BA16451	Iron	101.5
BA16453	Iron	101.5
BA16454	Iron	101.5
BA16455	Iron	101.5
BA16456	Iron	101.5
BA16457	Iron	101.5
BA16458	Iron	101.5
BA16459	Iron	101.5
BA16460	Iron	101.5
BA16647	Iron	10.15
BA16648	Iron	101.5
BA16650	Iron	101.5
BA16651	Iron	101.5
BA16652	Iron	101.5
BA16653	Iron	101.5
BA16654	Iron	10.15
BA16655	Iron	101.5
BA16656	Iron	101.5
BA16657	Iron	101.5
BA16658	Iron	101.5
BA16659	Iron	10.15

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICPMS

Barry Ash Pond

WMWBARAP_1297

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA16433	682020	WMWBARAP_1297
BA16434	682020	WMWBARAP_1297
BA16435	682020	WMWBARAP_1297
BA16436	682020	WMWBARAP_1297
BA16437	682020	WMWBARAP_1297
BA16438	682020	WMWBARAP_1297
BA16439	682020	WMWBARAP_1297
BA16440	682020	WMWBARAP_1297
BA16441	682020	WMWBARAP_1297
BA16442	682020	WMWBARAP_1297
BA16443	682021	WMWBARAP_1297
BA16444	682021	WMWBARAP_1297
BA16445	682021	WMWBARAP_1297
BA16446	682021	WMWBARAP_1297
BA16447	682021	WMWBARAP_1297
BA16448	682021	WMWBARAP_1297
BA16449	682021	WMWBARAP_1297
BA16450	682021	WMWBARAP_1297
BA16451	682021	WMWBARAP_1297
BA16452	682021	WMWBARAP_1297
BA16453	682022	WMWBARAP_1297
BA16454	682022	WMWBARAP_1297
BA16455	682022	WMWBARAP_1297
BA16456	682022	WMWBARAP_1297
BA16457	682022	WMWBARAP_1297
BA16458	682022	WMWBARAP_1297
BA16459	682022	WMWBARAP_1297
BA16460	682022	WMWBARAP_1297
BA16643	682022	WMWBARAP_1297
BA16644	682022	WMWBARAP_1297
BA16645	682023	WMWBARAP_1297

BA16646	682023	WMWBARAP_1297
BA16647	682023	WMWBARAP_1297
BA16648	682023	WMWBARAP_1297
BA16649	682023	WMWBARAP_1297
BA16650	682023	WMWBARAP_1297
BA16651	682023	WMWBARAP_1297
BA16652	682023	WMWBARAP_1297
BA16653	682023	WMWBARAP_1297
BA16654	682023	WMWBARAP_1297
BA16655	682024	WMWBARAP_1297
BA16656	682024	WMWBARAP_1297
BA16657	682024	WMWBARAP_1297
BA16658	682024	WMWBARAP_1297
BA16659	682024	WMWBARAP_1297
BA16660	682024	WMWBARAP_1297
BA16661	682024	WMWBARAP_1297

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA16444	Manganese	5.075
BA16445	Manganese	5.075
BA16446	Manganese	5.075
BA16451	Manganese	5.075
BA16453	Manganese	5.075
BA16459	Manganese	5.075
BA16650	Manganese	5.075
BA16652	Manganese	5.075

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICPMS

Barry Ash Pond

WMWBARAP_1297

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA16433	681849	WMWBARAP_1297
BA16435	681849	WMWBARAP_1297
BA16436	681849	WMWBARAP_1297
BA16437	681849	WMWBARAP_1297
BA16438	681849	WMWBARAP_1297
BA16439	681849	WMWBARAP_1297
BA16440	681849	WMWBARAP_1297
BA16441	681849	WMWBARAP_1297
BA16442	681849	WMWBARAP_1297
BA16443	681849	WMWBARAP_1297
BA16444	681850	WMWBARAP_1297
BA16445	681850	WMWBARAP_1297
BA16446	681850	WMWBARAP_1297
BA16448	681850	WMWBARAP_1297
BA16449	681850	WMWBARAP_1297
BA16450	681850	WMWBARAP_1297
BA16451	681850	WMWBARAP_1297
BA16452	681850	WMWBARAP_1297
BA16453	681850	WMWBARAP_1297
BA16454	681850	WMWBARAP_1297
BA16455	681851	WMWBARAP_1297
BA16456	681851	WMWBARAP_1297
BA16457	681851	WMWBARAP_1297
BA16458	681851	WMWBARAP_1297
BA16459	681851	WMWBARAP_1297
BA16460	681851	WMWBARAP_1297
BA16643	681851	WMWBARAP_1297
BA16644	681851	WMWBARAP_1297
BA16645	681851	WMWBARAP_1297
BA16646	681851	WMWBARAP_1297
BA16647	681852	WMWBARAP_1297

BA16648	681852	WMWBARAP_1297
BA16650	681852	WMWBARAP_1297
BA16651	681852	WMWBARAP_1297
BA16652	681852	WMWBARAP_1297
BA16653	681852	WMWBARAP_1297
BA16654	681852	WMWBARAP_1297
BA16655	681852	WMWBARAP_1297
BA16656	681852	WMWBARAP_1297
BA16657	681852	WMWBARAP_1297
BA16658	681853	WMWBARAP_1297
BA16659	681853	WMWBARAP_1297

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA16444	Mn	5.075
BA16451	Mn	5.075
BA16453	Mn	5.075
BA16459	Mn	5.075
BA16650	Mn	5.075
BA16652	Mn	5.075

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Mercury

Barry Ash Pond

WMWBARAP_1297

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA16433	681528	WMWBARAP_1297
BA16434	681528	WMWBARAP_1297
BA16435	681528	WMWBARAP_1297
BA16436	681528	WMWBARAP_1297
BA16437	681528	WMWBARAP_1297
BA16438	681528	WMWBARAP_1297
BA16439	681528	WMWBARAP_1297
BA16440	681528	WMWBARAP_1297
BA16441	681528	WMWBARAP_1297
BA16442	681528	WMWBARAP_1297
BA16443	681529	WMWBARAP_1297
BA16444	681529	WMWBARAP_1297
BA16445	681529	WMWBARAP_1297
BA16446	681529	WMWBARAP_1297
BA16447	681529	WMWBARAP_1297
BA16448	681529	WMWBARAP_1297
BA16449	681529	WMWBARAP_1297
BA16450	681529	WMWBARAP_1297
BA16451	681529	WMWBARAP_1297
BA16452	681529	WMWBARAP_1297
BA16453	681530	WMWBARAP_1297
BA16454	681530	WMWBARAP_1297
BA16455	681530	WMWBARAP_1297
BA16456	681530	WMWBARAP_1297
BA16457	681530	WMWBARAP_1297
BA16458	681530	WMWBARAP_1297
BA16459	681530	WMWBARAP_1297
BA16460	681530	WMWBARAP_1297
BA16643	681530	WMWBARAP_1297
BA16644	681530	WMWBARAP_1297
BA16645	681531	WMWBARAP_1297

BA16646	681531	WMWBARAP_1297
BA16647	681531	WMWBARAP_1297
BA16648	681531	WMWBARAP_1297
BA16649	681531	WMWBARAP_1297
BA16650	681531	WMWBARAP_1297
BA16651	681531	WMWBARAP_1297
BA16652	681531	WMWBARAP_1297
BA16653	681531	WMWBARAP_1297
BA16654	681531	WMWBARAP_1297
BA16655	681532	WMWBARAP_1297
BA16656	681532	WMWBARAP_1297
BA16657	681532	WMWBARAP_1297
BA16658	681532	WMWBARAP_1297
BA16659	681532	WMWBARAP_1297
BA16660	681532	WMWBARAP_1297
BA16661	681532	WMWBARAP_1297

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

TDS

Barry Ash Pond

WMWBARAP_1297

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA16433	681526	WMWBARAP_1297
BA16434	681526	WMWBARAP_1297
BA16435	681526	WMWBARAP_1297
BA16436	681526	WMWBARAP_1297
BA16437	681526	WMWBARAP_1297
BA16438	681526	WMWBARAP_1297
BA16439	681526	WMWBARAP_1297
BA16440	681526	WMWBARAP_1297
BA16441	681543	WMWBARAP_1297
BA16442	681543	WMWBARAP_1297
BA16443	681543	WMWBARAP_1297
BA16444	681527	WMWBARAP_1297
BA16445	681527	WMWBARAP_1297
BA16446	681527	WMWBARAP_1297
BA16447	681527	WMWBARAP_1297
BA16448	681527	WMWBARAP_1297
BA16449	681543	WMWBARAP_1297
BA16450	681543	WMWBARAP_1297
BA16451	681543	WMWBARAP_1297
BA16452	681543	WMWBARAP_1297
BA16453	681527	WMWBARAP_1297
BA16454	681527	WMWBARAP_1297
BA16455	681527	WMWBARAP_1297
BA16456	681527	WMWBARAP_1297
BA16457	681527	WMWBARAP_1297
BA16458	681543	WMWBARAP_1297
BA16459	681543	WMWBARAP_1297
BA16460	681543	WMWBARAP_1297
BA16643	681707	WMWBARAP_1297
BA16644	681707	WMWBARAP_1297
BA16645	681707	WMWBARAP_1297

BA16646	681707	WMWBARAP_1297
BA16647	681707	WMWBARAP_1297
BA16648	681707	WMWBARAP_1297
BA16649	681707	WMWBARAP_1297
BA16650	681707	WMWBARAP_1297
BA16651	681707	WMWBARAP_1297
BA16652	681707	WMWBARAP_1297
BA16653	681708	WMWBARAP_1297
BA16654	681708	WMWBARAP_1297
BA16655	681708	WMWBARAP_1297
BA16656	681708	WMWBARAP_1297
BA16657	681708	WMWBARAP_1297
BA16658	681708	WMWBARAP_1297
BA16659	681708	WMWBARAP_1297
BA16660	681708	WMWBARAP_1297
BA16661	681708	WMWBARAP_1297

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
    - BA16434
    - BA16447
    - BA16649
    - BA16660
    - BA16661

Case Narrative

Anions

Barry Ash Pond

WMWBARAP_1297

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA16433	681697, 681878, & 681549	WMWBARAP_1297
BA16434	681697, 681878, & 681549	WMWBARAP_1297
BA16435	681697, 681878, & 681549	WMWBARAP_1297
BA16436	681697, 681878, & 681549	WMWBARAP_1297
BA16437	681697, 681878, & 681549	WMWBARAP_1297
BA16438	681697, 681878, & 681549	WMWBARAP_1297
BA16439	681697, 681878, & 681549	WMWBARAP_1297
BA16440	681697, 681878, & 681549	WMWBARAP_1297
BA16441	681697, 681878, & 681549	WMWBARAP_1297
BA16442	681697, 681878, & 681549	WMWBARAP_1297
BA16443	681698, 681879, & 681550	WMWBARAP_1297
BA16444	681698, 681879, & 681550	WMWBARAP_1297
BA16445	681698, 681879, & 681550	WMWBARAP_1297
BA16446	681698, 681879, & 681550	WMWBARAP_1297
BA16447	681698, 681879, & 681550	WMWBARAP_1297
BA16448	681698, 681879, & 681550	WMWBARAP_1297
BA16449	681698, 681879, & 681550	WMWBARAP_1297
BA16450	681698, 681879, & 681550	WMWBARAP_1297
BA16451	681698, 681879, & 681550	WMWBARAP_1297
BA16452	681698, 681879, & 681550	WMWBARAP_1297
BA16453	681727, 681880, & 681551	WMWBARAP_1297
BA16454	681727, 681880, & 681551	WMWBARAP_1297
BA16455	681727, 681880, & 681551	WMWBARAP_1297
BA16456	681727, 681880, & 681551	WMWBARAP_1297
BA16457	681727, 681880, & 681551	WMWBARAP_1297
BA16458	681727, 681880, & 681551	WMWBARAP_1297
BA16459	681727, 681880, & 681551	WMWBARAP_1297
BA16460	681727, 681880, & 681551	WMWBARAP_1297
BA16643	681727, 681880, & 681695	WMWBARAP_1297
BA16644	681727, 681880, & 681695	WMWBARAP_1297
BA16645	681728, 681881, & 681695	WMWBARAP_1297

BA16646	681728, 681881, & 681695	WMWBARAP_1297
BA16647	681728, 681881, & 681695	WMWBARAP_1297
BA16648	681728, 681881, & 681695	WMWBARAP_1297
BA16649	681728, 681881, & 681695	WMWBARAP_1297
BA16650	681728, 681881, & 681695	WMWBARAP_1297
BA16651	681728, 681881, & 681695	WMWBARAP_1297
BA16652	681728, 681881, & 681695	WMWBARAP_1297
BA16653	681728, 681881, & 681696	WMWBARAP_1297
BA16654	681728, 681881, & 681696	WMWBARAP_1297
BA16655	681729, 681882, & 681696	WMWBARAP_1297
BA16656	681729, 681882, & 681696	WMWBARAP_1297
BA16657	681729, 681882, & 681696	WMWBARAP_1297
BA16658	681729, 681882, & 681696	WMWBARAP_1297
BA16659	681729, 681882, & 681696	WMWBARAP_1297
BA16660	681729, 681882, & 681696	WMWBARAP_1297
BA16661	681729, 681882, & 681696	WMWBARAP_1297

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below half the limit of quantitation for the requested analyte.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met, except for the following:
  - BA16442 MS recovery was outside of acceptance criteria for Chloride.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA16435	Chloride	2
BA16436	Chloride	2
BA16437	Chloride	10
BA16441	Chloride	40
BA16443	Chloride	2
BA16448	Chloride & Sulfate	2 & 2
BA16449	Chloride & Sulfate	4 & 4
BA16450	Chloride	32
BA16452	Chloride	40
BA16453	Chloride	2
BA16454	Chloride	2
BA16455	Chloride	2
BA16456	Chloride & Sulfate	2 & 2
BA16457	Chloride & Sulfate	2 & 2
BA16458	Chloride	2
BA16459	Chloride	2
BA16460	Chloride	3
BA16651	Chloride	2
BA16652	Chloride	2
BA16653	Chloride	8
BA16654	Chloride & Sulfate	32 & 2
BA16655	Chloride	8
BA16656	Chloride	8
BA16657	Chloride & Sulfate	8 & 2
BA16658	Chloride	2
BA16659	Chloride	10

8. The raw data results are shown with dilution factors included.

Alkalinity

Barry Ash Pond

WMWBARAP_1297

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA16433	681781 & 681782	WMWBARAP_1297
BA16435	681781 & 681782	WMWBARAP_1297
BA16436	681781 & 681782	WMWBARAP_1297
BA16437	681781 & 681782	WMWBARAP_1297
BA16438	681781 & 681782	WMWBARAP_1297
BA16439	681781 & 681782	WMWBARAP_1297
BA16440	681781 & 681782	WMWBARAP_1297
BA16441	681781 & 681782	WMWBARAP_1297
BA16442	681781 & 681782	WMWBARAP_1297
BA16443	681781 & 681782	WMWBARAP_1297
BA16444	681781 & 681782	WMWBARAP_1297
BA16445	681781 & 681782	WMWBARAP_1297
BA16446	681781 & 681782	WMWBARAP_1297
BA16448	681781 & 681782	WMWBARAP_1297
BA16449	681781 & 681782	WMWBARAP_1297
BA16450	681781 & 681782	WMWBARAP_1297
BA16451	681781 & 681782	WMWBARAP_1297
BA16452	681781 & 681782	WMWBARAP_1297
BA16453	681781 & 681782	WMWBARAP_1297
BA16454	681781 & 681782	WMWBARAP_1297
BA16455	682048 & 682049	WMWBARAP_1297
BA16456	682048 & 682049	WMWBARAP_1297
BA16457	682048 & 682049	WMWBARAP_1297
BA16458	682048 & 682049	WMWBARAP_1297
BA16459	682048 & 682049	WMWBARAP_1297
BA16460	682048 & 682049	WMWBARAP_1297
BA16643	682048 & 682049	WMWBARAP_1297
BA16644	682048 & 682049	WMWBARAP_1297
BA16645	682048 & 682049	WMWBARAP_1297
BA16646	682048 & 682049	WMWBARAP_1297
BA16647	682048 & 682049	WMWBARAP_1297

BA16648	682048 & 682049	WMWBARAP_1297
BA16650	682048 & 682049	WMWBARAP_1297
BA16651	682048 & 682049	WMWBARAP_1297
BA16652	682048 & 682049	WMWBARAP_1297
BA16653	682048 & 682049	WMWBARAP_1297
BA16654	682048 & 682049	WMWBARAP_1297
BA16655	682048 & 682049	WMWBARAP_1297
BA16656	682048 & 682049	WMWBARAP_1297
BA16657	682048 & 682049	WMWBARAP_1297
BA16658	682054 & 682055	WMWBARAP_1297
BA16659	682054 & 682055	WMWBARAP_1297

4. All of the above samples were analyzed by Standard Method 2320B.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-2

Location Code: WMWBARAP
Collected: 8/31/20 13:40
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16433

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		***Analyst: RDA***							
* Boron, Total	9/10/20 09:37	9/11/20 09:51		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 09:51		1.015	3.00	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 09:51		1.015	0.509	mg/L	0.02	0.05	
* Lithium, Total	9/10/20 09:37	9/11/20 09:51		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 09:51		1.015	1.92	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 09:51		1.015	4.10	mg/L	0.1	0.5	
Analytical Method: EPA 200.7		***Analyst: RDA***							
* Iron, Dissolved	9/10/20 10:47	9/11/20 10:00		1.015	0.482	mg/L	0.02	0.05	
Analytical Method: EPA 200.8		***Analyst: DLJ***			***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:12		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:12		1.015	0.00176	mg/L	0.001	0.005	J
* Barium, Total	9/8/20 08:24	9/9/20 09:12		1.015	0.0275	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:12		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:12		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:12		1.015	0.00751	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 09:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:12		1.015	1.00	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 09:12		1.015	0.349	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 09:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:12		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8		***Analyst: DLJ***							
* Manganese, Dissolved	9/4/20 14:24	9/8/20 09:48		1.015	0.308	mg/L	0.001	0.005	
Analytical Method: EPA 245.1		***Analyst: GAS***							
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 11:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	20.9	mg/L		0.1	
Analytical Method: SM 2540C		***Analyst: TJW***							
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	45.3	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-2

Location Code: WMWBARAP
Collected: 8/31/20 13:40
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16433

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	20.9	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 12:30	9/4/20 12:30		1	8.30	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 09:42	9/10/20 09:42		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:18	9/3/20 14:18		1	0.576	mg/L	0.50	1	J
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	8/31/20 13:36	8/31/20 13:36			55.07	uS/cm			FA
pH	8/31/20 13:36	8/31/20 13:36			5.57	SU			FA
Temperature	8/31/20 13:36	8/31/20 13:36			22.45	C			FA
Turbidity	8/31/20 13:36	8/31/20 13:36			1.82	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 8/31/20 13:40
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-2

Laboratory ID Number: BA16433

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Iron, Total	mg/L	0.000467	0.0176	0.2	87.5	88.2	0.201	0.17 to 0.23	-700	70 to 130	0.797	20
BA16442	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	102	70 to 130	1.72	20
BA16442	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.611	0.616	0.109	0.085 to 0.115	104	70 to 130	0.815	20
BA16442	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.108	0.108	0.108	0.085 to 0.115	108	70 to 130	0.00	20
BA16442	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.109	0.112	0.103	0.085 to 0.115	106	70 to 130	2.71	20
BA16442	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA16443	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	0.238	0.238	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA16442	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.15	1.16	0.990	0.85 to 1.15	100	70 to 130	0.866	20
BA16442	Calcium, Total	mg/L	0.00307	0.1518	5.00	15.7	15.8	5.02	4.25 to 5.75	98.0	70 to 130	0.635	20
BA16442	Mercury, Total by CVAA	mg/L	0.0000351	0.0005	0.004	0.00360	0.00381	0.00375	0.0034 to 0.0046	90.0	70 to 130	5.67	20
BA16442	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.200	0.201	0.193	0.17 to 0.23	100	70 to 130	0.499	20
BA16442	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	9.81	9.90	5.10	4.25 to 5.75	99.4	70 to 130	0.913	20
BA16442	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.219	0.222	0.102	0.085 to 0.115	105	70 to 130	1.36	20
BA16442	Antimony, Total	mg/L	0.000155	0.001	0.10	0.104	0.106	0.0955	0.085 to 0.115	104	70 to 130	1.90	20
BA16442	Selenium, Total	mg/L	0.000019	0.001	0.10	0.107	0.107	0.112	0.085 to 0.115	107	70 to 130	0.00	20
BA16442	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.146	0.149	0.114	0.085 to 0.115	109	70 to 130	2.03	20
BA16442	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.104	0.103	0.101	0.085 to 0.115	104	70 to 130	0.966	20
BA16442	Sodium, Total	mg/L	0.00184	0.044	5.00	25.9	26.1	5.04	4.25 to 5.75	96.0	70 to 130	0.769	20
BA16443	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.114	0.107	0.103	0.085 to 0.115	108	70 to 130	6.33	20
BA16442	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0988	0.0946	0.0946	0.085 to 0.115	98.8	70 to 130	4.34	20
BA16442	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.922	20
BA16442	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.104	0.104	0.100	0.085 to 0.115	104	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 8/31/20 13:40
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-2

Laboratory ID Number: BA16433

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Sulfate	mg/L	-0.306	0.50	20.0	28.7	8.57	19.7	18 to 22	105	80 to 120	11.9	20
BA16440	Solids, Dissolved	mg/L	0.0000	25			247	50.0	40 to 60			1.20	5
BA16442	Fluoride	mg/L	0.0433	0.05	2.50	2.83	0.193	2.56	2.25 to 2.75	105	80 to 120	1.54	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10
BA16442	Chloride	mg/L	-0.00585	0.50	10.0	31.1	18.2	10.1	9 to 11	129	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Field Blank-1

Location Code: WMWBARAPFB
Collected: 8/31/20 13:55
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16434

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		***Analyst: RDA***							
* Boron, Total	9/10/20 09:37	9/11/20 09:54		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 09:54		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/10/20 09:37	9/11/20 09:54		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/10/20 09:37	9/11/20 09:54		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 09:54		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/10/20 09:37	9/11/20 09:54		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8		***Analyst: DLJ***				***Preparation Method: EPA 1638***			
* Antimony, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:15		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		***Analyst: GAS***							
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 11:28		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		***Analyst: TJW***							
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 12:31	9/4/20 12:31		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 09:43	9/10/20 09:43		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:19	9/3/20 14:19		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPFB
Sample Date: 8/31/20 13:55
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond Field Blank-1

Laboratory ID Number: BA16434

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Iron, Total	mg/L	0.000467	0.0176	0.2	87.5	88.2	0.201	0.17 to 0.23	-700	70 to 130	0.797	20
BA16442	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0988	0.0946	0.0946	0.085 to 0.115	98.8	70 to 130	4.34	20
BA16442	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.922	20
BA16442	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.104	0.104	0.100	0.085 to 0.115	104	70 to 130	0.00	20
BA16442	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.109	0.112	0.103	0.085 to 0.115	106	70 to 130	2.71	20
BA16442	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA16442	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.219	0.222	0.102	0.085 to 0.115	105	70 to 130	1.36	20
BA16442	Antimony, Total	mg/L	0.000155	0.001	0.10	0.104	0.106	0.0955	0.085 to 0.115	104	70 to 130	1.90	20
BA16442	Selenium, Total	mg/L	0.000019	0.001	0.10	0.107	0.107	0.112	0.085 to 0.115	107	70 to 130	0.00	20
BA16442	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	102	70 to 130	1.72	20
BA16442	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.611	0.616	0.109	0.085 to 0.115	104	70 to 130	0.815	20
BA16442	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.108	0.108	0.108	0.085 to 0.115	108	70 to 130	0.00	20
BA16442	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.146	0.149	0.114	0.085 to 0.115	109	70 to 130	2.03	20
BA16442	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.104	0.103	0.101	0.085 to 0.115	104	70 to 130	0.966	20
BA16442	Sodium, Total	mg/L	0.00184	0.044	5.00	25.9	26.1	5.04	4.25 to 5.75	96.0	70 to 130	0.769	20
BA16442	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.15	1.16	0.990	0.85 to 1.15	100	70 to 130	0.866	20
BA16442	Calcium, Total	mg/L	0.00307	0.1518	5.00	15.7	15.8	5.02	4.25 to 5.75	98.0	70 to 130	0.635	20
BA16442	Mercury, Total by CVAA	mg/L	0.0000351	0.0005	0.004	0.00360	0.00381	0.00375	0.0034 to 0.0046	90.0	70 to 130	5.67	20
BA16442	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.200	0.201	0.193	0.17 to 0.23	100	70 to 130	0.499	20
BA16442	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	9.81	9.90	5.10	4.25 to 5.75	99.4	70 to 130	0.913	20

Comments:

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 8/31/20 13:55
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond Field Blank-1

Laboratory ID Number: BA16434

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Sulfate	mg/L	-0.306	0.50	20.0	28.7	8.57	19.7	18 to 22	105	80 to 120	11.9	20
BA16440	Solids, Dissolved	mg/L	0.0000	25			247	50.0	40 to 60			1.20	5
BA16442	Fluoride	mg/L	0.0433	0.05	2.50	2.83	0.193	2.56	2.25 to 2.75	105	80 to 120	1.54	20
BA16442	Chloride	mg/L	-0.00585	0.50	10.0	31.1	18.2	10.1	9 to 11	129	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-1

Location Code: WMWBARAP
Collected: 9/1/20 08:05
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16435

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 09:57		1.015	2.11	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 09:57		1.015	40.5	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 13:30		50.75	141	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 09:57		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 09:57		1.015	13.2	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 09:57		1.015	24.0	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 13:25		101.5	155	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:17		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:17		1.015	0.0811	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 09:17		1.015	0.330	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:17		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:17		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:17		1.015	0.00242	mg/L	0.002	0.01	J
* Cobalt, Total	9/8/20 08:24	9/9/20 09:17		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 09:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:17		1.015	2.29	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 09:17		1.015	0.993	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 09:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:17		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 09:51		1.015	0.890	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 11:30		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	418	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	454	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-1

Location Code: WMWBARAP
Collected: 9/1/20 08:05
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16435

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	418	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.04	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 12:32	9/4/20 12:32		2	25.7	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 09:44	9/10/20 09:44		1	0.194	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:20	9/3/20 14:20		1	23.1	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/1/20 08:02	9/1/20 08:02			782.56	uS/cm			FA
pH	9/1/20 08:02	9/1/20 08:02			5.89	SU			FA
Temperature	9/1/20 08:02	9/1/20 08:02			21.77	C			FA
Turbidity	9/1/20 08:02	9/1/20 08:02			4.14	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 08:05
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-1

Laboratory ID Number: BA16435

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Iron, Total	mg/L	0.000467	0.0176	0.2	87.5	88.2	0.201	0.17 to 0.23	-700	70 to 130	0.797	20
BA16442	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.109	0.112	0.103	0.085 to 0.115	106	70 to 130	2.71	20
BA16442	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA16443	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	0.238	0.238	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA16442	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	102	70 to 130	1.72	20
BA16442	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.611	0.616	0.109	0.085 to 0.115	104	70 to 130	0.815	20
BA16442	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.108	0.108	0.108	0.085 to 0.115	108	70 to 130	0.00	20
BA16442	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.219	0.222	0.102	0.085 to 0.115	105	70 to 130	1.36	20
BA16442	Antimony, Total	mg/L	0.000155	0.001	0.10	0.104	0.106	0.0955	0.085 to 0.115	104	70 to 130	1.90	20
BA16442	Selenium, Total	mg/L	0.000019	0.001	0.10	0.107	0.107	0.112	0.085 to 0.115	107	70 to 130	0.00	20
BA16442	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0988	0.0946	0.0946	0.085 to 0.115	98.8	70 to 130	4.34	20
BA16442	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.922	20
BA16442	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.104	0.104	0.100	0.085 to 0.115	104	70 to 130	0.00	20
BA16442	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.15	1.16	0.990	0.85 to 1.15	100	70 to 130	0.866	20
BA16442	Calcium, Total	mg/L	0.00307	0.1518	5.00	15.7	15.8	5.02	4.25 to 5.75	98.0	70 to 130	0.635	20
BA16442	Mercury, Total by CVAA	mg/L	0.0000351	0.0005	0.004	0.00360	0.00381	0.00375	0.0034 to 0.0046	90.0	70 to 130	5.67	20
BA16442	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.200	0.201	0.193	0.17 to 0.23	100	70 to 130	0.499	20
BA16442	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	9.81	9.90	5.10	4.25 to 5.75	99.4	70 to 130	0.913	20
BA16442	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.146	0.149	0.114	0.085 to 0.115	109	70 to 130	2.03	20
BA16442	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.104	0.103	0.101	0.085 to 0.115	104	70 to 130	0.966	20
BA16442	Sodium, Total	mg/L	0.00184	0.044	5.00	25.9	26.1	5.04	4.25 to 5.75	96.0	70 to 130	0.769	20
BA16443	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.114	0.107	0.103	0.085 to 0.115	108	70 to 130	6.33	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 08:05
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-1

Laboratory ID Number: BA16435

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Sulfate	mg/L	-0.306	0.50	20.0	28.7	8.57	19.7	18 to 22	105	80 to 120	11.9	20
BA16440	Solids, Dissolved	mg/L	0.0000	25			247	50.0	40 to 60			1.20	5
BA16442	Chloride	mg/L	-0.00585	0.50	10.0	31.1	18.2	10.1	9 to 11	129	80 to 120	0.00	20
BA16442	Fluoride	mg/L	0.0433	0.05	2.50	2.83	0.193	2.56	2.25 to 2.75	105	80 to 120	1.54	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-1 DUP

Location Code: WMWBARAP
Collected: 9/1/20 08:05
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16436

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:00		1.015	2.13	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 13:33		50.75	39.3	mg/L	5.075	25.375	
* Iron, Total	9/10/20 09:37	9/11/20 13:33		50.75	141	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 10:00		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:00		1.015	13.4	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 10:00		1.015	24.2	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 13:28		101.5	154	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:20		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:20		1.015	0.0792	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 09:20		1.015	0.336	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:20		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:20		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:20		1.015	0.00255	mg/L	0.002	0.01	J
* Cobalt, Total	9/8/20 08:24	9/9/20 09:20		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 09:20		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:20		1.015	2.29	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 09:20		1.015	0.992	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 09:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:20		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 09:53		1.015	0.901	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 11:32		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	400	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	453	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-1 DUP

Location Code: WMWBARAP
Collected: 9/1/20 08:05
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16436

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	400	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.04	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 12:34	9/4/20 12:34		2	25.4	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 09:46	9/10/20 09:46		1	0.114	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:21	9/3/20 14:21		1	21.9	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/1/20 08:02	9/1/20 08:02			782.56	uS/cm			FA
pH	9/1/20 08:02	9/1/20 08:02			5.89	SU			FA
Temperature	9/1/20 08:02	9/1/20 08:02			21.77	C			FA
Turbidity	9/1/20 08:02	9/1/20 08:02			4.14	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 08:05
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-1 DUP

Laboratory ID Number: BA16436

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Iron, Total	mg/L	0.000467	0.0176	0.2	87.5	88.2	0.201	0.17 to 0.23	-700	70 to 130	0.797	20
BA16442	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.219	0.222	0.102	0.085 to 0.115	105	70 to 130	1.36	20
BA16442	Antimony, Total	mg/L	0.000155	0.001	0.10	0.104	0.106	0.0955	0.085 to 0.115	104	70 to 130	1.90	20
BA16442	Selenium, Total	mg/L	0.000019	0.001	0.10	0.107	0.107	0.112	0.085 to 0.115	107	70 to 130	0.00	20
BA16442	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0988	0.0946	0.0946	0.085 to 0.115	98.8	70 to 130	4.34	20
BA16442	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.922	20
BA16442	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.104	0.104	0.100	0.085 to 0.115	104	70 to 130	0.00	20
BA16442	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.109	0.112	0.103	0.085 to 0.115	106	70 to 130	2.71	20
BA16442	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA16443	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	0.238	0.238	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA16442	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.146	0.149	0.114	0.085 to 0.115	109	70 to 130	2.03	20
BA16442	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.104	0.103	0.101	0.085 to 0.115	104	70 to 130	0.966	20
BA16442	Sodium, Total	mg/L	0.00184	0.044	5.00	25.9	26.1	5.04	4.25 to 5.75	96.0	70 to 130	0.769	20
BA16443	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.114	0.107	0.103	0.085 to 0.115	108	70 to 130	6.33	20
BA16442	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.15	1.16	0.990	0.85 to 1.15	100	70 to 130	0.866	20
BA16442	Calcium, Total	mg/L	0.00307	0.1518	5.00	15.7	15.8	5.02	4.25 to 5.75	98.0	70 to 130	0.635	20
BA16442	Mercury, Total by CVAA	mg/L	0.0000351	0.0005	0.004	0.00360	0.00381	0.00375	0.0034 to 0.0046	90.0	70 to 130	5.67	20
BA16442	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.200	0.201	0.193	0.17 to 0.23	100	70 to 130	0.499	20
BA16442	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	9.81	9.90	5.10	4.25 to 5.75	99.4	70 to 130	0.913	20
BA16442	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	102	70 to 130	1.72	20
BA16442	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.611	0.616	0.109	0.085 to 0.115	104	70 to 130	0.815	20
BA16442	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.108	0.108	0.108	0.085 to 0.115	108	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 08:05
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-1 DUP

Laboratory ID Number: BA16436

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Sulfate	mg/L	-0.306	0.50	20.0	28.7	8.57	19.7	18 to 22	105	80 to 120	11.9	20
BA16440	Solids, Dissolved	mg/L	0.0000	25			247	50.0	40 to 60			1.20	5
BA16442	Chloride	mg/L	-0.00585	0.50	10.0	31.1	18.2	10.1	9 to 11	129	80 to 120	0.00	20
BA16442	Fluoride	mg/L	0.0433	0.05	2.50	2.83	0.193	2.56	2.25 to 2.75	105	80 to 120	1.54	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-1V

Location Code: WMWBARAP
Collected: 9/1/20 09:05
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16437

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:03		1.015	0.0368	mg/L	0.03	0.1	J
* Calcium, Total	9/10/20 09:37	9/11/20 10:03		1.015	3.43	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 10:03		1.015	1.92	mg/L	0.02	0.05	
* Lithium, Total	9/10/20 09:37	9/11/20 10:03		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:03		1.015	2.03	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 13:36		10.15	49.3	mg/L	1.015	5.075	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 10:09		1.015	1.98	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:23		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:23		1.015	0.00179	mg/L	0.001	0.005	J
* Barium, Total	9/8/20 08:24	9/9/20 09:23		1.015	0.0795	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:23		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:23		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:23		1.015	0.00407	mg/L	0.002	0.005	J
* Lead, Total	9/8/20 08:24	9/9/20 09:23		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:23		1.015	2.26	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 09:23		1.015	0.139	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 09:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:23		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 09:56		1.015	0.125	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 11:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	27.9	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	175	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-1V

Location Code: WMWBARAP
Collected: 9/1/20 09:05
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16437

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	27.9	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 12:35	9/4/20 12:35		10	69.0	mg/L	5.00	10	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 09:47	9/10/20 09:47		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:22	9/3/20 14:22		1	13.0	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/1/20 09:02	9/1/20 09:02			307.88	uS/cm			FA
pH	9/1/20 09:02	9/1/20 09:02			5.62	SU			FA
Temperature	9/1/20 09:02	9/1/20 09:02			22.08	C			FA
Turbidity	9/1/20 09:02	9/1/20 09:02			2.17	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 09:05
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: BA16437

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Iron, Total	mg/L	0.000467	0.0176	0.2	87.5	88.2	0.201	0.17 to 0.23	-700	70 to 130	0.797	20
BA16442	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.219	0.222	0.102	0.085 to 0.115	105	70 to 130	1.36	20
BA16442	Antimony, Total	mg/L	0.000155	0.001	0.10	0.104	0.106	0.0955	0.085 to 0.115	104	70 to 130	1.90	20
BA16442	Selenium, Total	mg/L	0.000019	0.001	0.10	0.107	0.107	0.112	0.085 to 0.115	107	70 to 130	0.00	20
BA16442	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0988	0.0946	0.0946	0.085 to 0.115	98.8	70 to 130	4.34	20
BA16442	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.922	20
BA16442	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.104	0.104	0.100	0.085 to 0.115	104	70 to 130	0.00	20
BA16442	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.109	0.112	0.103	0.085 to 0.115	106	70 to 130	2.71	20
BA16442	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA16443	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	0.238	0.238	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA16442	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.15	1.16	0.990	0.85 to 1.15	100	70 to 130	0.866	20
BA16442	Calcium, Total	mg/L	0.00307	0.1518	5.00	15.7	15.8	5.02	4.25 to 5.75	98.0	70 to 130	0.635	20
BA16442	Mercury, Total by CVAA	mg/L	0.0000351	0.0005	0.004	0.00360	0.00381	0.00375	0.0034 to 0.0046	90.0	70 to 130	5.67	20
BA16442	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.200	0.201	0.193	0.17 to 0.23	100	70 to 130	0.499	20
BA16442	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	9.81	9.90	5.10	4.25 to 5.75	99.4	70 to 130	0.913	20
BA16442	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	102	70 to 130	1.72	20
BA16442	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.611	0.616	0.109	0.085 to 0.115	104	70 to 130	0.815	20
BA16442	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.108	0.108	0.108	0.085 to 0.115	108	70 to 130	0.00	20
BA16442	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.146	0.149	0.114	0.085 to 0.115	109	70 to 130	2.03	20
BA16442	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.104	0.103	0.101	0.085 to 0.115	104	70 to 130	0.966	20
BA16442	Sodium, Total	mg/L	0.00184	0.044	5.00	25.9	26.1	5.04	4.25 to 5.75	96.0	70 to 130	0.769	20
BA16443	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.114	0.107	0.103	0.085 to 0.115	108	70 to 130	6.33	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 09:05
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-1V

Laboratory ID Number: BA16437

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16440	Solids, Dissolved	mg/L	0.0000	25			247	50.0	40 to 60			1.20	5
BA16442	Sulfate	mg/L	-0.306	0.50	20.0	28.7	8.57	19.7	18 to 22	105	80 to 120	11.9	20
BA16442	Fluoride	mg/L	0.0433	0.05	2.50	2.83	0.193	2.56	2.25 to 2.75	105	80 to 120	1.54	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10
BA16442	Chloride	mg/L	-0.00585	0.50	10.0	31.1	18.2	10.1	9 to 11	129	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-3

Location Code: WMWBARAP
Collected: 9/1/20 10:28
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16438

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:06		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 10:06		1.015	1.08	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 10:06		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/10/20 09:37	9/11/20 10:06		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:06		1.015	0.818	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 10:06		1.015	4.43	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 10:12		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:25		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:25		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 09:25		1.015	0.0380	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:25		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:25		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:25		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 09:25		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:25		1.015	1.12	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 09:25		1.015	0.00769	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 09:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:25		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 09:58		1.015	0.00651	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 11:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	39.3	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-3

Location Code: WMWBARAP
Collected: 9/1/20 10:28
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16438

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 12:36	9/4/20 12:36		1	8.97	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 09:48	9/10/20 09:48		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:24	9/3/20 14:24		1	0.705	mg/L	0.50	1	J
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/1/20 10:26	9/1/20 10:26			43.51	uS/cm			FA
pH	9/1/20 10:26	9/1/20 10:26			4.24	SU			FA
Temperature	9/1/20 10:26	9/1/20 10:26			21.69	C			FA
Turbidity	9/1/20 10:26	9/1/20 10:26			2.12	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 10:28
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-3

Laboratory ID Number: BA16438

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Iron, Total	mg/L	0.000467	0.0176	0.2	87.5	88.2	0.201	0.17 to 0.23	-700	70 to 130	0.797	20
BA16442	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0988	0.0946	0.0946	0.085 to 0.115	98.8	70 to 130	4.34	20
BA16442	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.922	20
BA16442	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.104	0.104	0.100	0.085 to 0.115	104	70 to 130	0.00	20
BA16442	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	102	70 to 130	1.72	20
BA16442	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.611	0.616	0.109	0.085 to 0.115	104	70 to 130	0.815	20
BA16442	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.108	0.108	0.108	0.085 to 0.115	108	70 to 130	0.00	20
BA16442	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.219	0.222	0.102	0.085 to 0.115	105	70 to 130	1.36	20
BA16442	Antimony, Total	mg/L	0.000155	0.001	0.10	0.104	0.106	0.0955	0.085 to 0.115	104	70 to 130	1.90	20
BA16442	Selenium, Total	mg/L	0.000019	0.001	0.10	0.107	0.107	0.112	0.085 to 0.115	107	70 to 130	0.00	20
BA16442	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.109	0.112	0.103	0.085 to 0.115	106	70 to 130	2.71	20
BA16442	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA16443	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	0.238	0.238	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA16442	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.15	1.16	0.990	0.85 to 1.15	100	70 to 130	0.866	20
BA16442	Calcium, Total	mg/L	0.00307	0.1518	5.00	15.7	15.8	5.02	4.25 to 5.75	98.0	70 to 130	0.635	20
BA16442	Mercury, Total by CVAA	mg/L	0.0000351	0.0005	0.004	0.00360	0.00381	0.00375	0.0034 to 0.0046	90.0	70 to 130	5.67	20
BA16442	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.200	0.201	0.193	0.17 to 0.23	100	70 to 130	0.499	20
BA16442	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	9.81	9.90	5.10	4.25 to 5.75	99.4	70 to 130	0.913	20
BA16442	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.146	0.149	0.114	0.085 to 0.115	109	70 to 130	2.03	20
BA16442	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.104	0.103	0.101	0.085 to 0.115	104	70 to 130	0.966	20
BA16442	Sodium, Total	mg/L	0.00184	0.044	5.00	25.9	26.1	5.04	4.25 to 5.75	96.0	70 to 130	0.769	20
BA16443	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.114	0.107	0.103	0.085 to 0.115	108	70 to 130	6.33	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 10:28
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-3

Laboratory ID Number: BA16438

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16440	Solids, Dissolved	mg/L	0.0000	25			247	50.0	40 to 60			1.20	5
BA16442	Chloride	mg/L	-0.00585	0.50	10.0	31.1	18.2	10.1	9 to 11	129	80 to 120	0.00	20
BA16442	Sulfate	mg/L	-0.306	0.50	20.0	28.7	8.57	19.7	18 to 22	105	80 to 120	11.9	20
BA16442	Fluoride	mg/L	0.0433	0.05	2.50	2.83	0.193	2.56	2.25 to 2.75	105	80 to 120	1.54	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-4

Location Code: WMWBARAP
Collected: 9/1/20 11:28
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16439

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:09		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 10:09		1.015	0.566	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 10:09		1.015	0.0503	mg/L	0.02	0.05	
* Lithium, Total	9/10/20 09:37	9/11/20 10:09		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:09		1.015	0.471	mg/L	0.1	0.5	J
* Sodium, Total	9/10/20 09:37	9/11/20 10:09		1.015	4.64	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 10:15		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:28		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 09:28		1.015	0.0131	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:28		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:28		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:28		1.015	0.00657	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 09:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:28		1.015	0.964	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 09:28		1.015	0.00790	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 09:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:28		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:01		1.015	0.00716	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 11:39		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	36.0	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-4

Location Code: WMWBARAP
Collected: 9/1/20 11:28
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16439

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 12:37	9/4/20 12:37		1	7.82	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 09:49	9/10/20 09:49		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:25	9/3/20 14:25		1	1.83	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/1/20 11:25	9/1/20 11:25			39.97	uS/cm			FA
pH	9/1/20 11:25	9/1/20 11:25			4.23	SU			FA
Temperature	9/1/20 11:25	9/1/20 11:25			21.81	C			FA
Turbidity	9/1/20 11:25	9/1/20 11:25			2.36	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 11:28
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-4

Laboratory ID Number: BA16439

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Iron, Total	mg/L	0.000467	0.0176	0.2	87.5	88.2	0.201	0.17 to 0.23	-700	70 to 130	0.797	20
BA16442	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.15	1.16	0.990	0.85 to 1.15	100	70 to 130	0.866	20
BA16442	Calcium, Total	mg/L	0.00307	0.1518	5.00	15.7	15.8	5.02	4.25 to 5.75	98.0	70 to 130	0.635	20
BA16442	Mercury, Total by CVAA	mg/L	0.0000351	0.0005	0.004	0.00360	0.00381	0.00375	0.0034 to 0.0046	90.0	70 to 130	5.67	20
BA16442	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.200	0.201	0.193	0.17 to 0.23	100	70 to 130	0.499	20
BA16442	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	9.81	9.90	5.10	4.25 to 5.75	99.4	70 to 130	0.913	20
BA16442	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.219	0.222	0.102	0.085 to 0.115	105	70 to 130	1.36	20
BA16442	Antimony, Total	mg/L	0.000155	0.001	0.10	0.104	0.106	0.0955	0.085 to 0.115	104	70 to 130	1.90	20
BA16442	Selenium, Total	mg/L	0.000019	0.001	0.10	0.107	0.107	0.112	0.085 to 0.115	107	70 to 130	0.00	20
BA16442	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	102	70 to 130	1.72	20
BA16442	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.611	0.616	0.109	0.085 to 0.115	104	70 to 130	0.815	20
BA16442	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.108	0.108	0.108	0.085 to 0.115	108	70 to 130	0.00	20
BA16442	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.109	0.112	0.103	0.085 to 0.115	106	70 to 130	2.71	20
BA16442	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA16443	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	0.238	0.238	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA16442	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0988	0.0946	0.0946	0.085 to 0.115	98.8	70 to 130	4.34	20
BA16442	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.922	20
BA16442	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.104	0.104	0.100	0.085 to 0.115	104	70 to 130	0.00	20
BA16442	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.146	0.149	0.114	0.085 to 0.115	109	70 to 130	2.03	20
BA16442	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.104	0.103	0.101	0.085 to 0.115	104	70 to 130	0.966	20
BA16442	Sodium, Total	mg/L	0.00184	0.044	5.00	25.9	26.1	5.04	4.25 to 5.75	96.0	70 to 130	0.769	20
BA16443	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.114	0.107	0.103	0.085 to 0.115	108	70 to 130	6.33	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 11:28
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-4

Laboratory ID Number: BA16439

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Sulfate	mg/L	-0.306	0.50	20.0	28.7	8.57	19.7	18 to 22	105	80 to 120	11.9	20
BA16442	Chloride	mg/L	-0.00585	0.50	10.0	31.1	18.2	10.1	9 to 11	129	80 to 120	0.00	20
BA16440	Solids, Dissolved	mg/L	0.0000	25			247	50.0	40 to 60			1.20	5
BA16442	Fluoride	mg/L	0.0433	0.05	2.50	2.83	0.193	2.56	2.25 to 2.75	105	80 to 120	1.54	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-5

Location Code: WMWBARAP
Collected: 9/1/20 12:29
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16440

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:12		1.015	0.115	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 10:12		1.015	13.6	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 13:39		101.5	67.1	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 10:12		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:12		1.015	4.73	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 10:12		1.015	21.6	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 13:31		101.5	73.2	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:30		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:30		1.015	0.0372	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 09:30		1.015	0.154	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:30		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:30		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:30		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 09:30		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:30		1.015	1.56	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 09:30		1.015	0.658	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 09:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:30		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:04		1.015	0.568	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 11:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	189	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	253	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-5

Location Code: WMWBARAP
Collected: 9/1/20 12:29
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16440

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	189	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.03	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 12:38	9/4/20 12:38		1	19.1	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 09:50	9/10/20 09:50		1	0.0921	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:26	9/3/20 14:26		1	11.0	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/1/20 12:26	9/1/20 12:26			409.80	uS/cm			FA
pH	9/1/20 12:26	9/1/20 12:26			5.93	SU			FA
Temperature	9/1/20 12:26	9/1/20 12:26			22.33	C			FA
Turbidity	9/1/20 12:26	9/1/20 12:26			2.94	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 12:29
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-5

Laboratory ID Number: BA16440

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Iron, Total	mg/L	0.000467	0.0176	0.2	87.5	88.2	0.201	0.17 to 0.23	-700	70 to 130	0.797	20
BA16442	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.219	0.222	0.102	0.085 to 0.115	105	70 to 130	1.36	20
BA16442	Antimony, Total	mg/L	0.000155	0.001	0.10	0.104	0.106	0.0955	0.085 to 0.115	104	70 to 130	1.90	20
BA16442	Selenium, Total	mg/L	0.000019	0.001	0.10	0.107	0.107	0.112	0.085 to 0.115	107	70 to 130	0.00	20
BA16442	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	102	70 to 130	1.72	20
BA16442	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.611	0.616	0.109	0.085 to 0.115	104	70 to 130	0.815	20
BA16442	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.108	0.108	0.108	0.085 to 0.115	108	70 to 130	0.00	20
BA16442	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.109	0.112	0.103	0.085 to 0.115	106	70 to 130	2.71	20
BA16442	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA16443	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	0.238	0.238	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA16442	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.15	1.16	0.990	0.85 to 1.15	100	70 to 130	0.866	20
BA16442	Calcium, Total	mg/L	0.00307	0.1518	5.00	15.7	15.8	5.02	4.25 to 5.75	98.0	70 to 130	0.635	20
BA16442	Mercury, Total by CVAA	mg/L	0.0000351	0.0005	0.004	0.00360	0.00381	0.00375	0.0034 to 0.0046	90.0	70 to 130	5.67	20
BA16442	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.200	0.201	0.193	0.17 to 0.23	100	70 to 130	0.499	20
BA16442	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	9.81	9.90	5.10	4.25 to 5.75	99.4	70 to 130	0.913	20
BA16442	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0988	0.0946	0.0946	0.085 to 0.115	98.8	70 to 130	4.34	20
BA16442	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.922	20
BA16442	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.104	0.104	0.100	0.085 to 0.115	104	70 to 130	0.00	20
BA16442	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.146	0.149	0.114	0.085 to 0.115	109	70 to 130	2.03	20
BA16442	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.104	0.103	0.101	0.085 to 0.115	104	70 to 130	0.966	20
BA16442	Sodium, Total	mg/L	0.00184	0.044	5.00	25.9	26.1	5.04	4.25 to 5.75	96.0	70 to 130	0.769	20
BA16443	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.114	0.107	0.103	0.085 to 0.115	108	70 to 130	6.33	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 12:29
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-5

Laboratory ID Number: BA16440

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Sulfate	mg/L	-0.306	0.50	20.0	28.7	8.57	19.7	18 to 22	105	80 to 120	11.9	20
BA16440	Solids, Dissolved	mg/L	0.0000	25			247	50.0	40 to 60			1.20	5
BA16442	Fluoride	mg/L	0.0433	0.05	2.50	2.83	0.193	2.56	2.25 to 2.75	105	80 to 120	1.54	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10
BA16442	Chloride	mg/L	-0.00585	0.50	10.0	31.1	18.2	10.1	9 to 11	129	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-17V

Location Code: WMWBARAP
Collected: 9/1/20 13:36
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16441

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:15		1.015	0.124	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 10:15		1.015	20.5	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 10:15		1.015	1.66	mg/L	0.02	0.05	
* Lithium, Total	9/10/20 09:37	9/11/20 10:15		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:15		1.015	10.9	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 13:42		10.15	162	mg/L	1.015	5.075	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 10:21		1.015	0.904	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:33		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:33		1.015	0.00472	mg/L	0.001	0.005	J
* Barium, Total	9/8/20 08:24	9/9/20 09:33		1.015	0.277	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:33		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:33		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:33		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:33		1.015	0.0220	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 09:33		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:33		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:33		1.015	3.21	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 09:33		1.015	0.817	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 09:33		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:33		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:06		1.015	0.745	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 11:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	104	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/4/20 09:02	9/8/20 14:27		1	576	mg/L		50	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-17V

Location Code: WMWBARAP
Collected: 9/1/20 13:36
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16441

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	104	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.04	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 12:40	9/4/20 12:40		40	273	mg/L	20.00	40	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 09:52	9/10/20 09:52		1	0.144	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:27	9/3/20 14:27		1	26.6	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/1/20 13:33	9/1/20 13:33			1063.37	uS/cm			FA
pH	9/1/20 13:33	9/1/20 13:33			6.49	SU			FA
Temperature	9/1/20 13:33	9/1/20 13:33			22.08	C			FA
Turbidity	9/1/20 13:33	9/1/20 13:33			6.07	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 13:36
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-17V

Laboratory ID Number: BA16441

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Iron, Total	mg/L	0.000467	0.0176	0.2	87.5	88.2	0.201	0.17 to 0.23	-700	70 to 130	0.797	20
BA16442	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0988	0.0946	0.0946	0.085 to 0.115	98.8	70 to 130	4.34	20
BA16442	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.922	20
BA16442	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.104	0.104	0.100	0.085 to 0.115	104	70 to 130	0.00	20
BA16442	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.219	0.222	0.102	0.085 to 0.115	105	70 to 130	1.36	20
BA16442	Antimony, Total	mg/L	0.000155	0.001	0.10	0.104	0.106	0.0955	0.085 to 0.115	104	70 to 130	1.90	20
BA16442	Selenium, Total	mg/L	0.000019	0.001	0.10	0.107	0.107	0.112	0.085 to 0.115	107	70 to 130	0.00	20
BA16442	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.109	0.112	0.103	0.085 to 0.115	106	70 to 130	2.71	20
BA16442	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA16443	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	0.238	0.238	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA16442	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	102	70 to 130	1.72	20
BA16442	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.611	0.616	0.109	0.085 to 0.115	104	70 to 130	0.815	20
BA16442	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.108	0.108	0.108	0.085 to 0.115	108	70 to 130	0.00	20
BA16442	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.15	1.16	0.990	0.85 to 1.15	100	70 to 130	0.866	20
BA16442	Calcium, Total	mg/L	0.00307	0.1518	5.00	15.7	15.8	5.02	4.25 to 5.75	98.0	70 to 130	0.635	20
BA16442	Mercury, Total by CVAA	mg/L	0.0000351	0.0005	0.004	0.00360	0.00381	0.00375	0.0034 to 0.0046	90.0	70 to 130	5.67	20
BA16442	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.200	0.201	0.193	0.17 to 0.23	100	70 to 130	0.499	20
BA16442	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	9.81	9.90	5.10	4.25 to 5.75	99.4	70 to 130	0.913	20
BA16442	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.146	0.149	0.114	0.085 to 0.115	109	70 to 130	2.03	20
BA16442	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.104	0.103	0.101	0.085 to 0.115	104	70 to 130	0.966	20
BA16442	Sodium, Total	mg/L	0.00184	0.044	5.00	25.9	26.1	5.04	4.25 to 5.75	96.0	70 to 130	0.769	20
BA16443	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.114	0.107	0.103	0.085 to 0.115	108	70 to 130	6.33	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 13:36
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-17V

Laboratory ID Number: BA16441

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Chloride	mg/L	-0.00585	0.50	10.0	31.1	18.2	10.1	9 to 11	129	80 to 120	0.00	20
BA16442	Sulfate	mg/L	-0.306	0.50	20.0	28.7	8.57	19.7	18 to 22	105	80 to 120	11.9	20
BA16460	Solids, Dissolved	mg/L	-1.00	25			288	55.0	40 to 60			0.524	5
BA16442	Fluoride	mg/L	0.0433	0.05	2.50	2.83	0.193	2.56	2.25 to 2.75	105	80 to 120	1.54	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-17H

Location Code: WMWBARAP
Collected: 9/1/20 14:23
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16442

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:18		1.015	0.146	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 10:18		1.015	10.8	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 13:45		101.5	88.9	mg/L	2.03	5.075	RA
* Lithium, Total	9/10/20 09:37	9/11/20 10:18		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:18		1.015	4.84	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 10:18		1.015	21.1	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 13:34		101.5	95.3	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:36		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:36		1.015	0.0371	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 09:36		1.015	0.114	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:36		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:36		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:36		1.015	0.00258	mg/L	0.002	0.005	J
* Lead, Total	9/8/20 08:24	9/9/20 09:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:36		1.015	1.28	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 09:36		1.015	0.507	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 09:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:36		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:09		1.015	0.465	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 11:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	173	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/4/20 09:02	9/8/20 14:27		1	236	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-17H

Location Code: WMWBARAP
Collected: 9/1/20 14:23
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16442

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	173	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.04	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 12:41	9/4/20 12:41		1	18.2	mg/L	0.50	1	R
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 09:53	9/10/20 09:53		1	0.196	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:28	9/3/20 14:28		1	7.61	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/1/20 14:19	9/1/20 14:19			446.14	uS/cm			FA
pH	9/1/20 14:19	9/1/20 14:19			6.56	SU			FA
Temperature	9/1/20 14:19	9/1/20 14:19			21.95	C			FA
Turbidity	9/1/20 14:19	9/1/20 14:19			6.06	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 14:23
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: BA16442

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Iron, Total	mg/L	0.000467	0.0176	0.2	87.5	88.2	0.201	0.17 to 0.23	-700	70 to 130	0.797	20
BA16442	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.219	0.222	0.102	0.085 to 0.115	105	70 to 130	1.36	20
BA16442	Antimony, Total	mg/L	0.000155	0.001	0.10	0.104	0.106	0.0955	0.085 to 0.115	104	70 to 130	1.90	20
BA16442	Selenium, Total	mg/L	0.000019	0.001	0.10	0.107	0.107	0.112	0.085 to 0.115	107	70 to 130	0.00	20
BA16442	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	102	70 to 130	1.72	20
BA16442	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.611	0.616	0.109	0.085 to 0.115	104	70 to 130	0.815	20
BA16442	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.108	0.108	0.108	0.085 to 0.115	108	70 to 130	0.00	20
BA16442	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0988	0.0946	0.0946	0.085 to 0.115	98.8	70 to 130	4.34	20
BA16442	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	108	70 to 130	0.922	20
BA16442	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.104	0.104	0.100	0.085 to 0.115	104	70 to 130	0.00	20
BA16442	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.109	0.112	0.103	0.085 to 0.115	106	70 to 130	2.71	20
BA16442	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.103	0.102	0.103	0.085 to 0.115	103	70 to 130	0.976	20
BA16443	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	0.238	0.238	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA16442	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.146	0.149	0.114	0.085 to 0.115	109	70 to 130	2.03	20
BA16442	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.104	0.103	0.101	0.085 to 0.115	104	70 to 130	0.966	20
BA16442	Sodium, Total	mg/L	0.00184	0.044	5.00	25.9	26.1	5.04	4.25 to 5.75	96.0	70 to 130	0.769	20
BA16443	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.114	0.107	0.103	0.085 to 0.115	108	70 to 130	6.33	20
BA16442	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.15	1.16	0.990	0.85 to 1.15	100	70 to 130	0.866	20
BA16442	Calcium, Total	mg/L	0.00307	0.1518	5.00	15.7	15.8	5.02	4.25 to 5.75	98.0	70 to 130	0.635	20
BA16442	Mercury, Total by CVAA	mg/L	0.0000351	0.0005	0.004	0.00360	0.00381	0.00375	0.0034 to 0.0046	90.0	70 to 130	5.67	20
BA16442	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.200	0.201	0.193	0.17 to 0.23	100	70 to 130	0.499	20
BA16442	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	9.81	9.90	5.10	4.25 to 5.75	99.4	70 to 130	0.913	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 14:23
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-17H

Laboratory ID Number: BA16442

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16442	Chloride	mg/L	-0.00585	0.50	10.0	31.1	18.2	10.1	9 to 11	129	80 to 120	0.00	20
BA16442	Fluoride	mg/L	0.0433	0.05	2.50	2.83	0.193	2.56	2.25 to 2.75	105	80 to 120	1.54	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10
BA16442	Sulfate	mg/L	-0.306	0.50	20.0	28.7	8.57	19.7	18 to 22	105	80 to 120	11.9	20
BA16460	Solids, Dissolved	mg/L	-1.00	25			288	55.0	40 to 60			0.524	5

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-5V

Location Code: WMWBARAP
Collected: 9/1/20 15:52
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16443

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:32		1.015	0.0414	mg/L	0.03	0.1	J
* Calcium, Total	9/10/20 09:37	9/11/20 10:32		1.015	2.13	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 10:32		1.015	0.660	mg/L	0.02	0.05	
* Lithium, Total	9/10/20 09:37	9/11/20 10:32		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:32		1.015	1.30	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 10:32		1.015	27.1	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 10:26		1.015	0.0347	mg/L	0.02	0.05	J
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:52		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:52		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 09:52		1.015	0.0399	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:52		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:52		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:52		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 09:52		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:52		1.015	1.29	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 09:52		1.015	0.00704	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 09:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:52		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:12		1.015	0.00603	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:03		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	24.6	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/4/20 09:02	9/8/20 14:27		1	94.0	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-5V

Location Code: WMWBARAP
Collected: 9/1/20 15:52
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16443

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	24.6	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 13:17	9/4/20 13:17		2	30.6	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:04	9/10/20 10:04		1	0.0807	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:40	9/3/20 14:40		1	1.47	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/1/20 15:48	9/1/20 15:48			145.76	uS/cm			FA
pH	9/1/20 15:48	9/1/20 15:48			5.70	SU			FA
Temperature	9/1/20 15:48	9/1/20 15:48			22.48	C			FA
Turbidity	9/1/20 15:48	9/1/20 15:48			3.58	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 15:52
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: BA16443

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16443	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	0.238	0.238	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA16452	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0997	0.0962	0.0946	0.085 to 0.115	99.7	70 to 130	3.57	20
BA16452	Sodium, Total	mg/L	0.00184	0.044	5.00	135	137	5.04	4.25 to 5.75	20.0	70 to 130	1.47	20
BA16452	Antimony, Total	mg/L	0.000155	0.001	0.10	0.0950	0.0968	0.0955	0.085 to 0.115	95.0	70 to 130	1.88	20
BA16452	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.110	0.111	0.114	0.085 to 0.115	110	70 to 130	0.905	20
BA16452	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.30	1.31	0.990	0.85 to 1.15	99.3	70 to 130	0.766	20
BA16452	Mercury, Total by CVAA	mg/L	0.0000301	0.0005	0.004	0.00406	0.00387	0.00377	0.0034 to 0.0046	102	70 to 130	4.79	20
BA16452	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.106	0.105	0.100	0.085 to 0.115	106	70 to 130	0.948	20
BA16452	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.104	0.0993	0.103	0.085 to 0.115	104	70 to 130	4.62	20
BA16452	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.106	0.104	0.101	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	105	70 to 130	0.922	20
BA16452	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.149	0.149	0.109	0.085 to 0.115	105	70 to 130	0.00	20
BA16452	Selenium, Total	mg/L	0.000019	0.001	0.10	0.106	0.104	0.112	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.119	0.119	0.102	0.085 to 0.115	110	70 to 130	0.00	20
BA16452	Calcium, Total	mg/L	0.00307	0.1518	5.00	6.21	6.24	5.02	4.25 to 5.75	98.8	70 to 130	0.482	20
BA16452	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.107	0.107	0.103	0.085 to 0.115	107	70 to 130	0.00	20
BA16452	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	97.9	70 to 130	1.72	20
BA16452	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.109	0.105	0.108	0.085 to 0.115	109	70 to 130	3.74	20
BA16443	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.114	0.107	0.103	0.085 to 0.115	108	70 to 130	6.33	20
BA16452	Iron, Total	mg/L	0.000467	0.0176	0.2	1.31	1.31	0.201	0.17 to 0.23	125	70 to 130	0.00	20
BA16452	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.216	0.217	0.193	0.17 to 0.23	108	70 to 130	0.462	20
BA16452	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	5.57	5.62	5.10	4.25 to 5.75	99.6	70 to 130	0.894	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 15:52
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-5V

Laboratory ID Number: BA16443

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16460	Solids, Dissolved	mg/L	-1.00	25			288	55.0	40 to 60			0.524	5
BA16452	Sulfate	mg/L	-0.232	0.50	20.0	27.8	9.02	19.7	18 to 22	92.8	80 to 120	2.52	20
BA16452	Chloride	mg/L	-0.00232	0.50	400	538	120	10.1	9 to 11	105	80 to 120	2.53	20
BA16452	Fluoride	mg/L	0.0309	0.05	2.50	3.08	0.412	2.60	2.25 to 2.75	107	80 to 120	2.71	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-19H

Location Code: WMWBARAP
Collected: 9/1/20 09:18
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16444

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:35		1.015	0.895	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 10:35		1.015	31.6	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 13:53		101.5	91.0	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 10:35		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:35		1.015	7.63	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 10:35		1.015	19.5	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 13:37		101.5	96.9	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:54		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:54		1.015	0.00101	mg/L	0.001	0.005	J
* Barium, Total	9/8/20 08:24	9/9/20 09:54		1.015	0.159	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:54		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:54		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:54		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:54		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 09:54		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:54		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:54		1.015	1.83	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 12:33		5.075	1.54	mg/L	0.005075	0.025375	
* Selenium, Total	9/8/20 08:24	9/9/20 09:54		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:54		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 14:40		5.075	1.20	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:05		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	228	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	294	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-19H

Location Code: WMWBARAP
Collected: 9/1/20 09:18
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16444

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	228	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.05	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 13:18	9/4/20 13:18		1	17.6	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:05	9/10/20 10:05		1	0.0752	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:42	9/3/20 14:42		1	16.9	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/1/20 09:15	9/1/20 09:15			554.46	uS/cm			FA
pH	9/1/20 09:15	9/1/20 09:15			6.31	SU			FA
Temperature	9/1/20 09:15	9/1/20 09:15			20.64	C			FA
Turbidity	9/1/20 09:15	9/1/20 09:15			2.14	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 09:18
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: BA16444

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16454	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.806	0.808	0.103	0.085 to 0.115	77.0	70 to 130	0.248	20
BA16452	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.106	0.104	0.101	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	105	70 to 130	0.922	20
BA16452	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.149	0.149	0.109	0.085 to 0.115	105	70 to 130	0.00	20
BA16452	Selenium, Total	mg/L	0.000019	0.001	0.10	0.106	0.104	0.112	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Iron, Total	mg/L	0.000467	0.0176	0.2	1.31	1.31	0.201	0.17 to 0.23	125	70 to 130	0.00	20
BA16452	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.216	0.217	0.193	0.17 to 0.23	108	70 to 130	0.462	20
BA16452	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	5.57	5.62	5.10	4.25 to 5.75	99.6	70 to 130	0.894	20
BA16452	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0997	0.0962	0.0946	0.085 to 0.115	99.7	70 to 130	3.57	20
BA16452	Sodium, Total	mg/L	0.00184	0.044	5.00	135	137	5.04	4.25 to 5.75	20.0	70 to 130	1.47	20
BA16452	Antimony, Total	mg/L	0.000155	0.001	0.10	0.0950	0.0968	0.0955	0.085 to 0.115	95.0	70 to 130	1.88	20
BA16454	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	100	100	0.205	0.17 to 0.23	150	70 to 130	0.00	20
BA16452	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.119	0.119	0.102	0.085 to 0.115	110	70 to 130	0.00	20
BA16452	Calcium, Total	mg/L	0.00307	0.1518	5.00	6.21	6.24	5.02	4.25 to 5.75	98.8	70 to 130	0.482	20
BA16452	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.107	0.107	0.103	0.085 to 0.115	107	70 to 130	0.00	20
BA16452	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	97.9	70 to 130	1.72	20
BA16452	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.109	0.105	0.108	0.085 to 0.115	109	70 to 130	3.74	20
BA16452	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.110	0.111	0.114	0.085 to 0.115	110	70 to 130	0.905	20
BA16452	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.30	1.31	0.990	0.85 to 1.15	99.3	70 to 130	0.766	20
BA16452	Mercury, Total by CVAA	mg/L	0.0000301	0.0005	0.004	0.00406	0.00387	0.00377	0.0034 to 0.0046	102	70 to 130	4.79	20
BA16452	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.106	0.105	0.100	0.085 to 0.115	106	70 to 130	0.948	20
BA16452	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.104	0.0993	0.103	0.085 to 0.115	104	70 to 130	4.62	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 09:18
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-19H

Laboratory ID Number: BA16444

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16452	Sulfate	mg/L	-0.232	0.50	20.0	27.8	9.02	19.7	18 to 22	92.8	80 to 120	2.52	20
BA16452	Chloride	mg/L	-0.00232	0.50	400	538	120	10.1	9 to 11	105	80 to 120	2.53	20
BA16457	Solids, Dissolved	mg/L	0.0000	25			339	50.0	40 to 60			0.148	5
BA16452	Fluoride	mg/L	0.0309	0.05	2.50	3.08	0.412	2.60	2.25 to 2.75	107	80 to 120	2.71	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-18H

Location Code: WMWBARAP
Collected: 9/1/20 10:44
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16445

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:38		1.015	0.855	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 10:38		1.015	25.6	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 13:56		101.5	75.8	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 10:38		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:38		1.015	10.2	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 10:38		1.015	16.4	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 13:40		101.5	82.4	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:57		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:57		1.015	0.0150	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 09:57		1.015	0.123	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:57		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:57		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:57		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 09:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:57		1.015	1.32	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 12:35		5.075	1.35	mg/L	0.005075	0.025375	
* Selenium, Total	9/8/20 08:24	9/9/20 09:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:57		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:30		1.015	1.20	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:08		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	200	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	281	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-18H

Location Code: WMWBARAP
Collected: 9/1/20 10:44
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16445

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	200	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.04	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 13:20	9/4/20 13:20		1	19.8	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:06	9/10/20 10:06		1	0.0784	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:43	9/3/20 14:43		1	30.6	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/1/20 10:40	9/1/20 10:40			492.66	uS/cm			FA
pH	9/1/20 10:40	9/1/20 10:40			6.15	SU			FA
Temperature	9/1/20 10:40	9/1/20 10:40			20.81	C			FA
Turbidity	9/1/20 10:40	9/1/20 10:40			1.04	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 10:44
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: BA16445

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16454	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.806	0.808	0.103	0.085 to 0.115	77.0	70 to 130	0.248	20
BA16452	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.106	0.104	0.101	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	105	70 to 130	0.922	20
BA16452	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.149	0.149	0.109	0.085 to 0.115	105	70 to 130	0.00	20
BA16452	Selenium, Total	mg/L	0.000019	0.001	0.10	0.106	0.104	0.112	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0997	0.0962	0.0946	0.085 to 0.115	99.7	70 to 130	3.57	20
BA16452	Sodium, Total	mg/L	0.00184	0.044	5.00	135	137	5.04	4.25 to 5.75	20.0	70 to 130	1.47	20
BA16452	Antimony, Total	mg/L	0.000155	0.001	0.10	0.0950	0.0968	0.0955	0.085 to 0.115	95.0	70 to 130	1.88	20
BA16454	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	100	100	0.205	0.17 to 0.23	150	70 to 130	0.00	20
BA16452	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.119	0.119	0.102	0.085 to 0.115	110	70 to 130	0.00	20
BA16452	Calcium, Total	mg/L	0.00307	0.1518	5.00	6.21	6.24	5.02	4.25 to 5.75	98.8	70 to 130	0.482	20
BA16452	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.107	0.107	0.103	0.085 to 0.115	107	70 to 130	0.00	20
BA16452	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	97.9	70 to 130	1.72	20
BA16452	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.109	0.105	0.108	0.085 to 0.115	109	70 to 130	3.74	20
BA16452	Iron, Total	mg/L	0.000467	0.0176	0.2	1.31	1.31	0.201	0.17 to 0.23	125	70 to 130	0.00	20
BA16452	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.216	0.217	0.193	0.17 to 0.23	108	70 to 130	0.462	20
BA16452	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	5.57	5.62	5.10	4.25 to 5.75	99.6	70 to 130	0.894	20
BA16452	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.110	0.111	0.114	0.085 to 0.115	110	70 to 130	0.905	20
BA16452	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.30	1.31	0.990	0.85 to 1.15	99.3	70 to 130	0.766	20
BA16452	Mercury, Total by CVAA	mg/L	0.0000301	0.0005	0.004	0.00406	0.00387	0.00377	0.0034 to 0.0046	102	70 to 130	4.79	20
BA16452	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.106	0.105	0.100	0.085 to 0.115	106	70 to 130	0.948	20
BA16452	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.104	0.0993	0.103	0.085 to 0.115	104	70 to 130	4.62	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 10:44
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-18H

Laboratory ID Number: BA16445

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16452	Sulfate	mg/L	-0.232	0.50	20.0	27.8	9.02	19.7	18 to 22	92.8	80 to 120	2.52	20
BA16452	Fluoride	mg/L	0.0309	0.05	2.50	3.08	0.412	2.60	2.25 to 2.75	107	80 to 120	2.71	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10
BA16452	Chloride	mg/L	-0.00232	0.50	400	538	120	10.1	9 to 11	105	80 to 120	2.53	20
BA16457	Solids, Dissolved	mg/L	0.0000	25			339	50.0	40 to 60			0.148	5

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-18H DUP

Location Code: WMWBARAP
Collected: 9/1/20 10:44
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16446

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:41		1.015	0.854	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 10:41		1.015	25.4	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 13:59		101.5	78.4	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 10:41		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:41		1.015	10.2	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 10:41		1.015	16.3	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 13:43		101.5	82.0	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 09:59		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 09:59		1.015	0.0151	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 09:59		1.015	0.125	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 09:59		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 09:59		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 09:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 09:59		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 09:59		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 09:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 09:59		1.015	1.30	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 12:38		5.075	1.35	mg/L	0.005075	0.025375	
* Selenium, Total	9/8/20 08:24	9/9/20 09:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 09:59		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:33		1.015	1.18	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:10		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	202	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	276	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-18H DUP

Location Code: WMWBARAP
Collected: 9/1/20 10:44
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16446

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	202	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.04	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 13:21	9/4/20 13:21		1	19.8	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:07	9/10/20 10:07		1	0.0783	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:44	9/3/20 14:44		1	31.6	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/1/20 10:40	9/1/20 10:40			492.66	uS/cm			FA
pH	9/1/20 10:40	9/1/20 10:40			6.15	SU			FA
Temperature	9/1/20 10:40	9/1/20 10:40			20.81	C			FA
Turbidity	9/1/20 10:40	9/1/20 10:40			1.04	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 10:44
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-18H DUP

Laboratory ID Number: BA16446

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16454	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.806	0.808	0.103	0.085 to 0.115	77.0	70 to 130	0.248	20
BA16452	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.106	0.104	0.101	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	105	70 to 130	0.922	20
BA16452	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.149	0.149	0.109	0.085 to 0.115	105	70 to 130	0.00	20
BA16452	Selenium, Total	mg/L	0.000019	0.001	0.10	0.106	0.104	0.112	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.119	0.119	0.102	0.085 to 0.115	110	70 to 130	0.00	20
BA16452	Calcium, Total	mg/L	0.00307	0.1518	5.00	6.21	6.24	5.02	4.25 to 5.75	98.8	70 to 130	0.482	20
BA16452	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.107	0.107	0.103	0.085 to 0.115	107	70 to 130	0.00	20
BA16452	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	97.9	70 to 130	1.72	20
BA16452	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.109	0.105	0.108	0.085 to 0.115	109	70 to 130	3.74	20
BA16452	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0997	0.0962	0.0946	0.085 to 0.115	99.7	70 to 130	3.57	20
BA16452	Sodium, Total	mg/L	0.00184	0.044	5.00	135	137	5.04	4.25 to 5.75	20.0	70 to 130	1.47	20
BA16452	Antimony, Total	mg/L	0.000155	0.001	0.10	0.0950	0.0968	0.0955	0.085 to 0.115	95.0	70 to 130	1.88	20
BA16454	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	100	100	0.205	0.17 to 0.23	150	70 to 130	0.00	20
BA16452	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.110	0.111	0.114	0.085 to 0.115	110	70 to 130	0.905	20
BA16452	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.30	1.31	0.990	0.85 to 1.15	99.3	70 to 130	0.766	20
BA16452	Mercury, Total by CVAA	mg/L	0.0000301	0.0005	0.004	0.00406	0.00387	0.00377	0.0034 to 0.0046	102	70 to 130	4.79	20
BA16452	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.106	0.105	0.100	0.085 to 0.115	106	70 to 130	0.948	20
BA16452	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.104	0.0993	0.103	0.085 to 0.115	104	70 to 130	4.62	20
BA16452	Iron, Total	mg/L	0.000467	0.0176	0.2	1.31	1.31	0.201	0.17 to 0.23	125	70 to 130	0.00	20
BA16452	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.216	0.217	0.193	0.17 to 0.23	108	70 to 130	0.462	20
BA16452	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	5.57	5.62	5.10	4.25 to 5.75	99.6	70 to 130	0.894	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 10:44
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-18H DUP

Laboratory ID Number: BA16446

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16452	Sulfate	mg/L	-0.232	0.50	20.0	27.8	9.02	19.7	18 to 22	92.8	80 to 120	2.52	20
BA16452	Chloride	mg/L	-0.00232	0.50	400	538	120	10.1	9 to 11	105	80 to 120	2.53	20
BA16457	Solids, Dissolved	mg/L	0.0000	25			339	50.0	40 to 60			0.148	5
BA16452	Fluoride	mg/L	0.0309	0.05	2.50	3.08	0.412	2.60	2.25 to 2.75	107	80 to 120	2.71	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Field Blank-4

Location Code: WMWBARAPFB
Collected: 9/1/20 11:05
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16447

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		***Analyst: RDA***							
* Boron, Total	9/10/20 09:37	9/11/20 10:44		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 10:44		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/10/20 09:37	9/11/20 10:44		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/10/20 09:37	9/11/20 10:44		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:44		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/10/20 09:37	9/11/20 10:44		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8		***Analyst: DLJ***			***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:02		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		***Analyst: GAS***							
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		***Analyst: TJW***							
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 13:22	9/4/20 13:22		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:09	9/10/20 10:09		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:45	9/3/20 14:45		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPFB
Sample Date: 9/1/20 11:05
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond Field Blank-4

Laboratory ID Number: BA16447

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16452	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.106	0.104	0.101	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	105	70 to 130	0.922	20
BA16452	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.149	0.149	0.109	0.085 to 0.115	105	70 to 130	0.00	20
BA16452	Selenium, Total	mg/L	0.000019	0.001	0.10	0.106	0.104	0.112	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Iron, Total	mg/L	0.000467	0.0176	0.2	1.31	1.31	0.201	0.17 to 0.23	125	70 to 130	0.00	20
BA16452	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.216	0.217	0.193	0.17 to 0.23	108	70 to 130	0.462	20
BA16452	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	5.57	5.62	5.10	4.25 to 5.75	99.6	70 to 130	0.894	20
BA16452	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.119	0.119	0.102	0.085 to 0.115	110	70 to 130	0.00	20
BA16452	Calcium, Total	mg/L	0.00307	0.1518	5.00	6.21	6.24	5.02	4.25 to 5.75	98.8	70 to 130	0.482	20
BA16452	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.107	0.107	0.103	0.085 to 0.115	107	70 to 130	0.00	20
BA16452	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	97.9	70 to 130	1.72	20
BA16452	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.109	0.105	0.108	0.085 to 0.115	109	70 to 130	3.74	20
BA16452	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.110	0.111	0.114	0.085 to 0.115	110	70 to 130	0.905	20
BA16452	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.30	1.31	0.990	0.85 to 1.15	99.3	70 to 130	0.766	20
BA16452	Mercury, Total by CVAA	mg/L	0.0000301	0.0005	0.004	0.00406	0.00387	0.00377	0.0034 to 0.0046	102	70 to 130	4.79	20
BA16452	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.106	0.105	0.100	0.085 to 0.115	106	70 to 130	0.948	20
BA16452	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.104	0.0993	0.103	0.085 to 0.115	104	70 to 130	4.62	20
BA16452	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0997	0.0962	0.0946	0.085 to 0.115	99.7	70 to 130	3.57	20
BA16452	Sodium, Total	mg/L	0.00184	0.044	5.00	135	137	5.04	4.25 to 5.75	20.0	70 to 130	1.47	20
BA16452	Antimony, Total	mg/L	0.000155	0.001	0.10	0.0950	0.0968	0.0955	0.085 to 0.115	95.0	70 to 130	1.88	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 9/1/20 11:05
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond Field Blank-4

Laboratory ID Number: BA16447

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16452	Sulfate	mg/L	-0.232	0.50	20.0	27.8	9.02	19.7	18 to 22	92.8	80 to 120	2.52	20
BA16452	Fluoride	mg/L	0.0309	0.05	2.50	3.08	0.412	2.60	2.25 to 2.75	107	80 to 120	2.71	20
BA16452	Chloride	mg/L	-0.00232	0.50	400	538	120	10.1	9 to 11	105	80 to 120	2.53	20
BA16457	Solids, Dissolved	mg/L	0.0000	25			339	50.0	40 to 60			0.148	5

Comments:

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-20H

Location Code: WMWBARAP
Collected: 9/1/20 12:05
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16448

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:47		1.015	0.106	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 10:47		1.015	28.8	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 14:02		101.5	57.2	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 10:47		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:47		1.015	17.9	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 14:02		101.5	88.5	mg/L	10.15	50.75	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 13:46		101.5	60.9	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:05		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:05		1.015	0.0172	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 10:05		1.015	0.110	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:05		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:05		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:05		1.015	0.00283	mg/L	0.002	0.01	J
* Cobalt, Total	9/8/20 08:24	9/9/20 10:05		1.015	0.00460	mg/L	0.002	0.005	J
* Lead, Total	9/8/20 08:24	9/9/20 10:05		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:05		1.015	3.32	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 10:05		1.015	0.521	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:05		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:36		1.015	0.477	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:15		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	376	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	479	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-20H

Location Code: WMWBARAP
Collected: 9/1/20 12:05
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16448

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	376	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.08	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 13:23	9/4/20 13:23		2	34.6	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:10	9/10/20 10:10		1	0.0954	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:55	9/3/20 14:55		2	43.5	mg/L	1.00	2	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/1/20 12:02	9/1/20 12:02			790.06	uS/cm			FA
pH	9/1/20 12:02	9/1/20 12:02			6.15	SU			FA
Temperature	9/1/20 12:02	9/1/20 12:02			20.55	C			FA
Turbidity	9/1/20 12:02	9/1/20 12:02			3.41	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 12:05
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: BA16448

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16454	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.806	0.808	0.103	0.085 to 0.115	77.0	70 to 130	0.248	20
BA16452	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.106	0.104	0.101	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	105	70 to 130	0.922	20
BA16452	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.149	0.149	0.109	0.085 to 0.115	105	70 to 130	0.00	20
BA16452	Selenium, Total	mg/L	0.000019	0.001	0.10	0.106	0.104	0.112	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Iron, Total	mg/L	0.000467	0.0176	0.2	1.31	1.31	0.201	0.17 to 0.23	125	70 to 130	0.00	20
BA16452	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.216	0.217	0.193	0.17 to 0.23	108	70 to 130	0.462	20
BA16452	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	5.57	5.62	5.10	4.25 to 5.75	99.6	70 to 130	0.894	20
BA16452	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0997	0.0962	0.0946	0.085 to 0.115	99.7	70 to 130	3.57	20
BA16452	Sodium, Total	mg/L	0.00184	0.044	5.00	135	137	5.04	4.25 to 5.75	20.0	70 to 130	1.47	20
BA16452	Antimony, Total	mg/L	0.000155	0.001	0.10	0.0950	0.0968	0.0955	0.085 to 0.115	95.0	70 to 130	1.88	20
BA16454	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	100	100	0.205	0.17 to 0.23	150	70 to 130	0.00	20
BA16452	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.110	0.111	0.114	0.085 to 0.115	110	70 to 130	0.905	20
BA16452	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.30	1.31	0.990	0.85 to 1.15	99.3	70 to 130	0.766	20
BA16452	Mercury, Total by CVAA	mg/L	0.0000301	0.0005	0.004	0.00406	0.00387	0.00377	0.0034 to 0.0046	102	70 to 130	4.79	20
BA16452	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.106	0.105	0.100	0.085 to 0.115	106	70 to 130	0.948	20
BA16452	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.104	0.0993	0.103	0.085 to 0.115	104	70 to 130	4.62	20
BA16452	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.119	0.119	0.102	0.085 to 0.115	110	70 to 130	0.00	20
BA16452	Calcium, Total	mg/L	0.00307	0.1518	5.00	6.21	6.24	5.02	4.25 to 5.75	98.8	70 to 130	0.482	20
BA16452	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.107	0.107	0.103	0.085 to 0.115	107	70 to 130	0.00	20
BA16452	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	97.9	70 to 130	1.72	20
BA16452	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.109	0.105	0.108	0.085 to 0.115	109	70 to 130	3.74	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 12:05
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-20H

Laboratory ID Number: BA16448

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16452	Sulfate	mg/L	-0.232	0.50	20.0	27.8	9.02	19.7	18 to 22	92.8	80 to 120	2.52	20
BA16452	Chloride	mg/L	-0.00232	0.50	400	538	120	10.1	9 to 11	105	80 to 120	2.53	20
BA16457	Solids, Dissolved	mg/L	0.0000	25			339	50.0	40 to 60			0.148	5
BA16452	Fluoride	mg/L	0.0309	0.05	2.50	3.08	0.412	2.60	2.25 to 2.75	107	80 to 120	2.71	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-22H

Location Code: WMWBARAP
Collected: 9/1/20 13:08
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16449

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:50		1.015	0.115	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 10:50		1.015	14.8	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 14:11		101.5	63.8	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 10:50		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:50		1.015	13.6	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 14:11		101.5	70.9	mg/L	10.15	50.75	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 13:49		101.5	70.0	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:07		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:07		1.015	0.0217	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 10:07		1.015	0.234	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:07		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:07		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 10:07		1.015	0.00294	mg/L	0.002	0.005	J
* Lead, Total	9/8/20 08:24	9/9/20 10:07		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:07		1.015	2.15	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 10:07		1.015	0.605	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:07		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:38		1.015	0.526	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:17		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	248	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/4/20 09:02	9/8/20 14:27		1	362	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-22H

Location Code: WMWBARAP
Collected: 9/1/20 13:08
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16449

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	248	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.08	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 13:24	9/4/20 13:24		4	59.9	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:11	9/10/20 10:11		1	0.301	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:56	9/3/20 14:56		4	93.2	mg/L	2.00	4	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/1/20 13:04	9/1/20 13:04			675.82	uS/cm			FA
pH	9/1/20 13:04	9/1/20 13:04			6.48	SU			FA
Temperature	9/1/20 13:04	9/1/20 13:04			20.71	C			FA
Turbidity	9/1/20 13:04	9/1/20 13:04			2.55	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 13:08
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: BA16449

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16454	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.806	0.808	0.103	0.085 to 0.115	77.0	70 to 130	0.248	20
BA16452	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0997	0.0962	0.0946	0.085 to 0.115	99.7	70 to 130	3.57	20
BA16452	Sodium, Total	mg/L	0.00184	0.044	5.00	135	137	5.04	4.25 to 5.75	20.0	70 to 130	1.47	20
BA16452	Antimony, Total	mg/L	0.000155	0.001	0.10	0.0950	0.0968	0.0955	0.085 to 0.115	95.0	70 to 130	1.88	20
BA16454	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	100	100	0.205	0.17 to 0.23	150	70 to 130	0.00	20
BA16452	Iron, Total	mg/L	0.000467	0.0176	0.2	1.31	1.31	0.201	0.17 to 0.23	125	70 to 130	0.00	20
BA16452	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.216	0.217	0.193	0.17 to 0.23	108	70 to 130	0.462	20
BA16452	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	5.57	5.62	5.10	4.25 to 5.75	99.6	70 to 130	0.894	20
BA16452	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.106	0.104	0.101	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	105	70 to 130	0.922	20
BA16452	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.149	0.149	0.109	0.085 to 0.115	105	70 to 130	0.00	20
BA16452	Selenium, Total	mg/L	0.000019	0.001	0.10	0.106	0.104	0.112	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.110	0.111	0.114	0.085 to 0.115	110	70 to 130	0.905	20
BA16452	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.30	1.31	0.990	0.85 to 1.15	99.3	70 to 130	0.766	20
BA16452	Mercury, Total by CVAA	mg/L	0.0000301	0.0005	0.004	0.00406	0.00387	0.00377	0.0034 to 0.0046	102	70 to 130	4.79	20
BA16452	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.106	0.105	0.100	0.085 to 0.115	106	70 to 130	0.948	20
BA16452	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.104	0.0993	0.103	0.085 to 0.115	104	70 to 130	4.62	20
BA16452	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.119	0.119	0.102	0.085 to 0.115	110	70 to 130	0.00	20
BA16452	Calcium, Total	mg/L	0.00307	0.1518	5.00	6.21	6.24	5.02	4.25 to 5.75	98.8	70 to 130	0.482	20
BA16452	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.107	0.107	0.103	0.085 to 0.115	107	70 to 130	0.00	20
BA16452	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	97.9	70 to 130	1.72	20
BA16452	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.109	0.105	0.108	0.085 to 0.115	109	70 to 130	3.74	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 13:08
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-22H

Laboratory ID Number: BA16449

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16460	Solids, Dissolved	mg/L	-1.00	25			288	55.0	40 to 60			0.524	5
BA16452	Chloride	mg/L	-0.00232	0.50	400	538	120	10.1	9 to 11	105	80 to 120	2.53	20
BA16452	Sulfate	mg/L	-0.232	0.50	20.0	27.8	9.02	19.7	18 to 22	92.8	80 to 120	2.52	20
BA16452	Fluoride	mg/L	0.0309	0.05	2.50	3.08	0.412	2.60	2.25 to 2.75	107	80 to 120	2.71	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-15V

Location Code: WMWBARAP
Collected: 9/1/20 14:03
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16450

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:53		1.015	0.0907	mg/L	0.03	0.1	J
* Calcium, Total	9/10/20 09:37	9/11/20 10:53		1.015	6.90	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 14:14		101.5	53.8	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 10:53		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:53		1.015	4.57	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 14:14		101.5	57.2	mg/L	10.15	50.75	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 13:52		101.5	56.3	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:10		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:10		1.015	0.0401	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 10:10		1.015	0.134	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:10		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:10		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 10:10		1.015	0.0665	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 10:10		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:10		1.015	3.11	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 10:10		1.015	1.03	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:10		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:41		1.015	0.901	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	48.8	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/4/20 09:02	9/8/20 14:27		1	318	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-15V

Location Code: WMWBARAP
Collected: 9/1/20 14:03
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16450

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	48.8	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.01	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 13:26	9/4/20 13:26		32	170	mg/L	16.00	32	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:12	9/10/20 10:12		1	0.0624	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:49	9/3/20 14:49		1	2.21	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/1/20 13:58	9/1/20 13:58			602.68	uS/cm			FA
pH	9/1/20 13:58	9/1/20 13:58			5.91	SU			FA
Temperature	9/1/20 13:58	9/1/20 13:58			21.59	C			FA
Turbidity	9/1/20 13:58	9/1/20 13:58			0.9	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 14:03
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: BA16450

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16454	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.806	0.808	0.103	0.085 to 0.115	77.0	70 to 130	0.248	20
BA16452	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0997	0.0962	0.0946	0.085 to 0.115	99.7	70 to 130	3.57	20
BA16452	Sodium, Total	mg/L	0.00184	0.044	5.00	135	137	5.04	4.25 to 5.75	20.0	70 to 130	1.47	20
BA16452	Antimony, Total	mg/L	0.000155	0.001	0.10	0.0950	0.0968	0.0955	0.085 to 0.115	95.0	70 to 130	1.88	20
BA16454	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	100	100	0.205	0.17 to 0.23	150	70 to 130	0.00	20
BA16452	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.119	0.119	0.102	0.085 to 0.115	110	70 to 130	0.00	20
BA16452	Calcium, Total	mg/L	0.00307	0.1518	5.00	6.21	6.24	5.02	4.25 to 5.75	98.8	70 to 130	0.482	20
BA16452	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.107	0.107	0.103	0.085 to 0.115	107	70 to 130	0.00	20
BA16452	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	97.9	70 to 130	1.72	20
BA16452	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.109	0.105	0.108	0.085 to 0.115	109	70 to 130	3.74	20
BA16452	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.106	0.104	0.101	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	105	70 to 130	0.922	20
BA16452	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.149	0.149	0.109	0.085 to 0.115	105	70 to 130	0.00	20
BA16452	Selenium, Total	mg/L	0.000019	0.001	0.10	0.106	0.104	0.112	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.110	0.111	0.114	0.085 to 0.115	110	70 to 130	0.905	20
BA16452	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.30	1.31	0.990	0.85 to 1.15	99.3	70 to 130	0.766	20
BA16452	Mercury, Total by CVAA	mg/L	0.0000301	0.0005	0.004	0.00406	0.00387	0.00377	0.0034 to 0.0046	102	70 to 130	4.79	20
BA16452	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.106	0.105	0.100	0.085 to 0.115	106	70 to 130	0.948	20
BA16452	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.104	0.0993	0.103	0.085 to 0.115	104	70 to 130	4.62	20
BA16452	Iron, Total	mg/L	0.000467	0.0176	0.2	1.31	1.31	0.201	0.17 to 0.23	125	70 to 130	0.00	20
BA16452	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.216	0.217	0.193	0.17 to 0.23	108	70 to 130	0.462	20
BA16452	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	5.57	5.62	5.10	4.25 to 5.75	99.6	70 to 130	0.894	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 14:03
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-15V

Laboratory ID Number: BA16450

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16452	Chloride	mg/L	-0.00232	0.50	400	538	120	10.1	9 to 11	105	80 to 120	2.53	20
BA16460	Solids, Dissolved	mg/L	-1.00	25			288	55.0	40 to 60			0.524	5
BA16452	Fluoride	mg/L	0.0309	0.05	2.50	3.08	0.412	2.60	2.25 to 2.75	107	80 to 120	2.71	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10
BA16452	Sulfate	mg/L	-0.232	0.50	20.0	27.8	9.02	19.7	18 to 22	92.8	80 to 120	2.52	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-23H

Location Code: WMWBARAP
Collected: 9/1/20 15:35
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16451

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:56		1.015	0.0943	mg/L	0.03	0.1	J
* Calcium, Total	9/10/20 09:37	9/11/20 10:56		1.015	35.8	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 14:17		101.5	51.2	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 10:56		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:56		1.015	8.66	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 10:56		1.015	20.0	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:01		101.5	58.5	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:13		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:13		1.015	0.0226	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 10:13		1.015	0.182	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:13		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:13		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 10:13		1.015	0.0273	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 10:13		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:13		1.015	1.71	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 12:41		5.075	1.82	mg/L	0.005075	0.025375	
* Selenium, Total	9/8/20 08:24	9/9/20 10:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:13		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 14:43		5.075	1.38	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	224	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/4/20 09:02	9/8/20 14:27		1	271	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-23H

Location Code: WMWBARAP
Collected: 9/1/20 15:35
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16451

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	224	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.04	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 13:27	9/4/20 13:27		1	6.96	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:13	9/10/20 10:13		1	0.0919	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:50	9/3/20 14:50		1	24.5	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/1/20 15:31	9/1/20 15:31			480.42	uS/cm			FA
pH	9/1/20 15:31	9/1/20 15:31			6.14	SU			FA
Temperature	9/1/20 15:31	9/1/20 15:31			20.78	C			FA
Turbidity	9/1/20 15:31	9/1/20 15:31			2.37	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 15:35
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: BA16451

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16454	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.806	0.808	0.103	0.085 to 0.115	77.0	70 to 130	0.248	20
BA16452	Iron, Total	mg/L	0.000467	0.0176	0.2	1.31	1.31	0.201	0.17 to 0.23	125	70 to 130	0.00	20
BA16452	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.216	0.217	0.193	0.17 to 0.23	108	70 to 130	0.462	20
BA16452	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	5.57	5.62	5.10	4.25 to 5.75	99.6	70 to 130	0.894	20
BA16452	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.119	0.119	0.102	0.085 to 0.115	110	70 to 130	0.00	20
BA16452	Calcium, Total	mg/L	0.00307	0.1518	5.00	6.21	6.24	5.02	4.25 to 5.75	98.8	70 to 130	0.482	20
BA16452	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.107	0.107	0.103	0.085 to 0.115	107	70 to 130	0.00	20
BA16452	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	97.9	70 to 130	1.72	20
BA16452	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.109	0.105	0.108	0.085 to 0.115	109	70 to 130	3.74	20
BA16452	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.110	0.111	0.114	0.085 to 0.115	110	70 to 130	0.905	20
BA16452	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.30	1.31	0.990	0.85 to 1.15	99.3	70 to 130	0.766	20
BA16452	Mercury, Total by CVAA	mg/L	0.0000301	0.0005	0.004	0.00406	0.00387	0.00377	0.0034 to 0.0046	102	70 to 130	4.79	20
BA16452	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.106	0.105	0.100	0.085 to 0.115	106	70 to 130	0.948	20
BA16452	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.104	0.0993	0.103	0.085 to 0.115	104	70 to 130	4.62	20
BA16452	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.106	0.104	0.101	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	105	70 to 130	0.922	20
BA16452	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.149	0.149	0.109	0.085 to 0.115	105	70 to 130	0.00	20
BA16452	Selenium, Total	mg/L	0.000019	0.001	0.10	0.106	0.104	0.112	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0997	0.0962	0.0946	0.085 to 0.115	99.7	70 to 130	3.57	20
BA16452	Sodium, Total	mg/L	0.00184	0.044	5.00	135	137	5.04	4.25 to 5.75	20.0	70 to 130	1.47	20
BA16452	Antimony, Total	mg/L	0.000155	0.001	0.10	0.0950	0.0968	0.0955	0.085 to 0.115	95.0	70 to 130	1.88	20
BA16454	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	100	100	0.205	0.17 to 0.23	150	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 15:35
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-23H

Laboratory ID Number: BA16451

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16460	Solids, Dissolved	mg/L	-1.00	25			288	55.0	40 to 60			0.524	5
BA16452	Chloride	mg/L	-0.00232	0.50	400	538	120	10.1	9 to 11	105	80 to 120	2.53	20
BA16452	Sulfate	mg/L	-0.232	0.50	20.0	27.8	9.02	19.7	18 to 22	92.8	80 to 120	2.52	20
BA16452	Fluoride	mg/L	0.0309	0.05	2.50	3.08	0.412	2.60	2.25 to 2.75	107	80 to 120	2.71	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-23V

Location Code: WMWBARAP
Collected: 9/1/20 18:15
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16452

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 10:58		1.015	0.307	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 10:58		1.015	1.27	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 10:58		1.015	1.06	mg/L	0.02	0.05	
* Lithium, Total	9/10/20 09:37	9/11/20 10:58		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 10:58		1.015	0.592	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 14:20		101.5	134	mg/L	10.15	50.75	RA
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 11:02		1.015	0.516	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:15		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 10:15		1.015	0.00933	mg/L	0.002	0.01	J
* Beryllium, Total	9/8/20 08:24	9/9/20 10:15		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:15		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:15		1.015	0.00284	mg/L	0.002	0.01	J
* Cobalt, Total	9/8/20 08:24	9/9/20 10:15		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 10:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:15		1.015	1.71	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 10:15		1.015	0.0437	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:15		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:46		1.015	0.0361	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:24		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	171	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/4/20 09:02	9/8/20 14:27		1	391	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-23V

Location Code: WMWBARAP
Collected: 9/1/20 18:15
Customer ID:
Submittal Date: 9/2/20 14:38

Laboratory ID Number: BA16452

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	169	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	2.40	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/4/20 13:28	9/4/20 13:28		40	117	mg/L	20.00	40	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:15	9/10/20 10:15		1	0.401	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 14:51	9/3/20 14:51		1	9.25	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/1/20 18:11	9/1/20 18:11			665.99	uS/cm			FA
pH	9/1/20 18:11	9/1/20 18:11			7.98	SU			FA
Temperature	9/1/20 18:11	9/1/20 18:11			21.06	C			FA
Turbidity	9/1/20 18:11	9/1/20 18:11			9.97	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 18:15
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-23V

Laboratory ID Number: BA16452

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16454	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.806	0.808	0.103	0.085 to 0.115	77.0	70 to 130	0.248	20
BA16452	Cadmium, Total	mg/L	0.0000111	0.0001474	0.10	0.106	0.104	0.101	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Chromium, Total	mg/L	0.0000115	0.00044	0.10	0.108	0.109	0.104	0.085 to 0.115	105	70 to 130	0.922	20
BA16452	Manganese, Total	mg/L	-0.0000027	0.0001474	0.10	0.149	0.149	0.109	0.085 to 0.115	105	70 to 130	0.00	20
BA16452	Selenium, Total	mg/L	0.000019	0.001	0.10	0.106	0.104	0.112	0.085 to 0.115	106	70 to 130	1.90	20
BA16452	Barium, Total	mg/L	-0.0000114	0.0002	0.10	0.119	0.119	0.102	0.085 to 0.115	110	70 to 130	0.00	20
BA16452	Calcium, Total	mg/L	0.00307	0.1518	5.00	6.21	6.24	5.02	4.25 to 5.75	98.8	70 to 130	0.482	20
BA16452	Cobalt, Total	mg/L	-0.0000023	0.0001474	0.10	0.107	0.107	0.103	0.085 to 0.115	107	70 to 130	0.00	20
BA16452	Potassium, Total	mg/L	0.0335	0.3674	10.0	11.5	11.7	10.8	8.5 to 11.5	97.9	70 to 130	1.72	20
BA16452	Lead, Total	mg/L	0.0000055	0.0001474	0.10	0.109	0.105	0.108	0.085 to 0.115	109	70 to 130	3.74	20
BA16452	Beryllium, Total	mg/L	0.0000347	0.00088	0.10	0.0997	0.0962	0.0946	0.085 to 0.115	99.7	70 to 130	3.57	20
BA16452	Sodium, Total	mg/L	0.00184	0.044	5.00	135	137	5.04	4.25 to 5.75	20.0	70 to 130	1.47	20
BA16452	Antimony, Total	mg/L	0.000155	0.001	0.10	0.0950	0.0968	0.0955	0.085 to 0.115	95.0	70 to 130	1.88	20
BA16454	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	100	100	0.205	0.17 to 0.23	150	70 to 130	0.00	20
BA16452	Arsenic, Total	mg/L	0.0000157	0.0001474	0.10	0.110	0.111	0.114	0.085 to 0.115	110	70 to 130	0.905	20
BA16452	Boron, Total	mg/L	0.000420	0.0650254	1.00	1.30	1.31	0.990	0.85 to 1.15	99.3	70 to 130	0.766	20
BA16452	Mercury, Total by CVAA	mg/L	0.0000301	0.0005	0.004	0.00406	0.00387	0.00377	0.0034 to 0.0046	102	70 to 130	4.79	20
BA16452	Molybdenum, Total	mg/L	0.0000063	0.0001474	0.10	0.106	0.105	0.100	0.085 to 0.115	106	70 to 130	0.948	20
BA16452	Thallium, Total	mg/L	0.0000082	0.0001474	0.10	0.104	0.0993	0.103	0.085 to 0.115	104	70 to 130	4.62	20
BA16452	Iron, Total	mg/L	0.000467	0.0176	0.2	1.31	1.31	0.201	0.17 to 0.23	125	70 to 130	0.00	20
BA16452	Lithium, Total	mg/L	-0.000139	0.0154	0.200	0.216	0.217	0.193	0.17 to 0.23	108	70 to 130	0.462	20
BA16452	Magnesium, Total	mg/L	-0.00122	0.0462	5.00	5.57	5.62	5.10	4.25 to 5.75	99.6	70 to 130	0.894	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 18:15
Customer ID:
Delivery Date: 9/2/20 14:38

Description: Barry Ash Pond - MW-23V

Laboratory ID Number: BA16452

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16460	Solids, Dissolved	mg/L	-1.00	25			288	55.0	40 to 60			0.524	5
BA16452	Sulfate	mg/L	-0.232	0.50	20.0	27.8	9.02	19.7	18 to 22	92.8	80 to 120	2.52	20
BA16452	Chloride	mg/L	-0.00232	0.50	400	538	120	10.1	9 to 11	105	80 to 120	2.53	20
BA16452	Fluoride	mg/L	0.0309	0.05	2.50	3.08	0.412	2.60	2.25 to 2.75	107	80 to 120	2.71	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-10

Location Code: WMWBARAP
Collected: 9/1/20 08:58
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16453

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 11:19		1.015	2.02	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 14:29		50.75	57.2	mg/L	5.075	25.375	
* Iron, Total	9/10/20 09:37	9/11/20 14:29		50.75	61.5	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 11:19		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 11:19		1.015	17.3	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 11:19		1.015	23.8	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:04		101.5	67.6	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:36		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:36		1.015	0.0763	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 10:36		1.015	0.0780	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:36		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:36		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 10:36		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 10:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:36		1.015	1.53	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 12:43		5.075	1.81	mg/L	0.005075	0.025375	
* Selenium, Total	9/8/20 08:24	9/9/20 10:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:36		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 14:46		5.075	1.43	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:41		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	302	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	392	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-10

Location Code: WMWBARAP
Collected: 9/1/20 08:58
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16453

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	302	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.08	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:06	9/8/20 13:06		2	25.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:27	9/10/20 10:27		1	0.0794	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 15:06	9/3/20 15:06		1	15.6	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/1/20 08:54	9/1/20 08:54			551.38	uS/cm			FA
pH	9/1/20 08:54	9/1/20 08:54			6.33	SU			FA
Temperature	9/1/20 08:54	9/1/20 08:54			22.04	C			FA
Turbidity	9/1/20 08:54	9/1/20 08:54			0.23	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 08:58
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-10

Laboratory ID Number: BA16453

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Antimony, Total	mg/L	0.000181	0.001	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA16644	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.00	1.01	0.991	0.85 to 1.15	100	70 to 130	0.995	20
BA16644	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.104	0.108	0.110	0.085 to 0.115	104	70 to 130	3.77	20
BA16454	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	100	100	0.205	0.17 to 0.23	150	70 to 130	0.00	20
BA16644	Potassium, Total	mg/L	0.0259	0.3674	10.0	10.4	11.1	10.5	8.5 to 11.5	94.4	70 to 130	6.51	20
BA16644	Magnesium, Total	mg/L	0.00105	0.0462	5.00	5.64	5.70	5.05	4.25 to 5.75	100	70 to 130	1.06	20
BA16644	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.120	0.127	0.108	0.085 to 0.115	99.8	70 to 130	5.67	20
BA16644	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.116	0.122	0.113	0.085 to 0.115	103	70 to 130	5.04	20
BA16644	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.113	0.110	0.111	0.085 to 0.115	113	70 to 130	2.69	20
BA16644	Calcium, Total	mg/L	0.00624	0.1518	5.00	5.82	5.86	5.00	4.25 to 5.75	98.9	70 to 130	0.685	20
BA16644	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.106	0.110	0.111	0.085 to 0.115	103	70 to 130	3.70	20
BA16644	Mercury, Total by CVAA	mg/L	0.0000324	0.0005	0.004	0.00376	0.00400	0.00397	0.0034 to 0.0046	94.0	70 to 130	6.19	20
BA16644	Sodium, Total	mg/L	0.00253	0.044	5.00	10.3	10.2	4.97	4.25 to 5.75	103	70 to 130	0.976	20
BA16644	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16454	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.806	0.808	0.103	0.085 to 0.115	77.0	70 to 130	0.248	20
BA16644	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0885	0.0936	0.0969	0.085 to 0.115	88.5	70 to 130	5.60	20
BA16644	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	1.96	20
BA16644	Iron, Total	mg/L	0.00108	0.0176	0.2	0.794	0.798	0.200	0.17 to 0.23	95.5	70 to 130	0.503	20
BA16644	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.194	0.194	0.191	0.17 to 0.23	97.0	70 to 130	0.00	20
BA16644	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.101	0.106	0.106	0.085 to 0.115	101	70 to 130	4.83	20
BA16644	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.0947	0.103	0.102	0.085 to 0.115	94.7	70 to 130	8.40	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 08:58
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-10

Laboratory ID Number: BA16453

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10
BA16460	Sulfate	mg/L	-0.0637	0.50	20.0	32.5	14.3	19.9	18 to 22	91.5	80 to 120	0.702	20
BA16644	Chloride	mg/L	0.0325	0.50	10.0	14.8	4.68	9.84	9 to 11	102	80 to 120	1.72	20
BA16457	Solids, Dissolved	mg/L	0.0000	25			339	50.0	40 to 60			0.148	5
BA16644	Fluoride	mg/L	0.0468	0.05	2.50	2.48	0.0347	2.58	2.25 to 2.75	99.2	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-10V

Location Code: WMWBARAP
Collected: 9/1/20 09:55
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16454

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 11:22		1.015	1.06	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 14:32		50.75	57.3	mg/L	5.075	25.375	
* Iron, Total	9/10/20 09:37	9/11/20 14:32		50.75	91.4	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 11:22		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 11:22		1.015	11.5	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 11:22		1.015	21.6	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:07		101.5	99.7	mg/L	2.03	5.075	RA
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:39		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 10:39		1.015	0.203	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:39		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:39		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 10:39		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 10:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:39		1.015	2.10	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 10:39		1.015	0.835	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:39		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 10:51		1.015	0.729	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:43		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/9/20 09:30	9/9/20 11:05		1	297	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	403	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-10V

Location Code: WMWBARAP
Collected: 9/1/20 09:55
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16454

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	297	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 09:30	9/9/20 11:05		1	0.08	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:08	9/8/20 13:08		2	22.9	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:28	9/10/20 10:28		1	0.0695	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 15:07	9/3/20 15:07		1	30.1	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/1/20 09:52	9/1/20 09:52			601.00	uS/cm			FA
pH	9/1/20 09:52	9/1/20 09:52			6.34	SU			FA
Temperature	9/1/20 09:52	9/1/20 09:52			21.85	C			FA
Turbidity	9/1/20 09:52	9/1/20 09:52			1.42	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 09:55
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: BA16454

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Antimony, Total	mg/L	0.000181	0.001	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA16644	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.104	0.108	0.110	0.085 to 0.115	104	70 to 130	3.77	20
BA16644	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.00	1.01	0.991	0.85 to 1.15	100	70 to 130	0.995	20
BA16454	Iron, Dissolved	mg/L	0.000182	0.0176	0.2	100	100	0.205	0.17 to 0.23	150	70 to 130	0.00	20
BA16644	Potassium, Total	mg/L	0.0259	0.3674	10.0	10.4	11.1	10.5	8.5 to 11.5	94.4	70 to 130	6.51	20
BA16644	Magnesium, Total	mg/L	0.00105	0.0462	5.00	5.64	5.70	5.05	4.25 to 5.75	100	70 to 130	1.06	20
BA16644	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.113	0.110	0.111	0.085 to 0.115	113	70 to 130	2.69	20
BA16644	Calcium, Total	mg/L	0.00624	0.1518	5.00	5.82	5.86	5.00	4.25 to 5.75	98.9	70 to 130	0.685	20
BA16644	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.106	0.110	0.111	0.085 to 0.115	103	70 to 130	3.70	20
BA16644	Mercury, Total by CVAA	mg/L	0.0000324	0.0005	0.004	0.00376	0.00400	0.00397	0.0034 to 0.0046	94.0	70 to 130	6.19	20
BA16644	Sodium, Total	mg/L	0.00253	0.044	5.00	10.3	10.2	4.97	4.25 to 5.75	103	70 to 130	0.976	20
BA16644	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.120	0.127	0.108	0.085 to 0.115	99.8	70 to 130	5.67	20
BA16644	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.116	0.122	0.113	0.085 to 0.115	103	70 to 130	5.04	20
BA16454	Manganese, Dissolved	mg/L	-0.0000129	0.0001474	0.10	0.806	0.808	0.103	0.085 to 0.115	77.0	70 to 130	0.248	20
BA16644	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0885	0.0936	0.0969	0.085 to 0.115	88.5	70 to 130	5.60	20
BA16644	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	1.96	20
BA16644	Iron, Total	mg/L	0.00108	0.0176	0.2	0.794	0.798	0.200	0.17 to 0.23	95.5	70 to 130	0.503	20
BA16644	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.194	0.194	0.191	0.17 to 0.23	97.0	70 to 130	0.00	20
BA16644	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.101	0.106	0.106	0.085 to 0.115	101	70 to 130	4.83	20
BA16644	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.0947	0.103	0.102	0.085 to 0.115	94.7	70 to 130	8.40	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 09:55
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-10V

Laboratory ID Number: BA16454

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16460	Sulfate	mg/L	-0.0637	0.50	20.0	32.5	14.3	19.9	18 to 22	91.5	80 to 120	0.702	20
BA16644	Chloride	mg/L	0.0325	0.50	10.0	14.8	4.68	9.84	9 to 11	102	80 to 120	1.72	20
BA16454	Alkalinity, Total as CaCO3	mg/L					299	49.5	45.0 to 55.0			0.671	10
BA16457	Solids, Dissolved	mg/L	0.0000	25			339	50.0	40 to 60			0.148	5
BA16644	Fluoride	mg/L	0.0468	0.05	2.50	2.48	0.0347	2.58	2.25 to 2.75	99.2	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-10V DUP

Location Code: WMWBARAP
Collected: 9/1/20 09:55
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16455

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 11:25		1.015	1.05	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 14:35		50.75	56.8	mg/L	5.075	25.375	
* Iron, Total	9/10/20 09:37	9/11/20 14:35		50.75	90.3	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 11:25		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 11:25		1.015	11.4	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 11:25		1.015	21.6	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:16		101.5	100	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:42		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 10:42		1.015	0.206	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:42		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:42		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 10:42		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 10:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:42		1.015	2.10	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 10:42		1.015	0.823	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:42		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:00		1.015	0.699	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:46		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	377	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	400	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-10V DUP

Location Code: WMWBARAP
Collected: 9/1/20 09:55
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16455

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/9/20 10:10	9/9/20 11:26		1	377	mg/L			
Carbonate Alkalinity, (calc.)	9/9/20 10:10	9/9/20 11:26		1	0.09	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:09	9/8/20 13:09		2	20.5	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:29	9/10/20 10:29		1	0.0686	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 15:08	9/3/20 15:08		1	28.9	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/1/20 09:52	9/1/20 09:52			601.00	uS/cm			FA
pH	9/1/20 09:52	9/1/20 09:52			6.34	SU			FA
Temperature	9/1/20 09:52	9/1/20 09:52			21.85	C			FA
Turbidity	9/1/20 09:52	9/1/20 09:52			1.42	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 09:55
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-10V DUP

Laboratory ID Number: BA16455

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.00	1.01	0.991	0.85 to 1.15	100	70 to 130	0.995	20
BA16644	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.104	0.108	0.110	0.085 to 0.115	104	70 to 130	3.77	20
BA16644	Antimony, Total	mg/L	0.000181	0.001	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA16646	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.104	0.105	0.0993	0.085 to 0.115	99.3	70 to 130	0.957	20
BA16644	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.120	0.127	0.108	0.085 to 0.115	99.8	70 to 130	5.67	20
BA16644	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.116	0.122	0.113	0.085 to 0.115	103	70 to 130	5.04	20
BA16644	Potassium, Total	mg/L	0.0259	0.3674	10.0	10.4	11.1	10.5	8.5 to 11.5	94.4	70 to 130	6.51	20
BA16644	Magnesium, Total	mg/L	0.00105	0.0462	5.00	5.64	5.70	5.05	4.25 to 5.75	100	70 to 130	1.06	20
BA16644	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.113	0.110	0.111	0.085 to 0.115	113	70 to 130	2.69	20
BA16644	Calcium, Total	mg/L	0.00624	0.1518	5.00	5.82	5.86	5.00	4.25 to 5.75	98.9	70 to 130	0.685	20
BA16644	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.106	0.110	0.111	0.085 to 0.115	103	70 to 130	3.70	20
BA16644	Mercury, Total by CVAA	mg/L	0.0000324	0.0005	0.004	0.00376	0.00400	0.00397	0.0034 to 0.0046	94.0	70 to 130	6.19	20
BA16644	Sodium, Total	mg/L	0.00253	0.044	5.00	10.3	10.2	4.97	4.25 to 5.75	103	70 to 130	0.976	20
BA16644	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0885	0.0936	0.0969	0.085 to 0.115	88.5	70 to 130	5.60	20
BA16644	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	1.96	20
BA16644	Iron, Total	mg/L	0.00108	0.0176	0.2	0.794	0.798	0.200	0.17 to 0.23	95.5	70 to 130	0.503	20
BA16644	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.194	0.194	0.191	0.17 to 0.23	97.0	70 to 130	0.00	20
BA16644	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.101	0.106	0.106	0.085 to 0.115	101	70 to 130	4.83	20
BA16644	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.0947	0.103	0.102	0.085 to 0.115	94.7	70 to 130	8.40	20
BA16646	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	0.240	0.235	0.210	0.17 to 0.23	105	70 to 130	2.11	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 09:55
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-10V DUP

Laboratory ID Number: BA16455

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16460	Sulfate	mg/L	-0.0637	0.50	20.0	32.5	14.3	19.9	18 to 22	91.5	80 to 120	0.702	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16644	Chloride	mg/L	0.0325	0.50	10.0	14.8	4.68	9.84	9 to 11	102	80 to 120	1.72	20
BA16457	Solids, Dissolved	mg/L	0.0000	25			339	50.0	40 to 60			0.148	5
BA16644	Fluoride	mg/L	0.0468	0.05	2.50	2.48	0.0347	2.58	2.25 to 2.75	99.2	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-11

Location Code: WMWBARAP
Collected: 9/1/20 11:30
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16456

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		***Analyst: RDA***							
* Boron, Total	9/10/20 09:37	9/11/20 11:28		1.015	0.104	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 11:28		1.015	23.9	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 14:37		50.75	69.7	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 11:28		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 11:28		1.015	13.0	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 14:37		50.75	48.1	mg/L	5.075	25.375	
Analytical Method: EPA 200.7		***Analyst: RDA***							
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:19		101.5	74.4	mg/L	2.03	5.075	
Analytical Method: EPA 200.8		***Analyst: DLJ***			***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:44		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:44		1.015	0.0165	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 10:44		1.015	0.0923	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:44		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:44		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:44		1.015	0.00259	mg/L	0.002	0.01	J
* Cobalt, Total	9/8/20 08:24	9/9/20 10:44		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 10:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:44		1.015	4.58	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 10:44		1.015	0.665	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:44		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8		***Analyst: DLJ***							
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:03		1.015	0.591	mg/L	0.001	0.005	
Analytical Method: EPA 245.1		***Analyst: GAS***							
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:48		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	289	mg/L		0.1	
Analytical Method: SM 2540C		***Analyst: TJW***							
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	399	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-11

Location Code: WMWBARAP
Collected: 9/1/20 11:30
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16456

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	289	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.06	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:10	9/8/20 13:10		2	23.2	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:31	9/10/20 10:31		1	0.0841	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 15:18	9/3/20 15:18		2	42.8	mg/L	1.00	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/1/20 11:25	9/1/20 11:25			547.59	uS/cm			FA
pH	9/1/20 11:25	9/1/20 11:25			5.87	SU			FA
Temperature	9/1/20 11:25	9/1/20 11:25			21.50	C			FA
Turbidity	9/1/20 11:25	9/1/20 11:25			4.99	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 11:30
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-11

Laboratory ID Number: BA16456

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.00	1.01	0.991	0.85 to 1.15	100	70 to 130	0.995	20
BA16644	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.104	0.108	0.110	0.085 to 0.115	104	70 to 130	3.77	20
BA16644	Antimony, Total	mg/L	0.000181	0.001	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA16646	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.104	0.105	0.0993	0.085 to 0.115	99.3	70 to 130	0.957	20
BA16644	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.120	0.127	0.108	0.085 to 0.115	99.8	70 to 130	5.67	20
BA16644	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.116	0.122	0.113	0.085 to 0.115	103	70 to 130	5.04	20
BA16644	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0885	0.0936	0.0969	0.085 to 0.115	88.5	70 to 130	5.60	20
BA16644	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	1.96	20
BA16644	Iron, Total	mg/L	0.00108	0.0176	0.2	0.794	0.798	0.200	0.17 to 0.23	95.5	70 to 130	0.503	20
BA16644	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.194	0.194	0.191	0.17 to 0.23	97.0	70 to 130	0.00	20
BA16644	Potassium, Total	mg/L	0.0259	0.3674	10.0	10.4	11.1	10.5	8.5 to 11.5	94.4	70 to 130	6.51	20
BA16644	Magnesium, Total	mg/L	0.00105	0.0462	5.00	5.64	5.70	5.05	4.25 to 5.75	100	70 to 130	1.06	20
BA16644	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.101	0.106	0.106	0.085 to 0.115	101	70 to 130	4.83	20
BA16644	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.0947	0.103	0.102	0.085 to 0.115	94.7	70 to 130	8.40	20
BA16646	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	0.240	0.235	0.210	0.17 to 0.23	105	70 to 130	2.11	20
BA16644	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.113	0.110	0.111	0.085 to 0.115	113	70 to 130	2.69	20
BA16644	Calcium, Total	mg/L	0.00624	0.1518	5.00	5.82	5.86	5.00	4.25 to 5.75	98.9	70 to 130	0.685	20
BA16644	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.106	0.110	0.111	0.085 to 0.115	103	70 to 130	3.70	20
BA16644	Mercury, Total by CVAA	mg/L	0.0000324	0.0005	0.004	0.00376	0.00400	0.00397	0.0034 to 0.0046	94.0	70 to 130	6.19	20
BA16644	Sodium, Total	mg/L	0.00253	0.044	5.00	10.3	10.2	4.97	4.25 to 5.75	103	70 to 130	0.976	20
BA16644	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 11:30
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-11

Laboratory ID Number: BA16456

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16644	Chloride	mg/L	0.0325	0.50	10.0	14.8	4.68	9.84	9 to 11	102	80 to 120	1.72	20
BA16460	Sulfate	mg/L	-0.0637	0.50	20.0	32.5	14.3	19.9	18 to 22	91.5	80 to 120	0.702	20
BA16457	Solids, Dissolved	mg/L	0.0000	25			339	50.0	40 to 60			0.148	5
BA16644	Fluoride	mg/L	0.0468	0.05	2.50	2.48	0.0347	2.58	2.25 to 2.75	99.2	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-12V

Location Code: WMWBARAP
Collected: 9/1/20 12:35
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16457

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 11:31		1.015	0.149	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 11:31		1.015	21.0	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 14:40		50.75	78.1	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 11:31		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 11:31		1.015	15.3	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 14:40		50.75	37.7	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:22		101.5	85.0	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:47		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:47		1.015	0.0257	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 10:47		1.015	0.102	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:47		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:47		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 10:47		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 10:47		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:47		1.015	2.59	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 10:47		1.015	1.26	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:47		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:06		1.015	1.11	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:50		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	237	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/3/20 15:15	9/8/20 12:00		1	338	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-12V

Location Code: WMWBARAP
Collected: 9/1/20 12:35
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16457

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	237	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.05	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:11	9/8/20 13:11		2	26.4	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:32	9/10/20 10:32		1	0.0947	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 15:19	9/3/20 15:19		2	47.5	mg/L	1.00	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/1/20 12:32	9/1/20 12:32			488.91	uS/cm			FA
pH	9/1/20 12:32	9/1/20 12:32			6.20	SU			FA
Temperature	9/1/20 12:32	9/1/20 12:32			21.33	C			FA
Turbidity	9/1/20 12:32	9/1/20 12:32			3.17	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 12:35
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: BA16457

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.00	1.01	0.991	0.85 to 1.15	100	70 to 130	0.995	20
BA16644	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.104	0.108	0.110	0.085 to 0.115	104	70 to 130	3.77	20
BA16644	Antimony, Total	mg/L	0.000181	0.001	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA16646	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.104	0.105	0.0993	0.085 to 0.115	99.3	70 to 130	0.957	20
BA16644	Potassium, Total	mg/L	0.0259	0.3674	10.0	10.4	11.1	10.5	8.5 to 11.5	94.4	70 to 130	6.51	20
BA16644	Magnesium, Total	mg/L	0.00105	0.0462	5.00	5.64	5.70	5.05	4.25 to 5.75	100	70 to 130	1.06	20
BA16644	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0885	0.0936	0.0969	0.085 to 0.115	88.5	70 to 130	5.60	20
BA16644	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	1.96	20
BA16644	Iron, Total	mg/L	0.00108	0.0176	0.2	0.794	0.798	0.200	0.17 to 0.23	95.5	70 to 130	0.503	20
BA16644	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.194	0.194	0.191	0.17 to 0.23	97.0	70 to 130	0.00	20
BA16644	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.120	0.127	0.108	0.085 to 0.115	99.8	70 to 130	5.67	20
BA16644	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.116	0.122	0.113	0.085 to 0.115	103	70 to 130	5.04	20
BA16644	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.113	0.110	0.111	0.085 to 0.115	113	70 to 130	2.69	20
BA16644	Calcium, Total	mg/L	0.00624	0.1518	5.00	5.82	5.86	5.00	4.25 to 5.75	98.9	70 to 130	0.685	20
BA16644	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.106	0.110	0.111	0.085 to 0.115	103	70 to 130	3.70	20
BA16644	Mercury, Total by CVAA	mg/L	0.0000324	0.0005	0.004	0.00376	0.00400	0.00397	0.0034 to 0.0046	94.0	70 to 130	6.19	20
BA16644	Sodium, Total	mg/L	0.00253	0.044	5.00	10.3	10.2	4.97	4.25 to 5.75	103	70 to 130	0.976	20
BA16644	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.101	0.106	0.106	0.085 to 0.115	101	70 to 130	4.83	20
BA16644	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.0947	0.103	0.102	0.085 to 0.115	94.7	70 to 130	8.40	20
BA16646	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	0.240	0.235	0.210	0.17 to 0.23	105	70 to 130	2.11	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 12:35
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-12V

Laboratory ID Number: BA16457

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Chloride	mg/L	0.0325	0.50	10.0	14.8	4.68	9.84	9 to 11	102	80 to 120	1.72	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16460	Sulfate	mg/L	-0.0637	0.50	20.0	32.5	14.3	19.9	18 to 22	91.5	80 to 120	0.702	20
BA16457	Solids, Dissolved	mg/L	0.0000	25			339	50.0	40 to 60			0.148	5
BA16644	Fluoride	mg/L	0.0468	0.05	2.50	2.48	0.0347	2.58	2.25 to 2.75	99.2	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-12

Location Code: WMWBARAP
Collected: 9/1/20 14:13
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16458

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 11:34		1.015	0.115	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 11:34		1.015	22.2	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 14:43		50.75	59.2	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 11:34		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 11:34		1.015	17.1	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 14:43		50.75	39.4	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:25		101.5	63.8	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:49		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:49		1.015	0.0246	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 10:49		1.015	0.0827	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:49		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:49		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:49		1.015	0.00332	mg/L	0.002	0.01	J
* Cobalt, Total	9/8/20 08:24	9/9/20 10:49		1.015	0.00310	mg/L	0.002	0.005	J
* Lead, Total	9/8/20 08:24	9/9/20 10:49		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:49		1.015	2.97	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 10:49		1.015	0.739	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:49		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:08		1.015	0.656	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:53		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	251	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/4/20 09:02	9/8/20 14:27		1	356	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-12

Location Code: WMWBARAP
Collected: 9/1/20 14:13
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16458

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	251	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.04	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:12	9/8/20 13:12		2	23.4	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:33	9/10/20 10:33		1	0.0845	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 15:12	9/3/20 15:12		1	32.1	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/1/20 14:10	9/1/20 14:10			487.32	uS/cm			FA
pH	9/1/20 14:10	9/1/20 14:10			6.19	SU			FA
Temperature	9/1/20 14:10	9/1/20 14:10			21.54	C			FA
Turbidity	9/1/20 14:10	9/1/20 14:10			1.59	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 14:13
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-12

Laboratory ID Number: BA16458

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.00	1.01	0.991	0.85 to 1.15	100	70 to 130	0.995	20
BA16644	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.104	0.108	0.110	0.085 to 0.115	104	70 to 130	3.77	20
BA16644	Antimony, Total	mg/L	0.000181	0.001	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA16646	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.104	0.105	0.0993	0.085 to 0.115	99.3	70 to 130	0.957	20
BA16644	Potassium, Total	mg/L	0.0259	0.3674	10.0	10.4	11.1	10.5	8.5 to 11.5	94.4	70 to 130	6.51	20
BA16644	Magnesium, Total	mg/L	0.00105	0.0462	5.00	5.64	5.70	5.05	4.25 to 5.75	100	70 to 130	1.06	20
BA16644	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.120	0.127	0.108	0.085 to 0.115	99.8	70 to 130	5.67	20
BA16644	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.116	0.122	0.113	0.085 to 0.115	103	70 to 130	5.04	20
BA16644	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0885	0.0936	0.0969	0.085 to 0.115	88.5	70 to 130	5.60	20
BA16644	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	1.96	20
BA16644	Iron, Total	mg/L	0.00108	0.0176	0.2	0.794	0.798	0.200	0.17 to 0.23	95.5	70 to 130	0.503	20
BA16644	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.194	0.194	0.191	0.17 to 0.23	97.0	70 to 130	0.00	20
BA16644	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.113	0.110	0.111	0.085 to 0.115	113	70 to 130	2.69	20
BA16644	Calcium, Total	mg/L	0.00624	0.1518	5.00	5.82	5.86	5.00	4.25 to 5.75	98.9	70 to 130	0.685	20
BA16644	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.106	0.110	0.111	0.085 to 0.115	103	70 to 130	3.70	20
BA16644	Mercury, Total by CVAA	mg/L	0.0000324	0.0005	0.004	0.00376	0.00400	0.00397	0.0034 to 0.0046	94.0	70 to 130	6.19	20
BA16644	Sodium, Total	mg/L	0.00253	0.044	5.00	10.3	10.2	4.97	4.25 to 5.75	103	70 to 130	0.976	20
BA16644	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.101	0.106	0.106	0.085 to 0.115	101	70 to 130	4.83	20
BA16644	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.0947	0.103	0.102	0.085 to 0.115	94.7	70 to 130	8.40	20
BA16646	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	0.240	0.235	0.210	0.17 to 0.23	105	70 to 130	2.11	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 14:13
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-12

Laboratory ID Number: BA16458

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16460	Sulfate	mg/L	-0.0637	0.50	20.0	32.5	14.3	19.9	18 to 22	91.5	80 to 120	0.702	20
BA16644	Fluoride	mg/L	0.0468	0.05	2.50	2.48	0.0347	2.58	2.25 to 2.75	99.2	80 to 120	0.00	20
BA16644	Chloride	mg/L	0.0325	0.50	10.0	14.8	4.68	9.84	9 to 11	102	80 to 120	1.72	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16460	Solids, Dissolved	mg/L	-1.00	25			288	55.0	40 to 60			0.524	5

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-20V

Location Code: WMWBARAP
Collected: 9/1/20 15:28
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16459

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 11:37		1.015	0.134	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 11:37		1.015	14.7	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 14:52		50.75	70.8	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 11:37		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 11:37		1.015	9.38	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 15:52		50.75	46.7	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:28		101.5	80.5	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:52		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:52		1.015	0.00845	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 10:52		1.015	0.115	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:52		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:52		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 10:52		1.015	0.0120	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 10:52		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:52		1.015	2.48	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 12:46		5.075	1.87	mg/L	0.005075	0.025375	
* Selenium, Total	9/8/20 08:24	9/9/20 10:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:52		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 14:48		5.075	1.47	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:55		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	254	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/4/20 09:02	9/8/20 14:27		1	308	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-20V

Location Code: WMWBARAP
Collected: 9/1/20 15:28
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16459

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	254	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.07	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:14	9/8/20 13:14		2	27.1	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:34	9/10/20 10:34		1	0.106	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 15:13	9/3/20 15:13		1	38.3	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/1/20 15:25	9/1/20 15:25			469.67	uS/cm			FA
pH	9/1/20 15:25	9/1/20 15:25			6.03	SU			FA
Temperature	9/1/20 15:25	9/1/20 15:25			21.48	C			FA
Turbidity	9/1/20 15:25	9/1/20 15:25			1.98	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 15:28
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-20V

Laboratory ID Number: BA16459

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.00	1.01	0.991	0.85 to 1.15	100	70 to 130	0.995	20
BA16644	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.104	0.108	0.110	0.085 to 0.115	104	70 to 130	3.77	20
BA16644	Antimony, Total	mg/L	0.000181	0.001	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA16646	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.104	0.105	0.0993	0.085 to 0.115	99.3	70 to 130	0.957	20
BA16644	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.120	0.127	0.108	0.085 to 0.115	99.8	70 to 130	5.67	20
BA16644	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.116	0.122	0.113	0.085 to 0.115	103	70 to 130	5.04	20
BA16644	Potassium, Total	mg/L	0.0259	0.3674	10.0	10.4	11.1	10.5	8.5 to 11.5	94.4	70 to 130	6.51	20
BA16644	Magnesium, Total	mg/L	0.00105	0.0462	5.00	5.64	5.70	5.05	4.25 to 5.75	100	70 to 130	1.06	20
BA16644	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0885	0.0936	0.0969	0.085 to 0.115	88.5	70 to 130	5.60	20
BA16644	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	1.96	20
BA16644	Iron, Total	mg/L	0.00108	0.0176	0.2	0.794	0.798	0.200	0.17 to 0.23	95.5	70 to 130	0.503	20
BA16644	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.194	0.194	0.191	0.17 to 0.23	97.0	70 to 130	0.00	20
BA16644	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.113	0.110	0.111	0.085 to 0.115	113	70 to 130	2.69	20
BA16644	Calcium, Total	mg/L	0.00624	0.1518	5.00	5.82	5.86	5.00	4.25 to 5.75	98.9	70 to 130	0.685	20
BA16644	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.106	0.110	0.111	0.085 to 0.115	103	70 to 130	3.70	20
BA16644	Mercury, Total by CVAA	mg/L	0.0000324	0.0005	0.004	0.00376	0.00400	0.00397	0.0034 to 0.0046	94.0	70 to 130	6.19	20
BA16644	Sodium, Total	mg/L	0.00253	0.044	5.00	10.3	10.2	4.97	4.25 to 5.75	103	70 to 130	0.976	20
BA16644	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.101	0.106	0.106	0.085 to 0.115	101	70 to 130	4.83	20
BA16644	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.0947	0.103	0.102	0.085 to 0.115	94.7	70 to 130	8.40	20
BA16646	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	0.240	0.235	0.210	0.17 to 0.23	105	70 to 130	2.11	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 15:28
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-20V

Laboratory ID Number: BA16459

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16460	Solids, Dissolved	mg/L	-1.00	25			288	55.0	40 to 60			0.524	5
BA16460	Sulfate	mg/L	-0.0637	0.50	20.0	32.5	14.3	19.9	18 to 22	91.5	80 to 120	0.702	20
BA16644	Chloride	mg/L	0.0325	0.50	10.0	14.8	4.68	9.84	9 to 11	102	80 to 120	1.72	20
BA16644	Fluoride	mg/L	0.0468	0.05	2.50	2.48	0.0347	2.58	2.25 to 2.75	99.2	80 to 120	0.00	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-13

Location Code: WMWBARAP
Collected: 9/1/20 16:43
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16460

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 11:39		1.015	0.0642	mg/L	0.03	0.1	J
* Calcium, Total	9/10/20 09:37	9/11/20 11:39		1.015	12.3	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 14:55		10.15	27.1	mg/L	0.203	0.5075	
* Lithium, Total	9/10/20 09:37	9/11/20 11:39		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 11:39		1.015	6.97	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 15:55		10.15	56.8	mg/L	1.015	5.075	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:31		101.5	27.6	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:55		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:55		1.015	0.0148	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 10:55		1.015	0.0722	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:55		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:55		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:55		1.015	0.00888	mg/L	0.002	0.01	J
* Cobalt, Total	9/8/20 08:24	9/9/20 10:55		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 10:55		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:55		1.015	2.02	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 10:55		1.015	0.478	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:55		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:55		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:14		1.015	0.424	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 12:58		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	161	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/4/20 09:02	9/8/20 14:27		1	285	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-13

Location Code: WMWBARAP
Collected: 9/1/20 16:43
Customer ID:
Submittal Date: 9/2/20 14:39

Laboratory ID Number: BA16460

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	161	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.02	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:15	9/8/20 13:15		3	39.1	mg/L	1.50	3	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:35	9/10/20 10:35		1	0.0757	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/3/20 15:14	9/3/20 15:14		1	14.2	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/1/20 16:40	9/1/20 16:40			390.87	uS/cm			FA
pH	9/1/20 16:40	9/1/20 16:40			5.82	SU			FA
Temperature	9/1/20 16:40	9/1/20 16:40			21.17	C			FA
Turbidity	9/1/20 16:40	9/1/20 16:40			3	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/1/20 16:43
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-13

Laboratory ID Number: BA16460

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.00	1.01	0.991	0.85 to 1.15	100	70 to 130	0.995	20
BA16644	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.104	0.108	0.110	0.085 to 0.115	104	70 to 130	3.77	20
BA16644	Antimony, Total	mg/L	0.000181	0.001	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA16646	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.104	0.105	0.0993	0.085 to 0.115	99.3	70 to 130	0.957	20
BA16644	Potassium, Total	mg/L	0.0259	0.3674	10.0	10.4	11.1	10.5	8.5 to 11.5	94.4	70 to 130	6.51	20
BA16644	Magnesium, Total	mg/L	0.00105	0.0462	5.00	5.64	5.70	5.05	4.25 to 5.75	100	70 to 130	1.06	20
BA16644	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.120	0.127	0.108	0.085 to 0.115	99.8	70 to 130	5.67	20
BA16644	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.116	0.122	0.113	0.085 to 0.115	103	70 to 130	5.04	20
BA16644	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.113	0.110	0.111	0.085 to 0.115	113	70 to 130	2.69	20
BA16644	Calcium, Total	mg/L	0.00624	0.1518	5.00	5.82	5.86	5.00	4.25 to 5.75	98.9	70 to 130	0.685	20
BA16644	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.106	0.110	0.111	0.085 to 0.115	103	70 to 130	3.70	20
BA16644	Mercury, Total by CVAA	mg/L	0.0000324	0.0005	0.004	0.00376	0.00400	0.00397	0.0034 to 0.0046	94.0	70 to 130	6.19	20
BA16644	Sodium, Total	mg/L	0.00253	0.044	5.00	10.3	10.2	4.97	4.25 to 5.75	103	70 to 130	0.976	20
BA16644	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0885	0.0936	0.0969	0.085 to 0.115	88.5	70 to 130	5.60	20
BA16644	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	1.96	20
BA16644	Iron, Total	mg/L	0.00108	0.0176	0.2	0.794	0.798	0.200	0.17 to 0.23	95.5	70 to 130	0.503	20
BA16644	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.194	0.194	0.191	0.17 to 0.23	97.0	70 to 130	0.00	20
BA16644	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.101	0.106	0.106	0.085 to 0.115	101	70 to 130	4.83	20
BA16644	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.0947	0.103	0.102	0.085 to 0.115	94.7	70 to 130	8.40	20
BA16646	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	0.240	0.235	0.210	0.17 to 0.23	105	70 to 130	2.11	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/1/20 16:43
Customer ID:
Delivery Date: 9/2/20 14:39

Description: Barry Ash Pond - MW-13

Laboratory ID Number: BA16460

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16460	Solids, Dissolved	mg/L	-1.00	25			288	55.0	40 to 60			0.524	5
BA16644	Fluoride	mg/L	0.0468	0.05	2.50	2.48	0.0347	2.58	2.25 to 2.75	99.2	80 to 120	0.00	20
BA16460	Sulfate	mg/L	-0.0637	0.50	20.0	32.5	14.3	19.9	18 to 22	91.5	80 to 120	0.702	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16644	Chloride	mg/L	0.0325	0.50	10.0	14.8	4.68	9.84	9 to 11	102	80 to 120	1.72	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-25H

Location Code: WMWBARAP
Collected: 9/2/20 08:58
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16643

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 11:42		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 11:42		1.015	0.875	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 11:42		1.015	0.595	mg/L	0.02	0.05	
* Lithium, Total	9/10/20 09:37	9/11/20 11:42		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 11:42		1.015	0.641	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 11:42		1.015	5.13	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 11:46		1.015	0.620	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 10:57		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 10:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 10:57		1.015	0.0204	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 10:57		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 10:57		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 10:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 10:57		1.015	0.00246	mg/L	0.002	0.005	J
* Lead, Total	9/8/20 08:24	9/9/20 10:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 10:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 10:57		1.015	0.932	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 10:57		1.015	0.0126	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 10:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 10:57		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:16		1.015	0.0108	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 13:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	7.08	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	36.0	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-25H

Location Code: WMWBARAP
Collected: 9/2/20 08:58
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16643

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	7.08	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:16	9/8/20 13:16		1	4.62	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:37	9/10/20 10:37		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 10:46	9/4/20 10:46		1	4.39	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/2/20 08:54	9/2/20 08:54			38.31	uS/cm			FA
pH	9/2/20 08:54	9/2/20 08:54			5.39	SU			FA
Temperature	9/2/20 08:54	9/2/20 08:54			22.79	C			FA
Turbidity	9/2/20 08:54	9/2/20 08:54			2.13	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 08:58
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-25H

Laboratory ID Number: BA16643

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.104	0.108	0.110	0.085 to 0.115	104	70 to 130	3.77	20
BA16644	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.00	1.01	0.991	0.85 to 1.15	100	70 to 130	0.995	20
BA16644	Antimony, Total	mg/L	0.000181	0.001	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA16646	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.104	0.105	0.0993	0.085 to 0.115	99.3	70 to 130	0.957	20
BA16644	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.120	0.127	0.108	0.085 to 0.115	99.8	70 to 130	5.67	20
BA16644	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.116	0.122	0.113	0.085 to 0.115	103	70 to 130	5.04	20
BA16644	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.101	0.106	0.106	0.085 to 0.115	101	70 to 130	4.83	20
BA16644	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.0947	0.103	0.102	0.085 to 0.115	94.7	70 to 130	8.40	20
BA16646	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	0.240	0.235	0.210	0.17 to 0.23	105	70 to 130	2.11	20
BA16644	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0885	0.0936	0.0969	0.085 to 0.115	88.5	70 to 130	5.60	20
BA16644	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	1.96	20
BA16644	Iron, Total	mg/L	0.00108	0.0176	0.2	0.794	0.798	0.200	0.17 to 0.23	95.5	70 to 130	0.503	20
BA16644	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.194	0.194	0.191	0.17 to 0.23	97.0	70 to 130	0.00	20
BA16644	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.113	0.110	0.111	0.085 to 0.115	113	70 to 130	2.69	20
BA16644	Calcium, Total	mg/L	0.00624	0.1518	5.00	5.82	5.86	5.00	4.25 to 5.75	98.9	70 to 130	0.685	20
BA16644	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.106	0.110	0.111	0.085 to 0.115	103	70 to 130	3.70	20
BA16644	Mercury, Total by CVAA	mg/L	0.0000324	0.0005	0.004	0.00376	0.00400	0.00397	0.0034 to 0.0046	94.0	70 to 130	6.19	20
BA16644	Sodium, Total	mg/L	0.00253	0.044	5.00	10.3	10.2	4.97	4.25 to 5.75	103	70 to 130	0.976	20
BA16644	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Potassium, Total	mg/L	0.0259	0.3674	10.0	10.4	11.1	10.5	8.5 to 11.5	94.4	70 to 130	6.51	20
BA16644	Magnesium, Total	mg/L	0.00105	0.0462	5.00	5.64	5.70	5.05	4.25 to 5.75	100	70 to 130	1.06	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 08:58
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-25H

Laboratory ID Number: BA16643

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Fluoride	mg/L	0.0468	0.05	2.50	2.48	0.0347	2.58	2.25 to 2.75	99.2	80 to 120	0.00	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16652	Solids, Dissolved	mg/L	0.0000	25			299	49.0	40 to 60			0.168	5
BA16644	Chloride	mg/L	0.0325	0.50	10.0	14.8	4.68	9.84	9 to 11	102	80 to 120	1.72	20
BA16652	Sulfate	mg/L	-0.497	0.50	20.0	35.9	15.7	19.3	18 to 22	100	80 to 120	0.635	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-25H DUP

Location Code: WMWBARAP
Collected: 9/2/20 08:58
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16644

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 11:45		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 11:45		1.015	0.873	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 11:45		1.015	0.603	mg/L	0.02	0.05	
* Lithium, Total	9/10/20 09:37	9/11/20 11:45		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 11:45		1.015	0.640	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 11:45		1.015	5.14	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 11:49		1.015	0.610	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:00		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 11:00		1.015	0.0202	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 11:00		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:00		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 11:00		1.015	0.00255	mg/L	0.002	0.005	J
* Lead, Total	9/8/20 08:24	9/9/20 11:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 11:00		1.015	0.961	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 11:00		1.015	0.0127	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 11:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:00		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:19		1.015	0.0106	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/3/20 07:45	9/4/20 13:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	7.20	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	34.0	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-25H DUP

Location Code: WMWBARAP
Collected: 9/2/20 08:58
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16644

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	7.20	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:17	9/8/20 13:17		1	4.60	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:38	9/10/20 10:38		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 10:47	9/4/20 10:47		1	4.41	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/2/20 08:54	9/2/20 08:54			38.31	uS/cm			FA
pH	9/2/20 08:54	9/2/20 08:54			5.39	SU			FA
Temperature	9/2/20 08:54	9/2/20 08:54			22.79	C			FA
Turbidity	9/2/20 08:54	9/2/20 08:54			2.13	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 08:58
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-25H DUP

Laboratory ID Number: BA16644

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.00	1.01	0.991	0.85 to 1.15	100	70 to 130	0.995	20
BA16644	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.104	0.108	0.110	0.085 to 0.115	104	70 to 130	3.77	20
BA16644	Antimony, Total	mg/L	0.000181	0.001	0.10	0.104	0.105	0.104	0.085 to 0.115	104	70 to 130	0.957	20
BA16646	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.104	0.105	0.0993	0.085 to 0.115	99.3	70 to 130	0.957	20
BA16644	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.120	0.127	0.108	0.085 to 0.115	99.8	70 to 130	5.67	20
BA16644	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.116	0.122	0.113	0.085 to 0.115	103	70 to 130	5.04	20
BA16644	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.113	0.110	0.111	0.085 to 0.115	113	70 to 130	2.69	20
BA16644	Calcium, Total	mg/L	0.00624	0.1518	5.00	5.82	5.86	5.00	4.25 to 5.75	98.9	70 to 130	0.685	20
BA16644	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.106	0.110	0.111	0.085 to 0.115	103	70 to 130	3.70	20
BA16644	Mercury, Total by CVAA	mg/L	0.0000324	0.0005	0.004	0.00376	0.00400	0.00397	0.0034 to 0.0046	94.0	70 to 130	6.19	20
BA16644	Sodium, Total	mg/L	0.00253	0.044	5.00	10.3	10.2	4.97	4.25 to 5.75	103	70 to 130	0.976	20
BA16644	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0885	0.0936	0.0969	0.085 to 0.115	88.5	70 to 130	5.60	20
BA16644	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	1.96	20
BA16644	Iron, Total	mg/L	0.00108	0.0176	0.2	0.794	0.798	0.200	0.17 to 0.23	95.5	70 to 130	0.503	20
BA16644	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.194	0.194	0.191	0.17 to 0.23	97.0	70 to 130	0.00	20
BA16644	Potassium, Total	mg/L	0.0259	0.3674	10.0	10.4	11.1	10.5	8.5 to 11.5	94.4	70 to 130	6.51	20
BA16644	Magnesium, Total	mg/L	0.00105	0.0462	5.00	5.64	5.70	5.05	4.25 to 5.75	100	70 to 130	1.06	20
BA16644	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.103	0.104	0.106	0.085 to 0.115	103	70 to 130	0.966	20
BA16644	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.101	0.106	0.106	0.085 to 0.115	101	70 to 130	4.83	20
BA16644	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.0947	0.103	0.102	0.085 to 0.115	94.7	70 to 130	8.40	20
BA16646	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	0.240	0.235	0.210	0.17 to 0.23	105	70 to 130	2.11	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 08:58
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-25H DUP

Laboratory ID Number: BA16644

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16644	Fluoride	mg/L	0.0468	0.05	2.50	2.48	0.0347	2.58	2.25 to 2.75	99.2	80 to 120	0.00	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16652	Solids, Dissolved	mg/L	0.0000	25			299	49.0	40 to 60			0.168	5
BA16644	Chloride	mg/L	0.0325	0.50	10.0	14.8	4.68	9.84	9 to 11	102	80 to 120	1.72	20
BA16652	Sulfate	mg/L	-0.497	0.50	20.0	35.9	15.7	19.3	18 to 22	100	80 to 120	0.635	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-25VM

Location Code: WMWBARAP
Collected: 9/2/20 10:13
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16645

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:00		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 12:00		1.015	0.547	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 12:00		1.015	0.0658	mg/L	0.02	0.05	
* Lithium, Total	9/10/20 09:37	9/11/20 12:00		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:00		1.015	0.270	mg/L	0.1	0.5	J
* Sodium, Total	9/10/20 09:37	9/11/20 12:00		1.015	5.46	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 11:52		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:16		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:16		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 11:16		1.015	0.0111	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 11:16		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:16		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:16		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 11:16		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 11:16		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:16		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 11:16		1.015	0.796	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 11:16		1.015	0.0111	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 11:16		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:16		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:21		1.015	0.00916	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 10:32		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	6.82	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	34.0	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-25VM

Location Code: WMWBARAP
Collected: 9/2/20 10:13
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16645

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	6.82	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:30	9/8/20 13:30		1	3.85	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:49	9/10/20 10:49		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 10:48	9/4/20 10:48		1	2.26	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/2/20 10:10	9/2/20 10:10			32.18	uS/cm			FA
pH	9/2/20 10:10	9/2/20 10:10			5.32	SU			FA
Temperature	9/2/20 10:10	9/2/20 10:10			22.53	C			FA
Turbidity	9/2/20 10:10	9/2/20 10:10			2.09	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 10:13
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-25VM

Laboratory ID Number: BA16645

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Calcium, Total	mg/L	0.00624	0.1518	5.00	9.75	9.81	5.00	4.25 to 5.75	101	70 to 130	0.613	20
BA16646	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.104	0.105	0.0993	0.085 to 0.115	99.3	70 to 130	0.957	20
BA16654	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.225	0.226	0.191	0.17 to 0.23	112	70 to 130	0.443	20
BA16654	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.113	0.110	0.106	0.085 to 0.115	111	70 to 130	2.69	20
BA16654	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.117	0.118	0.111	0.085 to 0.115	113	70 to 130	0.851	20
BA16654	Iron, Total	mg/L	0.00108	0.0176	0.2	17.6	16.4	0.200	0.17 to 0.23	550	70 to 130	7.06	20
BA16654	Potassium, Total	mg/L	0.0259	0.3674	10.0	13.1	12.7	10.5	8.5 to 11.5	105	70 to 130	3.10	20
BA16654	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.106	0.102	0.102	0.085 to 0.115	106	70 to 130	3.85	20
BA16654	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.188	0.182	0.108	0.085 to 0.115	111	70 to 130	3.24	20
BA16654	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	1.85	20
BA16654	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.111	0.109	0.110	0.085 to 0.115	111	70 to 130	1.82	20
BA16654	Mercury, Total by CVAA	mg/L	0.0000665	0.0005	0.004	0.00393	0.00392	0.00399	0.0034 to 0.0046	98.2	70 to 130	0.255	20
BA16654	Sodium, Total	mg/L	0.00253	0.044	5.00	191	189	4.97	4.25 to 5.75	120	70 to 130	1.05	20
BA16654	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.111	0.108	0.106	0.085 to 0.115	111	70 to 130	2.74	20
BA16654	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.109	0.106	0.106	0.085 to 0.115	109	70 to 130	2.79	20
BA16654	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0952	0.0962	0.0969	0.085 to 0.115	95.2	70 to 130	1.04	20
BA16654	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.116	0.114	0.111	0.085 to 0.115	112	70 to 130	1.74	20
BA16654	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.362	0.357	0.113	0.085 to 0.115	110	70 to 130	1.39	20
BA16646	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	0.240	0.235	0.210	0.17 to 0.23	105	70 to 130	2.11	20
BA16654	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.43	1.44	0.991	0.85 to 1.15	102	70 to 130	0.697	20
BA16654	Magnesium, Total	mg/L	0.00105	0.0462	5.00	7.53	7.56	5.05	4.25 to 5.75	103	70 to 130	0.398	20
BA16654	Antimony, Total	mg/L	0.000181	0.001	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.82	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 10:13
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-25VM

Laboratory ID Number: BA16645

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Chloride	mg/L	0.0583	0.50	320	535	180	9.83	9 to 11	112	80 to 120	1.12	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16652	Sulfate	mg/L	-0.497	0.50	20.0	35.9	15.7	19.3	18 to 22	100	80 to 120	0.635	20
BA16652	Solids, Dissolved	mg/L	0.0000	25			299	49.0	40 to 60			0.168	5
BA16654	Fluoride	mg/L	0.0325	0.05	2.50	3.09	0.356	2.59	2.25 to 2.75	109	80 to 120	0.839	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-6

Location Code: WMWBARAP
Collected: 9/2/20 11:09
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16646

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:03		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 12:03		1.015	1.80	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 12:03		1.015	0.0297	mg/L	0.02	0.05	J
* Lithium, Total	9/10/20 09:37	9/11/20 12:03		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:03		1.015	1.20	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 12:03		1.015	7.19	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 11:55		1.015	0.0308	mg/L	0.02	0.05	J
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:19		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:19		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 11:19		1.015	0.0282	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 11:19		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:19		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:19		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 11:19		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 11:19		1.015	0.00171	mg/L	0.001	0.005	J
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:19		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 11:19		1.015	1.11	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 11:19		1.015	0.00585	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 11:19		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:19		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:24		1.015	0.00472	mg/L	0.001	0.005	J
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 10:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	14.4	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	37.3	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-6

Location Code: WMWBARAP
Collected: 9/2/20 11:09
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16646

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	14.4	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:31	9/8/20 13:31		1	5.94	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:50	9/10/20 10:50		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 10:49	9/4/20 10:49		1	1.02	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/2/20 11:06	9/2/20 11:06			50.28	uS/cm			FA
pH	9/2/20 11:06	9/2/20 11:06			5.16	SU			FA
Temperature	9/2/20 11:06	9/2/20 11:06			21.66	C			FA
Turbidity	9/2/20 11:06	9/2/20 11:06			1.58	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 11:09
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-6

Laboratory ID Number: BA16646

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Calcium, Total	mg/L	0.00624	0.1518	5.00	9.75	9.81	5.00	4.25 to 5.75	101	70 to 130	0.613	20
BA16646	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.104	0.105	0.0993	0.085 to 0.115	99.3	70 to 130	0.957	20
BA16654	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.225	0.226	0.191	0.17 to 0.23	112	70 to 130	0.443	20
BA16654	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.113	0.110	0.106	0.085 to 0.115	111	70 to 130	2.69	20
BA16654	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.188	0.182	0.108	0.085 to 0.115	111	70 to 130	3.24	20
BA16654	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	1.85	20
BA16654	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.111	0.109	0.110	0.085 to 0.115	111	70 to 130	1.82	20
BA16654	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0952	0.0962	0.0969	0.085 to 0.115	95.2	70 to 130	1.04	20
BA16654	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.116	0.114	0.111	0.085 to 0.115	112	70 to 130	1.74	20
BA16654	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.362	0.357	0.113	0.085 to 0.115	110	70 to 130	1.39	20
BA16654	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.117	0.118	0.111	0.085 to 0.115	113	70 to 130	0.851	20
BA16654	Iron, Total	mg/L	0.00108	0.0176	0.2	17.6	16.4	0.200	0.17 to 0.23	550	70 to 130	7.06	20
BA16654	Potassium, Total	mg/L	0.0259	0.3674	10.0	13.1	12.7	10.5	8.5 to 11.5	105	70 to 130	3.10	20
BA16654	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.106	0.102	0.102	0.085 to 0.115	106	70 to 130	3.85	20
BA16646	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	0.240	0.235	0.210	0.17 to 0.23	105	70 to 130	2.11	20
BA16654	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.43	1.44	0.991	0.85 to 1.15	102	70 to 130	0.697	20
BA16654	Magnesium, Total	mg/L	0.00105	0.0462	5.00	7.53	7.56	5.05	4.25 to 5.75	103	70 to 130	0.398	20
BA16654	Antimony, Total	mg/L	0.000181	0.001	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.82	20
BA16654	Mercury, Total by CVAA	mg/L	0.0000665	0.0005	0.004	0.00393	0.00392	0.00399	0.0034 to 0.0046	98.2	70 to 130	0.255	20
BA16654	Sodium, Total	mg/L	0.00253	0.044	5.00	191	189	4.97	4.25 to 5.75	120	70 to 130	1.05	20
BA16654	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.111	0.108	0.106	0.085 to 0.115	111	70 to 130	2.74	20
BA16654	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.109	0.106	0.106	0.085 to 0.115	109	70 to 130	2.79	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 11:09
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-6

Laboratory ID Number: BA16646

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Chloride	mg/L	0.0583	0.50	320	535	180	9.83	9 to 11	112	80 to 120	1.12	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16652	Sulfate	mg/L	-0.497	0.50	20.0	35.9	15.7	19.3	18 to 22	100	80 to 120	0.635	20
BA16652	Solids, Dissolved	mg/L	0.0000	25			299	49.0	40 to 60			0.168	5
BA16654	Fluoride	mg/L	0.0325	0.05	2.50	3.09	0.356	2.59	2.25 to 2.75	109	80 to 120	0.839	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-7

Location Code: WMWBARAP
Collected: 9/2/20 12:28
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16647

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:06		1.015	0.0420	mg/L	0.03	0.1	J
* Calcium, Total	9/10/20 09:37	9/11/20 12:06		1.015	10.4	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 14:58		10.15	12.9	mg/L	0.203	0.5075	
* Lithium, Total	9/10/20 09:37	9/11/20 12:06		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:06		1.015	7.91	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 12:06		1.015	20.8	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:34		10.15	13.1	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:21		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:21		1.015	0.0234	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 11:21		1.015	0.0745	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 11:21		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:21		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:21		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 11:21		1.015	0.0197	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 11:21		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:21		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 11:21		1.015	1.84	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 11:21		1.015	0.499	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 11:21		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:21		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:40		1.015	0.430	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 10:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	118	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	129	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-7

Location Code: WMWBARAP
Collected: 9/2/20 12:28
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16647

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	118	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.04	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:32	9/8/20 13:32		1	12.9	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:51	9/10/20 10:51		1	0.109	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 10:51	9/4/20 10:51		1	3.59	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/2/20 12:24	9/2/20 12:24			226.38	uS/cm			FA
pH	9/2/20 12:24	9/2/20 12:24			6.25	SU			FA
Temperature	9/2/20 12:24	9/2/20 12:24			22.36	C			FA
Turbidity	9/2/20 12:24	9/2/20 12:24			5.76	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 12:28
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-7

Laboratory ID Number: BA16647

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Calcium, Total	mg/L	0.00624	0.1518	5.00	9.75	9.81	5.00	4.25 to 5.75	101	70 to 130	0.613	20
BA16654	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.225	0.226	0.191	0.17 to 0.23	112	70 to 130	0.443	20
BA16654	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.113	0.110	0.106	0.085 to 0.115	111	70 to 130	2.69	20
BA16654	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.188	0.182	0.108	0.085 to 0.115	111	70 to 130	3.24	20
BA16654	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	1.85	20
BA16654	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.111	0.109	0.110	0.085 to 0.115	111	70 to 130	1.82	20
BA16654	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0952	0.0962	0.0969	0.085 to 0.115	95.2	70 to 130	1.04	20
BA16654	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.116	0.114	0.111	0.085 to 0.115	112	70 to 130	1.74	20
BA16654	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.362	0.357	0.113	0.085 to 0.115	110	70 to 130	1.39	20
BA16654	Mercury, Total by CVAA	mg/L	0.0000665	0.0005	0.004	0.00393	0.00392	0.00399	0.0034 to 0.0046	98.2	70 to 130	0.255	20
BA16654	Sodium, Total	mg/L	0.00253	0.044	5.00	191	189	4.97	4.25 to 5.75	120	70 to 130	1.05	20
BA16654	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.111	0.108	0.106	0.085 to 0.115	111	70 to 130	2.74	20
BA16654	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.109	0.106	0.106	0.085 to 0.115	109	70 to 130	2.79	20
BA16654	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.117	0.118	0.111	0.085 to 0.115	113	70 to 130	0.851	20
BA16654	Iron, Total	mg/L	0.00108	0.0176	0.2	17.6	16.4	0.200	0.17 to 0.23	550	70 to 130	7.06	20
BA16654	Potassium, Total	mg/L	0.0259	0.3674	10.0	13.1	12.7	10.5	8.5 to 11.5	105	70 to 130	3.10	20
BA16654	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.106	0.102	0.102	0.085 to 0.115	106	70 to 130	3.85	20
BA16657	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	109	107	0.210	0.17 to 0.23	500	70 to 130	1.85	20
BA16654	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.43	1.44	0.991	0.85 to 1.15	102	70 to 130	0.697	20
BA16654	Magnesium, Total	mg/L	0.00105	0.0462	5.00	7.53	7.56	5.05	4.25 to 5.75	103	70 to 130	0.398	20
BA16654	Antimony, Total	mg/L	0.000181	0.001	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.82	20
BA16657	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.294	0.293	0.0993	0.085 to 0.115	92.0	70 to 130	0.341	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 12:28
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-7

Laboratory ID Number: BA16647

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Chloride	mg/L	0.0583	0.50	320	535	180	9.83	9 to 11	112	80 to 120	1.12	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16652	Sulfate	mg/L	-0.497	0.50	20.0	35.9	15.7	19.3	18 to 22	100	80 to 120	0.635	20
BA16652	Solids, Dissolved	mg/L	0.0000	25			299	49.0	40 to 60			0.168	5
BA16654	Fluoride	mg/L	0.0325	0.05	2.50	3.09	0.356	2.59	2.25 to 2.75	109	80 to 120	0.839	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP
Collected: 9/2/20 13:20
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16648

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:09		1.015	0.0565	mg/L	0.03	0.1	J
* Calcium, Total	9/10/20 09:37	9/11/20 12:09		1.015	13.9	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 15:01		10.15	20.4	mg/L	0.203	0.5075	
* Lithium, Total	9/10/20 09:37	9/11/20 12:09		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:09		1.015	12.0	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 12:09		1.015	22.7	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:43		101.5	21.0	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:24		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:24		1.015	0.00240	mg/L	0.001	0.005	J
* Barium, Total	9/8/20 08:24	9/9/20 11:24		1.015	0.0648	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 11:24		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:24		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:24		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 11:24		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 11:24		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:24		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 11:24		1.015	1.52	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 11:24		1.015	0.264	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 11:24		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:24		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:43		1.015	0.228	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 10:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	153	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	168	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-7V

Location Code: WMWBARAP
Collected: 9/2/20 13:20
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16648

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	153	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.06	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:34	9/8/20 13:34		1	14.2	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:53	9/10/20 10:53		1	0.126	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 10:52	9/4/20 10:52		1	6.70	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/2/20 13:17	9/2/20 13:17			290.44	uS/cm			FA
pH	9/2/20 13:17	9/2/20 13:17			6.49	SU			FA
Temperature	9/2/20 13:17	9/2/20 13:17			24.22	C			FA
Turbidity	9/2/20 13:17	9/2/20 13:17			1.66	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 13:20
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: BA16648

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Calcium, Total	mg/L	0.00624	0.1518	5.00	9.75	9.81	5.00	4.25 to 5.75	101	70 to 130	0.613	20
BA16654	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.225	0.226	0.191	0.17 to 0.23	112	70 to 130	0.443	20
BA16654	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.113	0.110	0.106	0.085 to 0.115	111	70 to 130	2.69	20
BA16654	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0952	0.0962	0.0969	0.085 to 0.115	95.2	70 to 130	1.04	20
BA16654	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.116	0.114	0.111	0.085 to 0.115	112	70 to 130	1.74	20
BA16654	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.362	0.357	0.113	0.085 to 0.115	110	70 to 130	1.39	20
BA16654	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.117	0.118	0.111	0.085 to 0.115	113	70 to 130	0.851	20
BA16654	Iron, Total	mg/L	0.00108	0.0176	0.2	17.6	16.4	0.200	0.17 to 0.23	550	70 to 130	7.06	20
BA16654	Potassium, Total	mg/L	0.0259	0.3674	10.0	13.1	12.7	10.5	8.5 to 11.5	105	70 to 130	3.10	20
BA16654	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.106	0.102	0.102	0.085 to 0.115	106	70 to 130	3.85	20
BA16657	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	109	107	0.210	0.17 to 0.23	500	70 to 130	1.85	20
BA16654	Mercury, Total by CVAA	mg/L	0.0000665	0.0005	0.004	0.00393	0.00392	0.00399	0.0034 to 0.0046	98.2	70 to 130	0.255	20
BA16654	Sodium, Total	mg/L	0.00253	0.044	5.00	191	189	4.97	4.25 to 5.75	120	70 to 130	1.05	20
BA16654	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.111	0.108	0.106	0.085 to 0.115	111	70 to 130	2.74	20
BA16654	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.109	0.106	0.106	0.085 to 0.115	109	70 to 130	2.79	20
BA16654	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.188	0.182	0.108	0.085 to 0.115	111	70 to 130	3.24	20
BA16654	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	1.85	20
BA16654	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.111	0.109	0.110	0.085 to 0.115	111	70 to 130	1.82	20
BA16654	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.43	1.44	0.991	0.85 to 1.15	102	70 to 130	0.697	20
BA16654	Magnesium, Total	mg/L	0.00105	0.0462	5.00	7.53	7.56	5.05	4.25 to 5.75	103	70 to 130	0.398	20
BA16654	Antimony, Total	mg/L	0.000181	0.001	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.82	20
BA16657	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.294	0.293	0.0993	0.085 to 0.115	92.0	70 to 130	0.341	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 13:20
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-7V

Laboratory ID Number: BA16648

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Chloride	mg/L	0.0583	0.50	320	535	180	9.83	9 to 11	112	80 to 120	1.12	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16652	Sulfate	mg/L	-0.497	0.50	20.0	35.9	15.7	19.3	18 to 22	100	80 to 120	0.635	20
BA16652	Solids, Dissolved	mg/L	0.0000	25			299	49.0	40 to 60			0.168	5
BA16654	Fluoride	mg/L	0.0325	0.05	2.50	3.09	0.356	2.59	2.25 to 2.75	109	80 to 120	0.839	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Field Blank-2

Location Code: WMWBARAPFB
Collected: 9/2/20 13:35
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16649

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		***Analyst: RDA***							
* Boron, Total	9/10/20 09:37	9/11/20 12:12		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 12:12		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/10/20 09:37	9/11/20 12:12		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/10/20 09:37	9/11/20 12:12		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:12		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/10/20 09:37	9/11/20 12:12		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8		***Analyst: DLJ***			***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:26		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		***Analyst: GAS***							
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 10:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		***Analyst: TJW***							
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:35	9/8/20 13:35		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:54	9/10/20 10:54		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 10:53	9/4/20 10:53		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPFB
Sample Date: 9/2/20 13:35
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond Field Blank-2

Laboratory ID Number: BA16649

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Calcium, Total	mg/L	0.00624	0.1518	5.00	9.75	9.81	5.00	4.25 to 5.75	101	70 to 130	0.613	20
BA16654	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.188	0.182	0.108	0.085 to 0.115	111	70 to 130	3.24	20
BA16654	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	1.85	20
BA16654	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.111	0.109	0.110	0.085 to 0.115	111	70 to 130	1.82	20
BA16654	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.225	0.226	0.191	0.17 to 0.23	112	70 to 130	0.443	20
BA16654	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.113	0.110	0.106	0.085 to 0.115	111	70 to 130	2.69	20
BA16654	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.117	0.118	0.111	0.085 to 0.115	113	70 to 130	0.851	20
BA16654	Iron, Total	mg/L	0.00108	0.0176	0.2	17.6	16.4	0.200	0.17 to 0.23	550	70 to 130	7.06	20
BA16654	Potassium, Total	mg/L	0.0259	0.3674	10.0	13.1	12.7	10.5	8.5 to 11.5	105	70 to 130	3.10	20
BA16654	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.106	0.102	0.102	0.085 to 0.115	106	70 to 130	3.85	20
BA16654	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0952	0.0962	0.0969	0.085 to 0.115	95.2	70 to 130	1.04	20
BA16654	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.116	0.114	0.111	0.085 to 0.115	112	70 to 130	1.74	20
BA16654	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.362	0.357	0.113	0.085 to 0.115	110	70 to 130	1.39	20
BA16654	Mercury, Total by CVAA	mg/L	0.0000665	0.0005	0.004	0.00393	0.00392	0.00399	0.0034 to 0.0046	98.2	70 to 130	0.255	20
BA16654	Sodium, Total	mg/L	0.00253	0.044	5.00	191	189	4.97	4.25 to 5.75	120	70 to 130	1.05	20
BA16654	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.111	0.108	0.106	0.085 to 0.115	111	70 to 130	2.74	20
BA16654	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.109	0.106	0.106	0.085 to 0.115	109	70 to 130	2.79	20
BA16654	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.43	1.44	0.991	0.85 to 1.15	102	70 to 130	0.697	20
BA16654	Magnesium, Total	mg/L	0.00105	0.0462	5.00	7.53	7.56	5.05	4.25 to 5.75	103	70 to 130	0.398	20
BA16654	Antimony, Total	mg/L	0.000181	0.001	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.82	20

Comments:

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 9/2/20 13:35
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond Field Blank-2

Laboratory ID Number: BA16649

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Chloride	mg/L	0.0583	0.50	320	535	180	9.83	9 to 11	112	80 to 120	1.12	20
BA16652	Sulfate	mg/L	-0.497	0.50	20.0	35.9	15.7	19.3	18 to 22	100	80 to 120	0.635	20
BA16652	Solids, Dissolved	mg/L	0.0000	25			299	49.0	40 to 60			0.168	5
BA16654	Fluoride	mg/L	0.0325	0.05	2.50	3.09	0.356	2.59	2.25 to 2.75	109	80 to 120	0.839	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-9

Location Code: WMWBARAP
Collected: 9/2/20 14:14
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16650

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:15		1.015	2.05	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 12:15		1.015	38.0	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 15:04		101.5	73.0	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 12:15		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:15		1.015	10.8	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 12:15		1.015	18.3	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:46		101.5	80.9	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:29		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:29		1.015	0.0432	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 11:29		1.015	0.124	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 11:29		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:29		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 11:29		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 11:29		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 11:29		1.015	0.875	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 12:49		5.075	2.15	mg/L	0.005075	0.025375	
* Selenium, Total	9/8/20 08:24	9/9/20 11:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:29		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 14:51		5.075	1.73	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 10:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	247	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	301	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-9

Location Code: WMWBARAP
Collected: 9/2/20 14:14
Customer ID:
Submittal Date: 9/3/20 14:11

Laboratory ID Number: BA16650

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	247	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.06	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 13:36	9/8/20 13:36		1	18.5	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:55	9/10/20 10:55		1	0.0804	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 10:54	9/4/20 10:54		1	21.9	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/2/20 14:10	9/2/20 14:10			508.27	uS/cm			FA
pH	9/2/20 14:10	9/2/20 14:10			5.97	SU			FA
Temperature	9/2/20 14:10	9/2/20 14:10			22.03	C			FA
Turbidity	9/2/20 14:10	9/2/20 14:10			1.79	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 14:14
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-9

Laboratory ID Number: BA16650

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Calcium, Total	mg/L	0.00624	0.1518	5.00	9.75	9.81	5.00	4.25 to 5.75	101	70 to 130	0.613	20
BA16654	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.117	0.118	0.111	0.085 to 0.115	113	70 to 130	0.851	20
BA16654	Iron, Total	mg/L	0.00108	0.0176	0.2	17.6	16.4	0.200	0.17 to 0.23	550	70 to 130	7.06	20
BA16654	Potassium, Total	mg/L	0.0259	0.3674	10.0	13.1	12.7	10.5	8.5 to 11.5	105	70 to 130	3.10	20
BA16654	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.106	0.102	0.102	0.085 to 0.115	106	70 to 130	3.85	20
BA16657	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	109	107	0.210	0.17 to 0.23	500	70 to 130	1.85	20
BA16654	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.225	0.226	0.191	0.17 to 0.23	112	70 to 130	0.443	20
BA16654	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.113	0.110	0.106	0.085 to 0.115	111	70 to 130	2.69	20
BA16654	Mercury, Total by CVAA	mg/L	0.0000665	0.0005	0.004	0.00393	0.00392	0.00399	0.0034 to 0.0046	98.2	70 to 130	0.255	20
BA16654	Sodium, Total	mg/L	0.00253	0.044	5.00	191	189	4.97	4.25 to 5.75	120	70 to 130	1.05	20
BA16654	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.111	0.108	0.106	0.085 to 0.115	111	70 to 130	2.74	20
BA16654	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.109	0.106	0.106	0.085 to 0.115	109	70 to 130	2.79	20
BA16654	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.188	0.182	0.108	0.085 to 0.115	111	70 to 130	3.24	20
BA16654	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	1.85	20
BA16654	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.111	0.109	0.110	0.085 to 0.115	111	70 to 130	1.82	20
BA16654	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.43	1.44	0.991	0.85 to 1.15	102	70 to 130	0.697	20
BA16654	Magnesium, Total	mg/L	0.00105	0.0462	5.00	7.53	7.56	5.05	4.25 to 5.75	103	70 to 130	0.398	20
BA16654	Antimony, Total	mg/L	0.000181	0.001	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.82	20
BA16657	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.294	0.293	0.0993	0.085 to 0.115	92.0	70 to 130	0.341	20
BA16654	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0952	0.0962	0.0969	0.085 to 0.115	95.2	70 to 130	1.04	20
BA16654	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.116	0.114	0.111	0.085 to 0.115	112	70 to 130	1.74	20
BA16654	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.362	0.357	0.113	0.085 to 0.115	110	70 to 130	1.39	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 14:14
Customer ID:
Delivery Date: 9/3/20 14:11

Description: Barry Ash Pond - MW-9

Laboratory ID Number: BA16650

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Chloride	mg/L	0.0583	0.50	320	535	180	9.83	9 to 11	112	80 to 120	1.12	20
BA16652	Sulfate	mg/L	-0.497	0.50	20.0	35.9	15.7	19.3	18 to 22	100	80 to 120	0.635	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16652	Solids, Dissolved	mg/L	0.0000	25			299	49.0	40 to 60			0.168	5
BA16654	Fluoride	mg/L	0.0325	0.05	2.50	3.09	0.356	2.59	2.25 to 2.75	109	80 to 120	0.839	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-8V

Location Code: WMWBARAP
Collected: 9/2/20 15:12
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16651

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:18		1.015	0.260	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 12:18		1.015	23.3	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 15:07		101.5	62.6	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 12:18		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:18		1.015	13.6	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 12:18		1.015	36.0	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:49		101.5	66.4	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:32		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:32		1.015	0.00346	mg/L	0.001	0.005	J
* Barium, Total	9/8/20 08:24	9/9/20 11:32		1.015	0.289	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 11:32		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:32		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 11:32		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 11:32		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 11:32		1.015	2.61	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 11:32		1.015	0.772	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 11:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:32		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:48		1.015	0.665	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 10:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	238	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	318	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-8V

Location Code: WMWBARAP
Collected: 9/2/20 15:12
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16651

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	238	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.05	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:01	9/8/20 14:01		2	22.6	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:56	9/10/20 10:56		1	0.0980	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 10:55	9/4/20 10:55		1	24.0	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/2/20 15:09	9/2/20 15:09			413.20	uS/cm			FA
pH	9/2/20 15:09	9/2/20 15:09			5.79	SU			FA
Temperature	9/2/20 15:09	9/2/20 15:09			21.26	C			FA
Turbidity	9/2/20 15:09	9/2/20 15:09			1.89	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 15:12
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: BA16651

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Calcium, Total	mg/L	0.00624	0.1518	5.00	9.75	9.81	5.00	4.25 to 5.75	101	70 to 130	0.613	20
BA16654	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.225	0.226	0.191	0.17 to 0.23	112	70 to 130	0.443	20
BA16654	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.113	0.110	0.106	0.085 to 0.115	111	70 to 130	2.69	20
BA16654	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.188	0.182	0.108	0.085 to 0.115	111	70 to 130	3.24	20
BA16654	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	1.85	20
BA16654	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.111	0.109	0.110	0.085 to 0.115	111	70 to 130	1.82	20
BA16654	Mercury, Total by CVAA	mg/L	0.0000665	0.0005	0.004	0.00393	0.00392	0.00399	0.0034 to 0.0046	98.2	70 to 130	0.255	20
BA16654	Sodium, Total	mg/L	0.00253	0.044	5.00	191	189	4.97	4.25 to 5.75	120	70 to 130	1.05	20
BA16654	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.111	0.108	0.106	0.085 to 0.115	111	70 to 130	2.74	20
BA16654	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.109	0.106	0.106	0.085 to 0.115	109	70 to 130	2.79	20
BA16654	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0952	0.0962	0.0969	0.085 to 0.115	95.2	70 to 130	1.04	20
BA16654	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.116	0.114	0.111	0.085 to 0.115	112	70 to 130	1.74	20
BA16654	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.362	0.357	0.113	0.085 to 0.115	110	70 to 130	1.39	20
BA16654	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.43	1.44	0.991	0.85 to 1.15	102	70 to 130	0.697	20
BA16654	Magnesium, Total	mg/L	0.00105	0.0462	5.00	7.53	7.56	5.05	4.25 to 5.75	103	70 to 130	0.398	20
BA16654	Antimony, Total	mg/L	0.000181	0.001	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.82	20
BA16657	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.294	0.293	0.0993	0.085 to 0.115	92.0	70 to 130	0.341	20
BA16654	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.117	0.118	0.111	0.085 to 0.115	113	70 to 130	0.851	20
BA16654	Iron, Total	mg/L	0.00108	0.0176	0.2	17.6	16.4	0.200	0.17 to 0.23	550	70 to 130	7.06	20
BA16654	Potassium, Total	mg/L	0.0259	0.3674	10.0	13.1	12.7	10.5	8.5 to 11.5	105	70 to 130	3.10	20
BA16654	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.106	0.102	0.102	0.085 to 0.115	106	70 to 130	3.85	20
BA16657	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	109	107	0.210	0.17 to 0.23	500	70 to 130	1.85	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 15:12
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-8V

Laboratory ID Number: BA16651

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Chloride	mg/L	0.0583	0.50	320	535	180	9.83	9 to 11	112	80 to 120	1.12	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16652	Sulfate	mg/L	-0.497	0.50	20.0	35.9	15.7	19.3	18 to 22	100	80 to 120	0.635	20
BA16652	Solids, Dissolved	mg/L	0.0000	25			299	49.0	40 to 60			0.168	5
BA16654	Fluoride	mg/L	0.0325	0.05	2.50	3.09	0.356	2.59	2.25 to 2.75	109	80 to 120	0.839	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-8

Location Code: WMWBARAP
Collected: 9/2/20 16:12
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16652

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:20		1.015	1.26	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 12:20		1.015	31.5	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 15:10		101.5	66.9	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 12:20		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:20		1.015	9.90	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 12:20		1.015	18.1	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:52		101.5	74.1	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:34		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:34		1.015	0.0629	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 11:34		1.015	0.151	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 11:34		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:34		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 11:34		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 11:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 11:34		1.015	0.756	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 12:51		5.075	1.83	mg/L	0.005075	0.025375	
* Selenium, Total	9/8/20 08:24	9/9/20 11:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:34		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 14:54		5.075	1.47	mg/L	0.005075	0.025375	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 10:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	214	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	298	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-8

Location Code: WMWBARAP
Collected: 9/2/20 16:12
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16652

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	214	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.04	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:03	9/8/20 14:03		2	22.2	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:57	9/10/20 10:57		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 10:57	9/4/20 10:57		1	15.8	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: DKG***							
Conductivity	9/2/20 16:09	9/2/20 16:09			458.41	uS/cm			FA
pH	9/2/20 16:09	9/2/20 16:09			5.89	SU			FA
Temperature	9/2/20 16:09	9/2/20 16:09			21.37	C			FA
Turbidity	9/2/20 16:09	9/2/20 16:09			1.92	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 16:12
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-8

Laboratory ID Number: BA16652

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Calcium, Total	mg/L	0.00624	0.1518	5.00	9.75	9.81	5.00	4.25 to 5.75	101	70 to 130	0.613	20
BA16654	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.225	0.226	0.191	0.17 to 0.23	112	70 to 130	0.443	20
BA16654	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.113	0.110	0.106	0.085 to 0.115	111	70 to 130	2.69	20
BA16654	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.188	0.182	0.108	0.085 to 0.115	111	70 to 130	3.24	20
BA16654	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	1.85	20
BA16654	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.111	0.109	0.110	0.085 to 0.115	111	70 to 130	1.82	20
BA16654	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0952	0.0962	0.0969	0.085 to 0.115	95.2	70 to 130	1.04	20
BA16654	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.116	0.114	0.111	0.085 to 0.115	112	70 to 130	1.74	20
BA16654	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.362	0.357	0.113	0.085 to 0.115	110	70 to 130	1.39	20
BA16654	Mercury, Total by CVAA	mg/L	0.0000665	0.0005	0.004	0.00393	0.00392	0.00399	0.0034 to 0.0046	98.2	70 to 130	0.255	20
BA16654	Sodium, Total	mg/L	0.00253	0.044	5.00	191	189	4.97	4.25 to 5.75	120	70 to 130	1.05	20
BA16654	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.111	0.108	0.106	0.085 to 0.115	111	70 to 130	2.74	20
BA16654	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.109	0.106	0.106	0.085 to 0.115	109	70 to 130	2.79	20
BA16654	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.117	0.118	0.111	0.085 to 0.115	113	70 to 130	0.851	20
BA16654	Iron, Total	mg/L	0.00108	0.0176	0.2	17.6	16.4	0.200	0.17 to 0.23	550	70 to 130	7.06	20
BA16654	Potassium, Total	mg/L	0.0259	0.3674	10.0	13.1	12.7	10.5	8.5 to 11.5	105	70 to 130	3.10	20
BA16654	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.106	0.102	0.102	0.085 to 0.115	106	70 to 130	3.85	20
BA16657	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	109	107	0.210	0.17 to 0.23	500	70 to 130	1.85	20
BA16654	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.43	1.44	0.991	0.85 to 1.15	102	70 to 130	0.697	20
BA16654	Magnesium, Total	mg/L	0.00105	0.0462	5.00	7.53	7.56	5.05	4.25 to 5.75	103	70 to 130	0.398	20
BA16654	Antimony, Total	mg/L	0.000181	0.001	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.82	20
BA16657	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.294	0.293	0.0993	0.085 to 0.115	92.0	70 to 130	0.341	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 16:12
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-8

Laboratory ID Number: BA16652

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Chloride	mg/L	0.0583	0.50	320	535	180	9.83	9 to 11	112	80 to 120	1.12	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16652	Sulfate	mg/L	-0.497	0.50	20.0	35.9	15.7	19.3	18 to 22	100	80 to 120	0.635	20
BA16652	Solids, Dissolved	mg/L	0.0000	25			299	49.0	40 to 60			0.168	5
BA16654	Fluoride	mg/L	0.0325	0.05	2.50	3.09	0.356	2.59	2.25 to 2.75	109	80 to 120	0.839	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-13V

Location Code: WMWBARAP
Collected: 9/2/20 08:53
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16653

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:23		1.015	0.112	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 12:23		1.015	12.3	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 15:13		101.5	45.9	mg/L	2.03	5.075	
* Lithium, Total	9/10/20 09:37	9/11/20 12:23		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:23		1.015	6.39	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 15:58		101.5	75.5	mg/L	10.15	50.75	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:54		101.5	50.9	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:37		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:37		1.015	0.00708	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 11:37		1.015	0.109	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 11:37		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:37		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:37		1.015	0.00525	mg/L	0.002	0.01	J
* Cobalt, Total	9/8/20 08:24	9/9/20 11:37		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 11:37		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 11:37		1.015	5.01	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 11:37		1.015	0.829	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 11:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:37		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:53		1.015	0.712	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 10:51		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	184	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	361	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-13V

Location Code: WMWBARAP
Collected: 9/2/20 08:53
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16653

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	184	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.03	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:04	9/8/20 14:04		8	51.7	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 10:59	9/10/20 10:59		1	0.0864	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 11:09	9/4/20 11:09		1	30.6	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/2/20 08:49	9/2/20 08:49			560.52	uS/cm			FA
pH	9/2/20 08:49	9/2/20 08:49			6.23	SU			FA
Temperature	9/2/20 08:49	9/2/20 08:49			21.09	C			FA
Turbidity	9/2/20 08:49	9/2/20 08:49			4.7	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 08:53
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-13V

Laboratory ID Number: BA16653

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Calcium, Total	mg/L	0.00624	0.1518	5.00	9.75	9.81	5.00	4.25 to 5.75	101	70 to 130	0.613	20
BA16654	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.188	0.182	0.108	0.085 to 0.115	111	70 to 130	3.24	20
BA16654	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	1.85	20
BA16654	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.111	0.109	0.110	0.085 to 0.115	111	70 to 130	1.82	20
BA16654	Mercury, Total by CVAA	mg/L	0.0000665	0.0005	0.004	0.00393	0.00392	0.00399	0.0034 to 0.0046	98.2	70 to 130	0.255	20
BA16654	Sodium, Total	mg/L	0.00253	0.044	5.00	191	189	4.97	4.25 to 5.75	120	70 to 130	1.05	20
BA16654	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.111	0.108	0.106	0.085 to 0.115	111	70 to 130	2.74	20
BA16654	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.109	0.106	0.106	0.085 to 0.115	109	70 to 130	2.79	20
BA16654	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0952	0.0962	0.0969	0.085 to 0.115	95.2	70 to 130	1.04	20
BA16654	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.116	0.114	0.111	0.085 to 0.115	112	70 to 130	1.74	20
BA16654	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.362	0.357	0.113	0.085 to 0.115	110	70 to 130	1.39	20
BA16654	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.117	0.118	0.111	0.085 to 0.115	113	70 to 130	0.851	20
BA16654	Iron, Total	mg/L	0.00108	0.0176	0.2	17.6	16.4	0.200	0.17 to 0.23	550	70 to 130	7.06	20
BA16654	Potassium, Total	mg/L	0.0259	0.3674	10.0	13.1	12.7	10.5	8.5 to 11.5	105	70 to 130	3.10	20
BA16654	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.106	0.102	0.102	0.085 to 0.115	106	70 to 130	3.85	20
BA16657	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	109	107	0.210	0.17 to 0.23	500	70 to 130	1.85	20
BA16654	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.225	0.226	0.191	0.17 to 0.23	112	70 to 130	0.443	20
BA16654	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.113	0.110	0.106	0.085 to 0.115	111	70 to 130	2.69	20
BA16654	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.43	1.44	0.991	0.85 to 1.15	102	70 to 130	0.697	20
BA16654	Magnesium, Total	mg/L	0.00105	0.0462	5.00	7.53	7.56	5.05	4.25 to 5.75	103	70 to 130	0.398	20
BA16654	Antimony, Total	mg/L	0.000181	0.001	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.82	20
BA16657	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.294	0.293	0.0993	0.085 to 0.115	92.0	70 to 130	0.341	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 08:53
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-13V

Laboratory ID Number: BA16653

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Chloride	mg/L	0.0583	0.50	320	535	180	9.83	9 to 11	112	80 to 120	1.12	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16654	Fluoride	mg/L	0.0325	0.05	2.50	3.09	0.356	2.59	2.25 to 2.75	109	80 to 120	0.839	20
BA16658	Solids, Dissolved	mg/L	0.0000	25			278	49.0	40 to 60			0.180	5
BA16661	Sulfate	mg/L	-0.524	0.50	20.0	19.7	-0.380	19.3	18 to 22	98.5	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-14V

Location Code: WMWBARAP
Collected: 9/2/20 09:50
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16654

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:26		1.015	0.407	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 12:26		1.015	4.70	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 15:16		101.5	16.5	mg/L	2.03	5.075	RA
* Lithium, Total	9/10/20 09:37	9/11/20 12:26		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:26		1.015	2.40	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 16:01		101.5	185	mg/L	10.15	50.75	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 14:57		10.15	18.9	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 11:40		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 11:40		1.015	0.00433	mg/L	0.001	0.005	J
* Barium, Total	9/8/20 08:24	9/9/20 11:40		1.015	0.0766	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 11:40		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 11:40		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 11:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 11:40		1.015	0.00444	mg/L	0.002	0.005	J
* Lead, Total	9/8/20 08:24	9/9/20 11:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 11:40		1.015	0.00229	mg/L	0.002	0.01	J
* Potassium, Total	9/8/20 08:24	9/9/20 11:40		1.015	2.64	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 11:40		1.015	0.252	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 11:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 11:40		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:56		1.015	0.218	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 10:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	153	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	498	mg/L		50	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-14V

Location Code: WMWBARAP
Collected: 9/2/20 09:50
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16654

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	153	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.12	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:05	9/8/20 14:05		32	178	mg/L	16.00	32	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 11:00	9/10/20 11:00		1	0.359	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 11:17	9/4/20 11:17		2	63.6	mg/L	1.00	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/2/20 09:45	9/2/20 09:45			910.82	uS/cm			FA
pH	9/2/20 09:45	9/2/20 09:45			7.02	SU			FA
Temperature	9/2/20 09:45	9/2/20 09:45			21.59	C			FA
Turbidity	9/2/20 09:45	9/2/20 09:45			1.69	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 09:50
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-14V

Laboratory ID Number: BA16654

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Calcium, Total	mg/L	0.00624	0.1518	5.00	9.75	9.81	5.00	4.25 to 5.75	101	70 to 130	0.613	20
BA16654	Lithium, Total	mg/L	-0.000303	0.0154	0.200	0.225	0.226	0.191	0.17 to 0.23	112	70 to 130	0.443	20
BA16654	Molybdenum, Total	mg/L	0.0000111	0.0001474	0.10	0.113	0.110	0.106	0.085 to 0.115	111	70 to 130	2.69	20
BA16654	Barium, Total	mg/L	0.0000008	0.0002	0.10	0.188	0.182	0.108	0.085 to 0.115	111	70 to 130	3.24	20
BA16654	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.109	0.107	0.105	0.085 to 0.115	109	70 to 130	1.85	20
BA16654	Chromium, Total	mg/L	0.0000473	0.00044	0.10	0.111	0.109	0.110	0.085 to 0.115	111	70 to 130	1.82	20
BA16654	Beryllium, Total	mg/L	0.0000358	0.00088	0.10	0.0952	0.0962	0.0969	0.085 to 0.115	95.2	70 to 130	1.04	20
BA16654	Cobalt, Total	mg/L	-0.0000034	0.0001474	0.10	0.116	0.114	0.111	0.085 to 0.115	112	70 to 130	1.74	20
BA16654	Manganese, Total	mg/L	-0.000005	0.0001474	0.10	0.362	0.357	0.113	0.085 to 0.115	110	70 to 130	1.39	20
BA16654	Arsenic, Total	mg/L	0.0000171	0.0001474	0.10	0.117	0.118	0.111	0.085 to 0.115	113	70 to 130	0.851	20
BA16654	Iron, Total	mg/L	0.00108	0.0176	0.2	17.6	16.4	0.200	0.17 to 0.23	550	70 to 130	7.06	20
BA16654	Potassium, Total	mg/L	0.0259	0.3674	10.0	13.1	12.7	10.5	8.5 to 11.5	105	70 to 130	3.10	20
BA16654	Thallium, Total	mg/L	0.0000045	0.0001474	0.10	0.106	0.102	0.102	0.085 to 0.115	106	70 to 130	3.85	20
BA16657	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	109	107	0.210	0.17 to 0.23	500	70 to 130	1.85	20
BA16654	Mercury, Total by CVAA	mg/L	0.0000665	0.0005	0.004	0.00393	0.00392	0.00399	0.0034 to 0.0046	98.2	70 to 130	0.255	20
BA16654	Sodium, Total	mg/L	0.00253	0.044	5.00	191	189	4.97	4.25 to 5.75	120	70 to 130	1.05	20
BA16654	Lead, Total	mg/L	0.0000091	0.0001474	0.10	0.111	0.108	0.106	0.085 to 0.115	111	70 to 130	2.74	20
BA16654	Selenium, Total	mg/L	0.0000389	0.001	0.10	0.109	0.106	0.106	0.085 to 0.115	109	70 to 130	2.79	20
BA16654	Boron, Total	mg/L	0.000720	0.0650254	1.00	1.43	1.44	0.991	0.85 to 1.15	102	70 to 130	0.697	20
BA16654	Magnesium, Total	mg/L	0.00105	0.0462	5.00	7.53	7.56	5.05	4.25 to 5.75	103	70 to 130	0.398	20
BA16654	Antimony, Total	mg/L	0.000181	0.001	0.10	0.108	0.105	0.104	0.085 to 0.115	108	70 to 130	2.82	20
BA16657	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.294	0.293	0.0993	0.085 to 0.115	92.0	70 to 130	0.341	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 09:50
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-14V

Laboratory ID Number: BA16654

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16654	Chloride	mg/L	0.0583	0.50	320	535	180	9.83	9 to 11	112	80 to 120	1.12	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16654	Fluoride	mg/L	0.0325	0.05	2.50	3.09	0.356	2.59	2.25 to 2.75	109	80 to 120	0.839	20
BA16658	Solids, Dissolved	mg/L	0.0000	25			278	49.0	40 to 60			0.180	5
BA16661	Sulfate	mg/L	-0.524	0.50	20.0	19.7	-0.380	19.3	18 to 22	98.5	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-14

Location Code: WMWBARAP
Collected: 9/2/20 11:05
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16655

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:47		1.015	0.0789	mg/L	0.03	0.1	J
* Calcium, Total	9/10/20 09:37	9/11/20 12:47		1.015	10.8	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 15:25		50.75	29.6	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 12:47		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:47		1.015	6.23	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 16:10		50.75	82.6	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 15:00		101.5	30.3	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 12:01		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 12:01		1.015	0.0174	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 12:01		1.015	0.0687	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 12:01		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 12:01		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 12:01		1.015	0.00482	mg/L	0.002	0.01	J
* Cobalt, Total	9/8/20 08:24	9/9/20 12:01		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 12:01		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 12:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 12:01		1.015	2.66	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 12:01		1.015	0.312	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 12:01		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 12:01		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 13:59		1.015	0.270	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 11:10		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	175	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	327	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-14

Location Code: WMWBARAP
Collected: 9/2/20 11:05
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16655

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	175	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.03	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:36	9/8/20 14:36		8	47.2	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 11:12	9/10/20 11:12		1	0.0957	mg/L	0.06	0.1	J
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 11:11	9/4/20 11:11		1	18.5	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/2/20 11:01	9/2/20 11:01			517.20	uS/cm			FA
pH	9/2/20 11:01	9/2/20 11:01			5.80	SU			FA
Temperature	9/2/20 11:01	9/2/20 11:01			20.97	C			FA
Turbidity	9/2/20 11:01	9/2/20 11:01			3.2	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 11:05
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-14

Laboratory ID Number: BA16655

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Selenium, Total	mg/L	-0.0000096	0.001	0.10	0.106	0.109	0.106	0.085 to 0.115	106	70 to 130	2.79	20
BA16661	Cobalt, Total	mg/L	-0.0000025	0.0001474	0.10	0.113	0.114	0.111	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Iron, Total	mg/L	0.000625	0.0176	0.2	0.201	0.201	0.202	0.17 to 0.23	100	70 to 130	0.00	20
BA16661	Mercury, Total by CVAA	mg/L	0.0000362	0.0005	0.004	0.00412	0.00411	0.00402	0.0034 to 0.0046	103	70 to 130	0.243	20
BA16661	Thallium, Total	mg/L	0.0000106	0.0001474	0.10	0.108	0.109	0.107	0.085 to 0.115	108	70 to 130	0.922	20
BA16657	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	109	107	0.210	0.17 to 0.23	500	70 to 130	1.85	20
BA16661	Calcium, Total	mg/L	0.0000309	0.1518	5.00	5.03	5.06	5.05	4.25 to 5.75	101	70 to 130	0.595	20
BA16661	Potassium, Total	mg/L	0.0325	0.3674	10.0	10.6	10.6	10.5	8.5 to 11.5	106	70 to 130	0.00	20
BA16661	Beryllium, Total	mg/L	0.0000493	0.00088	0.10	0.0907	0.0953	0.0940	0.085 to 0.115	90.7	70 to 130	4.95	20
BA16661	Antimony, Total	mg/L	0.000188	0.001	0.10	0.107	0.106	0.102	0.085 to 0.115	107	70 to 130	0.939	20
BA16661	Barium, Total	mg/L	-0.0000041	0.0002	0.10	0.113	0.110	0.106	0.085 to 0.115	113	70 to 130	2.69	20
BA16661	Boron, Total	mg/L	0.000547	0.0650254	1.00	0.997	1.00	1.01	0.85 to 1.15	99.7	70 to 130	0.300	20
BA16661	Chromium, Total	mg/L	0.0000851	0.00044	0.10	0.112	0.114	0.111	0.085 to 0.115	112	70 to 130	1.77	20
BA16661	Manganese, Total	mg/L	0.0000118	0.0001474	0.10	0.114	0.114	0.112	0.085 to 0.115	114	70 to 130	0.00	20
BA16661	Sodium, Total	mg/L	0.00232	0.044	5.00	4.93	4.97	4.99	4.25 to 5.75	98.6	70 to 130	0.808	20
BA16661	Magnesium, Total	mg/L	-0.000396	0.0462	5.00	5.09	5.09	5.08	4.25 to 5.75	102	70 to 130	0.00	20
BA16661	Molybdenum, Total	mg/L	0.0000204	0.0001474	0.10	0.108	0.108	0.107	0.085 to 0.115	108	70 to 130	0.00	20
BA16661	Lead, Total	mg/L	0.0000189	0.0001474	0.10	0.111	0.112	0.111	0.085 to 0.115	111	70 to 130	0.897	20
BA16657	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.294	0.293	0.0993	0.085 to 0.115	92.0	70 to 130	0.341	20
BA16661	Arsenic, Total	mg/L	0.0000186	0.0001474	0.10	0.113	0.114	0.113	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.108	0.109	0.108	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Lithium, Total	mg/L	-0.000343	0.0154	0.200	0.192	0.190	0.193	0.17 to 0.23	96.0	70 to 130	1.05	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 11:05
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-14

Laboratory ID Number: BA16655

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Fluoride	mg/L	0.025	0.05	2.50	2.59	0.0184	2.59	2.25 to 2.75	104	80 to 120	0.00	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16658	Solids, Dissolved	mg/L	0.0000	25			278	49.0	40 to 60			0.180	5
BA16661	Chloride	mg/L	0.0713	0.50	10.0	9.94	0.0512	9.83	9 to 11	99.4	80 to 120	0.00	20
BA16661	Sulfate	mg/L	-0.524	0.50	20.0	19.7	-0.380	19.3	18 to 22	98.5	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-15

Location Code: WMWBARAP
Collected: 9/2/20 12:18
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16656

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:50		1.015	0.148	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 12:50		1.015	7.04	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 15:38		50.75	91.3	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 12:50		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:50		1.015	5.12	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 12:50		1.015	25.0	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 15:03		101.5	101	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 12:03		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 12:03		1.015	0.0206	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 12:03		1.015	0.0736	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 12:03		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 12:03		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 12:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 12:03		1.015	0.0385	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 12:03		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 12:03		1.015	0.00209	mg/L	0.002	0.01	J
* Potassium, Total	9/8/20 08:24	9/9/20 12:03		1.015	2.95	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 12:03		1.015	0.811	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 12:03		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 12:03		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 14:01		1.015	0.683	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 11:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	123	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	208	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-15

Location Code: WMWBARAP
Collected: 9/2/20 12:18
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16656

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	123	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.03	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:38	9/8/20 14:38		8	47.0	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 11:13	9/10/20 11:13		1	0.180	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 11:13	9/4/20 11:13		1	7.61	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/2/20 12:15	9/2/20 12:15			487.31	uS/cm			FA
pH	9/2/20 12:15	9/2/20 12:15			6.57	SU			FA
Temperature	9/2/20 12:15	9/2/20 12:15			21.95	C			FA
Turbidity	9/2/20 12:15	9/2/20 12:15			2.02	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 12:18
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-15

Laboratory ID Number: BA16656

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Selenium, Total	mg/L	-0.0000096	0.001	0.10	0.106	0.109	0.106	0.085 to 0.115	106	70 to 130	2.79	20
BA16661	Cobalt, Total	mg/L	-0.0000025	0.0001474	0.10	0.113	0.114	0.111	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Iron, Total	mg/L	0.000625	0.0176	0.2	0.201	0.201	0.202	0.17 to 0.23	100	70 to 130	0.00	20
BA16661	Beryllium, Total	mg/L	0.0000493	0.00088	0.10	0.0907	0.0953	0.0940	0.085 to 0.115	90.7	70 to 130	4.95	20
BA16661	Antimony, Total	mg/L	0.000188	0.001	0.10	0.107	0.106	0.102	0.085 to 0.115	107	70 to 130	0.939	20
BA16657	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	109	107	0.210	0.17 to 0.23	500	70 to 130	1.85	20
BA16661	Calcium, Total	mg/L	0.0000309	0.1518	5.00	5.03	5.06	5.05	4.25 to 5.75	101	70 to 130	0.595	20
BA16661	Potassium, Total	mg/L	0.0325	0.3674	10.0	10.6	10.6	10.5	8.5 to 11.5	106	70 to 130	0.00	20
BA16661	Mercury, Total by CVAA	mg/L	0.0000362	0.0005	0.004	0.00412	0.00411	0.00402	0.0034 to 0.0046	103	70 to 130	0.243	20
BA16661	Thallium, Total	mg/L	0.0000106	0.0001474	0.10	0.108	0.109	0.107	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Magnesium, Total	mg/L	-0.000396	0.0462	5.00	5.09	5.09	5.08	4.25 to 5.75	102	70 to 130	0.00	20
BA16661	Molybdenum, Total	mg/L	0.0000204	0.0001474	0.10	0.108	0.108	0.107	0.085 to 0.115	108	70 to 130	0.00	20
BA16661	Lead, Total	mg/L	0.0000189	0.0001474	0.10	0.111	0.112	0.111	0.085 to 0.115	111	70 to 130	0.897	20
BA16661	Barium, Total	mg/L	-0.0000041	0.0002	0.10	0.113	0.110	0.106	0.085 to 0.115	113	70 to 130	2.69	20
BA16661	Boron, Total	mg/L	0.000547	0.0650254	1.00	0.997	1.00	1.01	0.85 to 1.15	99.7	70 to 130	0.300	20
BA16661	Chromium, Total	mg/L	0.0000851	0.00044	0.10	0.112	0.114	0.111	0.085 to 0.115	112	70 to 130	1.77	20
BA16661	Manganese, Total	mg/L	0.0000118	0.0001474	0.10	0.114	0.114	0.112	0.085 to 0.115	114	70 to 130	0.00	20
BA16661	Sodium, Total	mg/L	0.00232	0.044	5.00	4.93	4.97	4.99	4.25 to 5.75	98.6	70 to 130	0.808	20
BA16657	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.294	0.293	0.0993	0.085 to 0.115	92.0	70 to 130	0.341	20
BA16661	Arsenic, Total	mg/L	0.0000186	0.0001474	0.10	0.113	0.114	0.113	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.108	0.109	0.108	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Lithium, Total	mg/L	-0.000343	0.0154	0.200	0.192	0.190	0.193	0.17 to 0.23	96.0	70 to 130	1.05	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 12:18
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-15

Laboratory ID Number: BA16656

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Fluoride	mg/L	0.025	0.05	2.50	2.59	0.0184	2.59	2.25 to 2.75	104	80 to 120	0.00	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16658	Solids, Dissolved	mg/L	0.0000	25			278	49.0	40 to 60			0.180	5
BA16661	Chloride	mg/L	0.0713	0.50	10.0	9.94	0.0512	9.83	9 to 11	99.4	80 to 120	0.00	20
BA16661	Sulfate	mg/L	-0.524	0.50	20.0	19.7	-0.380	19.3	18 to 22	98.5	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-24H

Location Code: WMWBARAP
Collected: 9/2/20 13:25
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16657

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:53		1.015	0.382	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 12:53		1.015	17.6	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 15:41		50.75	105	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 12:53		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:53		1.015	16.4	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 16:13		50.75	75.0	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 15:06		101.5	108	mg/L	2.03	5.075	RA
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 12:06		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 12:06		1.015	0.0783	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 12:06		1.015	0.260	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 12:06		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 12:06		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 12:06		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 12:06		1.015	0.00610	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 12:06		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 12:06		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 12:06		1.015	2.67	mg/L	0.3	2.5	
* Manganese, Total	9/8/20 08:24	9/9/20 12:06		1.015	0.235	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 12:06		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 12:06		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 14:04		1.015	0.202	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 11:15		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 10:10	9/10/20 11:26		1	339	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	471	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-24H

Location Code: WMWBARAP
Collected: 9/2/20 13:25
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16657

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	339	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 10:10	9/10/20 11:26		1	0.08	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:39	9/8/20 14:39		8	43.7	mg/L	4.00	8	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 11:14	9/10/20 11:14		1	0.158	mg/L	0.06	0.1	
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 11:19	9/4/20 11:19		2	59.7	mg/L	1.00	2	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/2/20 13:19	9/2/20 13:19			767.26	uS/cm			FA
pH	9/2/20 13:19	9/2/20 13:19			6.01	SU			FA
Temperature	9/2/20 13:19	9/2/20 13:19			22.15	C			FA
Turbidity	9/2/20 13:19	9/2/20 13:19			2.52	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 13:25
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: BA16657

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Selenium, Total	mg/L	-0.0000096	0.001	0.10	0.106	0.109	0.106	0.085 to 0.115	106	70 to 130	2.79	20
BA16661	Cobalt, Total	mg/L	-0.0000025	0.0001474	0.10	0.113	0.114	0.111	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Iron, Total	mg/L	0.000625	0.0176	0.2	0.201	0.201	0.202	0.17 to 0.23	100	70 to 130	0.00	20
BA16661	Beryllium, Total	mg/L	0.0000493	0.00088	0.10	0.0907	0.0953	0.0940	0.085 to 0.115	90.7	70 to 130	4.95	20
BA16661	Antimony, Total	mg/L	0.000188	0.001	0.10	0.107	0.106	0.102	0.085 to 0.115	107	70 to 130	0.939	20
BA16661	Magnesium, Total	mg/L	-0.000396	0.0462	5.00	5.09	5.09	5.08	4.25 to 5.75	102	70 to 130	0.00	20
BA16661	Molybdenum, Total	mg/L	0.0000204	0.0001474	0.10	0.108	0.108	0.107	0.085 to 0.115	108	70 to 130	0.00	20
BA16661	Lead, Total	mg/L	0.0000189	0.0001474	0.10	0.111	0.112	0.111	0.085 to 0.115	111	70 to 130	0.897	20
BA16661	Barium, Total	mg/L	-0.0000041	0.0002	0.10	0.113	0.110	0.106	0.085 to 0.115	113	70 to 130	2.69	20
BA16661	Boron, Total	mg/L	0.000547	0.0650254	1.00	0.997	1.00	1.01	0.85 to 1.15	99.7	70 to 130	0.300	20
BA16661	Chromium, Total	mg/L	0.0000851	0.00044	0.10	0.112	0.114	0.111	0.085 to 0.115	112	70 to 130	1.77	20
BA16661	Manganese, Total	mg/L	0.0000118	0.0001474	0.10	0.114	0.114	0.112	0.085 to 0.115	114	70 to 130	0.00	20
BA16661	Sodium, Total	mg/L	0.00232	0.044	5.00	4.93	4.97	4.99	4.25 to 5.75	98.6	70 to 130	0.808	20
BA16661	Mercury, Total by CVAA	mg/L	0.0000362	0.0005	0.004	0.00412	0.00411	0.00402	0.0034 to 0.0046	103	70 to 130	0.243	20
BA16661	Thallium, Total	mg/L	0.0000106	0.0001474	0.10	0.108	0.109	0.107	0.085 to 0.115	108	70 to 130	0.922	20
BA16657	Iron, Dissolved	mg/L	0.000520	0.0176	0.2	109	107	0.210	0.17 to 0.23	500	70 to 130	1.85	20
BA16661	Calcium, Total	mg/L	0.0000309	0.1518	5.00	5.03	5.06	5.05	4.25 to 5.75	101	70 to 130	0.595	20
BA16661	Potassium, Total	mg/L	0.0325	0.3674	10.0	10.6	10.6	10.5	8.5 to 11.5	106	70 to 130	0.00	20
BA16657	Manganese, Dissolved	mg/L	-0.0000104	0.0001474	0.10	0.294	0.293	0.0993	0.085 to 0.115	92.0	70 to 130	0.341	20
BA16661	Arsenic, Total	mg/L	0.0000186	0.0001474	0.10	0.113	0.114	0.113	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.108	0.109	0.108	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Lithium, Total	mg/L	-0.000343	0.0154	0.200	0.192	0.190	0.193	0.17 to 0.23	96.0	70 to 130	1.05	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 13:25
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-24H

Laboratory ID Number: BA16657

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Fluoride	mg/L	0.025	0.05	2.50	2.59	0.0184	2.59	2.25 to 2.75	104	80 to 120	0.00	20
BA16657	Alkalinity, Total as CaCO3	mg/L					338	51.4	45.0 to 55.0			0.295	10
BA16658	Solids, Dissolved	mg/L	0.0000	25			278	49.0	40 to 60			0.180	5
BA16661	Chloride	mg/L	0.0713	0.50	10.0	9.94	0.0512	9.83	9 to 11	99.4	80 to 120	0.00	20
BA16661	Sulfate	mg/L	-0.524	0.50	20.0	19.7	-0.380	19.3	18 to 22	98.5	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-16

Location Code: WMWBARAP
Collected: 9/2/20 14:20
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16658

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:56		1.015	1.90	mg/L	0.03	0.1	
* Calcium, Total	9/10/20 09:37	9/11/20 12:56		1.015	13.1	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 15:44		50.75	78.9	mg/L	1.015	2.5375	
* Lithium, Total	9/10/20 09:37	9/11/20 12:56		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:56		1.015	6.98	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 12:56		1.015	25.2	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 15:15		101.5	84.3	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 12:09		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 12:09		1.015	0.0137	mg/L	0.001	0.005	
* Barium, Total	9/8/20 08:24	9/9/20 12:09		1.015	0.0954	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 12:09		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 12:09		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 12:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 12:09		1.015	0.0192	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 12:09		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 12:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 12:09		1.015	2.14	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 12:09		1.015	0.994	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 12:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 12:09		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 14:25		1.015	0.810	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 11:17		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 11:30	9/10/20 11:35		1	224	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	279	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-16

Location Code: WMWBARAP
Collected: 9/2/20 14:20
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16658

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 11:30	9/10/20 11:35		1	224	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 11:30	9/10/20 11:35		1	0.02	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:40	9/8/20 14:40		2	20.8	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 11:16	9/10/20 11:16		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 11:15	9/4/20 11:15		1	13.3	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/2/20 14:17	9/2/20 14:17			449.02	uS/cm			FA
pH	9/2/20 14:17	9/2/20 14:17			5.47	SU			FA
Temperature	9/2/20 14:17	9/2/20 14:17			22.13	C			FA
Turbidity	9/2/20 14:17	9/2/20 14:17			2.55	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 14:20
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-16

Laboratory ID Number: BA16658

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16659	Manganese, Dissolved	mg/L	-0.0000257	0.0001474	0.10	0.247	0.248	0.0984	0.085 to 0.115	96.0	70 to 130	0.404	20
BA16661	Selenium, Total	mg/L	-0.0000096	0.001	0.10	0.106	0.109	0.106	0.085 to 0.115	106	70 to 130	2.79	20
BA16659	Iron, Dissolved	mg/L	0.000462	0.0176	0.2	3.99	4.03	0.212	0.17 to 0.23	-145	70 to 130	0.998	20
BA16661	Calcium, Total	mg/L	0.0000309	0.1518	5.00	5.03	5.06	5.05	4.25 to 5.75	101	70 to 130	0.595	20
BA16661	Potassium, Total	mg/L	0.0325	0.3674	10.0	10.6	10.6	10.5	8.5 to 11.5	106	70 to 130	0.00	20
BA16661	Mercury, Total by CVAA	mg/L	0.0000362	0.0005	0.004	0.00412	0.00411	0.00402	0.0034 to 0.0046	103	70 to 130	0.243	20
BA16661	Thallium, Total	mg/L	0.0000106	0.0001474	0.10	0.108	0.109	0.107	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Cobalt, Total	mg/L	-0.0000025	0.0001474	0.10	0.113	0.114	0.111	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Iron, Total	mg/L	0.000625	0.0176	0.2	0.201	0.201	0.202	0.17 to 0.23	100	70 to 130	0.00	20
BA16661	Magnesium, Total	mg/L	-0.000396	0.0462	5.00	5.09	5.09	5.08	4.25 to 5.75	102	70 to 130	0.00	20
BA16661	Molybdenum, Total	mg/L	0.0000204	0.0001474	0.10	0.108	0.108	0.107	0.085 to 0.115	108	70 to 130	0.00	20
BA16661	Lead, Total	mg/L	0.0000189	0.0001474	0.10	0.111	0.112	0.111	0.085 to 0.115	111	70 to 130	0.897	20
BA16661	Arsenic, Total	mg/L	0.0000186	0.0001474	0.10	0.113	0.114	0.113	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.108	0.109	0.108	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Lithium, Total	mg/L	-0.000343	0.0154	0.200	0.192	0.190	0.193	0.17 to 0.23	96.0	70 to 130	1.05	20
BA16661	Barium, Total	mg/L	-0.0000041	0.0002	0.10	0.113	0.110	0.106	0.085 to 0.115	113	70 to 130	2.69	20
BA16661	Boron, Total	mg/L	0.000547	0.0650254	1.00	0.997	1.00	1.01	0.85 to 1.15	99.7	70 to 130	0.300	20
BA16661	Chromium, Total	mg/L	0.0000851	0.00044	0.10	0.112	0.114	0.111	0.085 to 0.115	112	70 to 130	1.77	20
BA16661	Manganese, Total	mg/L	0.0000118	0.0001474	0.10	0.114	0.114	0.112	0.085 to 0.115	114	70 to 130	0.00	20
BA16661	Sodium, Total	mg/L	0.00232	0.044	5.00	4.93	4.97	4.99	4.25 to 5.75	98.6	70 to 130	0.808	20
BA16661	Beryllium, Total	mg/L	0.0000493	0.00088	0.10	0.0907	0.0953	0.0940	0.085 to 0.115	90.7	70 to 130	4.95	20
BA16661	Antimony, Total	mg/L	0.000188	0.001	0.10	0.107	0.106	0.102	0.085 to 0.115	107	70 to 130	0.939	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 14:20
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-16

Laboratory ID Number: BA16658

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Fluoride	mg/L	0.025	0.05	2.50	2.59	0.0184	2.59	2.25 to 2.75	104	80 to 120	0.00	20
BA16658	Alkalinity, Total as CaCO3	mg/L					228	50.0	45.0 to 55.0			1.77	10
BA16658	Solids, Dissolved	mg/L	0.0000	25			278	49.0	40 to 60			0.180	5
BA16661	Chloride	mg/L	0.0713	0.50	10.0	9.94	0.0512	9.83	9 to 11	99.4	80 to 120	0.00	20
BA16661	Sulfate	mg/L	-0.524	0.50	20.0	19.7	-0.380	19.3	18 to 22	98.5	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-16V

Location Code: WMWBARAP
Collected: 9/2/20 15:15
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16659

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Boron, Total	9/10/20 09:37	9/11/20 12:59		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 12:59		1.015	2.02	mg/L	0.1	0.5	
* Iron, Total	9/10/20 09:37	9/11/20 12:59		1.015	4.04	mg/L	0.02	0.05	
* Lithium, Total	9/10/20 09:37	9/11/20 12:59		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 12:59		1.015	1.80	mg/L	0.1	0.5	
* Sodium, Total	9/10/20 09:37	9/11/20 16:16		50.75	68.9	mg/L	5.075	25.375	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/10/20 10:47	9/11/20 15:24		10.15	4.28	mg/L	0.203	0.5075	RA
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 12:11		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 12:11		1.015	0.00120	mg/L	0.001	0.005	J
* Barium, Total	9/8/20 08:24	9/9/20 12:11		1.015	0.0733	mg/L	0.002	0.01	
* Beryllium, Total	9/8/20 08:24	9/9/20 12:11		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 12:11		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 12:11		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 12:11		1.015	0.0163	mg/L	0.002	0.005	
* Lead, Total	9/8/20 08:24	9/9/20 12:11		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 12:11		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/8/20 08:24	9/9/20 12:11		1.015	2.36	mg/L	0.3	2.5	J
* Manganese, Total	9/8/20 08:24	9/9/20 12:11		1.015	0.177	mg/L	0.001	0.005	
* Selenium, Total	9/8/20 08:24	9/9/20 12:11		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 12:11		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/4/20 14:24	9/8/20 14:28		1.015	0.151	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 11:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/10/20 11:30	9/10/20 11:35		1	13.1	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	219	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond - MW-16V

Location Code: WMWBARAP
Collected: 9/2/20 15:15
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16659

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/10/20 11:30	9/10/20 11:35		1	13.1	mg/L			
Carbonate Alkalinity, (calc.)	9/10/20 11:30	9/10/20 11:35		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:41	9/8/20 14:41		10	75.6	mg/L	5.00	10	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 11:17	9/10/20 11:17		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 11:16	9/4/20 11:16		1	40.0	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: TJD***							
Conductivity	9/2/20 15:12	9/2/20 15:12			373.84	uS/cm			FA
pH	9/2/20 15:12	9/2/20 15:12			5.23	SU			FA
Temperature	9/2/20 15:12	9/2/20 15:12			22.67	C			FA
Turbidity	9/2/20 15:12	9/2/20 15:12			3.04	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAP
Sample Date: 9/2/20 15:15
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-16V

Laboratory ID Number: BA16659

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Cobalt, Total	mg/L	-0.0000025	0.0001474	0.10	0.113	0.114	0.111	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Iron, Total	mg/L	0.000625	0.0176	0.2	0.201	0.201	0.202	0.17 to 0.23	100	70 to 130	0.00	20
BA16659	Iron, Dissolved	mg/L	0.000462	0.0176	0.2	3.99	4.03	0.212	0.17 to 0.23	-145	70 to 130	0.998	20
BA16661	Calcium, Total	mg/L	0.0000309	0.1518	5.00	5.03	5.06	5.05	4.25 to 5.75	101	70 to 130	0.595	20
BA16661	Potassium, Total	mg/L	0.0325	0.3674	10.0	10.6	10.6	10.5	8.5 to 11.5	106	70 to 130	0.00	20
BA16661	Mercury, Total by CVAA	mg/L	0.0000362	0.0005	0.004	0.00412	0.00411	0.00402	0.0034 to 0.0046	103	70 to 130	0.243	20
BA16661	Thallium, Total	mg/L	0.0000106	0.0001474	0.10	0.108	0.109	0.107	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Barium, Total	mg/L	-0.0000041	0.0002	0.10	0.113	0.110	0.106	0.085 to 0.115	113	70 to 130	2.69	20
BA16661	Boron, Total	mg/L	0.000547	0.0650254	1.00	0.997	1.00	1.01	0.85 to 1.15	99.7	70 to 130	0.300	20
BA16661	Chromium, Total	mg/L	0.0000851	0.00044	0.10	0.112	0.114	0.111	0.085 to 0.115	112	70 to 130	1.77	20
BA16661	Manganese, Total	mg/L	0.0000118	0.0001474	0.10	0.114	0.114	0.112	0.085 to 0.115	114	70 to 130	0.00	20
BA16661	Sodium, Total	mg/L	0.00232	0.044	5.00	4.93	4.97	4.99	4.25 to 5.75	98.6	70 to 130	0.808	20
BA16659	Manganese, Dissolved	mg/L	-0.0000257	0.0001474	0.10	0.247	0.248	0.0984	0.085 to 0.115	96.0	70 to 130	0.404	20
BA16661	Selenium, Total	mg/L	-0.0000096	0.001	0.10	0.106	0.109	0.106	0.085 to 0.115	106	70 to 130	2.79	20
BA16661	Beryllium, Total	mg/L	0.0000493	0.00088	0.10	0.0907	0.0953	0.0940	0.085 to 0.115	90.7	70 to 130	4.95	20
BA16661	Antimony, Total	mg/L	0.000188	0.001	0.10	0.107	0.106	0.102	0.085 to 0.115	107	70 to 130	0.939	20
BA16661	Arsenic, Total	mg/L	0.0000186	0.0001474	0.10	0.113	0.114	0.113	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.108	0.109	0.108	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Lithium, Total	mg/L	-0.000343	0.0154	0.200	0.192	0.190	0.193	0.17 to 0.23	96.0	70 to 130	1.05	20
BA16661	Magnesium, Total	mg/L	-0.000396	0.0462	5.00	5.09	5.09	5.08	4.25 to 5.75	102	70 to 130	0.00	20
BA16661	Molybdenum, Total	mg/L	0.0000204	0.0001474	0.10	0.108	0.108	0.107	0.085 to 0.115	108	70 to 130	0.00	20
BA16661	Lead, Total	mg/L	0.0000189	0.0001474	0.10	0.111	0.112	0.111	0.085 to 0.115	111	70 to 130	0.897	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAP
Sample Date: 9/2/20 15:15
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond - MW-16V

Laboratory ID Number: BA16659

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Fluoride	mg/L	0.025	0.05	2.50	2.59	0.0184	2.59	2.25 to 2.75	104	80 to 120	0.00	20
BA16658	Alkalinity, Total as CaCO3	mg/L					228	50.0	45.0 to 55.0			1.77	10
BA16658	Solids, Dissolved	mg/L	0.0000	25			278	49.0	40 to 60			0.180	5
BA16661	Chloride	mg/L	0.0713	0.50	10.0	9.94	0.0512	9.83	9 to 11	99.4	80 to 120	0.00	20
BA16661	Sulfate	mg/L	-0.524	0.50	20.0	19.7	-0.380	19.3	18 to 22	98.5	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/05/2020

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Field Blank-3

Location Code: WMWBARAPFB
Collected: 9/2/20 15:40
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16660

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		***Analyst: RDA***							
* Boron, Total	9/10/20 09:37	9/11/20 13:01		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 13:01		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/10/20 09:37	9/11/20 13:01		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/10/20 09:37	9/11/20 13:01		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 13:01		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/10/20 09:37	9/11/20 13:01		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8		***Analyst: DLJ***			***Preparation Method: EPA 1638***				
* Antimony, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 12:14		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		***Analyst: GAS***							
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 11:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		***Analyst: TJW***							
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:42	9/8/20 14:42		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 11:18	9/10/20 11:18		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 11:20	9/4/20 11:20		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPFB
Sample Date: 9/2/20 15:40
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond Field Blank-3

Laboratory ID Number: BA16660

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Selenium, Total	mg/L	-0.0000096	0.001	0.10	0.106	0.109	0.106	0.085 to 0.115	106	70 to 130	2.79	20
BA16661	Cobalt, Total	mg/L	-0.0000025	0.0001474	0.10	0.113	0.114	0.111	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Iron, Total	mg/L	0.000625	0.0176	0.2	0.201	0.201	0.202	0.17 to 0.23	100	70 to 130	0.00	20
BA16661	Beryllium, Total	mg/L	0.0000493	0.00088	0.10	0.0907	0.0953	0.0940	0.085 to 0.115	90.7	70 to 130	4.95	20
BA16661	Antimony, Total	mg/L	0.000188	0.001	0.10	0.107	0.106	0.102	0.085 to 0.115	107	70 to 130	0.939	20
BA16661	Arsenic, Total	mg/L	0.0000186	0.0001474	0.10	0.113	0.114	0.113	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.108	0.109	0.108	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Lithium, Total	mg/L	-0.000343	0.0154	0.200	0.192	0.190	0.193	0.17 to 0.23	96.0	70 to 130	1.05	20
BA16661	Barium, Total	mg/L	-0.0000041	0.0002	0.10	0.113	0.110	0.106	0.085 to 0.115	113	70 to 130	2.69	20
BA16661	Boron, Total	mg/L	0.000547	0.0650254	1.00	0.997	1.00	1.01	0.85 to 1.15	99.7	70 to 130	0.300	20
BA16661	Chromium, Total	mg/L	0.0000851	0.00044	0.10	0.112	0.114	0.111	0.085 to 0.115	112	70 to 130	1.77	20
BA16661	Manganese, Total	mg/L	0.0000118	0.0001474	0.10	0.114	0.114	0.112	0.085 to 0.115	114	70 to 130	0.00	20
BA16661	Sodium, Total	mg/L	0.00232	0.044	5.00	4.93	4.97	4.99	4.25 to 5.75	98.6	70 to 130	0.808	20
BA16661	Calcium, Total	mg/L	0.0000309	0.1518	5.00	5.03	5.06	5.05	4.25 to 5.75	101	70 to 130	0.595	20
BA16661	Potassium, Total	mg/L	0.0325	0.3674	10.0	10.6	10.6	10.5	8.5 to 11.5	106	70 to 130	0.00	20
BA16661	Mercury, Total by CVAA	mg/L	0.0000362	0.0005	0.004	0.00412	0.00411	0.00402	0.0034 to 0.0046	103	70 to 130	0.243	20
BA16661	Thallium, Total	mg/L	0.0000106	0.0001474	0.10	0.108	0.109	0.107	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Magnesium, Total	mg/L	-0.000396	0.0462	5.00	5.09	5.09	5.08	4.25 to 5.75	102	70 to 130	0.00	20
BA16661	Molybdenum, Total	mg/L	0.0000204	0.0001474	0.10	0.108	0.108	0.107	0.085 to 0.115	108	70 to 130	0.00	20
BA16661	Lead, Total	mg/L	0.0000189	0.0001474	0.10	0.111	0.112	0.111	0.085 to 0.115	111	70 to 130	0.897	20

Comments:

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPFB
Sample Date: 9/2/20 15:40
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond Field Blank-3

Laboratory ID Number: BA16660

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Fluoride	mg/L	0.025	0.05	2.50	2.59	0.0184	2.59	2.25 to 2.75	104	80 to 120	0.00	20
BA16658	Solids, Dissolved	mg/L	0.0000	25			278	49.0	40 to 60			0.180	5
BA16661	Chloride	mg/L	0.0713	0.50	10.0	9.94	0.0512	9.83	9 to 11	99.4	80 to 120	0.00	20
BA16661	Sulfate	mg/L	-0.524	0.50	20.0	19.7	-0.380	19.3	18 to 22	98.5	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Ash Pond Equipment Blank-1

Location Code: WMWBARAPEB
Collected: 9/2/20 15:50
Customer ID:
Submittal Date: 9/3/20 14:12

Laboratory ID Number: BA16661

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		***Analyst: RDA***							
* Boron, Total	9/10/20 09:37	9/11/20 13:04		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/10/20 09:37	9/11/20 13:04		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/10/20 09:37	9/11/20 13:04		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/10/20 09:37	9/11/20 13:04		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/10/20 09:37	9/11/20 13:04		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/10/20 09:37	9/11/20 13:04		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8		***Analyst: DLJ***				***Preparation Method: EPA 1638***			
* Antimony, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/8/20 08:24	9/9/20 12:17		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		***Analyst: GAS***							
* Mercury, Total by CVAA	9/8/20 08:35	9/9/20 11:24		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		***Analyst: TJW***							
* Solids, Dissolved	9/8/20 11:50	9/10/20 10:05		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/8/20 14:44	9/8/20 14:44		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/10/20 11:19	9/10/20 11:19		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/4/20 11:21	9/4/20 11:21		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 10/7/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARAPEB
Sample Date: 9/2/20 15:50
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond Equipment Blank-1

Laboratory ID Number: BA16661

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Selenium, Total	mg/L	-0.0000096	0.001	0.10	0.106	0.109	0.106	0.085 to 0.115	106	70 to 130	2.79	20
BA16661	Calcium, Total	mg/L	0.0000309	0.1518	5.00	5.03	5.06	5.05	4.25 to 5.75	101	70 to 130	0.595	20
BA16661	Potassium, Total	mg/L	0.0325	0.3674	10.0	10.6	10.6	10.5	8.5 to 11.5	106	70 to 130	0.00	20
BA16661	Beryllium, Total	mg/L	0.0000493	0.00088	0.10	0.0907	0.0953	0.0940	0.085 to 0.115	90.7	70 to 130	4.95	20
BA16661	Antimony, Total	mg/L	0.000188	0.001	0.10	0.107	0.106	0.102	0.085 to 0.115	107	70 to 130	0.939	20
BA16661	Mercury, Total by CVAA	mg/L	0.0000362	0.0005	0.004	0.00412	0.00411	0.00402	0.0034 to 0.0046	103	70 to 130	0.243	20
BA16661	Thallium, Total	mg/L	0.0000106	0.0001474	0.10	0.108	0.109	0.107	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Magnesium, Total	mg/L	-0.000396	0.0462	5.00	5.09	5.09	5.08	4.25 to 5.75	102	70 to 130	0.00	20
BA16661	Molybdenum, Total	mg/L	0.0000204	0.0001474	0.10	0.108	0.108	0.107	0.085 to 0.115	108	70 to 130	0.00	20
BA16661	Lead, Total	mg/L	0.0000189	0.0001474	0.10	0.111	0.112	0.111	0.085 to 0.115	111	70 to 130	0.897	20
BA16661	Cobalt, Total	mg/L	-0.0000025	0.0001474	0.10	0.113	0.114	0.111	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Iron, Total	mg/L	0.000625	0.0176	0.2	0.201	0.201	0.202	0.17 to 0.23	100	70 to 130	0.00	20
BA16661	Barium, Total	mg/L	-0.0000041	0.0002	0.10	0.113	0.110	0.106	0.085 to 0.115	113	70 to 130	2.69	20
BA16661	Boron, Total	mg/L	0.000547	0.0650254	1.00	0.997	1.00	1.01	0.85 to 1.15	99.7	70 to 130	0.300	20
BA16661	Chromium, Total	mg/L	0.0000851	0.00044	0.10	0.112	0.114	0.111	0.085 to 0.115	112	70 to 130	1.77	20
BA16661	Manganese, Total	mg/L	0.0000118	0.0001474	0.10	0.114	0.114	0.112	0.085 to 0.115	114	70 to 130	0.00	20
BA16661	Sodium, Total	mg/L	0.00232	0.044	5.00	4.93	4.97	4.99	4.25 to 5.75	98.6	70 to 130	0.808	20
BA16661	Arsenic, Total	mg/L	0.0000186	0.0001474	0.10	0.113	0.114	0.113	0.085 to 0.115	113	70 to 130	0.881	20
BA16661	Cadmium, Total	mg/L	0.00000	0.0001474	0.10	0.108	0.109	0.108	0.085 to 0.115	108	70 to 130	0.922	20
BA16661	Lithium, Total	mg/L	-0.000343	0.0154	0.200	0.192	0.190	0.193	0.17 to 0.23	96.0	70 to 130	1.05	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARAPEB
Sample Date: 9/2/20 15:50
Customer ID:
Delivery Date: 9/3/20 14:12

Description: Barry Ash Pond Equipment Blank-1

Laboratory ID Number: BA16661

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA16661	Fluoride	mg/L	0.025	0.05	2.50	2.59	0.0184	2.59	2.25 to 2.75	104	80 to 120	0.00	20
BA16658	Solids, Dissolved	mg/L	0.0000	25			278	49.0	40 to 60			0.180	5
BA16661	Chloride	mg/L	0.0713	0.50	10.0	9.94	0.0512	9.83	9 to 11	99.4	80 to 120	0.00	20
BA16661	Sulfate	mg/L	-0.524	0.50	20.0	19.7	-0.380	19.3	18 to 22	98.5	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Definitions

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
R	Matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
RA	Matrix spike is invalid due to sample concentration.
U	Compound was analyzed, but not detected.

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ☐ Outside Lab

✔ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	Hg	250 mL	5	Anions	250 mL	7	N/A	N/A
2	Dissolved Meta	500 mL	4	TDS	500 mL	6	Alkalinity	250 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-2	08/31/2020	13:40	6	Groundwater		BA16433
FB-1	08/31/2020	13:55	4	Field Blank		BA16434
MW-1	09/01/2020	08:05	6	Groundwater		BA16435
MW-1 dup	09/01/2020	08:05	6	Sample Duplicate		BA16436
MW-1V	09/01/2020	09:05	6	Groundwater		BA16437
MW-3	09/01/2020	10:28	6	Groundwater		BA16438
MW-4	09/01/2020	11:28	6	Groundwater		BA16439
MW-5	09/01/2020	12:29	6	Groundwater		BA16440
MW-17V	09/01/2020	13:36	6	Groundwater		BA16441
MW-17H	09/01/2020	14:23	6	Groundwater		BA16442
MW-5V	09/01/2020	15:52	6	Groundwater		BA16443

Relinquished By	Received By	Date/Time
		09/02/2020 07:34
		09/02/2020 12:19

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1297

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	0.1 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8129-45506-2-1

Bottles/Pre-Preserved Bottles are provided by the GTL

7.1

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ☐ Outside Lab

✔ Lab Complete

Lab ETA 09/02/2020 11:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	Hg	250 mL	5	Anions	250 mL	7	N/A	N/A
2	Diss Metals	500 mL	4	TDS	500 mL	6	Alkalinity	250 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-10	09/01/2020	08:58	6	Groundwater		BA16453
MW-10V	09/01/2020	09:55	6	Groundwater		BA16454
MW-10V Dup	09/01/2020	09:55	6	Sample Duplicate		BA16455
MW-11	09/01/2020	11:30	6	Groundwater		BA16456
MW-12V	09/01/2020	12:35	6	Groundwater		BA16457
MW-12	09/01/2020	14:13	6	Groundwater		BA16458
MW-20V	09/01/2020	15:28	6	Groundwater		BA16459
MW-13	09/01/2020	16:43	6	Groundwater		BA16460

Relinquished By	Received By	Date/Time
		09/02/2020 07:34
		09/02/2020 12:18

SmarTroll ID	7586-41444-5-3
Turbidity ID	4677-23342-4-1
Sample Event	1297

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	0.0 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ☐ Outside Lab

✔ Lab Complete

Lab ETA 09/02/2020 11:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	Hg	250 mL	5	Anions	250 mL	7	N/A	N/A
2	Dissolved Meta	500 mL	4	TDS	500 mL	6	Alkalinity	250 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-19H	09/01/2020	09:18	6	Groundwater		BA16444
MW-18H	09/01/2020	10:44	6	Groundwater		BA16445
MW-18H Dup	09/01/2020	10:44	6	Sample Duplicate		BA16446
FB-4	09/01/2020	11:05	4	Field Blank		BA16447
MW-20H	09/01/2020	12:05	6	Groundwater		BA16448
MW-22H	09/01/2020	13:08	6	Groundwater		BA16449
MW-15V	09/01/2020	14:03	6	Groundwater		BA16450
MW-23H	09/01/2020	15:35	6	Groundwater		BA16451
MW-23V	09/01/2020	18:15	6	Groundwater		BA16452

Relinquished By	Received By	Date/Time
		09/02/2020 12:16

SmarTroll ID	7586-41443-5-2
Turbidity ID	5160-26211-1-1
Sample Event	1297

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	0.1 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8129-45506-2-1; 8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

✔ Field Complete
✔ Lab Complete
☐ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	Hg	250 mL	5	Anions	250 mL	7	N/A	N/A
2	Dissolved Meta	500 mL	4	TDS	500 mL	6	Alkalinity	250 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-25H	09/02/2020	08:58	6	Groundwater		BA16643
MW-25H dup	09/02/2020	08:58	6	Sample Duplicate		BA16644
MW-25VM	09/02/2020	10:13	6	Groundwater		BA16645
MW-6	09/02/2020	11:09	6	Groundwater		BA16646
MW-7	09/02/2020	12:28	6	Groundwater		BA16647
MW-7V	09/02/2020	13:20	6	Groundwater		BA16648
FB-2	09/02/2020	13:35	4	Field Blank		BA16649
MW-9	09/02/2020	14:14	6	Groundwater		BA16650
MW-8V	09/02/2020	15:12	6	Groundwater		BA16651
MW-8	09/02/2020	16:12	6	Groundwater		BA16652

Relinquished By	Received By	Date/Time
[signature]	[signature]	09/03/2020 10:54

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1297

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	0.0 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

7.1

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ☐ Outside Lab

✔ Lab Complete

Lab ETA 09/03/2020 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles

1	Metals	500 mL	3	Hg	250 mL	5	Anions	250 mL	7	N/A	N/A
2	Diss Metals	500 mL	4	TDS	500 mL	6	Alkalinity	250 mL	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-13V	09/02/2020	08:53	6	Groundwater		BA16653
MW-14V	09/02/2020	09:50	6	Groundwater		BA16654
MW-14	09/02/2020	11:05	6	Groundwater		BA16655
MW-15	09/02/2020	12:18	6	Groundwater		BA16656
MW-24H	09/02/2020	13:25	6	Groundwater		BA16657
MW-16	09/02/2020	14:20	6	Groundwater		BA16658
MW-16V	09/02/2020	15:15	6	Groundwater		BA16659
FB-3	09/02/2020	15:40	4	Field Blank		BA16660
EB-1	09/02/2020	15:50	4	Equipment Blank		BA16661

Relinquished By	Received By	Date/Time
		09/03/2020 13:13

SmarTroll ID	7586-41444-5-3
Turbidity ID	4677-23342-4-1
Sample Event	1297

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	0.3 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

7.1

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium MS/MSD collected at MW-2

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-2	08/31/2020	13:40	3	Groundwater		BA16461
FB-1	08/31/2020	13:55	1	Field Blank		BA16462
MW-1	09/01/2020	08:05	1	Groundwater		BA16463
MW-1 dup	09/01/2020	08:05	1	Sample Duplicate		BA16464
MW-1V	09/01/2020	09:05	1	Groundwater		BA16465
MW-3	09/01/2020	10:28	1	Groundwater		BA16466
MW-4	09/01/2020	11:28	1	Groundwater		BA16467
MW-5	09/01/2020	12:29	1	Groundwater		BA16468
MW-17V	09/01/2020	13:36	1	Groundwater		BA16469
MW-17H	09/01/2020	14:23	1	Groundwater		BA16470
MW-5V	09/01/2020	15:52	1	Groundwater		BA16471

Relinquished By	Received By	Date/Time
		09/02/2020 07:34
		09/02/2020 12:21

SmarTroll ID	7586-41446-5-5	All metals and radiological bottles have pH < 2	✔
Turbidity ID	7081-38476-1-1	Cooler Temp	N/A
Sample Event	1297	Thermometer ID	N/A
		pH Strip ID	8129-45506-2-1

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab
✔ Lab Complete

Lab ETA 09/02/2020 11:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Rad MS/MSD collected @ MW-10

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-10	09/01/2020	08:58	3	Groundwater		BA16481
MW-10V	09/01/2020	09:55	1	Groundwater		BA16482
MW-10V Dup	09/01/2020	09:55	1	Sample Duplicate		BA16483
MW-11	09/01/2020	11:30	1	Groundwater		BA16484
MW-12V	09/01/2020	12:35	1	Groundwater		BA16485
MW-12	09/01/2020	14:13	1	Groundwater		BA16486
MW-20V	09/01/2020	15:28	1	Groundwater		BA16487
MW-13	09/01/2020	16:43	1	Groundwater		BA16488

Relinquished By	Received By	Date/Time
		09/02/2020 07:34
		09/02/2020 12:17

SmarTroll ID	7586-41444-5-3
Turbidity ID	4677-23342-4-1
Sample Event	1297

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

7.1

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA 09/02/2020 11:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Barry Ash Pond

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: MS & MSD collected @ MW-19H

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-19H	09/01/2020	09:18	3	Groundwater		BA16472
MW-18H	09/01/2020	10:44	1	Groundwater		BA16473
MW-18H Dup	09/01/2020	10:44	1	Sample Duplicate		BA16474
FB-4	09/01/2020	11:05	1	Field Blank		BA16475
MW-20H	09/01/2020	12:05	1	Groundwater		BA16476
MW-22H	09/01/2020	13:08	1	Groundwater		BA16477
MW-15V	09/01/2020	14:03	1	Groundwater		BA16478
MW-23H	09/01/2020	15:35	1	Groundwater		BA16479
MW-23V	09/01/2020	18:15	1	Groundwater		BA16480

Relinquished By	Received By	Date/Time
		09/02/2020 12:12

SmarTroll ID	7586-41443-5-2
Turbidity ID	5160-26211-1-1
Sample Event	1297

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8129-45506-2-1; 8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody
Groundwater
APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Dallas Gentry	Location	Barry Ash Pond

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-25H	09/02/2020	08:58	1	Groundwater		BA16662
MW-25H dup	09/02/2020	08:58	1	Sample Duplicate		BA16663
MW-25VM	09/02/2020	10:13	1	Groundwater		BA16664
MW-6	09/02/2020	11:09	1	Groundwater		BA16665
MW-7	09/02/2020	12:28	1	Groundwater		BA16666
MW-7V	09/02/2020	13:20	1	Groundwater		BA16667
FB-2	09/02/2020	13:35	1	Field Blank		BA16668
MW-9	09/02/2020	14:14	1	Groundwater		BA16669
MW-8V	09/02/2020	15:12	1	Groundwater		BA16670
MW-8	09/02/2020	16:12	1	Groundwater		BA16671

Relinquished By	Received By	Date/Time
		09/03/2020 10:55

SmarTroll ID	7586-41446-5-5
Turbidity ID	7081-38476-1-1
Sample Event	1297

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA 09/03/2020 13:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	TJ Daugherty	Location	Barry Ash Pond

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-13V	09/02/2020	08:53	1	Groundwater		BA16672
MW-14V	09/02/2020	09:50	1	Groundwater		BA16673
MW-14	09/02/2020	11:05	1	Groundwater		BA16674
MW-15	09/02/2020	12:18	1	Groundwater		BA16675
MW-24H	09/02/2020	13:25	1	Groundwater		BA16676
MW-16	09/02/2020	14:20	1	Groundwater		BA16677
MW-16V	09/02/2020	15:15	1	Groundwater		BA16678
FB-3	09/02/2020	15:40	1	Field Blank		BA16679
EB-1	09/02/2020	15:50	1	Equipment Blank		BA16680

Relinquished By	Received By	Date/Time
		09/03/2020 13:13

SmarTroll ID	7586-41444-5-3
Turbidity ID	4677-23342-4-1
Sample Event	1297

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

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ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-193048-1
Laboratory Sample Delivery Group: Barry Ash Pond 1297
Client Project/Site: CCR Plant Barry
Revision: 1

For:
Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff

Authorized for release by:
12/2/2020 3:16:19 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
Cheyenne.Whitmire@Eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-193048-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-193048-1

RAD

Method 9315: Radium-226 prep batch 160-482377. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA16461 MW-2 (400-193048-1), BA16461 MW-2 (400-193048-1[MS]), BA16461 MW-2 (400-193048-1[MSD]), BA16462 FB-1 (400-193048-2), BA16463 MW-1 (400-193048-3), BA16464 MW-1 DUP (400-193048-4), BA16465 MW-1V (400-193048-5), BA16466 MW-3 (400-193048-6), BA16467 MW-4 (400-193048-7), BA16468 MW-5 (400-193048-8), BA16469 MW-17V (400-193048-9), BA16470 MW-17H (400-193048-10), BA16471 MW-5V (400-193048-11), BA16473 MW-18H (400-193048-13), BA16474 MW-18H DUP (400-193048-14), (LCS 160-482377/1-A) and (MB 160-482377/24-A)

Method 9315: Radium-226 prep batch 160-482393. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA16472 MW-19H (400-193048-12), BA16472 MW-19H (400-193048-12[MS]), BA16472 MW-19H (400-193048-12[MSD]), BA16475 FB-4 (400-193048-15), BA16476 MW-20H (400-193048-16), BA16477 MW-22H (400-193048-17), BA16478 MW-15V (400-193048-18), BA16479 MW-23H (400-193048-19), BA16480 MW-23V (400-193048-20), BA16482 MW-10V (400-193048-22), BA16483 MW-10V DUP (400-193048-23), BA16484 MW-11 (400-193048-24), BA16485 MW-12V (400-193048-25), BA16486 MW-12 (400-193048-26), BA16487 MW-20V (400-193048-27), BA16488 MW-13 (400-193048-28), BA16662 MW-25H (400-193048-29), BA16663 MW-25H DUP (400-193048-30), BA16664 MW-25VM (400-193048-31), BA16665 MW-6 (400-193048-32), BA16666 MW-7 (400-193048-33), BA16667 MW-7V (400-193048-34), (LCS 160-482393/1-A) and (MB 160-482393/24-A)

Method 9315: Radium-226 prep batch 160-485941. Ra-226 is reported without a 21-day waiting period to ensure short-lived alpha-emitting radium isotopes (e.g. Ra-224) have decayed out. The Ra-226 result should be considered to be potentially high biased. Associated samples have activity below the RL. The results are reported with this narrative. BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43), BA16677 MW-16 (400-193048-44), (LCS 160-485941/1-A), (LCSD 160-485941/2-A) and (MB 160-485941/12-A). The Ra-226 was inadvertantly counted before the 21 days of IG was complete. All results are below the RL of 1.0 and will not increase with additional waiting.

Method 9315: Radium-226 prep batch 160-485939. Ra-226 is reported without a 21-day waiting period to ensure short-lived alpha-emitting radium isotopes (e.g. Ra-224) have decayed out. The Ra-226 result should be considered to be potentially high biased. Associated samples have activity below the RL. The results are reported with this narrative. BA16481 MW-10 (400-193048-21), BA16481 MW-10 (400-193048-21[MS]), BA16481 MW-10 (400-193048-21[MSD]), (LCS 160-485939/1-A) and (MB 160-485939/5-A). The Ra-226 was inadvertantly counted before the 21 days of IG was complete. All results are below the RL of 1.0 and will not increase with additional waiting.

Method 9315: Radium-226 prep batch 160-485939. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA16481 MW-10 (400-193048-21), BA16481 MW-10 (400-193048-21[MS]), BA16481 MW-10 (400-193048-21[MSD]), (LCS 160-485939/1-A) and (MB 160-485939/5-A)

Method 9315: Radium-226 prep batch 160-485941. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43), BA16677 MW-16 (400-193048-44), (LCS 160-485941/1-A), (LCSD 160-485941/2-A) and (MB 160-485941/12-A)

Method 9315: Prep Batch 160-485314. The MDC was elevated due to a reduced aliquot. A reduced aliquot was used due to insufficient volume due to re-analysis. BA16668 FB-2 (400-193048-35), BA16679 FB-3 (400-193048-46), BA16680 EB-1 (400-193048-47), (LCS 160-485314/1-A), (LCSD 160-485314/2-A) and (MB 160-485314/11-A)

Method 9315: prep batch: 485314. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection

Job ID: 400-193048-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA16668 FB-2 (400-193048-35), BA16678 MW-16V (400-193048-45), BA16679 FB-3 (400-193048-46) and BA16680 EB-1 (400-193048-47)

Method 9320: Radium-228 prep batch 160-482379. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA16461 MW-2 (400-193048-1), BA16461 MW-2 (400-193048-1[MS]), BA16461 MW-2 (400-193048-1[MSD]), BA16462 FB-1 (400-193048-2), BA16463 MW-1 (400-193048-3), BA16464 MW-1 DUP (400-193048-4), BA16465 MW-1V (400-193048-5), BA16466 MW-3 (400-193048-6), BA16467 MW-4 (400-193048-7), BA16468 MW-5 (400-193048-8), BA16469 MW-17V (400-193048-9), BA16470 MW-17H (400-193048-10), BA16471 MW-5V (400-193048-11), BA16473 MW-18H (400-193048-13), BA16474 MW-18H DUP (400-193048-14), (LCS 160-482379/1-A) and (MB 160-482379/24-A)

Method 9320: Radium-228 prep batch 160-482413. The Ra-228 laboratory control sample (LCS) recovery (131%) associated with the following samples is outside the upper QC limit of (125%) indicating a potential positive bias for that analyte. This analyte was not observed above the MDC/RL in the associated samples; therefore the sample data is not adversely affected by this excursion. The data have been reported with this narrative. BA16668 FB-2 (400-193048-35), BA16678 MW-16V (400-193048-45), BA16679 FB-3 (400-193048-46) and BA16680 EB-1 (400-193048-47)

Method 9320: Radium-228 prep batch 160-482413. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA16668 FB-2 (400-193048-35), BA16678 MW-16V (400-193048-45), BA16679 FB-3 (400-193048-46), BA16680 EB-1 (400-193048-47), (LCS 160-482413/1-A) and (MB 160-482413/22-A)

Method 9320: 9320 Prep Batch: 160-482396. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA16472 MW-19H (400-193048-12), BA16472 MW-19H (400-193048-12[MS]), BA16472 MW-19H (400-193048-12[MSD]), BA16475 FB-4 (400-193048-15), BA16476 MW-20H (400-193048-16), BA16477 MW-22H (400-193048-17), BA16478 MW-15V (400-193048-18), BA16479 MW-23H (400-193048-19), BA16480 MW-23V (400-193048-20), BA16482 MW-10V (400-193048-22), BA16483 MW-10V DUP (400-193048-23), BA16484 MW-11 (400-193048-24), BA16485 MW-12V (400-193048-25), BA16486 MW-12 (400-193048-26), BA16487 MW-20V (400-193048-27), BA16488 MW-13 (400-193048-28), BA16662 MW-25H (400-193048-29), BA16663 MW-25H DUP (400-193048-30), BA16664 MW-25VM (400-193048-31), BA16665 MW-6 (400-193048-32), BA16666 MW-7 (400-193048-33), BA16667 MW-7V (400-193048-34), (LCS 160-482396/1-A) and (MB 160-482396/24-A)

Method 9320: Radium-228 prep batch 160-485186. The following samples did not meet the requested limit (RL). The sample volume was reduced due to re-analysis. The method blank (MB) and laboratory control sample (LCS) were also run at the reduced aliquot following NELAC guidance to match the nominal volume of client samples in the prep batch. The data have been reported with this narrative. BA16481 MW-10 (400-193048-21), BA16481 MW-10 (400-193048-21[MS]), BA16481 MW-10 (400-193048-21[MSD]), (LCS 160-485186/1-A) and (MB 160-485186/6-A)

Method 9320: Radium-228 prep batch 160-485186. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA16481 MW-10 (400-193048-21), BA16481 MW-10 (400-193048-21[MS]), BA16481 MW-10 (400-193048-21[MSD]), (LCS 160-485186/1-A) and (MB 160-485186/6-A)

Method 9320: Radium-228 prep batch 160-485001. The following samples did not meet the requested limit (RL). The samples were prepped with reduced volume due to re-analysis. The method blank (MB) and laboratory control sample (LCS) were also run at the reduced aliquot following NELAC guidance to match the nominal volume of client samples in the prep batch. The data have been reported with this narrative. BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43), BA16677 MW-16 (400-193048-44), (LCS 160-485001/1-A), (LCSD 160-485001/2-A) and (MB 160-485001/12-A)

Method 9320: Radium-228 prep batch 160-485001. The laboratory control sample duplicate (LCSD) associated with the following samples has a recovery (126%) above the upper QC limit (125%). All other QC is within criteria (MB, LCS, RER/RPD). There is insufficient

Job ID: 400-193048-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

volume to re-analyze. The results are reported with this narrative. BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43), BA16677 MW-16 (400-193048-44), (LCS 160-485001/1-A), (LCSD 160-485001/2-A) and (MB 160-485001/12-A)

Method 9320: Radium-228 prep batch 160-485001. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43), BA16677 MW-16 (400-193048-44), (LCS 160-485001/1-A), (LCSD 160-485001/2-A) and (MB 160-485001/12-A)

Method PrecSep_0: Radium 228 Prep Batch 160-482379. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for reanalysis: BA16461 MW-2 (400-193048-1), BA16461 MW-2 (400-193048-1[MS]), BA16461 MW-2 (400-193048-1[MSD]), BA16462 FB-1 (400-193048-2), BA16463 MW-1 (400-193048-3), BA16464 MW-1 DUP (400-193048-4), BA16465 MW-1V (400-193048-5), BA16466 MW-3 (400-193048-6), BA16467 MW-4 (400-193048-7), BA16468 MW-5 (400-193048-8), BA16469 MW-17V (400-193048-9), BA16470 MW-17H (400-193048-10), BA16471 MW-5V (400-193048-11), BA16473 MW-18H (400-193048-13) and BA16474 MW-18H DUP (400-193048-14).

Method PrecSep_0: Radium 228 Prep Batch 160-482396. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA16472 MW-19H (400-193048-12), BA16472 MW-19H (400-193048-12[MS]), BA16472 MW-19H (400-193048-12[MSD]), BA16475 FB-4 (400-193048-15), BA16476 MW-20H (400-193048-16), BA16477 MW-22H (400-193048-17), BA16478 MW-15V (400-193048-18), BA16479 MW-23H (400-193048-19), BA16480 MW-23V (400-193048-20), BA16482 MW-10V (400-193048-22), BA16483 MW-10V DUP (400-193048-23), BA16484 MW-11 (400-193048-24), BA16485 MW-12V (400-193048-25), BA16486 MW-12 (400-193048-26), BA16487 MW-20V (400-193048-27), BA16488 MW-13 (400-193048-28), BA16662 MW-25H (400-193048-29), BA16663 MW-25H DUP (400-193048-30), BA16664 MW-25VM (400-193048-31), BA16665 MW-6 (400-193048-32), BA16666 MW-7 (400-193048-33) and BA16667 MW-7V (400-193048-34). The following samples, excluding samples 400-193048-15, 400-193048-18, 400-193048-29, 400-193048-30, 400-193048-31, 400-193048-32, 400-193048-33, and 400-193048-34 contained yellow discoloration, but were not reduced.

Method PrecSep_0: Radium 228 Prep Batch 160-482413. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA16481 MW-10 (400-193048-21), BA16481 MW-10 (400-193048-21[MS]), BA16481 MW-10 (400-193048-21[MSD]), BA16668 FB-2 (400-193048-35), BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43), BA16677 MW-16 (400-193048-44), BA16678 MW-16V (400-193048-45), BA16679 FB-3 (400-193048-46) and BA16680 EB-1 (400-193048-47). Sample 480-174822-4 was prepared at a reduced aliquot due to brown discoloration, a cloudy appearance, and heavy sediment levels.

Method PrecSep_0: Radium 228 Prep Batch 160-485001. Insufficient sample volume was available to perform a sample duplicate for the following samples: BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43) and BA16677 MW-16 (400-193048-44). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep_0: Radium 228 Prep Batch 160-485001. The following samples were prepared at a reduced aliquot due to re extract of the samples: BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43) and BA16677 MW-16 (400-193048-44). The following samples contained a slight yellow discoloration: BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43) and BA16677 MW-16 (400-193048-44).

Method PrecSep_0: Radium 228 Prep Batch 160-485186. The following samples were prepared at a reduced aliquot due to re extract of the samples: BA16481 MW-10 (400-193048-21), BA16481 MW-10 (400-193048-21[MS]) and BA16481 MW-10 (400-193048-21[MSD]).

Job ID: 400-193048-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method PrecSep-21: Radium 226 Prep Batch 160-482377. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA16461 MW-2 (400-193048-1), BA16461 MW-2 (400-193048-1[MS]), BA16461 MW-2 (400-193048-1[MSD]), BA16462 FB-1 (400-193048-2), BA16463 MW-1 (400-193048-3), BA16464 MW-1 DUP (400-193048-4), BA16465 MW-1V (400-193048-5), BA16466 MW-3 (400-193048-6), BA16467 MW-4 (400-193048-7), BA16468 MW-5 (400-193048-8), BA16469 MW-17V (400-193048-9), BA16470 MW-17H (400-193048-10), BA16471 MW-5V (400-193048-11), BA16473 MW-18H (400-193048-13) and BA16474 MW-18H DUP (400-193048-14).

Method PrecSep-21: Radium 226 Prep Batch 160-482393. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA16472 MW-19H (400-193048-12), BA16472 MW-19H (400-193048-12[MS]), BA16472 MW-19H (400-193048-12[MSD]), BA16475 FB-4 (400-193048-15), BA16476 MW-20H (400-193048-16), BA16477 MW-22H (400-193048-17), BA16478 MW-15V (400-193048-18), BA16479 MW-23H (400-193048-19), BA16480 MW-23V (400-193048-20), BA16482 MW-10V (400-193048-22), BA16483 MW-10V DUP (400-193048-23), BA16484 MW-11 (400-193048-24), BA16485 MW-12V (400-193048-25), BA16486 MW-12 (400-193048-26), BA16487 MW-20V (400-193048-27), BA16488 MW-13 (400-193048-28), BA16662 MW-25H (400-193048-29), BA16663 MW-25H DUP (400-193048-30), BA16664 MW-25VM (400-193048-31), BA16665 MW-6 (400-193048-32), BA16666 MW-7 (400-193048-33) and BA16667 MW-7V (400-193048-34). The following samples, excluding samples 400-193048-15, 400-193048-18, 400-193048-29, 400-193048-30, 400-193048-31, 400-193048-32, 400-193048-33, and 400-193048-34 contained yellow discoloration, but were not reduced.

Method PrecSep-21: Radium 226 Prep Batch 160-482403. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA16481 MW-10 (400-193048-21), BA16481 MW-10 (400-193048-21[MS]), BA16481 MW-10 (400-193048-21[MSD]), BA16668 FB-2 (400-193048-35), BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43), BA16677 MW-16 (400-193048-44), BA16678 MW-16V (400-193048-45), BA16679 FB-3 (400-193048-46) and BA16680 EB-1 (400-193048-47).

Method PrecSep-21: Radium 226 Prep Batch 160-482403. The following samples contained a yellow discoloration: BA16481 MW-10 (400-193048-21), BA16481 MW-10 (400-193048-21[MS]), BA16481 MW-10 (400-193048-21[MSD]), BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43) and BA16677 MW-16 (400-193048-44).

Method PrecSep-21: Radium 226 Prep Batch 160-485314. Insufficient sample volume was available to perform a sample duplicate for the following samples: BA16668 FB-2 (400-193048-35), BA16678 MW-16V (400-193048-45), BA16679 FB-3 (400-193048-46) and BA16680 EB-1 (400-193048-47). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-485314. The following samples were prepared at a reduced aliquot due to re-extract of the samples: BA16668 FB-2 (400-193048-35), BA16678 MW-16V (400-193048-45), BA16679 FB-3 (400-193048-46) and BA16680 EB-1 (400-193048-47).

Method PrecSep-21: Radium 226 Prep Batch 160-485941. Insufficient sample volume was available to perform a sample duplicate for the following samples: BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43) and BA16677 MW-16 (400-193048-44). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method PrecSep-21: Radium 226 Prep Batch 160-485941. The following samples were prepared at a reduced aliquot due to re extract of the samples: BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43) and BA16677 MW-16 (400-193048-44). The following samples contained a slight yellow discoloration: BA16669 MW-9 (400-193048-36), BA16670 MW-8V (400-193048-37), BA16671 MW-8 (400-193048-38), BA16672 MW-13V (400-193048-39), BA16673 MW-14V (400-193048-40), BA16674 MW-14 (400-193048-41), BA16675 MW-15 (400-193048-42), BA16676 MW-24H (400-193048-43) and BA16677 MW-16 (400-193048-44).

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-193048-1	BA16461 MW-2	Water	08/31/20 13:40	09/09/20 11:25	
400-193048-2	BA16462 FB-1	Water	08/31/20 13:55	09/09/20 11:25	
400-193048-3	BA16463 MW-1	Water	09/01/20 08:05	09/09/20 11:25	
400-193048-4	BA16464 MW-1 DUP	Water	09/01/20 08:05	09/09/20 11:25	
400-193048-5	BA16465 MW-1V	Water	09/01/20 09:05	09/09/20 11:25	
400-193048-6	BA16466 MW-3	Water	09/01/20 10:28	09/09/20 11:25	
400-193048-7	BA16467 MW-4	Water	09/01/20 11:28	09/09/20 11:25	
400-193048-8	BA16468 MW-5	Water	09/01/20 12:29	09/09/20 11:25	
400-193048-9	BA16469 MW-17V	Water	09/01/20 13:36	09/09/20 11:25	
400-193048-10	BA16470 MW-17H	Water	09/01/20 14:23	09/09/20 11:25	
400-193048-11	BA16471 MW-5V	Water	09/01/20 15:52	09/09/20 11:25	
400-193048-12	BA16472 MW-19H	Water	09/01/20 09:18	09/09/20 11:25	
400-193048-13	BA16473 MW-18H	Water	09/01/20 10:44	09/09/20 11:25	
400-193048-14	BA16474 MW-18H DUP	Water	09/01/20 10:44	09/09/20 11:25	
400-193048-15	BA16475 FB-4	Water	09/01/20 11:05	09/09/20 11:25	
400-193048-16	BA16476 MW-20H	Water	09/01/20 12:05	09/09/20 11:25	
400-193048-17	BA16477 MW-22H	Water	09/01/20 13:08	09/09/20 11:25	
400-193048-18	BA16478 MW-15V	Water	09/01/20 14:03	09/09/20 11:25	
400-193048-19	BA16479 MW-23H	Water	09/01/20 15:35	09/09/20 11:25	
400-193048-20	BA16480 MW-23V	Water	09/01/20 18:15	09/09/20 11:25	
400-193048-21	BA16481 MW-10	Water	09/01/20 08:58	09/09/20 11:25	
400-193048-22	BA16482 MW-10V	Water	09/01/20 09:55	09/09/20 11:25	
400-193048-23	BA16483 MW-10V DUP	Water	09/01/20 09:55	09/09/20 11:25	
400-193048-24	BA16484 MW-11	Water	09/01/20 11:30	09/09/20 11:25	
400-193048-25	BA16485 MW-12V	Water	09/01/20 12:35	09/09/20 11:25	
400-193048-26	BA16486 MW-12	Water	09/01/20 14:13	09/09/20 11:25	
400-193048-27	BA16487 MW-20V	Water	09/01/20 15:28	09/09/20 11:25	
400-193048-28	BA16488 MW-13	Water	09/01/20 16:43	09/09/20 11:25	
400-193048-29	BA16662 MW-25H	Water	09/02/20 08:58	09/09/20 11:25	
400-193048-30	BA16663 MW-25H DUP	Water	09/02/20 08:58	09/09/20 11:25	
400-193048-31	BA16664 MW-25VM	Water	09/02/20 10:13	09/09/20 11:25	
400-193048-32	BA16665 MW-6	Water	09/02/20 11:09	09/09/20 11:25	
400-193048-33	BA16666 MW-7	Water	09/02/20 12:28	09/09/20 11:25	
400-193048-34	BA16667 MW-7V	Water	09/02/20 13:20	09/09/20 11:25	
400-193048-35	BA16668 FB-2	Water	09/02/20 13:35	09/09/20 11:25	
400-193048-36	BA16669 MW-9	Water	09/02/20 14:14	09/09/20 11:25	
400-193048-37	BA16670 MW-8V	Water	09/02/20 15:12	09/09/20 11:25	
400-193048-38	BA16671 MW-8	Water	09/02/20 16:12	09/09/20 11:25	
400-193048-39	BA16672 MW-13V	Water	09/02/20 08:53	09/09/20 11:25	
400-193048-40	BA16673 MW-14V	Water	09/02/20 09:50	09/09/20 11:25	
400-193048-41	BA16674 MW-14	Water	09/02/20 11:05	09/09/20 11:25	
400-193048-42	BA16675 MW-15	Water	09/02/20 12:18	09/09/20 11:25	
400-193048-43	BA16676 MW-24H	Water	09/02/20 13:25	09/09/20 11:25	
400-193048-44	BA16677 MW-16	Water	09/02/20 14:20	09/09/20 11:25	
400-193048-45	BA16678 MW-16V	Water	09/02/20 15:15	09/09/20 11:25	
400-193048-46	BA16679 FB-3	Water	09/02/20 15:40	09/09/20 11:25	
400-193048-47	BA16680 EB-1	Water	09/02/20 15:50	09/09/20 11:25	

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16461 MW-2

Date Collected: 08/31/20 13:40
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00815	U	0.0706	0.0706	1.00	0.143	pCi/L	09/14/20 06:47	10/06/20 12:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.1*		*40 - 110*	*09/14/20 06:47*	*10/06/20 12:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0184	U	0.402	0.402	1.00	0.714	pCi/L	09/14/20 07:35	09/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.1*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:47*	*1*
Y Carrier	*81.1*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:47*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0265	U	0.408	0.408	5.00	0.714	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16462 FB-1

Date Collected: 08/31/20 13:55
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00537	U	0.0874	0.0874	1.00	0.178	pCi/L	09/14/20 06:47	10/06/20 12:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.5*		*40 - 110*	*09/14/20 06:47*	*10/06/20 12:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0333	U	0.379	0.379	1.00	0.684	pCi/L	09/14/20 07:35	09/21/20 11:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.5*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:48*	*1*
Y Carrier	*81.9*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:48*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.0387	U	0.389	0.389	5.00	0.684	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16463 MW-1

Date Collected: 09/01/20 08:05
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-3

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.802**		0.191	0.204	1.00	0.143	pCi/L	09/14/20 06:47	10/06/20 12:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.9*		*40 - 110*	*09/14/20 06:47*	*10/06/20 12:59*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.503	U	0.360	0.363	1.00	0.560	pCi/L	09/14/20 07:35	09/21/20 11:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.9*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:48*	*1*
Y Carrier	*83.0*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:48*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.30**		0.408	0.416	5.00	0.560	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16464 MW-1 DUP

Lab Sample ID: 400-193048-4

Date Collected: 09/01/20 08:05
Matrix: Water
Date Received: 09/09/20 11:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.881		0.214	0.228	1.00	0.194	pCi/L	09/14/20 06:47	10/06/20 12:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.1*		*40 - 110*	*09/14/20 06:47*	*10/06/20 12:59*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.07		0.430	0.441	1.00	0.602	pCi/L	09/14/20 07:35	09/21/20 11:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.1*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:48*	*1*
Y Carrier	*84.1*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:48*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.95		0.480	0.496	5.00	0.602	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16465 MW-1V

Date Collected: 09/01/20 09:05
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-5

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.392**		0.168	0.172	1.00	0.207	pCi/L	09/14/20 06:47	10/06/20 16:58	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.6*		*40 - 110*	*09/14/20 06:47*	*10/06/20 16:58*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.556	U	0.498	0.500	1.00	0.801	pCi/L	09/14/20 07:35	09/21/20 11:48	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*71.6*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:48*	*1*
Y Carrier	*78.9*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:48*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.948**		0.526	0.529	5.00	0.801	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16466 MW-3

Date Collected: 09/01/20 10:28
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-6

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0991	U	0.102	0.102	1.00	0.162	pCi/L	09/14/20 06:47	10/06/20 16:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*09/14/20 06:47*	*10/06/20 16:59*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0589	U	0.341	0.341	1.00	0.600	pCi/L	09/14/20 07:35	09/21/20 11:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.6*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:50*	*1*
Y Carrier	*84.9*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:50*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.158	U	0.356	0.356	5.00	0.600	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16467 MW-4

Lab Sample ID: 400-193048-7

Date Collected: 09/01/20 11:28
Date Received: 09/09/20 11:25

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.145	U	0.105	0.106	1.00	0.147	pCi/L	09/14/20 06:47	10/06/20 16:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.4*		*40 - 110*	*09/14/20 06:47*	*10/06/20 16:59*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.246	U	0.399	0.400	1.00	0.673	pCi/L	09/14/20 07:35	09/21/20 11:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.4*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:50*	*1*
Y Carrier	*87.1*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:50*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.390	U	0.413	0.414	5.00	0.673	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16468 MW-5

Date Collected: 09/01/20 12:29
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-8

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.520		0.162	0.169	1.00	0.163	pCi/L	09/14/20 06:47	10/06/20 17:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*40 - 110*	*09/14/20 06:47*	*10/06/20 17:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.580		0.364	0.368	1.00	0.559	pCi/L	09/14/20 07:35	09/21/20 11:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:50*	*1*
Y Carrier	*86.0*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:50*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.10		0.398	0.405	5.00	0.559	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16469 MW-17V

Lab Sample ID: 400-193048-9

Date Collected: 09/01/20 13:36
Date Received: 09/09/20 11:25

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.516		0.163	0.169	1.00	0.165	pCi/L	09/14/20 06:47	10/06/20 17:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.2*		*40 - 110*	*09/14/20 06:47*	*10/06/20 17:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.38		0.487	0.503	1.00	0.665	pCi/L	09/14/20 07:35	09/21/20 11:50	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.2*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:50*	*1*
Y Carrier	*81.1*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:50*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.90		0.514	0.531	5.00	0.665	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16470 MW-17H

Lab Sample ID: 400-193048-10

Date Collected: 09/01/20 14:23
Date Received: 09/09/20 11:25
Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.355**		0.140	0.143	1.00	0.157	pCi/L	09/14/20 06:47	10/06/20 17:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.8*		*40 - 110*	*09/14/20 06:47*	*10/06/20 17:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0852	U	0.337	0.337	1.00	0.589	pCi/L	09/14/20 07:35	09/21/20 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.8*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:51*	*1*
Y Carrier	*83.4*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.440	U	0.365	0.366	5.00	0.589	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16471 MW-5V

Date Collected: 09/01/20 15:52
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-11

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0553	U	0.0914	0.0916	1.00	0.160	pCi/L	09/14/20 06:47	10/06/20 17:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.2*		*40 - 110*	*09/14/20 06:47*	*10/06/20 17:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.686**		0.424	0.428	1.00	0.646	pCi/L	09/14/20 07:35	09/21/20 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*75.2*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:51*	*1*
Y Carrier	*82.6*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.741**		0.434	0.438	5.00	0.646	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16472 MW-19H

Date Collected: 09/01/20 09:18
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-12

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.227**		0.137	0.138	1.00	0.171	pCi/L	09/14/20 08:46	10/06/20 08:29	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:29*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.449	U	0.363	0.365	1.00	0.577	pCi/L	09/14/20 09:15	10/02/20 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*
Y Carrier	*84.9*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.675**		0.388	0.390	5.00	0.577	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16473 MW-18H

Date Collected: 09/01/20 10:44
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-13

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.136	U	0.123	0.123	1.00	0.191	pCi/L	09/14/20 06:47	10/06/20 17:01	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.0*		*40 - 110*	*09/14/20 06:47*	*10/06/20 17:01*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.548	U	0.425	0.428	1.00	0.675	pCi/L	09/14/20 07:35	09/21/20 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.0*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:51*	*1*
Y Carrier	*86.0*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.684**		0.442	0.445	5.00	0.675	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16474 MW-18H DUP

Lab Sample ID: 400-193048-14

Date Collected: 09/01/20 10:44
Matrix: Water
Date Received: 09/09/20 11:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.195		0.133	0.134	1.00	0.194	pCi/L	09/14/20 06:47	10/06/20 18:59	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.4*		*40 - 110*	*09/14/20 06:47*	*10/06/20 18:59*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.613		0.391	0.395	1.00	0.600	pCi/L	09/14/20 07:35	09/21/20 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.4*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:51*	*1*
Y Carrier	*87.5*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.808		0.413	0.417	5.00	0.600	pCi/L		11/02/20 23:07	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16475 FB-4

Date Collected: 09/01/20 11:05
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.132	U	0.151	0.152	1.00	0.247	pCi/L	09/14/20 08:46	10/06/20 08:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.0*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.308	U	0.333	0.334	1.00	0.545	pCi/L	09/14/20 09:15	10/02/20 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.0*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*
Y Carrier	*84.5*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.441	U	0.366	0.367	5.00	0.545	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16476 MW-20H

Date Collected: 09/01/20 12:05
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-16

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.343**		0.157	0.160	1.00	0.173	pCi/L	09/14/20 08:46	10/06/20 08:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.3*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0473	U	0.279	0.279	1.00	0.492	pCi/L	09/14/20 09:15	10/02/20 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.3*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*
Y Carrier	*88.2*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.390	U	0.320	0.322	5.00	0.492	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16477 MW-22H

Date Collected: 09/01/20 13:08
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-17

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.213	U	0.157	0.158	1.00	0.229	pCi/L	09/14/20 08:46	10/06/20 08:30	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:30*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.206	U	0.309	0.310	1.00	0.520	pCi/L	09/14/20 09:15	10/02/20 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*
Y Carrier	*86.4*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.419	U	0.347	0.348	5.00	0.520	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16478 MW-15V

Date Collected: 09/01/20 14:03
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-18

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.651**		0.216	0.223	1.00	0.194	pCi/L	09/14/20 08:46	10/06/20 08:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.7*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.630	U	0.417	0.421	1.00	0.644	pCi/L	09/14/20 09:15	10/02/20 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.7*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*
Y Carrier	*80.0*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.28**		0.470	0.476	5.00	0.644	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16479 MW-23H

Date Collected: 09/01/20 15:35
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-19

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.162		0.118	0.119	1.00	0.160	pCi/L	09/14/20 08:46	10/06/20 08:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.6*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0611	U	0.339	0.339	1.00	0.594	pCi/L	09/14/20 09:15	10/02/20 12:09	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.6*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*
Y Carrier	*83.0*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:09*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.224	U	0.359	0.359	5.00	0.594	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16480 MW-23V

Lab Sample ID: 400-193048-20

Date Collected: 09/01/20 18:15
Matrix: Water
Date Received: 09/09/20 11:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0637	U	0.0624	0.0627	1.00	0.177	pCi/L	09/14/20 08:46	10/06/20 08:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.0*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.387	U	0.295	0.297	1.00	0.463	pCi/L	09/14/20 09:15	10/02/20 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*93.0*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*
Y Carrier	*83.4*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.323	U	0.302	0.304	5.00	0.463	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16481 MW-10

Date Collected: 09/01/20 08:58
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-21

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.326	U	0.280	0.281	1.00	0.410	pCi/L	10/16/20 10:59	10/17/20 20:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.3*		*40 - 110*	*10/16/20 10:59*	*10/17/20 20:32*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.35**	**G**	0.866	0.875	1.00	1.33	pCi/L	10/09/20 08:55	10/14/20 12:08	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.3*		*40 - 110*	*10/09/20 08:55*	*10/14/20 12:08*	*1*
Y Carrier	*82.2*		*40 - 110*	*10/09/20 08:55*	*10/14/20 12:08*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.68**		0.910	0.919	5.00	1.33	pCi/L		11/08/20 22:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16482 MW-10V

Date Collected: 09/01/20 09:55
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-22

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.324		0.168	0.171	1.00	0.198	pCi/L	09/14/20 08:46	10/06/20 08:31	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.5*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:31*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.301	U	0.393	0.394	1.00	0.654	pCi/L	09/14/20 09:15	10/02/20 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.5*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*
Y Carrier	*82.6*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.625	U	0.427	0.430	5.00	0.654	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16483 MW-10V DUP

Lab Sample ID: 400-193048-23

Date Collected: 09/01/20 09:55
Matrix: Water
Date Received: 09/09/20 11:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.367		0.171	0.174	1.00	0.187	pCi/L	09/14/20 08:46	10/06/20 08:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:32*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.648		0.408	0.413	1.00	0.627	pCi/L	09/14/20 09:15	10/02/20 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*
Y Carrier	*81.9*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.01		0.442	0.448	5.00	0.627	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16484 MW-11

Date Collected: 09/01/20 11:30
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-24

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.257**		0.160	0.162	1.00	0.214	pCi/L	09/14/20 08:46	10/06/20 08:32	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.7*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:32*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.495	U	0.365	0.368	1.00	0.570	pCi/L	09/14/20 09:15	10/02/20 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.7*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*
Y Carrier	*83.0*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.752**		0.399	0.402	5.00	0.570	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16485 MW-12V

Date Collected: 09/01/20 12:35
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-25

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.346		0.179	0.182	1.00	0.218	pCi/L	09/14/20 08:46	10/06/20 08:33	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.8*		*40 - 110*	*09/14/20 08:46*	*10/06/20 08:33*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.680		0.401	0.406	1.00	0.606	pCi/L	09/14/20 09:15	10/02/20 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.8*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*
Y Carrier	*83.4*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.03		0.439	0.445	5.00	0.606	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16486 MW-12

Date Collected: 09/01/20 14:13
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-26

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.567		0.191	0.198	1.00	0.164	pCi/L	09/14/20 08:46	10/06/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*09/14/20 08:46*	*10/06/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.635		0.385	0.390	1.00	0.592	pCi/L	09/14/20 09:15	10/02/20 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.2*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*
Y Carrier	*88.2*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.20		0.430	0.437	5.00	0.592	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16487 MW-20V

Date Collected: 09/01/20 15:28
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-27

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.325		0.148	0.151	1.00	0.159	pCi/L	09/14/20 08:46	10/06/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.8*		*40 - 110*	*09/14/20 08:46*	*10/06/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.11		0.377	0.391	1.00	0.510	pCi/L	09/14/20 09:15	10/02/20 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.8*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*
Y Carrier	*87.1*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.43		0.405	0.419	5.00	0.510	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16488 MW-13

Date Collected: 09/01/20 16:43
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-28

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.348**		0.166	0.169	1.00	0.184	pCi/L	09/14/20 08:46	10/06/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*40 - 110*	*09/14/20 08:46*	*10/06/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.350	U	0.368	0.369	1.00	0.601	pCi/L	09/14/20 09:15	10/02/20 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*
Y Carrier	*86.7*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.698**		0.404	0.406	5.00	0.601	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16662 MW-25H

Lab Sample ID: 400-193048-29

Date Collected: 09/02/20 08:58
Matrix: Water
Date Received: 09/09/20 11:25

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.110	U	0.113	0.114	1.00	0.176	pCi/L	09/14/20 08:46	10/06/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.8*		*40 - 110*	*09/14/20 08:46*	*10/06/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0913	U	0.331	0.331	1.00	0.608	pCi/L	09/14/20 09:15	10/02/20 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.8*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*
Y Carrier	*84.9*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0187	U	0.350	0.350	5.00	0.608	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16663 MW-25H DUP

Lab Sample ID: 400-193048-30

Date Collected: 09/02/20 08:58
Date Received: 09/09/20 11:25

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0404	U	0.114	0.114	1.00	0.247	pCi/L	09/14/20 08:46	10/06/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*40 - 110*	*09/14/20 08:46*	*10/06/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.377	U	0.354	0.355	1.00	0.570	pCi/L	09/14/20 09:15	10/02/20 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*78.9*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*
Y Carrier	*85.2*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.336	U	0.372	0.373	5.00	0.570	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16664 MW-25VM

Date Collected: 09/02/20 10:13
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-31

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.111	U	0.105	0.105	1.00	0.160	pCi/L	09/14/20 08:46	10/06/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*09/14/20 08:46*	*10/06/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.485	U	0.325	0.328	1.00	0.502	pCi/L	09/14/20 09:15	10/02/20 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*96.0*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*
Y Carrier	*80.4*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.596**		0.342	0.344	5.00	0.502	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16665 MW-6

Date Collected: 09/02/20 11:09
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-32

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0589	U	0.134	0.134	1.00	0.240	pCi/L	09/14/20 08:46	10/06/20 12:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*09/14/20 08:46*	*10/06/20 12:46*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.182	U	0.295	0.296	1.00	0.500	pCi/L	09/14/20 09:15	10/02/20 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.3*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*
Y Carrier	*87.5*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.241	U	0.324	0.325	5.00	0.500	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16666 MW-7

Date Collected: 09/02/20 12:28
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-33

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.244**		0.141	0.143	1.00	0.176	pCi/L	09/14/20 08:46	10/06/20 12:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*40 - 110*	*09/14/20 08:46*	*10/06/20 12:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.323	U	0.295	0.296	1.00	0.472	pCi/L	09/14/20 09:15	10/02/20 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.0*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*
Y Carrier	*87.1*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.567**		0.327	0.329	5.00	0.472	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16667 MW-7V

Date Collected: 09/02/20 13:20
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-34

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.308		0.143	0.146	1.00	0.153	pCi/L	09/14/20 08:46	10/06/20 12:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*40 - 110*	*09/14/20 08:46*	*10/06/20 12:47*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.809		0.373	0.380	1.00	0.539	pCi/L	09/14/20 09:15	10/02/20 12:12	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.7*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*
Y Carrier	*81.5*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:12*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.12		0.399	0.407	5.00	0.539	pCi/L		11/02/20 23:08	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16668 FB-2

Date Collected: 09/02/20 13:35
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-35

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.771	U G	0.674	0.678	1.00	1.00	pCi/L	10/12/20 14:41	11/05/20 18:23	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.9*		*40 - 110*	*10/12/20 14:41*	*11/05/20 18:23*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0464	U *	0.351	0.351	1.00	0.623	pCi/L	09/14/20 12:13	10/05/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.5*		*40 - 110*	*09/14/20 12:13*	*10/05/20 12:22*	*1*
Y Carrier	*77.8*		*40 - 110*	*09/14/20 12:13*	*10/05/20 12:22*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.818	U	0.760	0.763	5.00	1.00	pCi/L		11/08/20 22:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16669 MW-9

Date Collected: 09/02/20 14:14
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-36

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.491		0.336	0.338	1.00	0.453	pCi/L	10/16/20 11:07	10/17/20 20:34	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*10/16/20 11:07*	*10/17/20 20:34*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.76	* G	1.04	1.05	1.00	1.57	pCi/L	10/07/20 06:39	10/14/20 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:10*	*1*
Y Carrier	*79.3*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.25		1.09	1.10	5.00	1.57	pCi/L		11/02/20 23:09	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16670 MW-8V

Date Collected: 09/02/20 15:12
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-37

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.915		0.380	0.389	1.00	0.376	pCi/L	10/16/20 11:07	10/17/20 20:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*10/16/20 11:07*	*10/17/20 20:35*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.97	* G	0.953	0.971	1.00	1.39	pCi/L	10/07/20 06:39	10/14/20 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:10*	*1*
Y Carrier	*76.6*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.89		1.03	1.05	5.00	1.39	pCi/L		11/02/20 23:09	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16671 MW-8

Date Collected: 09/02/20 16:12
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-38

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.344	U	0.295	0.297	1.00	0.430	pCi/L	10/16/20 11:07	10/17/20 20:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.0*		*40 - 110*	*10/16/20 11:07*	*10/17/20 20:35*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**3.61**	*** G**	1.26	1.31	1.00	1.68	pCi/L	10/07/20 06:39	10/14/20 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.0*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:10*	*1*
Y Carrier	*70.3*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**3.95**		1.29	1.34	5.00	1.68	pCi/L		11/02/20 23:09	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16672 MW-13V

Date Collected: 09/02/20 08:53
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-39

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.815		0.401	0.408	1.00	0.461	pCi/L	10/16/20 11:07	10/17/20 20:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.5*		*40 - 110*	*10/16/20 11:07*	*10/17/20 20:35*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.68	* G	1.08	1.09	1.00	1.66	pCi/L	10/07/20 06:39	10/14/20 12:10	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.5*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:10*	*1*
Y Carrier	*74.8*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:10*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.49		1.15	1.16	5.00	1.66	pCi/L		11/02/20 23:09	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16673 MW-14V

Date Collected: 09/02/20 09:50
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-40

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.165	U	0.265	0.265	1.00	0.460	pCi/L	10/16/20 11:07	10/17/20 20:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.1*		*40 - 110*	*10/16/20 11:07*	*10/17/20 20:35*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.37	U G *	0.967	0.975	1.00	1.50	pCi/L	10/07/20 06:39	10/14/20 12:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.1*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:11*	*1*
Y Carrier	*75.9*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:11*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.54**		1.00	1.01	5.00	1.50	pCi/L		11/02/20 23:09	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16674 MW-14

Date Collected: 09/02/20 11:05
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-41

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.319	U	0.295	0.296	1.00	0.445	pCi/L	10/16/20 11:07	10/17/20 20:35	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*40 - 110*	*10/16/20 11:07*	*10/17/20 20:35*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.80	U * G	1.17	1.18	1.00	1.82	pCi/L	10/07/20 06:39	10/14/20 12:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*84.3*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:11*	*1*
Y Carrier	*74.8*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:11*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.12**		1.21	1.22	5.00	1.82	pCi/L		11/02/20 23:09	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16675 MW-15

Date Collected: 09/02/20 12:18
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-42

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.403	U	0.326	0.328	1.00	0.468	pCi/L	10/16/20 11:07	10/17/20 20:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.0*		*40 - 110*	*10/16/20 11:07*	*10/17/20 20:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.47	U * G	1.09	1.10	1.00	1.71	pCi/L	10/07/20 06:39	10/14/20 12:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*74.0*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:11*	*1*
Y Carrier	*75.9*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:11*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.87**		1.14	1.15	5.00	1.71	pCi/L		11/02/20 23:09	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16676 MW-24H

Lab Sample ID: 400-193048-43

Date Collected: 09/02/20 13:25
Date Received: 09/09/20 11:25

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.415	U	0.330	0.332	1.00	0.482	pCi/L	10/16/20 11:07	10/17/20 20:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.0*		*40 - 110*	*10/16/20 11:07*	*10/17/20 20:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.08	U * G	1.01	1.01	1.00	1.63	pCi/L	10/07/20 06:39	10/14/20 12:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.0*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:11*	*1*
Y Carrier	*76.6*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:11*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.50	U	1.06	1.06	5.00	1.63	pCi/L		11/02/20 23:09	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16677 MW-16

Date Collected: 09/02/20 14:20
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-44

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.316	U	0.306	0.307	1.00	0.472	pCi/L	10/16/20 11:07	10/17/20 20:37	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*10/16/20 11:07*	*10/17/20 20:37*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**1.93**	*** G**	0.990	1.01	1.00	1.46	pCi/L	10/07/20 06:39	10/14/20 12:11	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.6*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:11*	*1*
Y Carrier	*75.5*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:11*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**2.25**		1.04	1.06	5.00	1.46	pCi/L		11/02/20 23:09	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16678 MW-16V

Date Collected: 09/02/20 15:15
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-45

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.880	U	0.669	0.674	1.00	0.936	pCi/L	10/12/20 14:41	11/05/20 18:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.1*		*40 - 110*	*10/12/20 14:41*	*11/05/20 18:26*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.272	U *	0.397	0.398	1.00	0.666	pCi/L	09/14/20 12:13	10/05/20 12:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.2*		*40 - 110*	*09/14/20 12:13*	*10/05/20 12:28*	*1*
Y Carrier	*77.8*		*40 - 110*	*09/14/20 12:13*	*10/05/20 12:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.15**		0.778	0.783	5.00	0.936	pCi/L		11/08/20 22:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16679 FB-3

Date Collected: 09/02/20 15:40
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-46

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.986	U G	0.780	0.785	1.00	1.13	pCi/L	10/12/20 14:41	11/05/20 18:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.6*		*40 - 110*	*10/12/20 14:41*	*11/05/20 18:26*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.204	U *	0.406	0.407	1.00	0.693	pCi/L	09/14/20 12:13	10/05/20 12:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.4*		*40 - 110*	*09/14/20 12:13*	*10/05/20 12:28*	*1*
Y Carrier	*81.1*		*40 - 110*	*09/14/20 12:13*	*10/05/20 12:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.19**		0.879	0.884	5.00	1.13	pCi/L		11/08/20 22:37	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16680 EB-1

Date Collected: 09/02/20 15:50
Date Received: 09/09/20 11:25

Lab Sample ID: 400-193048-47

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0288	U G	0.501	0.501	1.00	1.05	pCi/L	10/12/20 14:41	11/05/20 18:26	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.3*		*40 - 110*	*10/12/20 14:41*	*11/05/20 18:26*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.420	U *	0.420	0.422	1.00	0.682	pCi/L	09/14/20 12:13	10/05/20 12:28	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.0*		*40 - 110*	*09/14/20 12:13*	*10/05/20 12:28*	*1*
Y Carrier	*83.7*		*40 - 110*	*09/14/20 12:13*	*10/05/20 12:28*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.391	U	0.654	0.655	5.00	1.05	pCi/L		11/08/20 22:37	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Qualifiers

Rad

Qualifier	Qualifier Description
*	LCS or LCSD is outside acceptance limits.
G	The Sample MDC is greater than the requested RL.
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16461 MW-2
Lab Sample ID: 400-193048-1

Date Collected: 08/31/20 13:40
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 12:58	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483125	09/21/20 11:47	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16462 FB-1
Lab Sample ID: 400-193048-2

Date Collected: 08/31/20 13:55
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 12:58	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483125	09/21/20 11:48	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16463 MW-1
Lab Sample ID: 400-193048-3

Date Collected: 09/01/20 08:05
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 12:59	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483125	09/21/20 11:48	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16464 MW-1 DUP
Lab Sample ID: 400-193048-4

Date Collected: 09/01/20 08:05
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 12:59	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483125	09/21/20 11:48	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16465 MW-1V
Lab Sample ID: 400-193048-5

Date Collected: 09/01/20 09:05
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 16:58	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483125	09/21/20 11:48	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16466 MW-3
Lab Sample ID: 400-193048-6

Date Collected: 09/01/20 10:28
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 16:59	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483126	09/21/20 11:50	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16467 MW-4
Lab Sample ID: 400-193048-7

Date Collected: 09/01/20 11:28
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 16:59	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483126	09/21/20 11:50	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16468 MW-5
Lab Sample ID: 400-193048-8

Date Collected: 09/01/20 12:29
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 17:00	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483126	09/21/20 11:50	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16469 MW-17V
Lab Sample ID: 400-193048-9

Date Collected: 09/01/20 13:36
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 17:00	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483126	09/21/20 11:50	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16470 MW-17H
Lab Sample ID: 400-193048-10

Date Collected: 09/01/20 14:23
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 17:00	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483126	09/21/20 11:51	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16471 MW-5V
Lab Sample ID: 400-193048-11

Date Collected: 09/01/20 15:52
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 17:01	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483126	09/21/20 11:51	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16472 MW-19H
Lab Sample ID: 400-193048-12

Date Collected: 09/01/20 09:18
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:29	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:09	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16473 MW-18H
Lab Sample ID: 400-193048-13

Date Collected: 09/01/20 10:44
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 17:01	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483126	09/21/20 11:51	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16474 MW-18H DUP
Lab Sample ID: 400-193048-14

Date Collected: 09/01/20 10:44
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482377	09/14/20 06:47	AVB	TAL SL
Total/NA	Analysis	9315		1	484998	10/06/20 18:59	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482379	09/14/20 07:35	AVB	TAL SL
Total/NA	Analysis	9320		1	483126	09/21/20 11:51	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487759	11/02/20 23:07	SCB	TAL SL

Client Sample ID: BA16475 FB-4
Lab Sample ID: 400-193048-15

Date Collected: 09/01/20 11:05
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:30	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:09	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16476 MW-20H
Lab Sample ID: 400-193048-16

Date Collected: 09/01/20 12:05
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:30	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:09	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16477 MW-22H — Lab Sample ID: 400-193048-17

Date Collected: 09/01/20 13:08 — **Matrix: Water**
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:30	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:09	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16478 MW-15V — Lab Sample ID: 400-193048-18

Date Collected: 09/01/20 14:03 — **Matrix: Water**
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:31	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:09	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16479 MW-23H — Lab Sample ID: 400-193048-19

Date Collected: 09/01/20 15:35 — **Matrix: Water**
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:31	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:09	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16480 MW-23V — Lab Sample ID: 400-193048-20

Date Collected: 09/01/20 18:15 — **Matrix: Water**
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:31	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:10	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16481 MW-10
Lab Sample ID: 400-193048-21

Date Collected: 09/01/20 08:58
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485939	10/16/20 10:59	RBR	TAL SL
Total/NA	Analysis	9315		1	485985	10/17/20 20:32	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485186	10/09/20 08:55	AVB	TAL SL
Total/NA	Analysis	9320		1	485712	10/14/20 12:08	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488524	11/08/20 22:37	SCB	TAL SL

Client Sample ID: BA16482 MW-10V
Lab Sample ID: 400-193048-22

Date Collected: 09/01/20 09:55
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:31	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:10	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16483 MW-10V DUP
Lab Sample ID: 400-193048-23

Date Collected: 09/01/20 09:55
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:32	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:10	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16484 MW-11
Lab Sample ID: 400-193048-24

Date Collected: 09/01/20 11:30
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:32	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:10	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16485 MW-12V
Lab Sample ID: 400-193048-25

Date Collected: 09/01/20 12:35
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 08:33	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:10	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16486 MW-12
Lab Sample ID: 400-193048-26

Date Collected: 09/01/20 14:13
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 12:46	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484476	10/02/20 12:10	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16487 MW-20V
Lab Sample ID: 400-193048-27

Date Collected: 09/01/20 15:28
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 12:46	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484477	10/02/20 12:12	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16488 MW-13
Lab Sample ID: 400-193048-28

Date Collected: 09/01/20 16:43
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 12:46	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484477	10/02/20 12:12	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16662 MW-25H
Lab Sample ID: 400-193048-29

Date Collected: 09/02/20 08:58
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 12:46	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484477	10/02/20 12:12	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16663 MW-25H DUP
Lab Sample ID: 400-193048-30

Date Collected: 09/02/20 08:58
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 12:46	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484477	10/02/20 12:12	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16664 MW-25VM
Lab Sample ID: 400-193048-31

Date Collected: 09/02/20 10:13
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 12:46	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484477	10/02/20 12:12	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16665 MW-6
Lab Sample ID: 400-193048-32

Date Collected: 09/02/20 11:09
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 12:46	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484477	10/02/20 12:12	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16666 MW-7
Lab Sample ID: 400-193048-33
Date Collected: 09/02/20 12:28
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 12:47	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484477	10/02/20 12:12	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16667 MW-7V
Lab Sample ID: 400-193048-34
Date Collected: 09/02/20 13:20
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			482393	09/14/20 08:46	AVB	TAL SL
Total/NA	Analysis	9315		1	485000	10/06/20 12:47	SCB	TAL SL
Total/NA	Prep	PrecSep_0			482396	09/14/20 09:15	AVB	TAL SL
Total/NA	Analysis	9320		1	484477	10/02/20 12:12	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487760	11/02/20 23:08	SCB	TAL SL

Client Sample ID: BA16668 FB-2
Lab Sample ID: 400-193048-35
Date Collected: 09/02/20 13:35
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485314	10/12/20 14:41	AVB	TAL SL
Total/NA	Analysis	9315		1	488418	11/05/20 18:23	FLC	TAL SL
Total/NA	Prep	PrecSep_0			482413	09/14/20 12:13	AVB	TAL SL
Total/NA	Analysis	9320		1	484717	10/05/20 12:22	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488524	11/08/20 22:37	SCB	TAL SL

Client Sample ID: BA16669 MW-9
Lab Sample ID: 400-193048-36
Date Collected: 09/02/20 14:14
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485941	10/16/20 11:07	RBR	TAL SL
Total/NA	Analysis	9315		1	485985	10/17/20 20:34	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485001	10/07/20 06:39	AVB	TAL SL
Total/NA	Analysis	9320		1	485712	10/14/20 12:10	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487761	11/02/20 23:09	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16670 MW-8V
Lab Sample ID: 400-193048-37

Date Collected: 09/02/20 15:12
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485941	10/16/20 11:07	RBR	TAL SL
Total/NA	Analysis	9315		1	485985	10/17/20 20:35	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485001	10/07/20 06:39	AVB	TAL SL
Total/NA	Analysis	9320		1	485712	10/14/20 12:10	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487761	11/02/20 23:09	SCB	TAL SL

Client Sample ID: BA16671 MW-8
Lab Sample ID: 400-193048-38

Date Collected: 09/02/20 16:12
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485941	10/16/20 11:07	RBR	TAL SL
Total/NA	Analysis	9315		1	485985	10/17/20 20:35	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485001	10/07/20 06:39	AVB	TAL SL
Total/NA	Analysis	9320		1	485712	10/14/20 12:10	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487761	11/02/20 23:09	SCB	TAL SL

Client Sample ID: BA16672 MW-13V
Lab Sample ID: 400-193048-39

Date Collected: 09/02/20 08:53
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485941	10/16/20 11:07	RBR	TAL SL
Total/NA	Analysis	9315		1	485985	10/17/20 20:35	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485001	10/07/20 06:39	AVB	TAL SL
Total/NA	Analysis	9320		1	485712	10/14/20 12:10	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487761	11/02/20 23:09	SCB	TAL SL

Client Sample ID: BA16673 MW-14V
Lab Sample ID: 400-193048-40

Date Collected: 09/02/20 09:50
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485941	10/16/20 11:07	RBR	TAL SL
Total/NA	Analysis	9315		1	485985	10/17/20 20:35	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485001	10/07/20 06:39	AVB	TAL SL
Total/NA	Analysis	9320		1	485712	10/14/20 12:11	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487761	11/02/20 23:09	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16674 MW-14
Lab Sample ID: 400-193048-41
Date Collected: 09/02/20 11:05
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485941	10/16/20 11:07	RBR	TAL SL
Total/NA	Analysis	9315		1	485985	10/17/20 20:35	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485001	10/07/20 06:39	AVB	TAL SL
Total/NA	Analysis	9320		1	485712	10/14/20 12:11	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487761	11/02/20 23:09	SCB	TAL SL

Client Sample ID: BA16675 MW-15
Lab Sample ID: 400-193048-42
Date Collected: 09/02/20 12:18
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485941	10/16/20 11:07	RBR	TAL SL
Total/NA	Analysis	9315		1	485985	10/17/20 20:37	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485001	10/07/20 06:39	AVB	TAL SL
Total/NA	Analysis	9320		1	485712	10/14/20 12:11	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487761	11/02/20 23:09	SCB	TAL SL

Client Sample ID: BA16676 MW-24H
Lab Sample ID: 400-193048-43
Date Collected: 09/02/20 13:25
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485941	10/16/20 11:07	RBR	TAL SL
Total/NA	Analysis	9315		1	485985	10/17/20 20:37	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485001	10/07/20 06:39	AVB	TAL SL
Total/NA	Analysis	9320		1	485712	10/14/20 12:11	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487761	11/02/20 23:09	SCB	TAL SL

Client Sample ID: BA16677 MW-16
Lab Sample ID: 400-193048-44
Date Collected: 09/02/20 14:20
Matrix: Water
Date Received: 09/09/20 11:25

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485941	10/16/20 11:07	RBR	TAL SL
Total/NA	Analysis	9315		1	485985	10/17/20 20:37	SCB	TAL SL
Total/NA	Prep	PrecSep_0			485001	10/07/20 06:39	AVB	TAL SL
Total/NA	Analysis	9320		1	485712	10/14/20 12:11	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	487761	11/02/20 23:09	SCB	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Client Sample ID: BA16678 MW-16V
Lab Sample ID: 400-193048-45

Date Collected: 09/02/20 15:15
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485314	10/12/20 14:41	AVB	TAL SL
Total/NA	Analysis	9315		1	488418	11/05/20 18:26	FLC	TAL SL
Total/NA	Prep	PrecSep_0			482413	09/14/20 12:13	AVB	TAL SL
Total/NA	Analysis	9320		1	484719	10/05/20 12:28	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488524	11/08/20 22:37	SCB	TAL SL

Client Sample ID: BA16679 FB-3
Lab Sample ID: 400-193048-46

Date Collected: 09/02/20 15:40
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485314	10/12/20 14:41	AVB	TAL SL
Total/NA	Analysis	9315		1	488418	11/05/20 18:26	FLC	TAL SL
Total/NA	Prep	PrecSep_0			482413	09/14/20 12:13	AVB	TAL SL
Total/NA	Analysis	9320		1	484719	10/05/20 12:28	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488524	11/08/20 22:37	SCB	TAL SL

Client Sample ID: BA16680 EB-1
Lab Sample ID: 400-193048-47

Date Collected: 09/02/20 15:50
Date Received: 09/09/20 11:25
Matrix: Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			485314	10/12/20 14:41	AVB	TAL SL
Total/NA	Analysis	9315		1	488418	11/05/20 18:26	FLC	TAL SL
Total/NA	Prep	PrecSep_0			482413	09/14/20 12:13	AVB	TAL SL
Total/NA	Analysis	9320		1	484719	10/05/20 12:28	SCB	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	488524	11/08/20 22:37	SCB	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Rad

Prep Batch: 482377

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-1	BA16461 MW-2	Total/NA	Water	PrecSep-21	
400-193048-2	BA16462 FB-1	Total/NA	Water	PrecSep-21	
400-193048-3	BA16463 MW-1	Total/NA	Water	PrecSep-21	
400-193048-4	BA16464 MW-1 DUP	Total/NA	Water	PrecSep-21	
400-193048-5	BA16465 MW-1V	Total/NA	Water	PrecSep-21	
400-193048-6	BA16466 MW-3	Total/NA	Water	PrecSep-21	
400-193048-7	BA16467 MW-4	Total/NA	Water	PrecSep-21	
400-193048-8	BA16468 MW-5	Total/NA	Water	PrecSep-21	
400-193048-9	BA16469 MW-17V	Total/NA	Water	PrecSep-21	
400-193048-10	BA16470 MW-17H	Total/NA	Water	PrecSep-21	
400-193048-11	BA16471 MW-5V	Total/NA	Water	PrecSep-21	
400-193048-13	BA16473 MW-18H	Total/NA	Water	PrecSep-21	
400-193048-14	BA16474 MW-18H DUP	Total/NA	Water	PrecSep-21	
MB 160-482377/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-482377/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-193048-1 MS	BA16461 MW-2	Total/NA	Water	PrecSep-21	
400-193048-1 MSD	BA16461 MW-2	Total/NA	Water	PrecSep-21	

Prep Batch: 482379

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-1	BA16461 MW-2	Total/NA	Water	PrecSep_0	
400-193048-2	BA16462 FB-1	Total/NA	Water	PrecSep_0	
400-193048-3	BA16463 MW-1	Total/NA	Water	PrecSep_0	
400-193048-4	BA16464 MW-1 DUP	Total/NA	Water	PrecSep_0	
400-193048-5	BA16465 MW-1V	Total/NA	Water	PrecSep_0	
400-193048-6	BA16466 MW-3	Total/NA	Water	PrecSep_0	
400-193048-7	BA16467 MW-4	Total/NA	Water	PrecSep_0	
400-193048-8	BA16468 MW-5	Total/NA	Water	PrecSep_0	
400-193048-9	BA16469 MW-17V	Total/NA	Water	PrecSep_0	
400-193048-10	BA16470 MW-17H	Total/NA	Water	PrecSep_0	
400-193048-11	BA16471 MW-5V	Total/NA	Water	PrecSep_0	
400-193048-13	BA16473 MW-18H	Total/NA	Water	PrecSep_0	
400-193048-14	BA16474 MW-18H DUP	Total/NA	Water	PrecSep_0	
MB 160-482379/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-482379/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-193048-1 MS	BA16461 MW-2	Total/NA	Water	PrecSep_0	
400-193048-1 MSD	BA16461 MW-2	Total/NA	Water	PrecSep_0	

Prep Batch: 482393

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-12	BA16472 MW-19H	Total/NA	Water	PrecSep-21	
400-193048-15	BA16475 FB-4	Total/NA	Water	PrecSep-21	
400-193048-16	BA16476 MW-20H	Total/NA	Water	PrecSep-21	
400-193048-17	BA16477 MW-22H	Total/NA	Water	PrecSep-21	
400-193048-18	BA16478 MW-15V	Total/NA	Water	PrecSep-21	
400-193048-19	BA16479 MW-23H	Total/NA	Water	PrecSep-21	
400-193048-20	BA16480 MW-23V	Total/NA	Water	PrecSep-21	
400-193048-22	BA16482 MW-10V	Total/NA	Water	PrecSep-21	
400-193048-23	BA16483 MW-10V DUP	Total/NA	Water	PrecSep-21	
400-193048-24	BA16484 MW-11	Total/NA	Water	PrecSep-21	
400-193048-25	BA16485 MW-12V	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 482393 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-26	BA16486 MW-12	Total/NA	Water	PrecSep-21	
400-193048-27	BA16487 MW-20V	Total/NA	Water	PrecSep-21	
400-193048-28	BA16488 MW-13	Total/NA	Water	PrecSep-21	
400-193048-29	BA16662 MW-25H	Total/NA	Water	PrecSep-21	
400-193048-30	BA16663 MW-25H DUP	Total/NA	Water	PrecSep-21	
400-193048-31	BA16664 MW-25VM	Total/NA	Water	PrecSep-21	
400-193048-32	BA16665 MW-6	Total/NA	Water	PrecSep-21	
400-193048-33	BA16666 MW-7	Total/NA	Water	PrecSep-21	
400-193048-34	BA16667 MW-7V	Total/NA	Water	PrecSep-21	
MB 160-482393/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-482393/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-193048-12 MS	BA16472 MW-19H	Total/NA	Water	PrecSep-21	
400-193048-12 MSD	BA16472 MW-19H	Total/NA	Water	PrecSep-21	

Prep Batch: 482396

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-12	BA16472 MW-19H	Total/NA	Water	PrecSep_0	
400-193048-15	BA16475 FB-4	Total/NA	Water	PrecSep_0	
400-193048-16	BA16476 MW-20H	Total/NA	Water	PrecSep_0	
400-193048-17	BA16477 MW-22H	Total/NA	Water	PrecSep_0	
400-193048-18	BA16478 MW-15V	Total/NA	Water	PrecSep_0	
400-193048-19	BA16479 MW-23H	Total/NA	Water	PrecSep_0	
400-193048-20	BA16480 MW-23V	Total/NA	Water	PrecSep_0	
400-193048-22	BA16482 MW-10V	Total/NA	Water	PrecSep_0	
400-193048-23	BA16483 MW-10V DUP	Total/NA	Water	PrecSep_0	
400-193048-24	BA16484 MW-11	Total/NA	Water	PrecSep_0	
400-193048-25	BA16485 MW-12V	Total/NA	Water	PrecSep_0	
400-193048-26	BA16486 MW-12	Total/NA	Water	PrecSep_0	
400-193048-27	BA16487 MW-20V	Total/NA	Water	PrecSep_0	
400-193048-28	BA16488 MW-13	Total/NA	Water	PrecSep_0	
400-193048-29	BA16662 MW-25H	Total/NA	Water	PrecSep_0	
400-193048-30	BA16663 MW-25H DUP	Total/NA	Water	PrecSep_0	
400-193048-31	BA16664 MW-25VM	Total/NA	Water	PrecSep_0	
400-193048-32	BA16665 MW-6	Total/NA	Water	PrecSep_0	
400-193048-33	BA16666 MW-7	Total/NA	Water	PrecSep_0	
400-193048-34	BA16667 MW-7V	Total/NA	Water	PrecSep_0	
MB 160-482396/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-482396/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-193048-12 MS	BA16472 MW-19H	Total/NA	Water	PrecSep_0	
400-193048-12 MSD	BA16472 MW-19H	Total/NA	Water	PrecSep_0	

Prep Batch: 482413

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-35	BA16668 FB-2	Total/NA	Water	PrecSep_0	
400-193048-45	BA16678 MW-16V	Total/NA	Water	PrecSep_0	
400-193048-46	BA16679 FB-3	Total/NA	Water	PrecSep_0	
400-193048-47	BA16680 EB-1	Total/NA	Water	PrecSep_0	
MB 160-482413/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-482413/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Rad

Prep Batch: 485001

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-36	BA16669 MW-9	Total/NA	Water	PrecSep_0	
400-193048-37	BA16670 MW-8V	Total/NA	Water	PrecSep_0	
400-193048-38	BA16671 MW-8	Total/NA	Water	PrecSep_0	
400-193048-39	BA16672 MW-13V	Total/NA	Water	PrecSep_0	
400-193048-40	BA16673 MW-14V	Total/NA	Water	PrecSep_0	
400-193048-41	BA16674 MW-14	Total/NA	Water	PrecSep_0	
400-193048-42	BA16675 MW-15	Total/NA	Water	PrecSep_0	
400-193048-43	BA16676 MW-24H	Total/NA	Water	PrecSep_0	
400-193048-44	BA16677 MW-16	Total/NA	Water	PrecSep_0	
MB 160-485001/12-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-485001/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-485001/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

Prep Batch: 485186

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-21	BA16481 MW-10	Total/NA	Water	PrecSep_0	
MB 160-485186/6-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-485186/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-193048-21 MS	BA16481 MW-10	Total/NA	Water	PrecSep_0	
400-193048-21 MSD	BA16481 MW-10	Total/NA	Water	PrecSep_0	

Prep Batch: 485314

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-35	BA16668 FB-2	Total/NA	Water	PrecSep-21	
400-193048-45	BA16678 MW-16V	Total/NA	Water	PrecSep-21	
400-193048-46	BA16679 FB-3	Total/NA	Water	PrecSep-21	
400-193048-47	BA16680 EB-1	Total/NA	Water	PrecSep-21	
MB 160-485314/11-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-485314/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-485314/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 485939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-21	BA16481 MW-10	Total/NA	Water	PrecSep-21	
MB 160-485939/5-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-485939/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-193048-21 MS	BA16481 MW-10	Total/NA	Water	PrecSep-21	
400-193048-21 MSD	BA16481 MW-10	Total/NA	Water	PrecSep-21	

Prep Batch: 485941

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193048-36	BA16669 MW-9	Total/NA	Water	PrecSep-21	
400-193048-37	BA16670 MW-8V	Total/NA	Water	PrecSep-21	
400-193048-38	BA16671 MW-8	Total/NA	Water	PrecSep-21	
400-193048-39	BA16672 MW-13V	Total/NA	Water	PrecSep-21	
400-193048-40	BA16673 MW-14V	Total/NA	Water	PrecSep-21	
400-193048-41	BA16674 MW-14	Total/NA	Water	PrecSep-21	
400-193048-42	BA16675 MW-15	Total/NA	Water	PrecSep-21	
400-193048-43	BA16676 MW-24H	Total/NA	Water	PrecSep-21	
400-193048-44	BA16677 MW-16	Total/NA	Water	PrecSep-21	
MB 160-485941/12-A	Method Blank	Total/NA	Water	PrecSep-21	

Rad (Continued)

Prep Batch: 485941 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
LCS 160-485941/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-485941/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

QC Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-482377/24-A
Matrix: Water
Analysis Batch: 484998

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482377

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1091	U	0.112	0.113	1.00	0.179	pCi/L	09/14/20 06:47	10/06/20 18:59	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.7*		*40 - 110*	*09/14/20 06:47*	*10/06/20 18:59*	*1*

Lab Sample ID: LCS 160-482377/1-A
Matrix: Water
Analysis Batch: 484998

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 482377

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	13.89		1.47	1.00	0.198	pCi/L	92	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*75.5*		*40 - 110*

Lab Sample ID: 400-193048-1 MS
Matrix: Water
Analysis Batch: 484998

Client Sample ID: BA16461 MW-2
Prep Type: Total/NA
Prep Batch: 482377

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.00815	U	15.1	14.22		1.51	1.00	0.189	pCi/L	94	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*75.8*		*40 - 110*

Lab Sample ID: 400-193048-1 MSD
Matrix: Water
Analysis Batch: 484998

Client Sample ID: BA16461 MW-2
Prep Type: Total/NA
Prep Batch: 482377

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.00815	U	15.1	14.83		1.55	1.00	0.177	pCi/L	98	75 - 138	0.20	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*73.1*		*40 - 110*

Lab Sample ID: MB 160-482393/24-A
Matrix: Water
Analysis Batch: 485000

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482393

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0000	U	0.0861	0.0861	1.00	0.181	pCi/L	09/14/20 08:46	10/06/20 12:47	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: MB 160-482393/24-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485000 — **Prep Batch: 482393**

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		40 - 110	09/14/20 08:46	10/06/20 12:47	1

Lab Sample ID: LCS 160-482393/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485000 — **Prep Batch: 482393**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			15.1	13.13		1.46	1.00	0.163	pCi/L	87	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	85.3		40 - 110

Lab Sample ID: 400-193048-12 MS — **Client Sample ID: BA16472 MW-19H**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485000 — **Prep Batch: 482393**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.227		15.1	13.83		1.53	1.00	0.181	pCi/L	90	75 - 138		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	82.0		40 - 110

Lab Sample ID: 400-193048-12 MSD — **Client Sample ID: BA16472 MW-19H**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485000 — **Prep Batch: 482393**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.227		15.1	12.46		1.39	1.00	0.165	pCi/L	81	75 - 138	0.47	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	88.4		40 - 110

Lab Sample ID: MB 160-485314/11-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 488433 — **Prep Batch: 485314**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.2100	U G	0.743	0.743	1.00	1.54	pCi/L	10/12/20 14:41	11/05/20 18:39	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	81.9		40 - 110	10/12/20 14:41	11/05/20 18:39	1

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: LCS 160-485314/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 488433 — **Prep Batch: 485314**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			37.8	36.84		5.09	1.00	1.42	pCi/L	97	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*70.9*		*40 - 110*

Lab Sample ID: LCSD 160-485314/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 488418 — **Prep Batch: 485314**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			37.8	35.34		4.74	1.00	1.44	pCi/L	93	75 - 125	0.15	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*77.4*		*40 - 110*

Lab Sample ID: MB 160-485939/5-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485985 — **Prep Batch: 485939**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.08159	U	0.256	0.256	1.00	0.491	pCi/L	10/16/20 10:59	10/17/20 20:32	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.1*		*40 - 110*	*10/16/20 10:59*	*10/17/20 20:32*	*1*

Lab Sample ID: LCS 160-485939/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485985 — **Prep Batch: 485939**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			37.8	40.27		4.34	1.00	0.438	pCi/L	106	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*87.0*		*40 - 110*

Lab Sample ID: 400-193048-21 MS — **Client Sample ID: BA16481 MW-10**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485985 — **Prep Batch: 485939**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.326	U	34.8	36.96		4.02	1.00	0.425	pCi/L	105	75 - 138		

Method: 9315 - Radium-226 (GFPC) (Continued)

Lab Sample ID: 400-193048-21 MS
Matrix: Water
Analysis Batch: 485985

Client Sample ID: BA16481 MW-10
Prep Type: Total/NA
Prep Batch: 485939

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	81.4		40 - 110

Lab Sample ID: 400-193048-21 MSD
Matrix: Water
Analysis Batch: 485985

Client Sample ID: BA16481 MW-10
Prep Type: Total/NA
Prep Batch: 485939

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.326	U	34.8	36.65		4.06	1.00	0.647	pCi/L	104	75 - 138	0.04	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	73.4		40 - 110

Lab Sample ID: MB 160-485941/12-A
Matrix: Water
Analysis Batch: 486374

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485941

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.03720	U	0.261	0.261	1.00	0.501	pCi/L	10/16/20 11:07	10/20/20 19:11	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.5		40 - 110	10/16/20 11:07	10/20/20 19:11	1

Lab Sample ID: LCS 160-485941/1-A
Matrix: Water
Analysis Batch: 485985

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485941

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			37.8	36.26		4.00	1.00	0.465	pCi/L	96	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	83.1		40 - 110

Lab Sample ID: LCSD 160-485941/2-A
Matrix: Water
Analysis Batch: 485985

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 485941

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226			37.8	39.11		4.24	1.00	0.617	pCi/L	103	75 - 125	0.35	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	85.8		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-482379/24-A
Matrix: Water
Analysis Batch: 483126

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482379

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.8266		0.404	0.411	1.00	0.583	pCi/L	09/14/20 07:35	09/21/20 11:51	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*73.7*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:51*	*1*
Y Carrier	*87.5*		*40 - 110*	*09/14/20 07:35*	*09/21/20 11:51*	*1*

Lab Sample ID: LCS 160-482379/1-A
Matrix: Water
Analysis Batch: 483125

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 482379

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.4	12.32		1.51	1.00	0.683	pCi/L	119	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*75.5*		*40 - 110*
Y Carrier	*86.0*		*40 - 110*

Lab Sample ID: 400-193048-1 MS
Matrix: Water
Analysis Batch: 483125

Client Sample ID: BA16461 MW-2
Prep Type: Total/NA
Prep Batch: 482379

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.0184	U	10.4	12.41		1.53	1.00	0.608	pCi/L	119	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*75.8*		*40 - 110*
Y Carrier	*81.1*		*40 - 110*

Lab Sample ID: 400-193048-1 MSD
Matrix: Water
Analysis Batch: 483125

Client Sample ID: BA16461 MW-2
Prep Type: Total/NA
Prep Batch: 482379

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.0184	U	10.4	14.79		1.78	1.00	0.730	pCi/L	142	45 - 150	0.72	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*73.1*		*40 - 110*
Y Carrier	*80.7*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-482396/24-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 484477 — **Prep Batch: 482396**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.07100	U	0.276	0.277	1.00	0.512	pCi/L	09/14/20 09:15	10/02/20 12:13	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.0*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:13*	*1*
Y Carrier	*87.1*		*40 - 110*	*09/14/20 09:15*	*10/02/20 12:13*	*1*

Lab Sample ID: LCS 160-482396/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 484476 — **Prep Batch: 482396**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.4	10.12		1.24	1.00	0.563	pCi/L	98	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*85.3*		*40 - 110*
Y Carrier	*88.6*		*40 - 110*

Lab Sample ID: 400-193048-12 MS — **Client Sample ID: BA16472 MW-19H**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 484476 — **Prep Batch: 482396**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.449	U	10.3	10.70		1.33	1.00	0.636	pCi/L	99	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*82.0*		*40 - 110*
Y Carrier	*85.2*		*40 - 110*

Lab Sample ID: 400-193048-12 MSD — **Client Sample ID: BA16472 MW-19H**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 484476 — **Prep Batch: 482396**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.449	U	10.4	9.546		1.19	1.00	0.529	pCi/L	88	45 - 150	0.46	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*88.4*		*40 - 110*
Y Carrier	*83.0*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: MB 160-482413/22-A
Matrix: Water
Analysis Batch: 484719

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 482413

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2253	U	0.422	0.422	1.00	0.715	pCi/L	09/14/20 12:13	10/05/20 12:28	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.5*		*40 - 110*	*09/14/20 12:13*	*10/05/20 12:28*	*1*
Y Carrier	*79.6*		*40 - 110*	*09/14/20 12:13*	*10/05/20 12:28*	*1*

Lab Sample ID: LCS 160-482413/1-A
Matrix: Water
Analysis Batch: 484717

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 482413

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			10.3	13.53	*	1.68	1.00	0.695	pCi/L	131	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*76.8*		*40 - 110*
Y Carrier	*74.8*		*40 - 110*

Lab Sample ID: MB 160-485001/12-A
Matrix: Water
Analysis Batch: 485562

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 485001

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1879	U G	0.793	0.793	1.00	1.49	pCi/L	10/07/20 06:39	10/14/20 12:14	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*82.5*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:14*	*1*
Y Carrier	*72.1*		*40 - 110*	*10/07/20 06:39*	*10/14/20 12:14*	*1*

Lab Sample ID: LCS 160-485001/1-A
Matrix: Water
Analysis Batch: 485712

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 485001

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			25.8	29.23		3.62	1.00	1.42	pCi/L	113	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*83.1*		*40 - 110*
Y Carrier	*77.4*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: LCSD 160-485001/2-A — **Client Sample ID: Lab Control Sample Dup**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485712 — **Prep Batch: 485001**

Analyte			Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228			25.8	32.58	*	3.96	1.00	1.66	pCi/L	126	75 - 125	0.44	1

Carrier	*LCSD %Yield*	*LCSD Qualifier*	*Limits*
Ba Carrier	*85.8*		*40 - 110*
Y Carrier	*74.0*		*40 - 110*

Lab Sample ID: MB 160-485186/6-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485712 — **Prep Batch: 485186**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.2223	U G	0.823	0.823	1.00	1.53	pCi/L	10/09/20 08:55	10/14/20 12:09	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*81.1*		*40 - 110*	*10/09/20 08:55*	*10/14/20 12:09*	*1*
Y Carrier	*78.1*		*40 - 110*	*10/09/20 08:55*	*10/14/20 12:09*	*1*

Lab Sample ID: LCS 160-485186/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485712 — **Prep Batch: 485186**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			25.8	26.30		3.33	1.00	1.58	pCi/L	102	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*87.0*		*40 - 110*
Y Carrier	*79.6*		*40 - 110*

Lab Sample ID: 400-193048-21 MS — **Client Sample ID: BA16481 MW-10**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 485712 — **Prep Batch: 485186**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	1.35	G	23.7	23.77		3.04	1.00	1.42	pCi/L	94	45 - 150		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*81.4*		*40 - 110*
Y Carrier	*82.2*		*40 - 110*

Method: 9320 - Radium-228 (GFPC) (Continued)

Lab Sample ID: 400-193048-21 MSD
Matrix: Water
Analysis Batch: 485712

Client Sample ID: BA16481 MW-10
Prep Type: Total/NA
Prep Batch: 485186

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	1.35	G	23.8	26.96		3.43	1.00	1.55	pCi/L	108	45 - 150	0.49	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*73.4*		*40 - 110*
Y Carrier	*81.1*		*40 - 110*

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

400-193048 COC

Client Information (Sub Contract Lab)	Sampler: Dallas Gentry	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkiff	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 1 of 5
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #: APC67309-0001			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1297	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=wasteoil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 CL_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA16461	8/31/20	13:40	G	Water		X				X	3	MW-2
BA16462	8/31/20	13:55	G	Water						X	1	FB-1 (Field Blank)
BA16463	9/1/20	08:05	G	Water						X	1	MW-1
BA16464	9/1/20	08:05	G	Water						X	1	MW-1 DUP (Sample Duplocate)
BA16465	9/1/20	09:05	G	Water						X	1	MW-1V
BA16466	9/1/20	10:28	G	Water						X	1	MW-3
BA16467	9/1/20	11:28	G	Water						X	1	MW-4
BA16468	9/1/20	12:29	G	Water						X	1	MW-5
BA16469	9/1/20	13:36	G	Water						X	1	MW-17V
BA16470	9/1/20	14:23	G	Water						X	1	MW-17H
BA16471	9/1/20	15:52	G	Water						X	1	MW-5V

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 44048 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: Laura Midkiff	Date/Time: 09/04/2020 08:30	Company: Water APC	Received by:	Date/Time: 9/9/20 1125	Company: TAPG
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by: 24.4°C, 23.5°C, 23.1°C	Date/Time:	Company:
Custody Seals Intact:	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver. 09/20/2016

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: Anthony Goggins	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 2 of 5
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #: APC67309-0001			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1297	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 CL_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA16472	9/1/20	09:18	G	Water		X				X	3	MW-19H
BA16473	9/1/20	10:44	G	Water						X	1	MW-18H
BA16474	9/1/20	10:44	G	Water						X	1	MW-18H DUP (Sample Duplicate)
BA16475	9/1/20	11:05	G	Water						X	1	FB-4 (Field Blank)
BA16476	9/1/20	12:05	G	Water						X	1	MW-20H
BA16477	9/1/20	13:08	G	Water						X	1	MW-22H
BA16478	9/1/20	14:03	G	Water						X	1	MW-15V
BA16479	9/1/20	15:35	G	Water						X	1	MW-23H
BA16480	9/1/20	18:15	G	Water						X	1	MW-23V

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 44048 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Laura Midkiff	Date/Time: 09/04/2020 08:30	Company: Water APC	Received by:	Date/Time: 9/9/20 1125	Company: TAPEN
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Custody Seals Intact:	Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: TJ Daugherty	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 3 of 5
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #: APC67309-0001			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1297	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA16481	9/1/20	08:58	G	Water		X				X	3	MW-10
BA16482	9/1/20	09:55	G	Water						X	1	MW-10V
BA16483	9/1/20	09:55	G	Water						X	1	MW-10V DUP (Sample Duplicate)
BA16484	9/1/20	11:30	G	Water						X	1	MW-11
BA16485	9/1/20	12:35	G	Water						X	1	MW-12V
BA16486	9/1/20	14:13	G	Water						X	1	MW-12
BA16487	9/1/20	15:28	G	Water						X	1	MW-20V
BA16488	9/1/20	16:43	G	Water						X	1	MW-13

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 44048 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:		Method of Shipment:	
Relinquished by: Laura Midkiff	Date/Time: 09/04/2020 08:30	Company: Water APC	Received by:	Date/Time: 9/9/20 1125	Company: TAPC
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	0	Company	Received by:	Date/Time:	Company

Custody Seals Intact: | Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: Dallas Gentry	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 4 of 5
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #: APC67309-0001			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1297	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 CL_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA16662	9/2/20	08:58	G	Water						X	1	MW-25H
BA16663	9/2/20	08:58	G	Water						X	1	MW-25H DUP (Sample Duplicate)
BA16664	9/2/20	10:13	G	Water						X	1	MW-25VM
BA16665	9/2/20	11:09	G	Water						X	1	MW-6
BA16666	9/2/20	12:28	G	Water						X	1	MW-7
BA16667	9/2/20	13:20	G	Water						X	1	MW-7V
BA16668	9/2/20	13:35	G	Water						X	1	FB-2 (Field Blank)
BA16669	9/2/20	14:14	G	Water						X	1	MW-9
BA16670	9/2/20	15:12	G	Water						X	1	MW-8V
BA16671	9/2/20	16:12	G	Water						X	1	MW-8

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 44048 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Laura Midkiff	Date/Time: 09/04/2020 08:30	Company: Water APC	Received by:	Date/Time: 9/9/20 1125	Company: TA Pen
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	0	Company	Received by:	Date/Time:	Company

Custody Seals Intact: | Cooler Temperature(s) °C and Other Remarks:

Ver: 09/20/2016

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: TJ Daugherty	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkiff	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 5 of 5
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #: APC67309-0001			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Ash Pond 1297	SSOW#:			

Analysis Requested

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA, M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=waste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA16672	9/2/20	08:53	G	Water						X	1	MW-13V
BA16673	9/2/20	09:50	G	Water						X	1	MW-14V
BA16674	9/2/20	11:05	G	Water						X	1	MW-14
BA16675	9/2/20	12:18	G	Water						X	1	MW-15
BA16676	9/2/20	13:25	G	Water						X	1	MW-24H
BA16677	9/2/20	14:20	G	Water						X	1	MW-16
BA16678	9/2/20	15:15	G	Water						X	1	MW-16V
BA16679	9/2/20	15:40	G	Water						X	1	FB-3 (Field Blank)
BA16680	9/2/20	15:50	G	Water						X	1	EB-1 (Equipment Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 44048 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Laura Midkiff	Date/Time: 09/04/2020 08:30	Company: Water APC	Received by:	Date/Time: 9/9/20 1125	Company: TAPen
Relinquished by:	Date/Time:	Company:	Received by:	Date/Time:	Company:
Relinquished by:	0	Company:	Received by:	Date/Time:	Company:
Custody Seals Intact:			Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-193048-1
SDG Number: Barry Ash Pond 1297

Login Number: 193048
List Number: 1
Creator: Perez, Trina M

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	24.4°C, 23.5°C, 23.1°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-193048-1
SDG Number: Barry Ash Pond 1297

Login Number: 193048
List Number: 2
Creator: Boyd, Jacob C

List Source: Eurofins TestAmerica, St. Louis
List Creation: 09/11/20 01:56 PM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193048-1
SDG: Barry Ash Pond 1297

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-20
Iowa	State	373	11-30-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
South Carolina	State	85002001	06-30-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-1	9/1/2020 7:47	Conductivity	782.51	uS/cm
BY-AP-MW-1	9/1/2020 7:47	DO	0.95	mg/L
BY-AP-MW-1	9/1/2020 7:47	Depth to Water Detail	21.35	ft
BY-AP-MW-1	9/1/2020 7:47	Oxidation Reduction Potention	3.3	mv
BY-AP-MW-1	9/1/2020 7:47	pH	5.85	pH
BY-AP-MW-1	9/1/2020 7:47	Temperature	21.88	C
BY-AP-MW-1	9/1/2020 7:47	Turbidity	3.79	NTU
BY-AP-MW-1	9/1/2020 7:52	Conductivity	786.79	uS/cm
BY-AP-MW-1	9/1/2020 7:52	DO	0.48	mg/L
BY-AP-MW-1	9/1/2020 7:52	Depth to Water Detail	21.35	ft
BY-AP-MW-1	9/1/2020 7:52	Oxidation Reduction Potention	-6.67	mv
BY-AP-MW-1	9/1/2020 7:52	pH	5.87	pH
BY-AP-MW-1	9/1/2020 7:52	Temperature	21.92	C
BY-AP-MW-1	9/1/2020 7:52	Turbidity	3.25	NTU
BY-AP-MW-1	9/1/2020 7:57	Conductivity	786.05	uS/cm
BY-AP-MW-1	9/1/2020 7:57	DO	0.35	mg/L
BY-AP-MW-1	9/1/2020 7:57	Depth to Water Detail	21.35	ft
BY-AP-MW-1	9/1/2020 7:57	Oxidation Reduction Potention	-12.43	mv
BY-AP-MW-1	9/1/2020 7:57	pH	5.89	pH
BY-AP-MW-1	9/1/2020 7:57	Temperature	21.77	C
BY-AP-MW-1	9/1/2020 7:57	Turbidity	3.32	NTU
BY-AP-MW-1	9/1/2020 8:02	Conductivity	782.56	uS/cm
BY-AP-MW-1	9/1/2020 8:02	DO	0.3	mg/L
BY-AP-MW-1	9/1/2020 8:02	Depth to Water Detail	21.35	ft
BY-AP-MW-1	9/1/2020 8:02	Oxidation Reduction Potention	-15.74	mv
BY-AP-MW-1	9/1/2020 8:02	pH	5.89	pH
BY-AP-MW-1	9/1/2020 8:02	Temperature	21.77	C
BY-AP-MW-1	9/1/2020 8:02	Turbidity	4.14	NTU

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-1V	9/1/2020 8:47	Conductivity	317.74	uS/cm
BY-AP-MW-1V	9/1/2020 8:47	DO	0.87	mg/L
BY-AP-MW-1V	9/1/2020 8:47	Depth to Water Detail	22.87	ft
BY-AP-MW-1V	9/1/2020 8:47	Oxidation Reduction Potention	54.73	mv
BY-AP-MW-1V	9/1/2020 8:47	pH	5.45	pH
BY-AP-MW-1V	9/1/2020 8:47	Temperature	22.22	C
BY-AP-MW-1V	9/1/2020 8:47	Turbidity	2.82	NTU
BY-AP-MW-1V	9/1/2020 8:52	Conductivity	309.96	uS/cm
BY-AP-MW-1V	9/1/2020 8:52	DO	0.4	mg/L
BY-AP-MW-1V	9/1/2020 8:52	Depth to Water Detail	22.87	ft
BY-AP-MW-1V	9/1/2020 8:52	Oxidation Reduction Potention	56.86	mv
BY-AP-MW-1V	9/1/2020 8:52	pH	5.55	pH
BY-AP-MW-1V	9/1/2020 8:52	Temperature	22.07	C
BY-AP-MW-1V	9/1/2020 8:52	Turbidity	1.85	NTU
BY-AP-MW-1V	9/1/2020 8:57	Conductivity	308.01	uS/cm
BY-AP-MW-1V	9/1/2020 8:57	DO	0.28	mg/L
BY-AP-MW-1V	9/1/2020 8:57	Depth to Water Detail	22.87	ft
BY-AP-MW-1V	9/1/2020 8:57	Oxidation Reduction Potention	59.38	mv
BY-AP-MW-1V	9/1/2020 8:57	pH	5.58	pH
BY-AP-MW-1V	9/1/2020 8:57	Temperature	22.02	C
BY-AP-MW-1V	9/1/2020 8:57	Turbidity	1.8	NTU
BY-AP-MW-1V	9/1/2020 9:02	Conductivity	307.88	uS/cm
BY-AP-MW-1V	9/1/2020 9:02	DO	0.22	mg/L
BY-AP-MW-1V	9/1/2020 9:02	Depth to Water Detail	22.87	ft
BY-AP-MW-1V	9/1/2020 9:02	Oxidation Reduction Potention	60.89	mv
BY-AP-MW-1V	9/1/2020 9:02	pH	5.62	pH
BY-AP-MW-1V	9/1/2020 9:02	Temperature	22.08	C
BY-AP-MW-1V	9/1/2020 9:02	Turbidity	2.17	NTU

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-2	8/31/2020 13:21	Conductivity	55.02	uS/cm
BY-AP-MW-2	8/31/2020 13:21	DO	1.18	mg/L
BY-AP-MW-2	8/31/2020 13:21	Depth to Water Detail	20.07	ft
BY-AP-MW-2	8/31/2020 13:21	Oxidation Reduction Potention	132.78	mv
BY-AP-MW-2	8/31/2020 13:21	pH	5.33	pH
BY-AP-MW-2	8/31/2020 13:21	Temperature	23	C
BY-AP-MW-2	8/31/2020 13:21	Turbidity	2.22	NTU
BY-AP-MW-2	8/31/2020 13:26	Conductivity	55.24	uS/cm
BY-AP-MW-2	8/31/2020 13:26	DO	0.54	mg/L
BY-AP-MW-2	8/31/2020 13:26	Depth to Water Detail	20.07	ft
BY-AP-MW-2	8/31/2020 13:26	Oxidation Reduction Potention	129.49	mv
BY-AP-MW-2	8/31/2020 13:26	pH	5.41	pH
BY-AP-MW-2	8/31/2020 13:26	Temperature	22.63	C
BY-AP-MW-2	8/31/2020 13:26	Turbidity	1.9	NTU
BY-AP-MW-2	8/31/2020 13:31	Conductivity	54.91	uS/cm
BY-AP-MW-2	8/31/2020 13:31	DO	0.37	mg/L
BY-AP-MW-2	8/31/2020 13:31	Depth to Water Detail	20.07	ft
BY-AP-MW-2	8/31/2020 13:31	Oxidation Reduction Potention	123.06	mv
BY-AP-MW-2	8/31/2020 13:31	pH	5.5	pH
BY-AP-MW-2	8/31/2020 13:31	Temperature	22.5	C
BY-AP-MW-2	8/31/2020 13:31	Turbidity	1.86	NTU
BY-AP-MW-2	8/31/2020 13:36	Conductivity	55.07	uS/cm
BY-AP-MW-2	8/31/2020 13:36	DO	0.31	mg/L
BY-AP-MW-2	8/31/2020 13:36	Depth to Water Detail	20.07	ft
BY-AP-MW-2	8/31/2020 13:36	Oxidation Reduction Potention	118.72	mv
BY-AP-MW-2	8/31/2020 13:36	pH	5.57	pH
BY-AP-MW-2	8/31/2020 13:36	Temperature	22.45	C
BY-AP-MW-2	8/31/2020 13:36	Turbidity	1.82	NTU

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-3	9/1/2020 10:01	Conductivity	33.48	uS/cm
BY-AP-MW-3	9/1/2020 10:01	DO	3.49	mg/L
BY-AP-MW-3	9/1/2020 10:01	Depth to Water Detail	23.06	ft
BY-AP-MW-3	9/1/2020 10:01	Oxidation Reduction Potention	178.26	mv
BY-AP-MW-3	9/1/2020 10:01	pH	4.02	pH
BY-AP-MW-3	9/1/2020 10:01	Temperature	21.79	C
BY-AP-MW-3	9/1/2020 10:01	Turbidity	2.67	NTU
BY-AP-MW-3	9/1/2020 10:06	Conductivity	37.43	uS/cm
BY-AP-MW-3	9/1/2020 10:06	DO	3.33	mg/L
BY-AP-MW-3	9/1/2020 10:06	Depth to Water Detail	23.06	ft
BY-AP-MW-3	9/1/2020 10:06	Oxidation Reduction Potention	183.89	mv
BY-AP-MW-3	9/1/2020 10:06	pH	4.02	pH
BY-AP-MW-3	9/1/2020 10:06	Temperature	21.82	C
BY-AP-MW-3	9/1/2020 10:06	Turbidity	2.32	NTU
BY-AP-MW-3	9/1/2020 10:11	Conductivity	39.82	uS/cm
BY-AP-MW-3	9/1/2020 10:11	DO	3.29	mg/L
BY-AP-MW-3	9/1/2020 10:11	Depth to Water Detail	23.06	ft
BY-AP-MW-3	9/1/2020 10:11	Oxidation Reduction Potention	185.16	mv
BY-AP-MW-3	9/1/2020 10:11	pH	4.08	pH
BY-AP-MW-3	9/1/2020 10:11	Temperature	21.77	C
BY-AP-MW-3	9/1/2020 10:11	Turbidity	2.13	NTU
BY-AP-MW-3	9/1/2020 10:16	Conductivity	41.59	uS/cm
BY-AP-MW-3	9/1/2020 10:16	DO	3.27	mg/L
BY-AP-MW-3	9/1/2020 10:16	Depth to Water Detail	23.06	ft
BY-AP-MW-3	9/1/2020 10:16	Oxidation Reduction Potention	185.64	mv
BY-AP-MW-3	9/1/2020 10:16	pH	4.15	pH
BY-AP-MW-3	9/1/2020 10:16	Temperature	21.63	C
BY-AP-MW-3	9/1/2020 10:16	Turbidity	2.04	NTU
BY-AP-MW-3	9/1/2020 10:21	Conductivity	42.49	uS/cm
BY-AP-MW-3	9/1/2020 10:21	DO	3.25	mg/L
BY-AP-MW-3	9/1/2020 10:21	Depth to Water Detail	23.06	ft
BY-AP-MW-3	9/1/2020 10:21	Oxidation Reduction Potention	186.31	mv
BY-AP-MW-3	9/1/2020 10:21	pH	4.19	pH
BY-AP-MW-3	9/1/2020 10:21	Temperature	21.67	C
BY-AP-MW-3	9/1/2020 10:21	Turbidity	1.98	NTU
BY-AP-MW-3	9/1/2020 10:26	Conductivity	43.51	uS/cm
BY-AP-MW-3	9/1/2020 10:26	DO	3.24	mg/L
BY-AP-MW-3	9/1/2020 10:26	Depth to Water Detail	23.06	ft
BY-AP-MW-3	9/1/2020 10:26	Oxidation Reduction Potention	187.01	mv
BY-AP-MW-3	9/1/2020 10:26	pH	4.24	pH
BY-AP-MW-3	9/1/2020 10:26	Temperature	21.69	C
BY-AP-MW-3	9/1/2020 10:26	Turbidity	2.12	NTU

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Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-4	9/1/2020 11:10	Conductivity	39.25	uS/cm
BY-AP-MW-4	9/1/2020 11:10	DO	5.55	mg/L
BY-AP-MW-4	9/1/2020 11:10	Depth to Water Detail	23.64	ft
BY-AP-MW-4	9/1/2020 11:10	Oxidation Reduction Potention	218.28	mv
BY-AP-MW-4	9/1/2020 11:10	pH	4.13	pH
BY-AP-MW-4	9/1/2020 11:10	Temperature	21.91	C
BY-AP-MW-4	9/1/2020 11:10	Turbidity	3.34	NTU
BY-AP-MW-4	9/1/2020 11:15	Conductivity	39.38	uS/cm
BY-AP-MW-4	9/1/2020 11:15	DO	5.6	mg/L
BY-AP-MW-4	9/1/2020 11:15	Depth to Water Detail	23.64	ft
BY-AP-MW-4	9/1/2020 11:15	Oxidation Reduction Potention	221.1	mv
BY-AP-MW-4	9/1/2020 11:15	pH	4.12	pH
BY-AP-MW-4	9/1/2020 11:15	Temperature	21.86	C
BY-AP-MW-4	9/1/2020 11:15	Turbidity	2.68	NTU
BY-AP-MW-4	9/1/2020 11:20	Conductivity	39.74	uS/cm
BY-AP-MW-4	9/1/2020 11:20	DO	5.59	mg/L
BY-AP-MW-4	9/1/2020 11:20	Depth to Water Detail	23.64	ft
BY-AP-MW-4	9/1/2020 11:20	Oxidation Reduction Potention	220.62	mv
BY-AP-MW-4	9/1/2020 11:20	pH	4.17	pH
BY-AP-MW-4	9/1/2020 11:20	Temperature	21.72	C
BY-AP-MW-4	9/1/2020 11:20	Turbidity	2.39	NTU
BY-AP-MW-4	9/1/2020 11:25	Conductivity	39.97	uS/cm
BY-AP-MW-4	9/1/2020 11:25	DO	5.56	mg/L
BY-AP-MW-4	9/1/2020 11:25	Depth to Water Detail	23.64	ft
BY-AP-MW-4	9/1/2020 11:25	Oxidation Reduction Potention	219.52	mv
BY-AP-MW-4	9/1/2020 11:25	pH	4.23	pH
BY-AP-MW-4	9/1/2020 11:25	Temperature	21.81	C
BY-AP-MW-4	9/1/2020 11:25	Turbidity	2.36	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5	9/1/2020 12:11	Conductivity	415.65	uS/cm
BY-AP-MW-5	9/1/2020 12:11	DO	0.89	mg/L
BY-AP-MW-5	9/1/2020 12:11	Depth to Water Detail	25.85	ft
BY-AP-MW-5	9/1/2020 12:11	Oxidation Reduction Potention	30.62	mv
BY-AP-MW-5	9/1/2020 12:11	pH	5.83	pH
BY-AP-MW-5	9/1/2020 12:11	Temperature	22.43	C
BY-AP-MW-5	9/1/2020 12:11	Turbidity	3.82	NTU
BY-AP-MW-5	9/1/2020 12:16	Conductivity	412.45	uS/cm
BY-AP-MW-5	9/1/2020 12:16	DO	0.41	mg/L
BY-AP-MW-5	9/1/2020 12:16	Depth to Water Detail	25.85	ft
BY-AP-MW-5	9/1/2020 12:16	Oxidation Reduction Potention	14.39	mv
BY-AP-MW-5	9/1/2020 12:16	pH	5.87	pH
BY-AP-MW-5	9/1/2020 12:16	Temperature	22.39	C
BY-AP-MW-5	9/1/2020 12:16	Turbidity	2.88	NTU
BY-AP-MW-5	9/1/2020 12:21	Conductivity	412.4	uS/cm
BY-AP-MW-5	9/1/2020 12:21	DO	0.29	mg/L
BY-AP-MW-5	9/1/2020 12:21	Depth to Water Detail	25.85	ft
BY-AP-MW-5	9/1/2020 12:21	Oxidation Reduction Potention	4.76	mv
BY-AP-MW-5	9/1/2020 12:21	pH	5.9	pH
BY-AP-MW-5	9/1/2020 12:21	Temperature	22.36	C
BY-AP-MW-5	9/1/2020 12:21	Turbidity	2.78	NTU
BY-AP-MW-5	9/1/2020 12:26	Conductivity	409.8	uS/cm
BY-AP-MW-5	9/1/2020 12:26	DO	0.24	mg/L
BY-AP-MW-5	9/1/2020 12:26	Depth to Water Detail	25.85	ft
BY-AP-MW-5	9/1/2020 12:26	Oxidation Reduction Potention	-1.35	mv
BY-AP-MW-5	9/1/2020 12:26	pH	5.93	pH
BY-AP-MW-5	9/1/2020 12:26	Temperature	22.33	C
BY-AP-MW-5	9/1/2020 12:26	Turbidity	2.94	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-5V	9/1/2020 15:28	Conductivity	137.53	uS/cm
BY-AP-MW-5V	9/1/2020 15:28	DO	2.27	mg/L
BY-AP-MW-5V	9/1/2020 15:28	Depth to Water Detail	25.7	ft
BY-AP-MW-5V	9/1/2020 15:28	Oxidation Reduction Potention	92.04	mv
BY-AP-MW-5V	9/1/2020 15:28	pH	5.54	pH
BY-AP-MW-5V	9/1/2020 15:28	Temperature	22.61	C
BY-AP-MW-5V	9/1/2020 15:28	Turbidity	16.1	NTU
BY-AP-MW-5V	9/1/2020 15:33	Conductivity	140	uS/cm
BY-AP-MW-5V	9/1/2020 15:33	DO	1.64	mg/L
BY-AP-MW-5V	9/1/2020 15:33	Depth to Water Detail	25.7	ft
BY-AP-MW-5V	9/1/2020 15:33	Oxidation Reduction Potention	98.92	mv
BY-AP-MW-5V	9/1/2020 15:33	pH	5.53	pH
BY-AP-MW-5V	9/1/2020 15:33	Temperature	22.62	C
BY-AP-MW-5V	9/1/2020 15:33	Turbidity	8.07	NTU
BY-AP-MW-5V	9/1/2020 15:38	Conductivity	142.79	uS/cm
BY-AP-MW-5V	9/1/2020 15:38	DO	1.47	mg/L
BY-AP-MW-5V	9/1/2020 15:38	Depth to Water Detail	25.7	ft
BY-AP-MW-5V	9/1/2020 15:38	Oxidation Reduction Potention	100.3	mv
BY-AP-MW-5V	9/1/2020 15:38	pH	5.57	pH
BY-AP-MW-5V	9/1/2020 15:38	Temperature	22.68	C
BY-AP-MW-5V	9/1/2020 15:38	Turbidity	7.44	NTU
BY-AP-MW-5V	9/1/2020 15:43	Conductivity	144.62	uS/cm
BY-AP-MW-5V	9/1/2020 15:43	DO	1.43	mg/L
BY-AP-MW-5V	9/1/2020 15:43	Depth to Water Detail	25.7	ft
BY-AP-MW-5V	9/1/2020 15:43	Oxidation Reduction Potention	99.53	mv
BY-AP-MW-5V	9/1/2020 15:43	pH	5.63	pH
BY-AP-MW-5V	9/1/2020 15:43	Temperature	22.63	C
BY-AP-MW-5V	9/1/2020 15:43	Turbidity	4.54	NTU
BY-AP-MW-5V	9/1/2020 15:48	Conductivity	145.76	uS/cm
BY-AP-MW-5V	9/1/2020 15:48	DO	1.39	mg/L
BY-AP-MW-5V	9/1/2020 15:48	Depth to Water Detail	25.7	ft
BY-AP-MW-5V	9/1/2020 15:48	Oxidation Reduction Potention	98.16	mv
BY-AP-MW-5V	9/1/2020 15:48	pH	5.7	pH
BY-AP-MW-5V	9/1/2020 15:48	Temperature	22.48	C
BY-AP-MW-5V	9/1/2020 15:48	Turbidity	3.58	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-6	9/2/2020 10:51	Conductivity	49.95	uS/cm
BY-AP-MW-6	9/2/2020 10:51	DO	1.45	mg/L
BY-AP-MW-6	9/2/2020 10:51	Depth to Water Detail	23.81	ft
BY-AP-MW-6	9/2/2020 10:51	Oxidation Reduction Potention	210.41	mv
BY-AP-MW-6	9/2/2020 10:51	pH	4.93	pH
BY-AP-MW-6	9/2/2020 10:51	Temperature	21.6	C
BY-AP-MW-6	9/2/2020 10:51	Turbidity	1.68	NTU
BY-AP-MW-6	9/2/2020 10:56	Conductivity	49.95	uS/cm
BY-AP-MW-6	9/2/2020 10:56	DO	0.62	mg/L
BY-AP-MW-6	9/2/2020 10:56	Depth to Water Detail	23.81	ft
BY-AP-MW-6	9/2/2020 10:56	Oxidation Reduction Potention	204.42	mv
BY-AP-MW-6	9/2/2020 10:56	pH	5.02	pH
BY-AP-MW-6	9/2/2020 10:56	Temperature	21.66	C
BY-AP-MW-6	9/2/2020 10:56	Turbidity	1.56	NTU
BY-AP-MW-6	9/2/2020 11:01	Conductivity	49.99	uS/cm
BY-AP-MW-6	9/2/2020 11:01	DO	0.4	mg/L
BY-AP-MW-6	9/2/2020 11:01	Depth to Water Detail	23.81	ft
BY-AP-MW-6	9/2/2020 11:01	Oxidation Reduction Potention	198.07	mv
BY-AP-MW-6	9/2/2020 11:01	pH	5.12	pH
BY-AP-MW-6	9/2/2020 11:01	Temperature	21.68	C
BY-AP-MW-6	9/2/2020 11:01	Turbidity	1.55	NTU
BY-AP-MW-6	9/2/2020 11:06	Conductivity	50.28	uS/cm
BY-AP-MW-6	9/2/2020 11:06	DO	0.32	mg/L
BY-AP-MW-6	9/2/2020 11:06	Depth to Water Detail	23.81	ft
BY-AP-MW-6	9/2/2020 11:06	Oxidation Reduction Potention	194.92	mv
BY-AP-MW-6	9/2/2020 11:06	pH	5.16	pH
BY-AP-MW-6	9/2/2020 11:06	Temperature	21.66	C
BY-AP-MW-6	9/2/2020 11:06	Turbidity	1.58	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7	9/2/2020 12:04	Conductivity	230.43	uS/cm
BY-AP-MW-7	9/2/2020 12:04	DO	1.12	mg/L
BY-AP-MW-7	9/2/2020 12:04	Depth to Water Detail	23.05	ft
BY-AP-MW-7	9/2/2020 12:04	Oxidation Reduction Potention	74.88	mv
BY-AP-MW-7	9/2/2020 12:04	pH	5.96	pH
BY-AP-MW-7	9/2/2020 12:04	Temperature	22.75	C
BY-AP-MW-7	9/2/2020 12:04	Turbidity	11.65	NTU
BY-AP-MW-7	9/2/2020 12:09	Conductivity	231.72	uS/cm
BY-AP-MW-7	9/2/2020 12:09	DO	0.65	mg/L
BY-AP-MW-7	9/2/2020 12:09	Depth to Water Detail	23.05	ft
BY-AP-MW-7	9/2/2020 12:09	Oxidation Reduction Potention	39.14	mv
BY-AP-MW-7	9/2/2020 12:09	pH	6.08	pH
BY-AP-MW-7	9/2/2020 12:09	Temperature	24.96	C
BY-AP-MW-7	9/2/2020 12:09	Turbidity	5.5	NTU
BY-AP-MW-7	9/2/2020 12:14	Conductivity	228.15	uS/cm
BY-AP-MW-7	9/2/2020 12:14	DO	0.44	mg/L
BY-AP-MW-7	9/2/2020 12:14	Depth to Water Detail	23.05	ft
BY-AP-MW-7	9/2/2020 12:14	Oxidation Reduction Potention	22.27	mv
BY-AP-MW-7	9/2/2020 12:14	pH	6.18	pH
BY-AP-MW-7	9/2/2020 12:14	Temperature	22.37	C
BY-AP-MW-7	9/2/2020 12:14	Turbidity	3.76	NTU
BY-AP-MW-7	9/2/2020 12:19	Conductivity	228.1	uS/cm
BY-AP-MW-7	9/2/2020 12:19	DO	0.33	mg/L
BY-AP-MW-7	9/2/2020 12:19	Depth to Water Detail	23.05	ft
BY-AP-MW-7	9/2/2020 12:19	Oxidation Reduction Potention	14.59	mv
BY-AP-MW-7	9/2/2020 12:19	pH	6.2	pH
BY-AP-MW-7	9/2/2020 12:19	Temperature	22.4	C
BY-AP-MW-7	9/2/2020 12:19	Turbidity	5	NTU
BY-AP-MW-7	9/2/2020 12:24	Conductivity	226.38	uS/cm
BY-AP-MW-7	9/2/2020 12:24	DO	0.29	mg/L
BY-AP-MW-7	9/2/2020 12:24	Depth to Water Detail	23.05	ft
BY-AP-MW-7	9/2/2020 12:24	Oxidation Reduction Potention	8.02	mv
BY-AP-MW-7	9/2/2020 12:24	pH	6.25	pH
BY-AP-MW-7	9/2/2020 12:24	Temperature	22.36	C
BY-AP-MW-7	9/2/2020 12:24	Turbidity	5.76	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-7V	9/2/2020 13:02	Conductivity	275.23	uS/cm
BY-AP-MW-7V	9/2/2020 13:02	DO	0.33	mg/L
BY-AP-MW-7V	9/2/2020 13:02	Depth to Water Detail	22.81	ft
BY-AP-MW-7V	9/2/2020 13:02	Oxidation Reduction Potention	-38.71	mv
BY-AP-MW-7V	9/2/2020 13:02	pH	6.39	pH
BY-AP-MW-7V	9/2/2020 13:02	Temperature	24.1	C
BY-AP-MW-7V	9/2/2020 13:02	Turbidity	2.06	NTU
BY-AP-MW-7V	9/2/2020 13:07	Conductivity	281.39	uS/cm
BY-AP-MW-7V	9/2/2020 13:07	DO	0.23	mg/L
BY-AP-MW-7V	9/2/2020 13:07	Depth to Water Detail	22.81	ft
BY-AP-MW-7V	9/2/2020 13:07	Oxidation Reduction Potention	-44.74	mv
BY-AP-MW-7V	9/2/2020 13:07	pH	6.44	pH
BY-AP-MW-7V	9/2/2020 13:07	Temperature	24.26	C
BY-AP-MW-7V	9/2/2020 13:07	Turbidity	1.86	NTU
BY-AP-MW-7V	9/2/2020 13:12	Conductivity	285.9	uS/cm
BY-AP-MW-7V	9/2/2020 13:12	DO	0.2	mg/L
BY-AP-MW-7V	9/2/2020 13:12	Depth to Water Detail	22.81	ft
BY-AP-MW-7V	9/2/2020 13:12	Oxidation Reduction Potention	-49.76	mv
BY-AP-MW-7V	9/2/2020 13:12	pH	6.48	pH
BY-AP-MW-7V	9/2/2020 13:12	Temperature	24.35	C
BY-AP-MW-7V	9/2/2020 13:12	Turbidity	1.77	NTU
BY-AP-MW-7V	9/2/2020 13:17	Conductivity	290.44	uS/cm
BY-AP-MW-7V	9/2/2020 13:17	DO	0.2	mg/L
BY-AP-MW-7V	9/2/2020 13:17	Depth to Water Detail	22.81	ft
BY-AP-MW-7V	9/2/2020 13:17	Oxidation Reduction Potention	-52.85	mv
BY-AP-MW-7V	9/2/2020 13:17	pH	6.49	pH
BY-AP-MW-7V	9/2/2020 13:17	Temperature	24.22	C
BY-AP-MW-7V	9/2/2020 13:17	Turbidity	1.66	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-8	9/2/2020 15:44	Conductivity	469.66	uS/cm
BY-AP-MW-8	9/2/2020 15:44	DO	0.45	mg/L
BY-AP-MW-8	9/2/2020 15:44	Depth to Water Detail	25.77	ft
BY-AP-MW-8	9/2/2020 15:44	Oxidation Reduction Potention	-49.27	mv
BY-AP-MW-8	9/2/2020 15:44	pH	5.83	pH
BY-AP-MW-8	9/2/2020 15:44	Temperature	21.46	C
BY-AP-MW-8	9/2/2020 15:44	Turbidity	1.87	NTU
BY-AP-MW-8	9/2/2020 15:49	Conductivity	462.63	uS/cm
BY-AP-MW-8	9/2/2020 15:49	DO	0.26	mg/L
BY-AP-MW-8	9/2/2020 15:49	Depth to Water Detail	25.77	ft
BY-AP-MW-8	9/2/2020 15:49	Oxidation Reduction Potention	-49.57	mv
BY-AP-MW-8	9/2/2020 15:49	pH	5.81	pH
BY-AP-MW-8	9/2/2020 15:49	Temperature	21.68	C
BY-AP-MW-8	9/2/2020 15:49	Turbidity	2.14	NTU
BY-AP-MW-8	9/2/2020 15:54	Conductivity	464.23	uS/cm
BY-AP-MW-8	9/2/2020 15:54	DO	0.21	mg/L
BY-AP-MW-8	9/2/2020 15:54	Depth to Water Detail	25.77	ft
BY-AP-MW-8	9/2/2020 15:54	Oxidation Reduction Potention	-52.4	mv
BY-AP-MW-8	9/2/2020 15:54	pH	5.82	pH
BY-AP-MW-8	9/2/2020 15:54	Temperature	24.56	C
BY-AP-MW-8	9/2/2020 15:54	Turbidity	2.12	NTU
BY-AP-MW-8	9/2/2020 15:59	Conductivity	465.05	uS/cm
BY-AP-MW-8	9/2/2020 15:59	DO	0.18	mg/L
BY-AP-MW-8	9/2/2020 15:59	Depth to Water Detail	25.77	ft
BY-AP-MW-8	9/2/2020 15:59	Oxidation Reduction Potention	-55.2	mv
BY-AP-MW-8	9/2/2020 15:59	pH	5.88	pH
BY-AP-MW-8	9/2/2020 15:59	Temperature	21.41	C
BY-AP-MW-8	9/2/2020 15:59	Turbidity	1.91	NTU
BY-AP-MW-8	9/2/2020 16:04	Conductivity	460.03	uS/cm
BY-AP-MW-8	9/2/2020 16:04	DO	0.14	mg/L
BY-AP-MW-8	9/2/2020 16:04	Depth to Water Detail	25.77	ft
BY-AP-MW-8	9/2/2020 16:04	Oxidation Reduction Potention	-55.09	mv
BY-AP-MW-8	9/2/2020 16:04	pH	5.87	pH
BY-AP-MW-8	9/2/2020 16:04	Temperature	21.47	C
BY-AP-MW-8	9/2/2020 16:04	Turbidity	1.89	NTU
BY-AP-MW-8	9/2/2020 16:09	Conductivity	458.41	uS/cm
BY-AP-MW-8	9/2/2020 16:09	DO	0.13	mg/L
BY-AP-MW-8	9/2/2020 16:09	Depth to Water Detail	25.77	ft
BY-AP-MW-8	9/2/2020 16:09	Oxidation Reduction Potention	-56.51	mv
BY-AP-MW-8	9/2/2020 16:09	pH	5.89	pH
BY-AP-MW-8	9/2/2020 16:09	Temperature	21.37	C
BY-AP-MW-8	9/2/2020 16:09	Turbidity	1.92	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-8V	9/2/2020 14:54	Conductivity	422.23	uS/cm
BY-AP-MW-8V	9/2/2020 14:54	DO	0.61	mg/L
BY-AP-MW-8V	9/2/2020 14:54	Depth to Water Detail	25.78	ft
BY-AP-MW-8V	9/2/2020 14:54	Oxidation Reduction Potention	-7.03	mv
BY-AP-MW-8V	9/2/2020 14:54	pH	5.71	pH
BY-AP-MW-8V	9/2/2020 14:54	Temperature	21.52	C
BY-AP-MW-8V	9/2/2020 14:54	Turbidity	2.31	NTU
BY-AP-MW-8V	9/2/2020 14:59	Conductivity	422.63	uS/cm
BY-AP-MW-8V	9/2/2020 14:59	DO	0.34	mg/L
BY-AP-MW-8V	9/2/2020 14:59	Depth to Water Detail	25.78	ft
BY-AP-MW-8V	9/2/2020 14:59	Oxidation Reduction Potention	-10.73	mv
BY-AP-MW-8V	9/2/2020 14:59	pH	5.75	pH
BY-AP-MW-8V	9/2/2020 14:59	Temperature	21.42	C
BY-AP-MW-8V	9/2/2020 14:59	Turbidity	2.05	NTU
BY-AP-MW-8V	9/2/2020 15:04	Conductivity	418.79	uS/cm
BY-AP-MW-8V	9/2/2020 15:04	DO	0.25	mg/L
BY-AP-MW-8V	9/2/2020 15:04	Depth to Water Detail	25.78	ft
BY-AP-MW-8V	9/2/2020 15:04	Oxidation Reduction Potention	-12.49	mv
BY-AP-MW-8V	9/2/2020 15:04	pH	5.78	pH
BY-AP-MW-8V	9/2/2020 15:04	Temperature	21.34	C
BY-AP-MW-8V	9/2/2020 15:04	Turbidity	1.99	NTU
BY-AP-MW-8V	9/2/2020 15:09	Conductivity	413.2	uS/cm
BY-AP-MW-8V	9/2/2020 15:09	DO	0.22	mg/L
BY-AP-MW-8V	9/2/2020 15:09	Depth to Water Detail	25.78	ft
BY-AP-MW-8V	9/2/2020 15:09	Oxidation Reduction Potention	-13.62	mv
BY-AP-MW-8V	9/2/2020 15:09	pH	5.79	pH
BY-AP-MW-8V	9/2/2020 15:09	Temperature	21.26	C
BY-AP-MW-8V	9/2/2020 15:09	Turbidity	1.89	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-9	9/2/2020 13:55	Conductivity	523.04	uS/cm
BY-AP-MW-9	9/2/2020 13:55	DO	0.25	mg/L
BY-AP-MW-9	9/2/2020 13:55	Depth to Water Detail	21.89	ft
BY-AP-MW-9	9/2/2020 13:55	Oxidation Reduction Potention	-51.96	mv
BY-AP-MW-9	9/2/2020 13:55	pH	5.89	pH
BY-AP-MW-9	9/2/2020 13:55	Temperature	21.96	C
BY-AP-MW-9	9/2/2020 13:55	Turbidity	1.71	NTU
BY-AP-MW-9	9/2/2020 14:00	Conductivity	516.86	uS/cm
BY-AP-MW-9	9/2/2020 14:00	DO	0.16	mg/L
BY-AP-MW-9	9/2/2020 14:00	Depth to Water Detail	21.89	ft
BY-AP-MW-9	9/2/2020 14:00	Oxidation Reduction Potention	-55.75	mv
BY-AP-MW-9	9/2/2020 14:00	pH	5.89	pH
BY-AP-MW-9	9/2/2020 14:00	Temperature	21.96	C
BY-AP-MW-9	9/2/2020 14:00	Turbidity	2.08	NTU
BY-AP-MW-9	9/2/2020 14:05	Conductivity	512.07	uS/cm
BY-AP-MW-9	9/2/2020 14:05	DO	0.13	mg/L
BY-AP-MW-9	9/2/2020 14:05	Depth to Water Detail	21.89	ft
BY-AP-MW-9	9/2/2020 14:05	Oxidation Reduction Potention	-58.96	mv
BY-AP-MW-9	9/2/2020 14:05	pH	5.92	pH
BY-AP-MW-9	9/2/2020 14:05	Temperature	21.98	C
BY-AP-MW-9	9/2/2020 14:05	Turbidity	1.82	NTU
BY-AP-MW-9	9/2/2020 14:10	Conductivity	508.27	uS/cm
BY-AP-MW-9	9/2/2020 14:10	DO	0.12	mg/L
BY-AP-MW-9	9/2/2020 14:10	Depth to Water Detail	21.89	ft
BY-AP-MW-9	9/2/2020 14:10	Oxidation Reduction Potention	-62.15	mv
BY-AP-MW-9	9/2/2020 14:10	pH	5.97	pH
BY-AP-MW-9	9/2/2020 14:10	Temperature	22.03	C
BY-AP-MW-9	9/2/2020 14:10	Turbidity	1.79	NTU

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Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17H	9/1/2020 14:04	Conductivity	449.25	uS/cm
BY-AP-MW-17H	9/1/2020 14:04	DO	0.42	mg/L
BY-AP-MW-17H	9/1/2020 14:04	Depth to Water Detail	17.14	ft
BY-AP-MW-17H	9/1/2020 14:04	Oxidation Reduction Potention	-63.79	mv
BY-AP-MW-17H	9/1/2020 14:04	pH	6.48	pH
BY-AP-MW-17H	9/1/2020 14:04	Temperature	22.03	C
BY-AP-MW-17H	9/1/2020 14:04	Turbidity	3.54	NTU
BY-AP-MW-17H	9/1/2020 14:09	Conductivity	448.65	uS/cm
BY-AP-MW-17H	9/1/2020 14:09	DO	0.21	mg/L
BY-AP-MW-17H	9/1/2020 14:09	Depth to Water Detail	17.14	ft
BY-AP-MW-17H	9/1/2020 14:09	Oxidation Reduction Potention	-78.13	mv
BY-AP-MW-17H	9/1/2020 14:09	pH	6.52	pH
BY-AP-MW-17H	9/1/2020 14:09	Temperature	22.02	C
BY-AP-MW-17H	9/1/2020 14:09	Turbidity	3.84	NTU
BY-AP-MW-17H	9/1/2020 14:14	Conductivity	446.17	uS/cm
BY-AP-MW-17H	9/1/2020 14:14	DO	0.16	mg/L
BY-AP-MW-17H	9/1/2020 14:14	Depth to Water Detail	17.14	ft
BY-AP-MW-17H	9/1/2020 14:14	Oxidation Reduction Potention	-85.01	mv
BY-AP-MW-17H	9/1/2020 14:14	pH	6.55	pH
BY-AP-MW-17H	9/1/2020 14:14	Temperature	22	C
BY-AP-MW-17H	9/1/2020 14:14	Turbidity	7.13	NTU
BY-AP-MW-17H	9/1/2020 14:19	Conductivity	446.14	uS/cm
BY-AP-MW-17H	9/1/2020 14:19	DO	0.14	mg/L
BY-AP-MW-17H	9/1/2020 14:19	Depth to Water Detail	17.14	ft
BY-AP-MW-17H	9/1/2020 14:19	Oxidation Reduction Potention	-88.98	mv
BY-AP-MW-17H	9/1/2020 14:19	pH	6.56	pH
BY-AP-MW-17H	9/1/2020 14:19	Temperature	21.95	C
BY-AP-MW-17H	9/1/2020 14:19	Turbidity	6.06	NTU

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Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-17V	9/1/2020 13:18	Conductivity	1066.89	uS/cm
BY-AP-MW-17V	9/1/2020 13:18	DO	1.08	mg/L
BY-AP-MW-17V	9/1/2020 13:18	Depth to Water Detail	17.55	ft
BY-AP-MW-17V	9/1/2020 13:18	Oxidation Reduction Potention	-7.07	mv
BY-AP-MW-17V	9/1/2020 13:18	pH	6.48	pH
BY-AP-MW-17V	9/1/2020 13:18	Temperature	21.98	C
BY-AP-MW-17V	9/1/2020 13:18	Turbidity	6.92	NTU
BY-AP-MW-17V	9/1/2020 13:23	Conductivity	1072.52	uS/cm
BY-AP-MW-17V	9/1/2020 13:23	DO	0.48	mg/L
BY-AP-MW-17V	9/1/2020 13:23	Depth to Water Detail	17.55	ft
BY-AP-MW-17V	9/1/2020 13:23	Oxidation Reduction Potention	-2.79	mv
BY-AP-MW-17V	9/1/2020 13:23	pH	6.47	pH
BY-AP-MW-17V	9/1/2020 13:23	Temperature	22.02	C
BY-AP-MW-17V	9/1/2020 13:23	Turbidity	6.56	NTU
BY-AP-MW-17V	9/1/2020 13:28	Conductivity	1064.34	uS/cm
BY-AP-MW-17V	9/1/2020 13:28	DO	0.33	mg/L
BY-AP-MW-17V	9/1/2020 13:28	Depth to Water Detail	17.55	ft
BY-AP-MW-17V	9/1/2020 13:28	Oxidation Reduction Potention	0.52	mv
BY-AP-MW-17V	9/1/2020 13:28	pH	6.49	pH
BY-AP-MW-17V	9/1/2020 13:28	Temperature	22.08	C
BY-AP-MW-17V	9/1/2020 13:28	Turbidity	6.19	NTU
BY-AP-MW-17V	9/1/2020 13:33	Conductivity	1063.37	uS/cm
BY-AP-MW-17V	9/1/2020 13:33	DO	0.28	mg/L
BY-AP-MW-17V	9/1/2020 13:33	Depth to Water Detail	17.55	ft
BY-AP-MW-17V	9/1/2020 13:33	Oxidation Reduction Potention	3.1	mv
BY-AP-MW-17V	9/1/2020 13:33	pH	6.49	pH
BY-AP-MW-17V	9/1/2020 13:33	Temperature	22.08	C
BY-AP-MW-17V	9/1/2020 13:33	Turbidity	6.07	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-25H	9/2/2020 8:34	Conductivity	38.12	uS/cm
BY-AP-MW-25H	9/2/2020 8:34	DO	1.91	mg/L
BY-AP-MW-25H	9/2/2020 8:34	Depth to Water Detail	20.74	ft
BY-AP-MW-25H	9/2/2020 8:34	Oxidation Reduction Potention	171.63	mv
BY-AP-MW-25H	9/2/2020 8:34	pH	5.31	pH
BY-AP-MW-25H	9/2/2020 8:34	Temperature	22.84	C
BY-AP-MW-25H	9/2/2020 8:34	Turbidity	2.78	NTU
BY-AP-MW-25H	9/2/2020 8:39	Conductivity	38.29	uS/cm
BY-AP-MW-25H	9/2/2020 8:39	DO	1.33	mg/L
BY-AP-MW-25H	9/2/2020 8:39	Depth to Water Detail	20.74	ft
BY-AP-MW-25H	9/2/2020 8:39	Oxidation Reduction Potention	170.28	mv
BY-AP-MW-25H	9/2/2020 8:39	pH	5.35	pH
BY-AP-MW-25H	9/2/2020 8:39	Temperature	22.82	C
BY-AP-MW-25H	9/2/2020 8:39	Turbidity	2.23	NTU
BY-AP-MW-25H	9/2/2020 8:44	Conductivity	38.33	uS/cm
BY-AP-MW-25H	9/2/2020 8:44	DO	1.17	mg/L
BY-AP-MW-25H	9/2/2020 8:44	Depth to Water Detail	20.74	ft
BY-AP-MW-25H	9/2/2020 8:44	Oxidation Reduction Potention	167.49	mv
BY-AP-MW-25H	9/2/2020 8:44	pH	5.38	pH
BY-AP-MW-25H	9/2/2020 8:44	Temperature	22.83	C
BY-AP-MW-25H	9/2/2020 8:44	Turbidity	2.2	NTU
BY-AP-MW-25H	9/2/2020 8:49	Conductivity	38.25	uS/cm
BY-AP-MW-25H	9/2/2020 8:49	DO	1.1	mg/L
BY-AP-MW-25H	9/2/2020 8:49	Depth to Water Detail	20.74	ft
BY-AP-MW-25H	9/2/2020 8:49	Oxidation Reduction Potention	166.46	mv
BY-AP-MW-25H	9/2/2020 8:49	pH	5.38	pH
BY-AP-MW-25H	9/2/2020 8:49	Temperature	22.8	C
BY-AP-MW-25H	9/2/2020 8:49	Turbidity	2.23	NTU
BY-AP-MW-25H	9/2/2020 8:54	Conductivity	38.31	uS/cm
BY-AP-MW-25H	9/2/2020 8:54	DO	1.06	mg/L
BY-AP-MW-25H	9/2/2020 8:54	Depth to Water Detail	20.74	ft
BY-AP-MW-25H	9/2/2020 8:54	Oxidation Reduction Potention	164.82	mv
BY-AP-MW-25H	9/2/2020 8:54	pH	5.39	pH
BY-AP-MW-25H	9/2/2020 8:54	Temperature	22.79	C
BY-AP-MW-25H	9/2/2020 8:54	Turbidity	2.13	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-25VM	9/2/2020 9:40	Conductivity	28.16	uS/cm
BY-AP-MW-25VM	9/2/2020 9:40	DO	2.58	mg/L
BY-AP-MW-25VM	9/2/2020 9:40	Depth to Water Detail	20.75	ft
BY-AP-MW-25VM	9/2/2020 9:40	Oxidation Reduction Potention	186.74	mv
BY-AP-MW-25VM	9/2/2020 9:40	pH	5.01	pH
BY-AP-MW-25VM	9/2/2020 9:40	Temperature	22.66	C
BY-AP-MW-25VM	9/2/2020 9:40	Turbidity	3.31	NTU
BY-AP-MW-25VM	9/2/2020 9:45	Conductivity	28.64	uS/cm
BY-AP-MW-25VM	9/2/2020 9:45	DO	2.7	mg/L
BY-AP-MW-25VM	9/2/2020 9:45	Depth to Water Detail	20.75	ft
BY-AP-MW-25VM	9/2/2020 9:45	Oxidation Reduction Potention	181.8	mv
BY-AP-MW-25VM	9/2/2020 9:45	pH	5.13	pH
BY-AP-MW-25VM	9/2/2020 9:45	Temperature	22.59	C
BY-AP-MW-25VM	9/2/2020 9:45	Turbidity	3.16	NTU
BY-AP-MW-25VM	9/2/2020 9:50	Conductivity	30.05	uS/cm
BY-AP-MW-25VM	9/2/2020 9:50	DO	2.8	mg/L
BY-AP-MW-25VM	9/2/2020 9:50	Depth to Water Detail	20.75	ft
BY-AP-MW-25VM	9/2/2020 9:50	Oxidation Reduction Potention	179.28	mv
BY-AP-MW-25VM	9/2/2020 9:50	pH	5.21	pH
BY-AP-MW-25VM	9/2/2020 9:50	Temperature	22.56	C
BY-AP-MW-25VM	9/2/2020 9:50	Turbidity	2.54	NTU
BY-AP-MW-25VM	9/2/2020 9:55	Conductivity	30.97	uS/cm
BY-AP-MW-25VM	9/2/2020 9:55	DO	2.86	mg/L
BY-AP-MW-25VM	9/2/2020 9:55	Depth to Water Detail	20.75	ft
BY-AP-MW-25VM	9/2/2020 9:55	Oxidation Reduction Potention	177.54	mv
BY-AP-MW-25VM	9/2/2020 9:55	pH	5.27	pH
BY-AP-MW-25VM	9/2/2020 9:55	Temperature	22.53	C
BY-AP-MW-25VM	9/2/2020 9:55	Turbidity	2.26	NTU
BY-AP-MW-25VM	9/2/2020 10:00	Conductivity	31.68	uS/cm
BY-AP-MW-25VM	9/2/2020 10:00	DO	2.9	mg/L
BY-AP-MW-25VM	9/2/2020 10:00	Depth to Water Detail	20.75	ft
BY-AP-MW-25VM	9/2/2020 10:00	Oxidation Reduction Potention	177.32	mv
BY-AP-MW-25VM	9/2/2020 10:00	pH	5.3	pH
BY-AP-MW-25VM	9/2/2020 10:00	Temperature	22.52	C
BY-AP-MW-25VM	9/2/2020 10:00	Turbidity	2.11	NTU
BY-AP-MW-25VM	9/2/2020 10:05	Conductivity	32.15	uS/cm
BY-AP-MW-25VM	9/2/2020 10:05	DO	2.92	mg/L
BY-AP-MW-25VM	9/2/2020 10:05	Depth to Water Detail	20.75	ft
BY-AP-MW-25VM	9/2/2020 10:05	Oxidation Reduction Potention	177.89	mv
BY-AP-MW-25VM	9/2/2020 10:05	pH	5.31	pH
BY-AP-MW-25VM	9/2/2020 10:05	Temperature	22.5	C
BY-AP-MW-25VM	9/2/2020 10:05	Turbidity	2.07	NTU
BY-AP-MW-25VM	9/2/2020 10:10	Conductivity	32.18	uS/cm
BY-AP-MW-25VM	9/2/2020 10:10	DO	2.92	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-25VM	9/2/2020 10:10	Depth to Water Detail	20.75	ft
BY-AP-MW-25VM	9/2/2020 10:10	Oxidation Reduction Potention	178.3	mv
BY-AP-MW-25VM	9/2/2020 10:10	pH	5.32	pH
BY-AP-MW-25VM	9/2/2020 10:10	Temperature	22.53	C
BY-AP-MW-25VM	9/2/2020 10:10	Turbidity	2.09	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-16V	9/2/2020 14:57	Conductivity	373.35	uS/cm
BY-AP-MW-16V	9/2/2020 14:57	DO	0.21	mg/L
BY-AP-MW-16V	9/2/2020 14:57	Depth to Water Detail	20.48	ft
BY-AP-MW-16V	9/2/2020 14:57	Oxidation Reduction Potention	77.37	mv
BY-AP-MW-16V	9/2/2020 14:57	pH	5.18	pH
BY-AP-MW-16V	9/2/2020 14:57	Temperature	22.6	C
BY-AP-MW-16V	9/2/2020 14:57	Turbidity	7.41	NTU
BY-AP-MW-16V	9/2/2020 15:02	Conductivity	373.67	uS/cm
BY-AP-MW-16V	9/2/2020 15:02	DO	0.19	mg/L
BY-AP-MW-16V	9/2/2020 15:02	Depth to Water Detail	20.48	ft
BY-AP-MW-16V	9/2/2020 15:02	Oxidation Reduction Potention	85.06	mv
BY-AP-MW-16V	9/2/2020 15:02	pH	5.16	pH
BY-AP-MW-16V	9/2/2020 15:02	Temperature	22.6	C
BY-AP-MW-16V	9/2/2020 15:02	Turbidity	5.24	NTU
BY-AP-MW-16V	9/2/2020 15:07	Conductivity	374.41	uS/cm
BY-AP-MW-16V	9/2/2020 15:07	DO	0.19	mg/L
BY-AP-MW-16V	9/2/2020 15:07	Depth to Water Detail	20.48	ft
BY-AP-MW-16V	9/2/2020 15:07	Oxidation Reduction Potention	87.16	mv
BY-AP-MW-16V	9/2/2020 15:07	pH	5.19	pH
BY-AP-MW-16V	9/2/2020 15:07	Temperature	22.44	C
BY-AP-MW-16V	9/2/2020 15:07	Turbidity	3.39	NTU
BY-AP-MW-16V	9/2/2020 15:12	Conductivity	373.84	uS/cm
BY-AP-MW-16V	9/2/2020 15:12	DO	0.19	mg/L
BY-AP-MW-16V	9/2/2020 15:12	Depth to Water Detail	20.48	ft
BY-AP-MW-16V	9/2/2020 15:12	Oxidation Reduction Potention	87.51	mv
BY-AP-MW-16V	9/2/2020 15:12	pH	5.23	pH
BY-AP-MW-16V	9/2/2020 15:12	Temperature	22.67	C
BY-AP-MW-16V	9/2/2020 15:12	Turbidity	3.04	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-10V	9/1/2020 9:37	Conductivity	583.22	uS/cm
BY-AP-MW-10V	9/1/2020 9:37	DO	0.17	mg/L
BY-AP-MW-10V	9/1/2020 9:37	Depth to Water Detail	23.14	ft
BY-AP-MW-10V	9/1/2020 9:37	Oxidation Reduction Potention	-100.19	mv
BY-AP-MW-10V	9/1/2020 9:37	pH	6.31	pH
BY-AP-MW-10V	9/1/2020 9:37	Temperature	21.99	C
BY-AP-MW-10V	9/1/2020 9:37	Turbidity	1.76	NTU
BY-AP-MW-10V	9/1/2020 9:42	Conductivity	584.27	uS/cm
BY-AP-MW-10V	9/1/2020 9:42	DO	0.16	mg/L
BY-AP-MW-10V	9/1/2020 9:42	Depth to Water Detail	23.14	ft
BY-AP-MW-10V	9/1/2020 9:42	Oxidation Reduction Potention	-103.25	mv
BY-AP-MW-10V	9/1/2020 9:42	pH	6.32	pH
BY-AP-MW-10V	9/1/2020 9:42	Temperature	22.04	C
BY-AP-MW-10V	9/1/2020 9:42	Turbidity	2.34	NTU
BY-AP-MW-10V	9/1/2020 9:47	Conductivity	591.28	uS/cm
BY-AP-MW-10V	9/1/2020 9:47	DO	0.15	mg/L
BY-AP-MW-10V	9/1/2020 9:47	Depth to Water Detail	23.14	ft
BY-AP-MW-10V	9/1/2020 9:47	Oxidation Reduction Potention	-103.9	mv
BY-AP-MW-10V	9/1/2020 9:47	pH	6.33	pH
BY-AP-MW-10V	9/1/2020 9:47	Temperature	21.89	C
BY-AP-MW-10V	9/1/2020 9:47	Turbidity	1.82	NTU
BY-AP-MW-10V	9/1/2020 9:52	Conductivity	601	uS/cm
BY-AP-MW-10V	9/1/2020 9:52	DO	0.16	mg/L
BY-AP-MW-10V	9/1/2020 9:52	Depth to Water Detail	23.14	ft
BY-AP-MW-10V	9/1/2020 9:52	Oxidation Reduction Potention	-104.04	mv
BY-AP-MW-10V	9/1/2020 9:52	pH	6.34	pH
BY-AP-MW-10V	9/1/2020 9:52	Temperature	21.85	C
BY-AP-MW-10V	9/1/2020 9:52	Turbidity	1.42	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-11	9/1/2020 11:05	Conductivity	512.87	uS/cm
BY-AP-MW-11	9/1/2020 11:05	DO	0.14	mg/L
BY-AP-MW-11	9/1/2020 11:05	Depth to Water Detail	23.39	ft
BY-AP-MW-11	9/1/2020 11:05	Oxidation Reduction Potention	-43.95	mv
BY-AP-MW-11	9/1/2020 11:05	pH	5.88	pH
BY-AP-MW-11	9/1/2020 11:05	Temperature	21.82	C
BY-AP-MW-11	9/1/2020 11:05	Turbidity	7.73	NTU
BY-AP-MW-11	9/1/2020 11:10	Conductivity	510.52	uS/cm
BY-AP-MW-11	9/1/2020 11:10	DO	0.13	mg/L
BY-AP-MW-11	9/1/2020 11:10	Depth to Water Detail	23.39	ft
BY-AP-MW-11	9/1/2020 11:10	Oxidation Reduction Potention	-43.59	mv
BY-AP-MW-11	9/1/2020 11:10	pH	5.85	pH
BY-AP-MW-11	9/1/2020 11:10	Temperature	21.69	C
BY-AP-MW-11	9/1/2020 11:10	Turbidity	5.9	NTU
BY-AP-MW-11	9/1/2020 11:15	Conductivity	550.66	uS/cm
BY-AP-MW-11	9/1/2020 11:15	DO	0.12	mg/L
BY-AP-MW-11	9/1/2020 11:15	Depth to Water Detail	23.39	ft
BY-AP-MW-11	9/1/2020 11:15	Oxidation Reduction Potention	-46.65	mv
BY-AP-MW-11	9/1/2020 11:15	pH	5.85	pH
BY-AP-MW-11	9/1/2020 11:15	Temperature	21.62	C
BY-AP-MW-11	9/1/2020 11:15	Turbidity	8.24	NTU
BY-AP-MW-11	9/1/2020 11:20	Conductivity	548.86	uS/cm
BY-AP-MW-11	9/1/2020 11:20	DO	0.12	mg/L
BY-AP-MW-11	9/1/2020 11:20	Depth to Water Detail	23.39	ft
BY-AP-MW-11	9/1/2020 11:20	Oxidation Reduction Potention	-47.05	mv
BY-AP-MW-11	9/1/2020 11:20	pH	5.86	pH
BY-AP-MW-11	9/1/2020 11:20	Temperature	21.56	C
BY-AP-MW-11	9/1/2020 11:20	Turbidity	4.3	NTU
BY-AP-MW-11	9/1/2020 11:25	Conductivity	547.59	uS/cm
BY-AP-MW-11	9/1/2020 11:25	DO	0.12	mg/L
BY-AP-MW-11	9/1/2020 11:25	Depth to Water Detail	23.39	ft
BY-AP-MW-11	9/1/2020 11:25	Oxidation Reduction Potention	-47.07	mv
BY-AP-MW-11	9/1/2020 11:25	pH	5.87	pH
BY-AP-MW-11	9/1/2020 11:25	Temperature	21.5	C
BY-AP-MW-11	9/1/2020 11:25	Turbidity	4.99	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12	9/1/2020 13:10	Conductivity	498.3	uS/cm
BY-AP-MW-12	9/1/2020 13:10	DO	0.17	mg/L
BY-AP-MW-12	9/1/2020 13:10	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 13:10	Oxidation Reduction Potention	-52.8	mv
BY-AP-MW-12	9/1/2020 13:10	pH	6.16	pH
BY-AP-MW-12	9/1/2020 13:10	Temperature	21.37	C
BY-AP-MW-12	9/1/2020 13:10	Turbidity	8.75	NTU
BY-AP-MW-12	9/1/2020 13:15	Conductivity	482.93	uS/cm
BY-AP-MW-12	9/1/2020 13:15	DO	0.16	mg/L
BY-AP-MW-12	9/1/2020 13:15	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 13:15	Oxidation Reduction Potention	-54.84	mv
BY-AP-MW-12	9/1/2020 13:15	pH	6.17	pH
BY-AP-MW-12	9/1/2020 13:15	Temperature	21.24	C
BY-AP-MW-12	9/1/2020 13:15	Turbidity	11.67	NTU
BY-AP-MW-12	9/1/2020 13:20	Conductivity	468.51	uS/cm
BY-AP-MW-12	9/1/2020 13:20	DO	0.16	mg/L
BY-AP-MW-12	9/1/2020 13:20	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 13:20	Oxidation Reduction Potention	-56.51	mv
BY-AP-MW-12	9/1/2020 13:20	pH	6.17	pH
BY-AP-MW-12	9/1/2020 13:20	Temperature	21.27	C
BY-AP-MW-12	9/1/2020 13:20	Turbidity	8.3	NTU
BY-AP-MW-12	9/1/2020 13:25	Conductivity	455.35	uS/cm
BY-AP-MW-12	9/1/2020 13:25	DO	0.16	mg/L
BY-AP-MW-12	9/1/2020 13:25	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 13:25	Oxidation Reduction Potention	-56.22	mv
BY-AP-MW-12	9/1/2020 13:25	pH	6.18	pH
BY-AP-MW-12	9/1/2020 13:25	Temperature	21.45	C
BY-AP-MW-12	9/1/2020 13:25	Turbidity	4.71	NTU
BY-AP-MW-12	9/1/2020 13:30	Conductivity	517.92	uS/cm
BY-AP-MW-12	9/1/2020 13:30	DO	0.15	mg/L
BY-AP-MW-12	9/1/2020 13:30	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 13:30	Oxidation Reduction Potention	-58.01	mv
BY-AP-MW-12	9/1/2020 13:30	pH	6.19	pH
BY-AP-MW-12	9/1/2020 13:30	Temperature	21.5	C
BY-AP-MW-12	9/1/2020 13:30	Turbidity	7.02	NTU
BY-AP-MW-12	9/1/2020 13:35	Conductivity	492.97	uS/cm
BY-AP-MW-12	9/1/2020 13:35	DO	0.15	mg/L
BY-AP-MW-12	9/1/2020 13:35	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 13:35	Oxidation Reduction Potention	-57.53	mv
BY-AP-MW-12	9/1/2020 13:35	pH	6.19	pH
BY-AP-MW-12	9/1/2020 13:35	Temperature	21.57	C
BY-AP-MW-12	9/1/2020 13:35	Turbidity	5.17	NTU
BY-AP-MW-12	9/1/2020 13:40	Conductivity	519.13	uS/cm
BY-AP-MW-12	9/1/2020 13:40	DO	0.15	mg/L

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Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12	9/1/2020 13:40	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 13:40	Oxidation Reduction Potention	-58.29	mv
BY-AP-MW-12	9/1/2020 13:40	pH	6.2	pH
BY-AP-MW-12	9/1/2020 13:40	Temperature	21.49	C
BY-AP-MW-12	9/1/2020 13:40	Turbidity	7.68	NTU
BY-AP-MW-12	9/1/2020 13:45	Conductivity	519.43	uS/cm
BY-AP-MW-12	9/1/2020 13:45	DO	0.15	mg/L
BY-AP-MW-12	9/1/2020 13:45	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 13:45	Oxidation Reduction Potention	-58.2	mv
BY-AP-MW-12	9/1/2020 13:45	pH	6.21	pH
BY-AP-MW-12	9/1/2020 13:45	Temperature	21.51	C
BY-AP-MW-12	9/1/2020 13:45	Turbidity	8.38	NTU
BY-AP-MW-12	9/1/2020 13:50	Conductivity	476.99	uS/cm
BY-AP-MW-12	9/1/2020 13:50	DO	0.15	mg/L
BY-AP-MW-12	9/1/2020 13:50	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 13:50	Oxidation Reduction Potention	-57.82	mv
BY-AP-MW-12	9/1/2020 13:50	pH	6.21	pH
BY-AP-MW-12	9/1/2020 13:50	Temperature	21.58	C
BY-AP-MW-12	9/1/2020 13:50	Turbidity	6.32	NTU
BY-AP-MW-12	9/1/2020 13:55	Conductivity	464.84	uS/cm
BY-AP-MW-12	9/1/2020 13:55	DO	0.15	mg/L
BY-AP-MW-12	9/1/2020 13:55	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 13:55	Oxidation Reduction Potention	-57.78	mv
BY-AP-MW-12	9/1/2020 13:55	pH	6.21	pH
BY-AP-MW-12	9/1/2020 13:55	Temperature	21.57	C
BY-AP-MW-12	9/1/2020 13:55	Turbidity	2.1	NTU
BY-AP-MW-12	9/1/2020 14:00	Conductivity	500.81	uS/cm
BY-AP-MW-12	9/1/2020 14:00	DO	0.15	mg/L
BY-AP-MW-12	9/1/2020 14:00	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 14:00	Oxidation Reduction Potention	-55.69	mv
BY-AP-MW-12	9/1/2020 14:00	pH	6.18	pH
BY-AP-MW-12	9/1/2020 14:00	Temperature	21.57	C
BY-AP-MW-12	9/1/2020 14:00	Turbidity	0.9	NTU
BY-AP-MW-12	9/1/2020 14:05	Conductivity	499.05	uS/cm
BY-AP-MW-12	9/1/2020 14:05	DO	0.15	mg/L
BY-AP-MW-12	9/1/2020 14:05	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 14:05	Oxidation Reduction Potention	-56.74	mv
BY-AP-MW-12	9/1/2020 14:05	pH	6.19	pH
BY-AP-MW-12	9/1/2020 14:05	Temperature	21.62	C
BY-AP-MW-12	9/1/2020 14:05	Turbidity	3.12	NTU
BY-AP-MW-12	9/1/2020 14:10	Conductivity	487.32	uS/cm
BY-AP-MW-12	9/1/2020 14:10	DO	0.15	mg/L
BY-AP-MW-12	9/1/2020 14:10	Depth to Water Detail	21.08	ft
BY-AP-MW-12	9/1/2020 14:10	Oxidation Reduction Potention	-58.58	mv

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12	9/1/2020 14:10	pH	6.19	pH
BY-AP-MW-12	9/1/2020 14:10	Temperature	21.54	C
BY-AP-MW-12	9/1/2020 14:10	Turbidity	1.59	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-12V	9/1/2020 12:17	Conductivity	503.62	uS/cm
BY-AP-MW-12V	9/1/2020 12:17	DO	0.19	mg/L
BY-AP-MW-12V	9/1/2020 12:17	Depth to Water Detail	20.83	ft
BY-AP-MW-12V	9/1/2020 12:17	Oxidation Reduction Potention	-59.79	mv
BY-AP-MW-12V	9/1/2020 12:17	pH	6.2	pH
BY-AP-MW-12V	9/1/2020 12:17	Temperature	21.44	C
BY-AP-MW-12V	9/1/2020 12:17	Turbidity	6.05	NTU
BY-AP-MW-12V	9/1/2020 12:22	Conductivity	491.48	uS/cm
BY-AP-MW-12V	9/1/2020 12:22	DO	0.17	mg/L
BY-AP-MW-12V	9/1/2020 12:22	Depth to Water Detail	20.85	ft
BY-AP-MW-12V	9/1/2020 12:22	Oxidation Reduction Potention	-62.47	mv
BY-AP-MW-12V	9/1/2020 12:22	pH	6.19	pH
BY-AP-MW-12V	9/1/2020 12:22	Temperature	21.41	C
BY-AP-MW-12V	9/1/2020 12:22	Turbidity	4.62	NTU
BY-AP-MW-12V	9/1/2020 12:27	Conductivity	486.23	uS/cm
BY-AP-MW-12V	9/1/2020 12:27	DO	0.17	mg/L
BY-AP-MW-12V	9/1/2020 12:27	Depth to Water Detail	20.85	ft
BY-AP-MW-12V	9/1/2020 12:27	Oxidation Reduction Potention	-64.85	mv
BY-AP-MW-12V	9/1/2020 12:27	pH	6.19	pH
BY-AP-MW-12V	9/1/2020 12:27	Temperature	21.38	C
BY-AP-MW-12V	9/1/2020 12:27	Turbidity	3.84	NTU
BY-AP-MW-12V	9/1/2020 12:32	Conductivity	488.91	uS/cm
BY-AP-MW-12V	9/1/2020 12:32	DO	0.17	mg/L
BY-AP-MW-12V	9/1/2020 12:32	Depth to Water Detail	20.85	ft
BY-AP-MW-12V	9/1/2020 12:32	Oxidation Reduction Potention	-66.11	mv
BY-AP-MW-12V	9/1/2020 12:32	pH	6.2	pH
BY-AP-MW-12V	9/1/2020 12:32	Temperature	21.33	C
BY-AP-MW-12V	9/1/2020 12:32	Turbidity	3.17	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-13	9/1/2020 16:25	Conductivity	382.59	uS/cm
BY-AP-MW-13	9/1/2020 16:25	DO	0.16	mg/L
BY-AP-MW-13	9/1/2020 16:25	Depth to Water Detail	21.23	ft
BY-AP-MW-13	9/1/2020 16:25	Oxidation Reduction Potention	9.93	mv
BY-AP-MW-13	9/1/2020 16:25	pH	5.8	pH
BY-AP-MW-13	9/1/2020 16:25	Temperature	21.46	C
BY-AP-MW-13	9/1/2020 16:25	Turbidity	5.19	NTU
BY-AP-MW-13	9/1/2020 16:30	Conductivity	391.62	uS/cm
BY-AP-MW-13	9/1/2020 16:30	DO	0.14	mg/L
BY-AP-MW-13	9/1/2020 16:30	Depth to Water Detail	21.23	ft
BY-AP-MW-13	9/1/2020 16:30	Oxidation Reduction Potention	3.85	mv
BY-AP-MW-13	9/1/2020 16:30	pH	5.77	pH
BY-AP-MW-13	9/1/2020 16:30	Temperature	21.19	C
BY-AP-MW-13	9/1/2020 16:30	Turbidity	3.98	NTU
BY-AP-MW-13	9/1/2020 16:35	Conductivity	391.3	uS/cm
BY-AP-MW-13	9/1/2020 16:35	DO	0.13	mg/L
BY-AP-MW-13	9/1/2020 16:35	Depth to Water Detail	21.23	ft
BY-AP-MW-13	9/1/2020 16:35	Oxidation Reduction Potention	1.16	mv
BY-AP-MW-13	9/1/2020 16:35	pH	5.79	pH
BY-AP-MW-13	9/1/2020 16:35	Temperature	21.19	C
BY-AP-MW-13	9/1/2020 16:35	Turbidity	4.49	NTU
BY-AP-MW-13	9/1/2020 16:40	Conductivity	390.87	uS/cm
BY-AP-MW-13	9/1/2020 16:40	DO	0.13	mg/L
BY-AP-MW-13	9/1/2020 16:40	Depth to Water Detail	21.23	ft
BY-AP-MW-13	9/1/2020 16:40	Oxidation Reduction Potention	-1.91	mv
BY-AP-MW-13	9/1/2020 16:40	pH	5.82	pH
BY-AP-MW-13	9/1/2020 16:40	Temperature	21.17	C
BY-AP-MW-13	9/1/2020 16:40	Turbidity	3	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-13V	9/2/2020 8:34	Conductivity	602.07	uS/cm
BY-AP-MW-13V	9/2/2020 8:34	DO	0.16	mg/L
BY-AP-MW-13V	9/2/2020 8:34	Depth to Water Detail	22.34	ft
BY-AP-MW-13V	9/2/2020 8:34	Oxidation Reduction Potention	-64.68	mv
BY-AP-MW-13V	9/2/2020 8:34	pH	6.18	pH
BY-AP-MW-13V	9/2/2020 8:34	Temperature	21.03	C
BY-AP-MW-13V	9/2/2020 8:34	Turbidity	4.21	NTU
BY-AP-MW-13V	9/2/2020 8:39	Conductivity	585.61	uS/cm
BY-AP-MW-13V	9/2/2020 8:39	DO	0.16	mg/L
BY-AP-MW-13V	9/2/2020 8:39	Depth to Water Detail	22.34	ft
BY-AP-MW-13V	9/2/2020 8:39	Oxidation Reduction Potention	-67.3	mv
BY-AP-MW-13V	9/2/2020 8:39	pH	6.2	pH
BY-AP-MW-13V	9/2/2020 8:39	Temperature	21.05	C
BY-AP-MW-13V	9/2/2020 8:39	Turbidity	5.32	NTU
BY-AP-MW-13V	9/2/2020 8:44	Conductivity	569.92	uS/cm
BY-AP-MW-13V	9/2/2020 8:44	DO	0.15	mg/L
BY-AP-MW-13V	9/2/2020 8:44	Depth to Water Detail	22.34	ft
BY-AP-MW-13V	9/2/2020 8:44	Oxidation Reduction Potention	-69.5	mv
BY-AP-MW-13V	9/2/2020 8:44	pH	6.22	pH
BY-AP-MW-13V	9/2/2020 8:44	Temperature	21.03	C
BY-AP-MW-13V	9/2/2020 8:44	Turbidity	4.14	NTU
BY-AP-MW-13V	9/2/2020 8:49	Conductivity	560.52	uS/cm
BY-AP-MW-13V	9/2/2020 8:49	DO	0.15	mg/L
BY-AP-MW-13V	9/2/2020 8:49	Depth to Water Detail	22.34	ft
BY-AP-MW-13V	9/2/2020 8:49	Oxidation Reduction Potention	-70.62	mv
BY-AP-MW-13V	9/2/2020 8:49	pH	6.23	pH
BY-AP-MW-13V	9/2/2020 8:49	Temperature	21.09	C
BY-AP-MW-13V	9/2/2020 8:49	Turbidity	4.7	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-14	9/2/2020 10:46	Conductivity	522.19	uS/cm
BY-AP-MW-14	9/2/2020 10:46	DO	0.21	mg/L
BY-AP-MW-14	9/2/2020 10:46	Depth to Water Detail	10.34	ft
BY-AP-MW-14	9/2/2020 10:46	Oxidation Reduction Potention	-10.46	mv
BY-AP-MW-14	9/2/2020 10:46	pH	5.78	pH
BY-AP-MW-14	9/2/2020 10:46	Temperature	20.98	C
BY-AP-MW-14	9/2/2020 10:46	Turbidity	2.45	NTU
BY-AP-MW-14	9/2/2020 10:51	Conductivity	524.59	uS/cm
BY-AP-MW-14	9/2/2020 10:51	DO	0.19	mg/L
BY-AP-MW-14	9/2/2020 10:51	Depth to Water Detail	10.34	ft
BY-AP-MW-14	9/2/2020 10:51	Oxidation Reduction Potention	-13.64	mv
BY-AP-MW-14	9/2/2020 10:51	pH	5.77	pH
BY-AP-MW-14	9/2/2020 10:51	Temperature	20.93	C
BY-AP-MW-14	9/2/2020 10:51	Turbidity	3.16	NTU
BY-AP-MW-14	9/2/2020 10:56	Conductivity	520.42	uS/cm
BY-AP-MW-14	9/2/2020 10:56	DO	0.18	mg/L
BY-AP-MW-14	9/2/2020 10:56	Depth to Water Detail	10.34	ft
BY-AP-MW-14	9/2/2020 10:56	Oxidation Reduction Potention	-15.96	mv
BY-AP-MW-14	9/2/2020 10:56	pH	5.78	pH
BY-AP-MW-14	9/2/2020 10:56	Temperature	20.96	C
BY-AP-MW-14	9/2/2020 10:56	Turbidity	3.27	NTU
BY-AP-MW-14	9/2/2020 11:01	Conductivity	517.2	uS/cm
BY-AP-MW-14	9/2/2020 11:01	DO	0.18	mg/L
BY-AP-MW-14	9/2/2020 11:01	Depth to Water Detail	10.34	ft
BY-AP-MW-14	9/2/2020 11:01	Oxidation Reduction Potention	-19.09	mv
BY-AP-MW-14	9/2/2020 11:01	pH	5.8	pH
BY-AP-MW-14	9/2/2020 11:01	Temperature	20.97	C
BY-AP-MW-14	9/2/2020 11:01	Turbidity	3.2	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-14V	9/2/2020 9:30	Conductivity	1074.54	uS/cm
BY-AP-MW-14V	9/2/2020 9:30	DO	0.16	mg/L
BY-AP-MW-14V	9/2/2020 9:30	Depth to Water Detail	22.47	ft
BY-AP-MW-14V	9/2/2020 9:30	Oxidation Reduction Potention	-210.15	mv
BY-AP-MW-14V	9/2/2020 9:30	pH	7.99	pH
BY-AP-MW-14V	9/2/2020 9:30	Temperature	21.67	C
BY-AP-MW-14V	9/2/2020 9:30	Turbidity	2.97	NTU
BY-AP-MW-14V	9/2/2020 9:35	Conductivity	947.35	uS/cm
BY-AP-MW-14V	9/2/2020 9:35	DO	0.17	mg/L
BY-AP-MW-14V	9/2/2020 9:35	Depth to Water Detail	22.47	ft
BY-AP-MW-14V	9/2/2020 9:35	Oxidation Reduction Potention	-154.14	mv
BY-AP-MW-14V	9/2/2020 9:35	pH	7.17	pH
BY-AP-MW-14V	9/2/2020 9:35	Temperature	21.62	C
BY-AP-MW-14V	9/2/2020 9:35	Turbidity	1.66	NTU
BY-AP-MW-14V	9/2/2020 9:40	Conductivity	923.54	uS/cm
BY-AP-MW-14V	9/2/2020 9:40	DO	0.18	mg/L
BY-AP-MW-14V	9/2/2020 9:40	Depth to Water Detail	22.47	ft
BY-AP-MW-14V	9/2/2020 9:40	Oxidation Reduction Potention	-142.23	mv
BY-AP-MW-14V	9/2/2020 9:40	pH	7.06	pH
BY-AP-MW-14V	9/2/2020 9:40	Temperature	21.63	C
BY-AP-MW-14V	9/2/2020 9:40	Turbidity	1.63	NTU
BY-AP-MW-14V	9/2/2020 9:45	Conductivity	910.82	uS/cm
BY-AP-MW-14V	9/2/2020 9:45	DO	0.18	mg/L
BY-AP-MW-14V	9/2/2020 9:45	Depth to Water Detail	22.47	ft
BY-AP-MW-14V	9/2/2020 9:45	Oxidation Reduction Potention	-137.7	mv
BY-AP-MW-14V	9/2/2020 9:45	pH	7.02	pH
BY-AP-MW-14V	9/2/2020 9:45	Temperature	21.59	C
BY-AP-MW-14V	9/2/2020 9:45	Turbidity	1.69	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15	9/2/2020 12:00	Conductivity	500.73	uS/cm
BY-AP-MW-15	9/2/2020 12:00	DO	0.15	mg/L
BY-AP-MW-15	9/2/2020 12:00	Depth to Water Detail	22.28	ft
BY-AP-MW-15	9/2/2020 12:00	Oxidation Reduction Potention	-104.07	mv
BY-AP-MW-15	9/2/2020 12:00	pH	6.4	pH
BY-AP-MW-15	9/2/2020 12:00	Temperature	22.01	C
BY-AP-MW-15	9/2/2020 12:00	Turbidity	8.4	NTU
BY-AP-MW-15	9/2/2020 12:05	Conductivity	490.05	uS/cm
BY-AP-MW-15	9/2/2020 12:05	DO	0.14	mg/L
BY-AP-MW-15	9/2/2020 12:05	Depth to Water Detail	22.28	ft
BY-AP-MW-15	9/2/2020 12:05	Oxidation Reduction Potention	-106.51	mv
BY-AP-MW-15	9/2/2020 12:05	pH	6.44	pH
BY-AP-MW-15	9/2/2020 12:05	Temperature	22	C
BY-AP-MW-15	9/2/2020 12:05	Turbidity	3.28	NTU
BY-AP-MW-15	9/2/2020 12:10	Conductivity	489.19	uS/cm
BY-AP-MW-15	9/2/2020 12:10	DO	0.14	mg/L
BY-AP-MW-15	9/2/2020 12:10	Depth to Water Detail	22.28	ft
BY-AP-MW-15	9/2/2020 12:10	Oxidation Reduction Potention	-110.47	mv
BY-AP-MW-15	9/2/2020 12:10	pH	6.52	pH
BY-AP-MW-15	9/2/2020 12:10	Temperature	21.94	C
BY-AP-MW-15	9/2/2020 12:10	Turbidity	2.55	NTU
BY-AP-MW-15	9/2/2020 12:15	Conductivity	487.31	uS/cm
BY-AP-MW-15	9/2/2020 12:15	DO	0.13	mg/L
BY-AP-MW-15	9/2/2020 12:15	Depth to Water Detail	22.28	ft
BY-AP-MW-15	9/2/2020 12:15	Oxidation Reduction Potention	-112.69	mv
BY-AP-MW-15	9/2/2020 12:15	pH	6.57	pH
BY-AP-MW-15	9/2/2020 12:15	Temperature	21.95	C
BY-AP-MW-15	9/2/2020 12:15	Turbidity	2.02	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-16	9/2/2020 14:02	Conductivity	444.35	uS/cm
BY-AP-MW-16	9/2/2020 14:02	DO	0.21	mg/L
BY-AP-MW-16	9/2/2020 14:02	Depth to Water Detail	21.94	ft
BY-AP-MW-16	9/2/2020 14:02	Oxidation Reduction Potention	26.95	mv
BY-AP-MW-16	9/2/2020 14:02	pH	5.42	pH
BY-AP-MW-16	9/2/2020 14:02	Temperature	22.26	C
BY-AP-MW-16	9/2/2020 14:02	Turbidity	4.27	NTU
BY-AP-MW-16	9/2/2020 14:07	Conductivity	444.96	uS/cm
BY-AP-MW-16	9/2/2020 14:07	DO	0.19	mg/L
BY-AP-MW-16	9/2/2020 14:07	Depth to Water Detail	21.94	ft
BY-AP-MW-16	9/2/2020 14:07	Oxidation Reduction Potention	24.26	mv
BY-AP-MW-16	9/2/2020 14:07	pH	5.41	pH
BY-AP-MW-16	9/2/2020 14:07	Temperature	22.25	C
BY-AP-MW-16	9/2/2020 14:07	Turbidity	3.34	NTU
BY-AP-MW-16	9/2/2020 14:12	Conductivity	444.73	uS/cm
BY-AP-MW-16	9/2/2020 14:12	DO	0.19	mg/L
BY-AP-MW-16	9/2/2020 14:12	Depth to Water Detail	21.94	ft
BY-AP-MW-16	9/2/2020 14:12	Oxidation Reduction Potention	20.33	mv
BY-AP-MW-16	9/2/2020 14:12	pH	5.44	pH
BY-AP-MW-16	9/2/2020 14:12	Temperature	22.29	C
BY-AP-MW-16	9/2/2020 14:12	Turbidity	2.64	NTU
BY-AP-MW-16	9/2/2020 14:17	Conductivity	449.02	uS/cm
BY-AP-MW-16	9/2/2020 14:17	DO	0.18	mg/L
BY-AP-MW-16	9/2/2020 14:17	Depth to Water Detail	21.94	ft
BY-AP-MW-16	9/2/2020 14:17	Oxidation Reduction Potention	16.81	mv
BY-AP-MW-16	9/2/2020 14:17	pH	5.47	pH
BY-AP-MW-16	9/2/2020 14:17	Temperature	22.13	C
BY-AP-MW-16	9/2/2020 14:17	Turbidity	2.55	NTU

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Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-10	9/1/2020 8:24	Conductivity	522.99	uS/cm
BY-AP-MW-10	9/1/2020 8:24	DO	0.24	mg/L
BY-AP-MW-10	9/1/2020 8:24	Depth to Water Detail	24.48	ft
BY-AP-MW-10	9/1/2020 8:24	Oxidation Reduction Potention	-113.4	mv
BY-AP-MW-10	9/1/2020 8:24	pH	6.31	pH
BY-AP-MW-10	9/1/2020 8:24	Temperature	22.18	C
BY-AP-MW-10	9/1/2020 8:24	Turbidity	0.5	NTU
BY-AP-MW-10	9/1/2020 8:29	Conductivity	558.3	uS/cm
BY-AP-MW-10	9/1/2020 8:29	DO	0.23	mg/L
BY-AP-MW-10	9/1/2020 8:29	Depth to Water Detail	24.48	ft
BY-AP-MW-10	9/1/2020 8:29	Oxidation Reduction Potention	-100.5	mv
BY-AP-MW-10	9/1/2020 8:29	pH	6.31	pH
BY-AP-MW-10	9/1/2020 8:29	Temperature	22.12	C
BY-AP-MW-10	9/1/2020 8:29	Turbidity	0.23	NTU
BY-AP-MW-10	9/1/2020 8:34	Conductivity	566.67	uS/cm
BY-AP-MW-10	9/1/2020 8:34	DO	0.23	mg/L
BY-AP-MW-10	9/1/2020 8:34	Depth to Water Detail	24.48	ft
BY-AP-MW-10	9/1/2020 8:34	Oxidation Reduction Potention	-92.08	mv
BY-AP-MW-10	9/1/2020 8:34	pH	6.32	pH
BY-AP-MW-10	9/1/2020 8:34	Temperature	22.05	C
BY-AP-MW-10	9/1/2020 8:34	Turbidity	0.38	NTU
BY-AP-MW-10	9/1/2020 8:39	Conductivity	515.41	uS/cm
BY-AP-MW-10	9/1/2020 8:39	DO	0.23	mg/L
BY-AP-MW-10	9/1/2020 8:39	Depth to Water Detail	24.48	ft
BY-AP-MW-10	9/1/2020 8:39	Oxidation Reduction Potention	-86.34	mv
BY-AP-MW-10	9/1/2020 8:39	pH	6.33	pH
BY-AP-MW-10	9/1/2020 8:39	Temperature	22.07	C
BY-AP-MW-10	9/1/2020 8:39	Turbidity	1.37	NTU
BY-AP-MW-10	9/1/2020 8:44	Conductivity	540.93	uS/cm
BY-AP-MW-10	9/1/2020 8:44	DO	0.24	mg/L
BY-AP-MW-10	9/1/2020 8:44	Depth to Water Detail	24.48	ft
BY-AP-MW-10	9/1/2020 8:44	Oxidation Reduction Potention	-87.89	mv
BY-AP-MW-10	9/1/2020 8:44	pH	6.33	pH
BY-AP-MW-10	9/1/2020 8:44	Temperature	22.06	C
BY-AP-MW-10	9/1/2020 8:44	Turbidity	0.5	NTU
BY-AP-MW-10	9/1/2020 8:49	Conductivity	548.38	uS/cm
BY-AP-MW-10	9/1/2020 8:49	DO	0.22	mg/L
BY-AP-MW-10	9/1/2020 8:49	Depth to Water Detail	24.48	ft
BY-AP-MW-10	9/1/2020 8:49	Oxidation Reduction Potention	-85.8	mv
BY-AP-MW-10	9/1/2020 8:49	pH	6.33	pH
BY-AP-MW-10	9/1/2020 8:49	Temperature	22.07	C
BY-AP-MW-10	9/1/2020 8:49	Turbidity	0.69	NTU
BY-AP-MW-10	9/1/2020 8:54	Conductivity	551.38	uS/cm
BY-AP-MW-10	9/1/2020 8:54	DO	0.23	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-10	9/1/2020 8:54	Depth to Water Detail	24.48	ft
BY-AP-MW-10	9/1/2020 8:54	Oxidation Reduction Potention	-84.51	mv
BY-AP-MW-10	9/1/2020 8:54	pH	6.33	pH
BY-AP-MW-10	9/1/2020 8:54	Temperature	22.04	C
BY-AP-MW-10	9/1/2020 8:54	Turbidity	0.23	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-20V	9/1/2020 15:10	Conductivity	488.49	uS/cm
BY-AP-MW-20V	9/1/2020 15:10	DO	0.31	mg/L
BY-AP-MW-20V	9/1/2020 15:10	Depth to Water Detail	22.14	ft
BY-AP-MW-20V	9/1/2020 15:10	Oxidation Reduction Potention	-54.93	mv
BY-AP-MW-20V	9/1/2020 15:10	pH	6.04	pH
BY-AP-MW-20V	9/1/2020 15:10	Temperature	21.83	C
BY-AP-MW-20V	9/1/2020 15:10	Turbidity	4.73	NTU
BY-AP-MW-20V	9/1/2020 15:15	Conductivity	480.38	uS/cm
BY-AP-MW-20V	9/1/2020 15:15	DO	0.28	mg/L
BY-AP-MW-20V	9/1/2020 15:15	Depth to Water Detail	22.14	ft
BY-AP-MW-20V	9/1/2020 15:15	Oxidation Reduction Potention	-55.68	mv
BY-AP-MW-20V	9/1/2020 15:15	pH	6.01	pH
BY-AP-MW-20V	9/1/2020 15:15	Temperature	21.7	C
BY-AP-MW-20V	9/1/2020 15:15	Turbidity	2.55	NTU
BY-AP-MW-20V	9/1/2020 15:20	Conductivity	475.4	uS/cm
BY-AP-MW-20V	9/1/2020 15:20	DO	0.27	mg/L
BY-AP-MW-20V	9/1/2020 15:20	Depth to Water Detail	22.14	ft
BY-AP-MW-20V	9/1/2020 15:20	Oxidation Reduction Potention	-55.94	mv
BY-AP-MW-20V	9/1/2020 15:20	pH	6.02	pH
BY-AP-MW-20V	9/1/2020 15:20	Temperature	21.5	C
BY-AP-MW-20V	9/1/2020 15:20	Turbidity	2.26	NTU
BY-AP-MW-20V	9/1/2020 15:25	Conductivity	469.67	uS/cm
BY-AP-MW-20V	9/1/2020 15:25	DO	0.27	mg/L
BY-AP-MW-20V	9/1/2020 15:25	Depth to Water Detail	22.14	ft
BY-AP-MW-20V	9/1/2020 15:25	Oxidation Reduction Potention	-56.17	mv
BY-AP-MW-20V	9/1/2020 15:25	pH	6.03	pH
BY-AP-MW-20V	9/1/2020 15:25	Temperature	21.48	C
BY-AP-MW-20V	9/1/2020 15:25	Turbidity	1.98	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-24H	9/2/2020 13:04	Conductivity	763.99	uS/cm
BY-AP-MW-24H	9/2/2020 13:04	DO	0.19	mg/L
BY-AP-MW-24H	9/2/2020 13:04	Depth to Water Detail	23.59	ft
BY-AP-MW-24H	9/2/2020 13:04	Oxidation Reduction Potention	-59.38	mv
BY-AP-MW-24H	9/2/2020 13:04	pH	5.96	pH
BY-AP-MW-24H	9/2/2020 13:04	Temperature	22.5	C
BY-AP-MW-24H	9/2/2020 13:04	Turbidity	6.01	NTU
BY-AP-MW-24H	9/2/2020 13:09	Conductivity	765.93	uS/cm
BY-AP-MW-24H	9/2/2020 13:09	DO	0.17	mg/L
BY-AP-MW-24H	9/2/2020 13:09	Depth to Water Detail	23.59	ft
BY-AP-MW-24H	9/2/2020 13:09	Oxidation Reduction Potention	-62.74	mv
BY-AP-MW-24H	9/2/2020 13:09	pH	5.96	pH
BY-AP-MW-24H	9/2/2020 13:09	Temperature	22.2	C
BY-AP-MW-24H	9/2/2020 13:09	Turbidity	3.9	NTU
BY-AP-MW-24H	9/2/2020 13:14	Conductivity	767.61	uS/cm
BY-AP-MW-24H	9/2/2020 13:14	DO	0.17	mg/L
BY-AP-MW-24H	9/2/2020 13:14	Depth to Water Detail	23.59	ft
BY-AP-MW-24H	9/2/2020 13:14	Oxidation Reduction Potention	-64.37	mv
BY-AP-MW-24H	9/2/2020 13:14	pH	5.99	pH
BY-AP-MW-24H	9/2/2020 13:14	Temperature	22.2	C
BY-AP-MW-24H	9/2/2020 13:14	Turbidity	3.2	NTU
BY-AP-MW-24H	9/2/2020 13:19	Conductivity	767.26	uS/cm
BY-AP-MW-24H	9/2/2020 13:19	DO	0.17	mg/L
BY-AP-MW-24H	9/2/2020 13:19	Depth to Water Detail	23.59	ft
BY-AP-MW-24H	9/2/2020 13:19	Oxidation Reduction Potention	-66.26	mv
BY-AP-MW-24H	9/2/2020 13:19	pH	6.01	pH
BY-AP-MW-24H	9/2/2020 13:19	Temperature	22.15	C
BY-AP-MW-24H	9/2/2020 13:19	Turbidity	2.52	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-15V	9/1/2020 13:38	Conductivity	589.38	uS/cm
BY-AP-MW-15V	9/1/2020 13:38	DO	0.34	mg/L
BY-AP-MW-15V	9/1/2020 13:38	Depth to Water Detail	4	ft
BY-AP-MW-15V	9/1/2020 13:38	Oxidation Reduction Potention	9.36	mv
BY-AP-MW-15V	9/1/2020 13:38	pH	5.87	pH
BY-AP-MW-15V	9/1/2020 13:38	Temperature	21.72	C
BY-AP-MW-15V	9/1/2020 13:38	Turbidity	2	NTU
BY-AP-MW-15V	9/1/2020 13:43	Conductivity	589.36	uS/cm
BY-AP-MW-15V	9/1/2020 13:43	DO	0.26	mg/L
BY-AP-MW-15V	9/1/2020 13:43	Depth to Water Detail	4	ft
BY-AP-MW-15V	9/1/2020 13:43	Oxidation Reduction Potention	6.17	mv
BY-AP-MW-15V	9/1/2020 13:43	pH	5.88	pH
BY-AP-MW-15V	9/1/2020 13:43	Temperature	21.7	C
BY-AP-MW-15V	9/1/2020 13:43	Turbidity	1.23	NTU
BY-AP-MW-15V	9/1/2020 13:48	Conductivity	589.72	uS/cm
BY-AP-MW-15V	9/1/2020 13:48	DO	0.23	mg/L
BY-AP-MW-15V	9/1/2020 13:48	Depth to Water Detail	4	ft
BY-AP-MW-15V	9/1/2020 13:48	Oxidation Reduction Potention	4.02	mv
BY-AP-MW-15V	9/1/2020 13:48	pH	5.88	pH
BY-AP-MW-15V	9/1/2020 13:48	Temperature	21.67	C
BY-AP-MW-15V	9/1/2020 13:48	Turbidity	0.87	NTU
BY-AP-MW-15V	9/1/2020 13:53	Conductivity	594.06	uS/cm
BY-AP-MW-15V	9/1/2020 13:53	DO	0.21	mg/L
BY-AP-MW-15V	9/1/2020 13:53	Depth to Water Detail	4	ft
BY-AP-MW-15V	9/1/2020 13:53	Oxidation Reduction Potention	2.08	mv
BY-AP-MW-15V	9/1/2020 13:53	pH	5.9	pH
BY-AP-MW-15V	9/1/2020 13:53	Temperature	21.6	C
BY-AP-MW-15V	9/1/2020 13:53	Turbidity	0.69	NTU
BY-AP-MW-15V	9/1/2020 13:58	Conductivity	602.68	uS/cm
BY-AP-MW-15V	9/1/2020 13:58	DO	0.21	mg/L
BY-AP-MW-15V	9/1/2020 13:58	Depth to Water Detail	4	ft
BY-AP-MW-15V	9/1/2020 13:58	Oxidation Reduction Potention	0.06	mv
BY-AP-MW-15V	9/1/2020 13:58	pH	5.91	pH
BY-AP-MW-15V	9/1/2020 13:58	Temperature	21.59	C
BY-AP-MW-15V	9/1/2020 13:58	Turbidity	0.9	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-18H	9/1/2020 10:20	Conductivity	490.53	uS/cm
BY-AP-MW-18H	9/1/2020 10:20	DO	0.16	mg/L
BY-AP-MW-18H	9/1/2020 10:20	Depth to Water Detail	7.8	ft
BY-AP-MW-18H	9/1/2020 10:20	Oxidation Reduction Potention	-65.31	mv
BY-AP-MW-18H	9/1/2020 10:20	pH	6.22	pH
BY-AP-MW-18H	9/1/2020 10:20	Temperature	20.92	C
BY-AP-MW-18H	9/1/2020 10:20	Turbidity	4.33	NTU
BY-AP-MW-18H	9/1/2020 10:25	Conductivity	492.99	uS/cm
BY-AP-MW-18H	9/1/2020 10:25	DO	0.15	mg/L
BY-AP-MW-18H	9/1/2020 10:25	Depth to Water Detail	7.8	ft
BY-AP-MW-18H	9/1/2020 10:25	Oxidation Reduction Potention	-64.51	mv
BY-AP-MW-18H	9/1/2020 10:25	pH	6.19	pH
BY-AP-MW-18H	9/1/2020 10:25	Temperature	20.85	C
BY-AP-MW-18H	9/1/2020 10:25	Turbidity	3.1	NTU
BY-AP-MW-18H	9/1/2020 10:30	Conductivity	491.96	uS/cm
BY-AP-MW-18H	9/1/2020 10:30	DO	0.13	mg/L
BY-AP-MW-18H	9/1/2020 10:30	Depth to Water Detail	7.8	ft
BY-AP-MW-18H	9/1/2020 10:30	Oxidation Reduction Potention	-64.03	mv
BY-AP-MW-18H	9/1/2020 10:30	pH	6.18	pH
BY-AP-MW-18H	9/1/2020 10:30	Temperature	20.79	C
BY-AP-MW-18H	9/1/2020 10:30	Turbidity	1.74	NTU
BY-AP-MW-18H	9/1/2020 10:35	Conductivity	493.12	uS/cm
BY-AP-MW-18H	9/1/2020 10:35	DO	0.14	mg/L
BY-AP-MW-18H	9/1/2020 10:35	Depth to Water Detail	7.8	ft
BY-AP-MW-18H	9/1/2020 10:35	Oxidation Reduction Potention	-63.17	mv
BY-AP-MW-18H	9/1/2020 10:35	pH	6.16	pH
BY-AP-MW-18H	9/1/2020 10:35	Temperature	20.82	C
BY-AP-MW-18H	9/1/2020 10:35	Turbidity	1.47	NTU
BY-AP-MW-18H	9/1/2020 10:40	Conductivity	492.66	uS/cm
BY-AP-MW-18H	9/1/2020 10:40	DO	0.13	mg/L
BY-AP-MW-18H	9/1/2020 10:40	Depth to Water Detail	7.8	ft
BY-AP-MW-18H	9/1/2020 10:40	Oxidation Reduction Potention	-62.71	mv
BY-AP-MW-18H	9/1/2020 10:40	pH	6.15	pH
BY-AP-MW-18H	9/1/2020 10:40	Temperature	20.81	C
BY-AP-MW-18H	9/1/2020 10:40	Turbidity	1.04	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-19H	9/1/2020 8:25	Conductivity	571.74	uS/cm
BY-AP-MW-19H	9/1/2020 8:25	DO	0.2	mg/L
BY-AP-MW-19H	9/1/2020 8:25	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 8:25	Oxidation Reduction Potention	-100.33	mv
BY-AP-MW-19H	9/1/2020 8:25	pH	6.33	pH
BY-AP-MW-19H	9/1/2020 8:25	Temperature	20.75	C
BY-AP-MW-19H	9/1/2020 8:25	Turbidity	6.54	NTU
BY-AP-MW-19H	9/1/2020 8:30	Conductivity	569.55	uS/cm
BY-AP-MW-19H	9/1/2020 8:30	DO	0.16	mg/L
BY-AP-MW-19H	9/1/2020 8:30	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 8:30	Oxidation Reduction Potention	-101.53	mv
BY-AP-MW-19H	9/1/2020 8:30	pH	6.33	pH
BY-AP-MW-19H	9/1/2020 8:30	Temperature	20.74	C
BY-AP-MW-19H	9/1/2020 8:30	Turbidity	0.9	NTU
BY-AP-MW-19H	9/1/2020 8:35	Conductivity	532.52	uS/cm
BY-AP-MW-19H	9/1/2020 8:35	DO	0.14	mg/L
BY-AP-MW-19H	9/1/2020 8:35	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 8:35	Oxidation Reduction Potention	-99.4	mv
BY-AP-MW-19H	9/1/2020 8:35	pH	6.34	pH
BY-AP-MW-19H	9/1/2020 8:35	Temperature	20.72	C
BY-AP-MW-19H	9/1/2020 8:35	Turbidity	0.76	NTU
BY-AP-MW-19H	9/1/2020 8:40	Conductivity	455.65	uS/cm
BY-AP-MW-19H	9/1/2020 8:40	DO	0.14	mg/L
BY-AP-MW-19H	9/1/2020 8:40	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 8:40	Oxidation Reduction Potention	-96.11	mv
BY-AP-MW-19H	9/1/2020 8:40	pH	6.33	pH
BY-AP-MW-19H	9/1/2020 8:40	Temperature	20.74	C
BY-AP-MW-19H	9/1/2020 8:40	Turbidity	1.1	NTU
BY-AP-MW-19H	9/1/2020 8:45	Conductivity	436.13	uS/cm
BY-AP-MW-19H	9/1/2020 8:45	DO	0.13	mg/L
BY-AP-MW-19H	9/1/2020 8:45	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 8:45	Oxidation Reduction Potention	-94.81	mv
BY-AP-MW-19H	9/1/2020 8:45	pH	6.33	pH
BY-AP-MW-19H	9/1/2020 8:45	Temperature	20.7	C
BY-AP-MW-19H	9/1/2020 8:45	Turbidity	1.24	NTU
BY-AP-MW-19H	9/1/2020 8:50	Conductivity	383.53	uS/cm
BY-AP-MW-19H	9/1/2020 8:50	DO	0.13	mg/L
BY-AP-MW-19H	9/1/2020 8:50	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 8:50	Oxidation Reduction Potention	-94.03	mv
BY-AP-MW-19H	9/1/2020 8:50	pH	6.33	pH
BY-AP-MW-19H	9/1/2020 8:50	Temperature	20.71	C
BY-AP-MW-19H	9/1/2020 8:50	Turbidity	1.9	NTU
BY-AP-MW-19H	9/1/2020 8:55	Conductivity	465.02	uS/cm
BY-AP-MW-19H	9/1/2020 8:55	DO	0.13	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-19H	9/1/2020 8:55	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 8:55	Oxidation Reduction Potention	-93.27	mv
BY-AP-MW-19H	9/1/2020 8:55	pH	6.33	pH
BY-AP-MW-19H	9/1/2020 8:55	Temperature	20.7	C
BY-AP-MW-19H	9/1/2020 8:55	Turbidity	1.07	NTU
BY-AP-MW-19H	9/1/2020 9:00	Conductivity	429.74	uS/cm
BY-AP-MW-19H	9/1/2020 9:00	DO	0.12	mg/L
BY-AP-MW-19H	9/1/2020 9:00	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 9:00	Oxidation Reduction Potention	-92.8	mv
BY-AP-MW-19H	9/1/2020 9:00	pH	6.33	pH
BY-AP-MW-19H	9/1/2020 9:00	Temperature	20.71	C
BY-AP-MW-19H	9/1/2020 9:00	Turbidity	0.51	NTU
BY-AP-MW-19H	9/1/2020 9:05	Conductivity	558.83	uS/cm
BY-AP-MW-19H	9/1/2020 9:05	DO	0.14	mg/L
BY-AP-MW-19H	9/1/2020 9:05	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 9:05	Oxidation Reduction Potention	-90.6	mv
BY-AP-MW-19H	9/1/2020 9:05	pH	6.31	pH
BY-AP-MW-19H	9/1/2020 9:05	Temperature	20.61	C
BY-AP-MW-19H	9/1/2020 9:05	Turbidity	3.14	NTU
BY-AP-MW-19H	9/1/2020 9:10	Conductivity	558.09	uS/cm
BY-AP-MW-19H	9/1/2020 9:10	DO	0.12	mg/L
BY-AP-MW-19H	9/1/2020 9:10	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 9:10	Oxidation Reduction Potention	-91.01	mv
BY-AP-MW-19H	9/1/2020 9:10	pH	6.31	pH
BY-AP-MW-19H	9/1/2020 9:10	Temperature	20.68	C
BY-AP-MW-19H	9/1/2020 9:10	Turbidity	1.16	NTU
BY-AP-MW-19H	9/1/2020 9:15	Conductivity	554.46	uS/cm
BY-AP-MW-19H	9/1/2020 9:15	DO	0.12	mg/L
BY-AP-MW-19H	9/1/2020 9:15	Depth to Water Detail	6.97	ft
BY-AP-MW-19H	9/1/2020 9:15	Oxidation Reduction Potention	-90.15	mv
BY-AP-MW-19H	9/1/2020 9:15	pH	6.31	pH
BY-AP-MW-19H	9/1/2020 9:15	Temperature	20.64	C
BY-AP-MW-19H	9/1/2020 9:15	Turbidity	2.14	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-20H	9/1/2020 11:42	Conductivity	790.13	uS/cm
BY-AP-MW-20H	9/1/2020 11:42	DO	0.33	mg/L
BY-AP-MW-20H	9/1/2020 11:42	Depth to Water Detail	6.75	ft
BY-AP-MW-20H	9/1/2020 11:42	Oxidation Reduction Potention	-73.53	mv
BY-AP-MW-20H	9/1/2020 11:42	pH	6.22	pH
BY-AP-MW-20H	9/1/2020 11:42	Temperature	20.62	C
BY-AP-MW-20H	9/1/2020 11:42	Turbidity	16.7	NTU
BY-AP-MW-20H	9/1/2020 11:47	Conductivity	790.17	uS/cm
BY-AP-MW-20H	9/1/2020 11:47	DO	0.29	mg/L
BY-AP-MW-20H	9/1/2020 11:47	Depth to Water Detail	6.75	ft
BY-AP-MW-20H	9/1/2020 11:47	Oxidation Reduction Potention	-75.83	mv
BY-AP-MW-20H	9/1/2020 11:47	pH	6.2	pH
BY-AP-MW-20H	9/1/2020 11:47	Temperature	20.57	C
BY-AP-MW-20H	9/1/2020 11:47	Turbidity	13.7	NTU
BY-AP-MW-20H	9/1/2020 11:52	Conductivity	785.06	uS/cm
BY-AP-MW-20H	9/1/2020 11:52	DO	0.19	mg/L
BY-AP-MW-20H	9/1/2020 11:52	Depth to Water Detail	6.75	ft
BY-AP-MW-20H	9/1/2020 11:52	Oxidation Reduction Potention	-76.32	mv
BY-AP-MW-20H	9/1/2020 11:52	pH	6.19	pH
BY-AP-MW-20H	9/1/2020 11:52	Temperature	20.56	C
BY-AP-MW-20H	9/1/2020 11:52	Turbidity	11.73	NTU
BY-AP-MW-20H	9/1/2020 11:57	Conductivity	790.5	uS/cm
BY-AP-MW-20H	9/1/2020 11:57	DO	0.18	mg/L
BY-AP-MW-20H	9/1/2020 11:57	Depth to Water Detail	6.75	ft
BY-AP-MW-20H	9/1/2020 11:57	Oxidation Reduction Potention	-75.54	mv
BY-AP-MW-20H	9/1/2020 11:57	pH	6.17	pH
BY-AP-MW-20H	9/1/2020 11:57	Temperature	20.54	C
BY-AP-MW-20H	9/1/2020 11:57	Turbidity	5.8	NTU
BY-AP-MW-20H	9/1/2020 12:02	Conductivity	790.06	uS/cm
BY-AP-MW-20H	9/1/2020 12:02	DO	0.17	mg/L
BY-AP-MW-20H	9/1/2020 12:02	Depth to Water Detail	6.75	ft
BY-AP-MW-20H	9/1/2020 12:02	Oxidation Reduction Potention	-74.76	mv
BY-AP-MW-20H	9/1/2020 12:02	pH	6.15	pH
BY-AP-MW-20H	9/1/2020 12:02	Temperature	20.55	C
BY-AP-MW-20H	9/1/2020 12:02	Turbidity	3.41	NTU

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Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-22H	9/1/2020 12:49	Conductivity	674.34	uS/cm
BY-AP-MW-22H	9/1/2020 12:49	DO	0.2	mg/L
BY-AP-MW-22H	9/1/2020 12:49	Depth to Water Detail	5.42	ft
BY-AP-MW-22H	9/1/2020 12:49	Oxidation Reduction Potention	-93.75	mv
BY-AP-MW-22H	9/1/2020 12:49	pH	6.54	pH
BY-AP-MW-22H	9/1/2020 12:49	Temperature	20.76	C
BY-AP-MW-22H	9/1/2020 12:49	Turbidity	3.99	NTU
BY-AP-MW-22H	9/1/2020 12:54	Conductivity	672.42	uS/cm
BY-AP-MW-22H	9/1/2020 12:54	DO	0.17	mg/L
BY-AP-MW-22H	9/1/2020 12:54	Depth to Water Detail	5.42	ft
BY-AP-MW-22H	9/1/2020 12:54	Oxidation Reduction Potention	-94.84	mv
BY-AP-MW-22H	9/1/2020 12:54	pH	6.51	pH
BY-AP-MW-22H	9/1/2020 12:54	Temperature	20.69	C
BY-AP-MW-22H	9/1/2020 12:54	Turbidity	3.06	NTU
BY-AP-MW-22H	9/1/2020 12:59	Conductivity	673.39	uS/cm
BY-AP-MW-22H	9/1/2020 12:59	DO	0.15	mg/L
BY-AP-MW-22H	9/1/2020 12:59	Depth to Water Detail	5.42	ft
BY-AP-MW-22H	9/1/2020 12:59	Oxidation Reduction Potention	-94.88	mv
BY-AP-MW-22H	9/1/2020 12:59	pH	6.49	pH
BY-AP-MW-22H	9/1/2020 12:59	Temperature	20.7	C
BY-AP-MW-22H	9/1/2020 12:59	Turbidity	2.58	NTU
BY-AP-MW-22H	9/1/2020 13:04	Conductivity	675.82	uS/cm
BY-AP-MW-22H	9/1/2020 13:04	DO	0.16	mg/L
BY-AP-MW-22H	9/1/2020 13:04	Depth to Water Detail	5.42	ft
BY-AP-MW-22H	9/1/2020 13:04	Oxidation Reduction Potention	-95.19	mv
BY-AP-MW-22H	9/1/2020 13:04	pH	6.48	pH
BY-AP-MW-22H	9/1/2020 13:04	Temperature	20.71	C
BY-AP-MW-22H	9/1/2020 13:04	Turbidity	2.55	NTU

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23H	9/1/2020 15:16	Conductivity	472.31	uS/cm
BY-AP-MW-23H	9/1/2020 15:16	DO	0.32	mg/L
BY-AP-MW-23H	9/1/2020 15:16	Depth to Water Detail	7.89	ft
BY-AP-MW-23H	9/1/2020 15:16	Oxidation Reduction Potention	-55.58	mv
BY-AP-MW-23H	9/1/2020 15:16	pH	6.29	pH
BY-AP-MW-23H	9/1/2020 15:16	Temperature	20.95	C
BY-AP-MW-23H	9/1/2020 15:16	Turbidity	7.58	NTU
BY-AP-MW-23H	9/1/2020 15:21	Conductivity	489.7	uS/cm
BY-AP-MW-23H	9/1/2020 15:21	DO	0.24	mg/L
BY-AP-MW-23H	9/1/2020 15:21	Depth to Water Detail	7.89	ft
BY-AP-MW-23H	9/1/2020 15:21	Oxidation Reduction Potention	-50.93	mv
BY-AP-MW-23H	9/1/2020 15:21	pH	6.21	pH
BY-AP-MW-23H	9/1/2020 15:21	Temperature	20.9	C
BY-AP-MW-23H	9/1/2020 15:21	Turbidity	5.45	NTU
BY-AP-MW-23H	9/1/2020 15:26	Conductivity	475.84	uS/cm
BY-AP-MW-23H	9/1/2020 15:26	DO	0.2	mg/L
BY-AP-MW-23H	9/1/2020 15:26	Depth to Water Detail	7.89	ft
BY-AP-MW-23H	9/1/2020 15:26	Oxidation Reduction Potention	-50.47	mv
BY-AP-MW-23H	9/1/2020 15:26	pH	6.2	pH
BY-AP-MW-23H	9/1/2020 15:26	Temperature	20.87	C
BY-AP-MW-23H	9/1/2020 15:26	Turbidity	4.15	NTU
BY-AP-MW-23H	9/1/2020 15:31	Conductivity	480.42	uS/cm
BY-AP-MW-23H	9/1/2020 15:31	DO	0.19	mg/L
BY-AP-MW-23H	9/1/2020 15:31	Depth to Water Detail	7.89	ft
BY-AP-MW-23H	9/1/2020 15:31	Oxidation Reduction Potention	-47.32	mv
BY-AP-MW-23H	9/1/2020 15:31	pH	6.14	pH
BY-AP-MW-23H	9/1/2020 15:31	Temperature	20.78	C
BY-AP-MW-23H	9/1/2020 15:31	Turbidity	2.37	NTU

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23V	9/1/2020 16:11	Conductivity	623.74	uS/cm
BY-AP-MW-23V	9/1/2020 16:11	DO	0.23	mg/L
BY-AP-MW-23V	9/1/2020 16:11	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 16:11	Oxidation Reduction Potention	-124.81	mv
BY-AP-MW-23V	9/1/2020 16:11	pH	7.5	pH
BY-AP-MW-23V	9/1/2020 16:11	Temperature	21.37	C
BY-AP-MW-23V	9/1/2020 16:11	Turbidity	77.6	NTU
BY-AP-MW-23V	9/1/2020 16:16	Conductivity	653.1	uS/cm
BY-AP-MW-23V	9/1/2020 16:16	DO	0.2	mg/L
BY-AP-MW-23V	9/1/2020 16:16	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 16:16	Oxidation Reduction Potention	-156.08	mv
BY-AP-MW-23V	9/1/2020 16:16	pH	7.83	pH
BY-AP-MW-23V	9/1/2020 16:16	Temperature	21.31	C
BY-AP-MW-23V	9/1/2020 16:16	Turbidity	77.4	NTU
BY-AP-MW-23V	9/1/2020 16:21	Conductivity	663.4	uS/cm
BY-AP-MW-23V	9/1/2020 16:21	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 16:21	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 16:21	Oxidation Reduction Potention	-167.82	mv
BY-AP-MW-23V	9/1/2020 16:21	pH	7.9	pH
BY-AP-MW-23V	9/1/2020 16:21	Temperature	21.3	C
BY-AP-MW-23V	9/1/2020 16:21	Turbidity	64.3	NTU
BY-AP-MW-23V	9/1/2020 16:26	Conductivity	663.64	uS/cm
BY-AP-MW-23V	9/1/2020 16:26	DO	0.2	mg/L
BY-AP-MW-23V	9/1/2020 16:26	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 16:26	Oxidation Reduction Potention	-176.01	mv
BY-AP-MW-23V	9/1/2020 16:26	pH	7.93	pH
BY-AP-MW-23V	9/1/2020 16:26	Temperature	21.12	C
BY-AP-MW-23V	9/1/2020 16:26	Turbidity	50.8	NTU
BY-AP-MW-23V	9/1/2020 16:31	Conductivity	665.38	uS/cm
BY-AP-MW-23V	9/1/2020 16:31	DO	0.2	mg/L
BY-AP-MW-23V	9/1/2020 16:31	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 16:31	Oxidation Reduction Potention	-181.79	mv
BY-AP-MW-23V	9/1/2020 16:31	pH	7.97	pH
BY-AP-MW-23V	9/1/2020 16:31	Temperature	21.19	C
BY-AP-MW-23V	9/1/2020 16:31	Turbidity	40.4	NTU
BY-AP-MW-23V	9/1/2020 16:36	Conductivity	665.1	uS/cm
BY-AP-MW-23V	9/1/2020 16:36	DO	0.2	mg/L
BY-AP-MW-23V	9/1/2020 16:36	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 16:36	Oxidation Reduction Potention	-184.18	mv
BY-AP-MW-23V	9/1/2020 16:36	pH	7.99	pH
BY-AP-MW-23V	9/1/2020 16:36	Temperature	21.21	C
BY-AP-MW-23V	9/1/2020 16:36	Turbidity	34.2	NTU
BY-AP-MW-23V	9/1/2020 16:41	Conductivity	665.58	uS/cm
BY-AP-MW-23V	9/1/2020 16:41	DO	0.2	mg/L

Alabama Power Company
Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23V	9/1/2020 16:41	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 16:41	Oxidation Reduction Potention	-185.66	mv
BY-AP-MW-23V	9/1/2020 16:41	pH	8	pH
BY-AP-MW-23V	9/1/2020 16:41	Temperature	21.21	C
BY-AP-MW-23V	9/1/2020 16:41	Turbidity	26.8	NTU
BY-AP-MW-23V	9/1/2020 16:46	Conductivity	666.42	uS/cm
BY-AP-MW-23V	9/1/2020 16:46	DO	0.21	mg/L
BY-AP-MW-23V	9/1/2020 16:46	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 16:46	Oxidation Reduction Potention	-187.5	mv
BY-AP-MW-23V	9/1/2020 16:46	pH	7.99	pH
BY-AP-MW-23V	9/1/2020 16:46	Temperature	21.05	C
BY-AP-MW-23V	9/1/2020 16:46	Turbidity	25	NTU
BY-AP-MW-23V	9/1/2020 16:51	Conductivity	666.48	uS/cm
BY-AP-MW-23V	9/1/2020 16:51	DO	0.2	mg/L
BY-AP-MW-23V	9/1/2020 16:51	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 16:51	Oxidation Reduction Potention	-187.95	mv
BY-AP-MW-23V	9/1/2020 16:51	pH	8	pH
BY-AP-MW-23V	9/1/2020 16:51	Temperature	21.1	C
BY-AP-MW-23V	9/1/2020 16:51	Turbidity	21.8	NTU
BY-AP-MW-23V	9/1/2020 16:56	Conductivity	666.08	uS/cm
BY-AP-MW-23V	9/1/2020 16:56	DO	0.2	mg/L
BY-AP-MW-23V	9/1/2020 16:56	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 16:56	Oxidation Reduction Potention	-189.74	mv
BY-AP-MW-23V	9/1/2020 16:56	pH	8	pH
BY-AP-MW-23V	9/1/2020 16:56	Temperature	21.13	C
BY-AP-MW-23V	9/1/2020 16:56	Turbidity	19.9	NTU
BY-AP-MW-23V	9/1/2020 17:01	Conductivity	665.71	uS/cm
BY-AP-MW-23V	9/1/2020 17:01	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 17:01	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:01	Oxidation Reduction Potention	-189.26	mv
BY-AP-MW-23V	9/1/2020 17:01	pH	8	pH
BY-AP-MW-23V	9/1/2020 17:01	Temperature	21.15	C
BY-AP-MW-23V	9/1/2020 17:01	Turbidity	18	NTU
BY-AP-MW-23V	9/1/2020 17:06	Conductivity	665.24	uS/cm
BY-AP-MW-23V	9/1/2020 17:06	DO	0.2	mg/L
BY-AP-MW-23V	9/1/2020 17:06	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:06	Oxidation Reduction Potention	-189.79	mv
BY-AP-MW-23V	9/1/2020 17:06	pH	7.99	pH
BY-AP-MW-23V	9/1/2020 17:06	Temperature	21.14	C
BY-AP-MW-23V	9/1/2020 17:06	Turbidity	17.3	NTU
BY-AP-MW-23V	9/1/2020 17:11	Conductivity	666.43	uS/cm
BY-AP-MW-23V	9/1/2020 17:11	DO	0.2	mg/L
BY-AP-MW-23V	9/1/2020 17:11	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:11	Oxidation Reduction Potention	-190.33	mv

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Plant Barry Ash Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23V	9/1/2020 17:11	pH	7.99	pH
BY-AP-MW-23V	9/1/2020 17:11	Temperature	21.02	C
BY-AP-MW-23V	9/1/2020 17:11	Turbidity	15.6	NTU
BY-AP-MW-23V	9/1/2020 17:16	Conductivity	666.44	uS/cm
BY-AP-MW-23V	9/1/2020 17:16	DO	0.2	mg/L
BY-AP-MW-23V	9/1/2020 17:16	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:16	Oxidation Reduction Potention	-190.27	mv
BY-AP-MW-23V	9/1/2020 17:16	pH	7.99	pH
BY-AP-MW-23V	9/1/2020 17:16	Temperature	21.09	C
BY-AP-MW-23V	9/1/2020 17:16	Turbidity	14	NTU
BY-AP-MW-23V	9/1/2020 17:21	Conductivity	666.11	uS/cm
BY-AP-MW-23V	9/1/2020 17:21	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 17:21	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:21	Oxidation Reduction Potention	-190.61	mv
BY-AP-MW-23V	9/1/2020 17:21	pH	7.99	pH
BY-AP-MW-23V	9/1/2020 17:21	Temperature	21.12	C
BY-AP-MW-23V	9/1/2020 17:21	Turbidity	12.8	NTU
BY-AP-MW-23V	9/1/2020 17:26	Conductivity	668.43	uS/cm
BY-AP-MW-23V	9/1/2020 17:26	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 17:26	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:26	Oxidation Reduction Potention	-190.26	mv
BY-AP-MW-23V	9/1/2020 17:26	pH	7.99	pH
BY-AP-MW-23V	9/1/2020 17:26	Temperature	21.13	C
BY-AP-MW-23V	9/1/2020 17:26	Turbidity	12.8	NTU
BY-AP-MW-23V	9/1/2020 17:31	Conductivity	666.14	uS/cm
BY-AP-MW-23V	9/1/2020 17:31	DO	0.2	mg/L
BY-AP-MW-23V	9/1/2020 17:31	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:31	Oxidation Reduction Potention	-190.44	mv
BY-AP-MW-23V	9/1/2020 17:31	pH	7.98	pH
BY-AP-MW-23V	9/1/2020 17:31	Temperature	20.99	C
BY-AP-MW-23V	9/1/2020 17:31	Turbidity	12	NTU
BY-AP-MW-23V	9/1/2020 17:36	Conductivity	666.12	uS/cm
BY-AP-MW-23V	9/1/2020 17:36	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 17:36	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:36	Oxidation Reduction Potention	-190.52	mv
BY-AP-MW-23V	9/1/2020 17:36	pH	7.98	pH
BY-AP-MW-23V	9/1/2020 17:36	Temperature	21.03	C
BY-AP-MW-23V	9/1/2020 17:36	Turbidity	11.7	NTU
BY-AP-MW-23V	9/1/2020 17:41	Conductivity	665.97	uS/cm
BY-AP-MW-23V	9/1/2020 17:41	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 17:41	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:41	Oxidation Reduction Potention	-191.01	mv
BY-AP-MW-23V	9/1/2020 17:41	pH	7.99	pH
BY-AP-MW-23V	9/1/2020 17:41	Temperature	21.09	C

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-AP-MW-23V	9/1/2020 17:41	Turbidity	11.1	NTU
BY-AP-MW-23V	9/1/2020 17:46	Conductivity	665.35	uS/cm
BY-AP-MW-23V	9/1/2020 17:46	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 17:46	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:46	Oxidation Reduction Potention	-190.28	mv
BY-AP-MW-23V	9/1/2020 17:46	pH	7.99	pH
BY-AP-MW-23V	9/1/2020 17:46	Temperature	21.1	C
BY-AP-MW-23V	9/1/2020 17:46	Turbidity	11.1	NTU
BY-AP-MW-23V	9/1/2020 17:51	Conductivity	664.92	uS/cm
BY-AP-MW-23V	9/1/2020 17:51	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 17:51	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:51	Oxidation Reduction Potention	-189.71	mv
BY-AP-MW-23V	9/1/2020 17:51	pH	7.98	pH
BY-AP-MW-23V	9/1/2020 17:51	Temperature	21.02	C
BY-AP-MW-23V	9/1/2020 17:51	Turbidity	11.64	NTU
BY-AP-MW-23V	9/1/2020 17:56	Conductivity	666.06	uS/cm
BY-AP-MW-23V	9/1/2020 17:56	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 17:56	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 17:56	Oxidation Reduction Potention	-189.72	mv
BY-AP-MW-23V	9/1/2020 17:56	pH	7.97	pH
BY-AP-MW-23V	9/1/2020 17:56	Temperature	20.99	C
BY-AP-MW-23V	9/1/2020 17:56	Turbidity	11.5	NTU
BY-AP-MW-23V	9/1/2020 18:01	Conductivity	665.68	uS/cm
BY-AP-MW-23V	9/1/2020 18:01	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 18:01	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 18:01	Oxidation Reduction Potention	-189.89	mv
BY-AP-MW-23V	9/1/2020 18:01	pH	7.98	pH
BY-AP-MW-23V	9/1/2020 18:01	Temperature	21.03	C
BY-AP-MW-23V	9/1/2020 18:01	Turbidity	10.92	NTU
BY-AP-MW-23V	9/1/2020 18:06	Conductivity	665.72	uS/cm
BY-AP-MW-23V	9/1/2020 18:06	DO	0.18	mg/L
BY-AP-MW-23V	9/1/2020 18:06	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 18:06	Oxidation Reduction Potention	-189.7	mv
BY-AP-MW-23V	9/1/2020 18:06	pH	7.98	pH
BY-AP-MW-23V	9/1/2020 18:06	Temperature	21.03	C
BY-AP-MW-23V	9/1/2020 18:06	Turbidity	10.4	NTU
BY-AP-MW-23V	9/1/2020 18:11	Conductivity	665.99	uS/cm
BY-AP-MW-23V	9/1/2020 18:11	DO	0.19	mg/L
BY-AP-MW-23V	9/1/2020 18:11	Depth to Water Detail	12.45	ft
BY-AP-MW-23V	9/1/2020 18:11	Oxidation Reduction Potention	-190.29	mv
BY-AP-MW-23V	9/1/2020 18:11	pH	7.98	pH
BY-AP-MW-23V	9/1/2020 18:11	Temperature	21.06	C
BY-AP-MW-23V	9/1/2020 18:11	Turbidity	9.97	NTU

Alabama Power General Test Laboratory
744 County Road 87, GSC#8
Calera, AL 35040
(205) 664-6032 or 6171
FAX (205) 257-1654

Field Case Narrative

Plant Barry Gypsum Pond

2020 Compliance Event 2

All samples were collected using methods defined in Alabama Power's Water Field Group Low-Flow Groundwater Sampling Procedure and the associated site-specific Sampling and Analysis Plan (SAP).

Field quality control procedures were performed as follows:

- Blanks and Sample Duplicates were collected as described in the SAP.
- Calibration verification for all required field parameters were performed daily, before and after sample collection.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report

Alabama Power

Sample Group : WMWBARG_1299

Project/Site : Barry Gypsum
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Dustin Brooks & Greg Dyer

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Alabama Power

October 12, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on September 10, 2020.
All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2021

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.10.12 10:01:33 -05'00'

Supervision: T. Durant Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.10.12 10:10:41 -05'00'

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

Alabama Power Lab & Field SERVICES

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICP

Barry Gypsum

WMWBARG_1299

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA17097	682306	WMWBARG_1299
BA17098	682306	WMWBARG_1299
BA17099	682306	WMWBARG_1299
BA17100	682306	WMWBARG_1299
BA17101	682306	WMWBARG_1299
BA17102	682306	WMWBARG_1299
BA17103	682306	WMWBARG_1299
BA17104	682306	WMWBARG_1299
BA17105	682306	WMWBARG_1299
BA17106	682306	WMWBARG_1299
BA17107	682307	WMWBARG_1299
BA17108	682307	WMWBARG_1299
BA17109	682307	WMWBARG_1299
BA17110	682307	WMWBARG_1299
BA17111	682307	WMWBARG_1299
BA17112	682307	WMWBARG_1299

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICP

Barry Gypsum

WMWBARG_1299

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA17097	682286	WMWBARG_1299
BA17098	682286	WMWBARG_1299
BA17099	682286	WMWBARG_1299
BA17100	682286	WMWBARG_1299
BA17102	682286	WMWBARG_1299
BA17103	682286	WMWBARG_1299
BA17104	682286	WMWBARG_1299
BA17105	682286	WMWBARG_1299
BA17106	682286	WMWBARG_1299
BA17107	682286	WMWBARG_1299
BA17108	682287	WMWBARG_1299
BA17110	682287	WMWBARG_1299
BA17111	682287	WMWBARG_1299

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed, and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- All calibration curve requirements were within acceptance criteria.
- All sample internal standard criteria were met.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICPMS

Barry Gypsum

WMWBARG_1299

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA17097	682654	WMWBARG_1299
BA17098	682654	WMWBARG_1299
BA17099	682654	WMWBARG_1299
BA17100	682654	WMWBARG_1299
BA17101	682654	WMWBARG_1299
BA17102	682654	WMWBARG_1299
BA17103	682654	WMWBARG_1299
BA17104	682654	WMWBARG_1299
BA17105	682654	WMWBARG_1299
BA17106	682654	WMWBARG_1299
BA17107	682655	WMWBARG_1299
BA17108	682655	WMWBARG_1299
BA17109	682655	WMWBARG_1299
BA17110	682655	WMWBARG_1299
BA17111	682655	WMWBARG_1299
BA17112	682655	WMWBARG_1299

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes, except for the following:
    - The CCV for Thallium and Lead failed. All affected samples were reanalyzed with new calibration curves 200914CCR1299 Tl Pb and 200916CCR1299 Tl with passing QC.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICPMS

Barry Gypsum

WMWBARG_1299

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA17097	682342	WMWBARG_1299
BA17098	682342	WMWBARG_1299
BA17099	682342	WMWBARG_1299
BA17100	682342	WMWBARG_1299
BA17102	682342	WMWBARG_1299
BA17103	682342	WMWBARG_1299
BA17104	682342	WMWBARG_1299
BA17105	682342	WMWBARG_1299
BA17106	682342	WMWBARG_1299
BA17107	682342	WMWBARG_1299
BA17108	682343	WMWBARG_1299
BA17110	682343	WMWBARG_1299
BA17111	682343	WMWBARG_1299

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Mercury

Barry Gypsum

WMWBARG_1299

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA17097	682139	WMWBARG_1299
BA17098	682139	WMWBARG_1299
BA17099	682139	WMWBARG_1299
BA17100	682139	WMWBARG_1299
BA17101	682139	WMWBARG_1299
BA17102	682139	WMWBARG_1299
BA17103	682139	WMWBARG_1299
BA17104	682139	WMWBARG_1299
BA17105	682139	WMWBARG_1299
BA17106	682139	WMWBARG_1299
BA17107	682140	WMWBARG_1299
BA17108	682140	WMWBARG_1299
BA17109	682140	WMWBARG_1299
BA17110	682140	WMWBARG_1299
BA17111	682140	WMWBARG_1299
BA17112	682140	WMWBARG_1299

4. All of the above samples were analyzed and prepared by EPA 245.1.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analyte.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch was below the limit of quantitation for the requested analyte.
- All calibration met criteria for the requested analyte.
- All response signals were satisfactory.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each batch. All acceptance criteria for precision were met.

7. All samples were analyzed without a dilution factor.
8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

TDS

Barry Gypsum

WMWBARG_1299

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA17097	682131	WMWBARG_1299
BA17098	682131	WMWBARG_1299
BA17099	682131	WMWBARG_1299
BA17100	682131	WMWBARG_1299
BA17101	682131	WMWBARG_1299
BA17102	682131	WMWBARG_1299
BA17103	682131	WMWBARG_1299
BA17104	682131	WMWBARG_1299
BA17105	682165	WMWBARG_1299
BA17106	682165	WMWBARG_1299
BA17107	682165	WMWBARG_1299
BA17108	682165	WMWBARG_1299
BA17109	682165	WMWBARG_1299
BA17110	682165	WMWBARG_1299
BA17111	682165	WMWBARG_1299
BA17112	682165	WMWBARG_1299

4. All of the above samples were analyzed by Standard Method 2540C.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- A Method Blank was analyzed with each batch. All criteria were met.
- All final weights of samples, standards, and blanks agreed within 0.5mg of the previous weight.
- A sample duplicate was analyzed with each batch. RPD/2 was less than 5%.
- A laboratory control sample was analyzed with each batch. All criteria were met.
- Samples were between 2.5mg and 200mg residue.
- All samples with residue <2.5mg had the maximum volume of 150mL filtered. Affected samples are as follows:
  - BA17101
  - BA17109
  - BA17112

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Anions

Barry Gypsum

WMWBARG_1299

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA17097	682167, 682209, & 682787	WMWBARG_1299
BA17098	682167, 682209, & 682787	WMWBARG_1299
BA17099	682167, 682209, & 682787	WMWBARG_1299
BA17100	682167, 682209, & 682787	WMWBARG_1299
BA17101	682167, 682209, & 682787	WMWBARG_1299
BA17102	682167, 682209, & 682787	WMWBARG_1299
BA17103	682167, 682209, & 682787	WMWBARG_1299
BA17104	682167, 682209, & 682787	WMWBARG_1299
BA17105	682167, 682209, & 682787	WMWBARG_1299
BA17106	682167, 682209, & 682787	WMWBARG_1299
BA17107	682168, 682210, & 682788	WMWBARG_1299
BA17108	682168, 682210, & 682788	WMWBARG_1299
BA17109	682168, 682210, & 682788	WMWBARG_1299
BA17110	682168, 682210, & 682788	WMWBARG_1299
BA17111	682168, 682210, & 682788	WMWBARG_1299
BA17112	682168, 682210, & 682788	WMWBARG_1299

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.
- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below half the limit of quantitation for the requested analyte.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analyte.
- All continued calibration blanks (CCB) were below half the limit of quantitation for the requested analyte, except for the following:
    - The CCB for Fluoride batch 682209 was greater than half the RL. The batch was reanalyzed with similar CCB results and reported. All sample results in the batch were below the MDL.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. All samples were analyzed without dilution.

Alkalinity

Barry Gypsum

WMWBARG_1299

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions meet NELAP traceability requirements and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA17097	682552 & 682553	WMWBARG_1299
BA17098	682552 & 682553	WMWBARG_1299
BA17099	682552 & 682553	WMWBARG_1299
BA17100	682552 & 682553	WMWBARG_1299
BA17102	682552 & 682553	WMWBARG_1299
BA17103	682552 & 682553	WMWBARG_1299
BA17104	682552 & 682553	WMWBARG_1299
BA17105	682552 & 682553	WMWBARG_1299
BA17106	682552 & 682553	WMWBARG_1299
BA17107	682552 & 682553	WMWBARG_1299
BA17108	682552 & 682553	WMWBARG_1299
BA17110	682552 & 682553	WMWBARG_1299
BA17111	682552 & 682553	WMWBARG_1299

4. All of the above samples were analyzed by Standard Method 2320B.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-4

Location Code: WMWBARG
Collected: 9/8/20 13:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17097

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 09:54		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 09:54		1.015	1.94	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 09:54		1.015	0.323	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 09:54		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 09:54		1.015	2.12	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 09:54		1.015	2.52	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:14		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:29		1.015	0.125	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 12:54		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:29		1.015	1.03	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:29		1.015	0.0170	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:29		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 12:54		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:27		1.015	0.0169	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:33		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	39.3	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-4

Location Code: WMWBARG
Collected: 9/8/20 13:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17097

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:24	9/14/20 12:24		1	3.29	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:27	9/15/20 15:27		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:34	9/21/20 13:34		1	6.52	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 13:33	9/8/20 13:33			53.56	uS/cm			FA
pH	9/8/20 13:33	9/8/20 13:33			4.75	SU			FA
Temperature	9/8/20 13:33	9/8/20 13:33			22.86	C			FA
Turbidity	9/8/20 13:33	9/8/20 13:33			4.76	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/8/20 13:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-4

Laboratory ID Number: BA17097

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 13:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-4

Laboratory ID Number: BA17097

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 9/8/20 14:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17098

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 09:57		1.015	0.521	mg/L	0.03	0.1	
* Calcium, Total	9/14/20 12:15	9/16/20 09:57		1.015	3.24	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 09:57		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 09:57		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 09:57		1.015	3.10	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 09:57		1.015	4.10	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:17		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:32		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:32		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:32		1.015	0.181	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:32		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:32		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:32		1.015	0.00221	mg/L	0.002	0.01	J
* Cobalt, Total	9/11/20 08:47	9/14/20 09:32		1.015	0.00227	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 12:56		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:32		1.015	1.39	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:32		1.015	0.0265	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:32		1.015	0.00520	mg/L	0.002	0.01	J
* Thallium, Total	9/11/20 08:47	9/14/20 12:56		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:30		1.015	0.0267	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:35		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	55.3	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-5

Location Code: WMWBARG
Collected: 9/8/20 14:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17098

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:25	9/14/20 12:25		1	6.23	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:28	9/15/20 15:28		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:35	9/21/20 13:35		1	15.1	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 14:33	9/8/20 14:33			78.96	uS/cm			FA
pH	9/8/20 14:33	9/8/20 14:33			4.77	SU			FA
Temperature	9/8/20 14:33	9/8/20 14:33			23.46	C			FA
Turbidity	9/8/20 14:33	9/8/20 14:33			0.62	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/8/20 14:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-5

Laboratory ID Number: BA17098

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 14:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-5

Laboratory ID Number: BA17098

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-5 DUP

Location Code: WMWBARG
Collected: 9/8/20 14:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17099

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:00		1.015	0.548	mg/L	0.03	0.1	
* Calcium, Total	9/14/20 12:15	9/16/20 10:00		1.015	3.32	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:00		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 10:00		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:00		1.015	3.17	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:00		1.015	4.17	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:20		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:35		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:35		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:35		1.015	0.182	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:35		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:35		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:35		1.015	0.00219	mg/L	0.002	0.01	J
* Cobalt, Total	9/11/20 08:47	9/14/20 09:35		1.015	0.00232	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 12:59		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:35		1.015	1.43	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:35		1.015	0.0273	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:35		1.015	0.00575	mg/L	0.002	0.01	J
* Thallium, Total	9/11/20 08:47	9/14/20 12:59		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:32		1.015	0.0278	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:37		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	0.16	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	55.3	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-5 DUP

Location Code: WMWBARG
Collected: 9/8/20 14:36
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17099

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.16	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:27	9/14/20 12:27		1	6.44	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:30	9/15/20 15:30		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:36	9/21/20 13:36		1	15.5	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 14:33	9/8/20 14:33			78.96	uS/cm			FA
pH	9/8/20 14:33	9/8/20 14:33			4.77	SU			FA
Temperature	9/8/20 14:33	9/8/20 14:33			23.46	C			FA
Turbidity	9/8/20 14:33	9/8/20 14:33			0.62	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/8/20 14:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-5 DUP

Laboratory ID Number: BA17099

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 14:36
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-5 DUP

Laboratory ID Number: BA17099

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 9/8/20 16:00
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17100

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:03		1.015	0.362	mg/L	0.03	0.1	
* Calcium, Total	9/14/20 12:15	9/16/20 10:03		1.015	6.38	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:03		1.015	0.237	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:03		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:03		1.015	3.26	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:03		1.015	3.24	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:23		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:37		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:37		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.0981	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:37		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:37		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.00237	mg/L	0.002	0.01	J
* Cobalt, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.00296	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 13:02		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:37		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.949	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.0416	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:37		1.015	0.00520	mg/L	0.002	0.01	J
* Thallium, Total	9/11/20 08:47	9/14/20 13:02		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:35		1.015	0.0331	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:40		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	4.50	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	59.3	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-6

Location Code: WMWBARG
Collected: 9/8/20 16:00
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17100

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	4.50	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:28	9/14/20 12:28		1	5.71	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:31	9/15/20 15:31		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:38	9/21/20 13:38		1	17.7	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 15:55	9/8/20 15:55			85.69	uS/cm			FA
pH	9/8/20 15:55	9/8/20 15:55			5.15	SU			FA
Temperature	9/8/20 15:55	9/8/20 15:55			23.41	C			FA
Turbidity	9/8/20 15:55	9/8/20 15:55			3.38	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/8/20 16:00
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-6

Laboratory ID Number: BA17100

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 16:00
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-6

Laboratory ID Number: BA17100

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum Field Blank-1

Location Code: WMWBARGFB
Collected: 9/8/20 16:35
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17101

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/14/20 12:15	9/16/20 10:06		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:04		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/11/20 08:47	9/14/20 09:40		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:04		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:42		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	9/14/20 12:29	9/14/20 12:29		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	9/15/20 15:32	9/15/20 15:32		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	9/21/20 13:39	9/21/20 13:39		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARGFB
Sample Date: 9/8/20 16:35
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BA17101

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARGFB
Sample Date: 9/8/20 16:35
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Field Blank-1

Laboratory ID Number: BA17101

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 9/8/20 17:03
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17102

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:09		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:09		1.015	1.12	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:09		1.015	0.185	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:09		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:09		1.015	1.18	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:09		1.015	5.08	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:26		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:42		1.015	0.0615	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:07		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:42		1.015	0.862	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:42		1.015	0.0129	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:07		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:38		1.015	0.0132	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:45		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	1.88	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	42.0	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-7

Location Code: WMWBARG
Collected: 9/8/20 17:03
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17102

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	1.88	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:30	9/14/20 12:30		1	8.74	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:33	9/15/20 15:33		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:40	9/21/20 13:40		1	3.59	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 16:58	9/8/20 16:58			48.46	uS/cm			FA
pH	9/8/20 16:58	9/8/20 16:58			4.39	SU			FA
Temperature	9/8/20 16:58	9/8/20 16:58			22.14	C			FA
Turbidity	9/8/20 16:58	9/8/20 16:58			2.9	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/8/20 17:03
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-7

Laboratory ID Number: BA17102

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 17:03
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-7

Laboratory ID Number: BA17102

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-11

Location Code: WMWBARG
Collected: 9/8/20 17:55
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17103

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:12		1.015	0.0638	mg/L	0.03	0.1	J
* Calcium, Total	9/14/20 12:15	9/16/20 10:12		1.015	0.724	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:12		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 10:12		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:12		1.015	0.829	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:12		1.015	2.78	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:29		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:45		1.015	0.0500	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:45		1.015	0.00253	mg/L	0.002	0.01	J
* Cobalt, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:10		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:45		1.015	1.08	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:45		1.015	0.00822	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:45		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:10		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:40		1.015	0.00817	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	1.00	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	29.3	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-11

Location Code: WMWBARG
Collected: 9/8/20 17:55
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17103

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	1.00	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:31	9/14/20 12:31		1	3.96	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:34	9/15/20 15:34		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:41	9/21/20 13:41		1	3.61	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 17:51	9/8/20 17:51			33.02	uS/cm			FA
pH	9/8/20 17:51	9/8/20 17:51			4.12	SU			FA
Temperature	9/8/20 17:51	9/8/20 17:51			23.10	C			FA
Turbidity	9/8/20 17:51	9/8/20 17:51			1.06	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/8/20 17:55
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-11

Laboratory ID Number: BA17103

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 17:55
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-11

Laboratory ID Number: BA17103

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 9/8/20 18:40
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17104

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:15		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:15		1.015	0.981	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:15		1.015	0.163	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:15		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:15		1.015	1.13	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:15		1.015	4.19	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:32		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:48		1.015	0.0494	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:48		1.015	0.00224	mg/L	0.002	0.01	J
* Cobalt, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:48		1.015	0.881	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:48		1.015	0.0159	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:48		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:12		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:43		1.015	0.0153	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:49		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	2.88	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/11/20 15:00	9/15/20 09:30		1	38.0	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-8

Location Code: WMWBARG
Collected: 9/8/20 18:40
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17104

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	2.88	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:33	9/14/20 12:33		1	4.61	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:36	9/15/20 15:36		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:42	9/21/20 13:42		1	4.56	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/8/20 18:36	9/8/20 18:36			41.97	uS/cm			FA
pH	9/8/20 18:36	9/8/20 18:36			4.35	SU			FA
Temperature	9/8/20 18:36	9/8/20 18:36			21.56	C			FA
Turbidity	9/8/20 18:36	9/8/20 18:36			2.49	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/8/20 18:40
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-8

Laboratory ID Number: BA17104

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/8/20 18:40
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-8

Laboratory ID Number: BA17104

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17104	Solids, Dissolved	mg/L	0.0000	25			35.3	48.0	40 to 60			3.68	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-3

Location Code: WMWBARG
Collected: 9/9/20 08:35
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17105

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:18		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:18		1.015	1.97	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:18		1.015	0.0781	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:18		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:18		1.015	1.95	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:18		1.015	2.87	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:35		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:50		1.015	0.0919	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:50		1.015	0.985	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:50		1.015	0.0194	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:50		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:15		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:46		1.015	0.0189	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:52		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	42.7	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-3

Location Code: WMWBARG
Collected: 9/9/20 08:35
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17105

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:34	9/14/20 12:34		1	3.47	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:37	9/15/20 15:37		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:44	9/21/20 13:44		1	7.13	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 08:33	9/9/20 08:33			52.56	uS/cm			FA
pH	9/9/20 08:33	9/9/20 08:33			4.76	SU			FA
Temperature	9/9/20 08:33	9/9/20 08:33			20.60	C			FA
Turbidity	9/9/20 08:33	9/9/20 08:33			2.24	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/9/20 08:35
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-3

Laboratory ID Number: BA17105

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 08:35
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-3

Laboratory ID Number: BA17105

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-2

Location Code: WMWBARG
Collected: 9/9/20 09:29
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17106

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:21		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:21		1.015	1.50	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:21		1.015	0.803	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:21		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:21		1.015	2.91	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:21		1.015	2.47	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:38		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 09:53		1.015	0.172	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 09:53		1.015	0.00219	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 13:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 09:53		1.015	0.984	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 09:53		1.015	0.0292	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 09:53		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/14/20 13:17		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:48		1.015	0.0286	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 12:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	40.7	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-2

Location Code: WMWBARG
Collected: 9/9/20 09:29
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17106

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:35	9/14/20 12:35		1	2.32	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 15:38	9/15/20 15:38		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:45	9/21/20 13:45		1	6.08	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 09:25	9/9/20 09:25			59.70	uS/cm			FA
pH	9/9/20 09:25	9/9/20 09:25			4.67	SU			FA
Temperature	9/9/20 09:25	9/9/20 09:25			20.79	C			FA
Turbidity	9/9/20 09:25	9/9/20 09:25			9.32	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/9/20 09:29
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-2

Laboratory ID Number: BA17106

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17106	Iron, Total	mg/L	0.00161	0.0176	0.2	1.01	0.991	0.206	0.17 to 0.23	104	70 to 130	1.90	20
BA17106	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0914	0.0931	0.0936	0.085 to 0.115	91.4	70 to 130	1.84	20
BA17106	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.110	0.109	0.107	0.085 to 0.115	110	70 to 130	0.913	20
BA17106	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	8.24	8.22	5.22	4.25 to 5.75	107	70 to 130	0.243	20
BA17106	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.106	0.102	0.110	0.085 to 0.115	106	70 to 130	3.85	20
BA17106	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0954	0.0953	0.0982	0.085 to 0.115	95.4	70 to 130	0.105	20
BA17106	Boron, Total	mg/L	0.00607	0.0650254	1.00	1.03	1.04	1.02	0.85 to 1.15	103	70 to 130	0.966	20
BA17106	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.105	0.110	0.107	0.085 to 0.115	103	70 to 130	4.65	20
BA17106	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.106	0.107	0.108	0.085 to 0.115	106	70 to 130	0.939	20
BA17106	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.275	0.272	0.101	0.085 to 0.115	103	70 to 130	1.10	20
BA17106	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.100	0.0996	0.101	0.085 to 0.115	100	70 to 130	0.401	20
BA17106	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.107	0.105	0.105	0.085 to 0.115	107	70 to 130	1.89	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17106	Mercury, Total by CVAA	mg/L	0.0000108	0.0005	0.004	0.00404	0.00396	0.00403	0.0034 to 0.0046	101	70 to 130	2.00	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17106	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17106	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.207	0.209	0.202	0.17 to 0.23	104	70 to 130	0.962	20
BA17106	Sodium, Total	mg/L	0.00134	0.044	5.00	7.71	7.74	5.11	4.25 to 5.75	105	70 to 130	0.388	20
BA17106	Calcium, Total	mg/L	0.00863	0.1518	5.00	6.71	6.72	5.23	4.25 to 5.75	104	70 to 130	0.149	20
BA17106	Potassium, Total	mg/L	0.0153	0.3674	10.0	11.2	11.3	10.3	8.5 to 11.5	102	70 to 130	0.889	20
BA17106	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.137	0.138	0.107	0.085 to 0.115	108	70 to 130	0.727	20
BA17106	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.104	0.103	0.105	0.085 to 0.115	104	70 to 130	0.966	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 09:29
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-2

Laboratory ID Number: BA17106

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17106	Fluoride	mg/L	0.0788	0.05	2.50	2.19	0.0209	2.57	2.25 to 2.75	87.6	80 to 120	0.00	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17106	Chloride	mg/L	0.0944	0.50	10.0	12.7	2.31	10.2	9 to 11	104	80 to 120	0.432	20
BA17106	Sulfate	mg/L	0.208	0.50	20.0	25.1	6.31	20.3	18 to 22	95.1	80 to 120	3.71	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-1

Location Code: WMWBARG
Collected: 9/9/20 10:23
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17107

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:35		1.015	0.0999	mg/L	0.03	0.1	J
* Calcium, Total	9/14/20 12:15	9/16/20 10:35		1.015	1.43	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:35		1.015	3.44	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:35		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:35		1.015	2.45	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:35		1.015	2.58	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:41		1.015	3.35	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:09		1.015	0.124	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:09		1.015	0.00697	mg/L	0.002	0.005	
* Lead, Total	9/11/20 08:47	9/14/20 13:33		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:09		1.015	0.522	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 10:09		1.015	0.198	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 10:09		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:21		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 15:51		1.015	0.192	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:11		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	0.46	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	42.0	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-1

Location Code: WMWBARG
Collected: 9/9/20 10:23
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17107

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.46	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:51	9/14/20 12:51		1	2.92	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 10:58	9/15/20 10:58		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 13:59	9/21/20 13:59		1	16.5	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 10:20	9/9/20 10:20			66.68	uS/cm			FA
pH	9/9/20 10:20	9/9/20 10:20			4.65	SU			FA
Temperature	9/9/20 10:20	9/9/20 10:20			21.21	C			FA
Turbidity	9/9/20 10:20	9/9/20 10:20			1.02	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/9/20 10:23
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-1

Laboratory ID Number: BA17107

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17107	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	3.55	3.55	0.205	0.17 to 0.23	100	70 to 130	0.00	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17107	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.295	0.298	0.106	0.085 to 0.115	103	70 to 130	1.01	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 10:23
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-1

Laboratory ID Number: BA17107

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 9/9/20 11:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17108

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:38		1.015	0.0873	mg/L	0.03	0.1	J
* Calcium, Total	9/14/20 12:15	9/16/20 10:38		1.015	1.79	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:38		1.015	0.0320	mg/L	0.02	0.05	J
* Lithium, Total	9/14/20 12:15	9/16/20 10:38		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:38		1.015	3.26	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:38		1.015	3.29	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:56		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:12		1.015	0.170	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:12		1.015	1.10	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 10:12		1.015	0.0434	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 10:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:24		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 16:07		1.015	0.0432	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:13		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L		0.1	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	50.7	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-9

Location Code: WMWBARG
Collected: 9/9/20 11:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17108

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	Not Detected	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:52	9/14/20 12:52		1	7.94	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 11:00	9/15/20 11:00		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 14:00	9/21/20 14:00		1	10.7	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 11:13	9/9/20 11:13			75.22	uS/cm			FA
pH	9/9/20 11:13	9/9/20 11:13			4.46	SU			FA
Temperature	9/9/20 11:13	9/9/20 11:13			22.47	C			FA
Turbidity	9/9/20 11:13	9/9/20 11:13			1.2	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/9/20 11:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-9

Laboratory ID Number: BA17108

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17111	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	0.204	0.204	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20
BA17111	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.142	0.141	0.106	0.085 to 0.115	107	70 to 130	0.707	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 11:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-9

Laboratory ID Number: BA17108

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum Field Blank-2

Location Code: WMWBARGFB
Collected: 9/9/20 11:50
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17109

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/14/20 12:15	9/16/20 10:41		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/11/20 08:47	9/14/20 10:14		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:26		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:15		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	9/14/20 12:53	9/14/20 12:53		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	9/15/20 11:01	9/15/20 11:01		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	9/21/20 14:01	9/21/20 14:01		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARGFB
Sample Date: 9/9/20 11:50
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Field Blank-2

Laboratory ID Number: BA17109

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20

Comments:

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Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARGFB
Sample Date: 9/9/20 11:50
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Field Blank-2

Laboratory ID Number: BA17109

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 9/9/20 12:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17110

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:44		1.015	0.0509	mg/L	0.03	0.1	J
* Calcium, Total	9/14/20 12:15	9/16/20 10:44		1.015	1.10	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:44		1.015	0.270	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:44		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:44		1.015	2.42	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:44		1.015	2.83	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 11:59		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:17		1.015	0.125	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:17		1.015	0.00241	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 13:41		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:17		1.015	0.836	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 10:17		1.015	0.0358	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 10:17		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:29		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 16:09		1.015	0.0356	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:18		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	0.98	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	39.3	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-10

Location Code: WMWBARG
Collected: 9/9/20 12:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17110

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.98	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:54	9/14/20 12:54		1	4.11	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 11:02	9/15/20 11:02		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 14:04	9/21/20 14:04		1	9.28	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 12:11	9/9/20 12:11			56.91	uS/cm			FA
pH	9/9/20 12:11	9/9/20 12:11			4.58	SU			FA
Temperature	9/9/20 12:11	9/9/20 12:11			22.04	C			FA
Turbidity	9/9/20 12:11	9/9/20 12:11			8.93	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/9/20 12:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-10

Laboratory ID Number: BA17110

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20
BA17111	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	0.204	0.204	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17111	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.142	0.141	0.106	0.085 to 0.115	107	70 to 130	0.707	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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Version: 3.1
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General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 12:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-10

Laboratory ID Number: BA17110

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
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Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-10 DUP

Location Code: WMWBARG
Collected: 9/9/20 12:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17111

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:47		1.015	0.0506	mg/L	0.03	0.1	J
* Calcium, Total	9/14/20 12:15	9/16/20 10:47		1.015	1.09	mg/L	0.1	0.5	
* Iron, Total	9/14/20 12:15	9/16/20 10:47		1.015	0.249	mg/L	0.02	0.05	
* Lithium, Total	9/14/20 12:15	9/16/20 10:47		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:47		1.015	2.42	mg/L	0.1	0.5	
* Sodium, Total	9/14/20 12:15	9/16/20 10:47		1.015	2.83	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	9/16/20 09:19	9/16/20 12:02		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:20		1.015	0.128	mg/L	0.002	0.01	
* Beryllium, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:20		1.015	0.00242	mg/L	0.002	0.005	J
* Lead, Total	9/11/20 08:47	9/14/20 13:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:20		1.015	0.859	mg/L	0.3	2.5	J
* Manganese, Total	9/11/20 08:47	9/14/20 10:20		1.015	0.0351	mg/L	0.001	0.005	
* Selenium, Total	9/11/20 08:47	9/14/20 10:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:32		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Manganese, Dissolved	9/14/20 14:33	9/14/20 16:12		1.015	0.0350	mg/L	0.001	0.005	
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:20		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2320 B	***Analyst: JAG***								
Alkalinity, Total as CaCO3	9/16/20 09:20	9/16/20 09:55		1	1.08	mg/L		0.1	
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	40.0	mg/L		25	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
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General Test Laboratory
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Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum - MW-10 DUP

Location Code: WMWBARG
Collected: 9/9/20 12:15
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17111

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	1.08	mg/L			
Carbonate Alkalinity, (calc.)	9/16/20 09:20	9/16/20 09:55		1	0.00	mg/L			
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	9/14/20 12:55	9/14/20 12:55		1	4.07	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	9/15/20 11:03	9/15/20 11:03		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011		***Analyst: JCC***							
* Sulfate	9/21/20 14:05	9/21/20 14:05		1	9.73	mg/L	0.50	1	
Analytical Method: Field Measurements		***Analyst: AWG***							
Conductivity	9/9/20 12:11	9/9/20 12:11			56.91	uS/cm			FA
pH	9/9/20 12:11	9/9/20 12:11			4.58	SU			FA
Temperature	9/9/20 12:11	9/9/20 12:11			22.04	C			FA
Turbidity	9/9/20 12:11	9/9/20 12:11			8.93	NTU			FA

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

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Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARG
Sample Date: 9/9/20 12:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-10 DUP

Laboratory ID Number: BA17111

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17111	Iron, Dissolved	mg/L	0.000210	0.0176	0.2	0.204	0.204	0.205	0.17 to 0.23	102	70 to 130	0.00	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17111	Manganese, Dissolved	mg/L	0.0000113	0.0001474	0.10	0.142	0.141	0.106	0.085 to 0.115	107	70 to 130	0.707	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARG
Sample Date: 9/9/20 12:15
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum - MW-10 DUP

Laboratory ID Number: BA17111

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17111	Alkalinity, Total as CaCO3	mg/L					1.16	51.0	45.0 to 55.0			7.14	10
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments: The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified.
LBM 10/06/2020

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Description: Barry Gypsum Equipment Blank-1

Location Code: WMWBARGEB
Collected: 9/9/20 12:40
Customer ID:
Submittal Date: 9/10/20 13:30

Laboratory ID Number: BA17112

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.1	0.5	U
* Iron, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.1	0.5	U
* Sodium, Total	9/14/20 12:15	9/16/20 10:50		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	9/11/20 08:47	9/14/20 13:47		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	9/11/20 08:47	9/14/20 10:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	9/11/20 08:47	9/16/20 11:34		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1	***Analyst: GAS***								
* Mercury, Total by CVAA	9/14/20 08:48	9/14/20 13:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C	***Analyst: TJW***								
* Solids, Dissolved	9/14/20 15:00	9/16/20 14:30		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E	***Analyst: JCC***								
* Chloride	9/14/20 12:58	9/14/20 12:58		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017	***Analyst: JCC***								
* Fluoride	9/15/20 11:04	9/15/20 11:04		1	Not Detected	mg/L	0.06	0.1	U
Analytical Method: SM4500SO4 E 2011	***Analyst: JCC***								
* Sulfate	9/21/20 14:06	9/21/20 14:06		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments:

Reported: 10/12/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Customer Account: WMWBARGEB
Sample Date: 9/9/20 12:40
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BA17112

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Barium, Total	mg/L	0.0000166	0.0002	0.10	0.101	0.106	0.101	0.085 to 0.115	101	70 to 130	4.83	20
BA17112	Cobalt, Total	mg/L	-0.0000217	0.0001474	0.10	0.107	0.105	0.107	0.085 to 0.115	107	70 to 130	1.89	20
BA17112	Mercury, Total by CVAA	mg/L	0.0000162	0.0005	0.004	0.00403	0.00397	0.00398	0.0034 to 0.0046	101	70 to 130	1.50	20
BA17112	Selenium, Total	mg/L	0.0000202	0.001	0.10	0.105	0.106	0.105	0.085 to 0.115	105	70 to 130	0.948	20
BA17112	Lead, Total	mg/L	0.0000125	0.0001474	0.10	0.110	0.109	0.110	0.085 to 0.115	110	70 to 130	0.913	20
BA17112	Thallium, Total	mg/L	0.0000063	0.0001474	0.10	0.0976	0.0979	0.105	0.085 to 0.115	97.6	70 to 130	0.307	20
BA17112	Cadmium, Total	mg/L	0.0000034	0.0001474	0.10	0.105	0.105	0.104	0.085 to 0.115	105	70 to 130	0.00	20
BA17112	Lithium, Total	mg/L	-0.0000615	0.0154	0.20	0.202	0.206	0.202	0.17 to 0.23	101	70 to 130	1.96	20
BA17112	Chromium, Total	mg/L	-0.0000189	0.00044	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Potassium, Total	mg/L	0.0153	0.3674	10.0	10.2	10.4	10.3	8.5 to 11.5	102	70 to 130	1.94	20
BA17112	Manganese, Total	mg/L	0.0000536	0.0001474	0.10	0.109	0.110	0.107	0.085 to 0.115	109	70 to 130	0.913	20
BA17112	Antimony, Total	mg/L	0.000273	0.001	0.10	0.0990	0.0981	0.0982	0.085 to 0.115	99.0	70 to 130	0.913	20
BA17112	Beryllium, Total	mg/L	0.0000427	0.00088	0.10	0.0940	0.0936	0.0936	0.085 to 0.115	94.0	70 to 130	0.426	20
BA17112	Boron, Total	mg/L	0.00607	0.0650254	1.00	0.997	0.999	1.02	0.85 to 1.15	99.7	70 to 130	0.200	20
BA17112	Magnesium, Total	mg/L	-0.000673	0.0462	5.00	5.19	5.32	5.22	4.25 to 5.75	104	70 to 130	2.47	20
BA17112	Arsenic, Total	mg/L	0.0000056	0.0001474	0.10	0.109	0.109	0.108	0.085 to 0.115	109	70 to 130	0.00	20
BA17112	Calcium, Total	mg/L	0.00863	0.1518	5.00	5.17	5.29	5.23	4.25 to 5.75	103	70 to 130	2.29	20
BA17112	Iron, Total	mg/L	0.00161	0.0176	0.2	0.204	0.208	0.206	0.17 to 0.23	102	70 to 130	1.94	20
BA17112	Molybdenum, Total	mg/L	0.0000017	0.0001474	0.10	0.104	0.105	0.101	0.085 to 0.115	104	70 to 130	0.957	20
BA17112	Sodium, Total	mg/L	0.00134	0.044	5.00	4.99	5.09	5.11	4.25 to 5.75	99.8	70 to 130	1.98	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Customer Account: WMWBARGEB
Sample Date: 9/9/20 12:40
Customer ID:
Delivery Date: 9/10/20 13:30

Description: Barry Gypsum Equipment Blank-1

Laboratory ID Number: BA17112

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA17112	Chloride	mg/L	0.029	0.50	10.0	9.80	0.112	9.94	9 to 11	98.0	80 to 120	0.00	20
BA17112	Sulfate	mg/L	-0.171	0.50	20.0	18.9	-0.113	19.9	18 to 22	94.5	80 to 120	0.00	20
BA17111	Solids, Dissolved	mg/L	1.00	25			39.3	58.0	40 to 60			0.883	5
BA17112	Fluoride	mg/L	0.0418	0.05	2.50	2.47	0.031	2.56	2.25 to 2.75	98.8	80 to 120	0.00	20

Comments:

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Definitions

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
FA	Field results were reviewed by the Water Field Group.
J	Reported value is an estimate because concentration is less than reporting limit.
U	Compound was analyzed, but not detected.

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ☐ Outside Lab

✔ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Barry Gypsum

Bottles

1	Metals	500 mL	3	Hg	250 mL	5	Anions	250 mL	7	N/A	N/A
2	Dissolved Metals	500 mL	4	TDS	500 mL	6	Alkalinity	250 mL	8	N/A	N/A

Comments: Changed analyses for bottles 1 & 2 to be Metals & Dissolved Metals. LBM 9/10/20
Correcting description of MW-10 Dup to Sample Duplicate. LBM 10/07/20

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	09/08/2020	13:36	6	Groundwater		BA17097
MW-5	09/08/2020	14:36	6	Groundwater		BA17098
MW-5 Dup	09/08/2020	14:36	6	Sample Duplicate		BA17099
MW-6	09/08/2020	16:00	6	Groundwater		BA17100
FB-1	09/08/2020	16:35	4	Field Blank		BA17101
MW-7	09/08/2020	17:03	6	Groundwater		BA17102
MW-11	09/08/2020	17:55	6	Groundwater		BA17103
MW-8	09/08/2020	18:40	6	Groundwater		BA17104
MW-3	09/09/2020	08:35	6	Groundwater		BA17105
MW-2	09/09/2020	09:29	6	Groundwater		BA17106
MW-1	09/09/2020	10:23	6	Groundwater		BA17107
MW-9	09/09/2020	11:15	6	Groundwater		BA17108
FB-2	09/09/2020	11:50	4	Field Blank		BA17109
MW-10	09/09/2020	12:15	6	Groundwater		BA17110
MW-10 Dup	09/09/2020	12:15	6	Sample Duplicate		BA17111
EB-1	09/09/2020	12:40	4	Equipment Blank		BA17112

Relinquished By	Received By	Date/Time
		09/10/2020 10:32

SmarTroll ID	7586-41443-5-2
Turbidity ID	5160-26211-1-1
Sample Event	1299

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	0.6 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

Chain of Custody Groundwater

APC General Testing Laboratory

✔ Field Complete ✔ Outside Lab

✔ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Tamala Davis	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Barry Gypsum

Bottles

1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
2	N/A	N/A	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: MS & MSD collected at MW-6. Added 1600 to Rad MS & MSD bottles per COC. LBM 9/10/20
Correcting description of MW-10 Dup to Sample Duplicate. LBM 10/07/20

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-4	09/08/2020	13:36	1	Groundwater		BA17113
MW-5	09/08/2020	14:36	1	Groundwater		BA17114
MW-5 Dup	09/08/2020	14:36	1	Sample Duplicate		BA17115
MW-6	09/08/2020	16:00	3	Groundwater		BA17116
FB-1	09/08/2020	16:35	1	Field Blank		BA17117
MW-7	09/08/2020	17:03	1	Groundwater		BA17118
MW-11	09/08/2020	17:55	1	Groundwater		BA17119
MW-8	09/08/2020	18:40	1	Groundwater		BA17120
MW-3	09/09/2020	08:35	1	Groundwater		BA17121
MW-2	09/09/2020	09:29	1	Groundwater		BA17122
MW-1	09/09/2020	10:23	1	Groundwater		BA17123
MW-9	09/09/2020	11:15	1	Groundwater		BA17124
FB-2	09/09/2020	11:50	1	Field Blank		BA17125
MW-10	09/09/2020	12:15	1	Groundwater		BA17126
MW-10 Dup	09/09/2020	12:15	1	Sample Duplicate		BA17127
EB-1	09/09/2020	12:40	1	Equipment Blank		BA17128

Relinquished By	Received By	Date/Time
		09/10/2020 10:35

SmarTroll ID	7586-41443-5-2
Turbidity ID	5160-26211-1-1
Sample Event	1299

All metals and radiological bottles have pH < 2 ✔

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	8129-45507-2-2

Bottles/Pre-Preserved Bottles are provided by the GTL

7.1

eurofins | Environment Testing America

ANALYTICAL REPORT

Eurofins TestAmerica, Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Tel: (850)474-1001

Laboratory Job ID: 400-193437-1
Laboratory Sample Delivery Group: Barry Gypsum 1299
Client Project/Site: CCR Plant Barry

For:
Alabama Power General Test Laboratory
744 County Rd 87
GSC #8
Calera, Alabama 35040

Attn: Laura Midkiff

Authorized for release by:
10/23/2020 5:16:05 PM

Cheyenne Whitmire, Project Manager II
(850)471-6222
Cheyenne.Whitmire@Eurofinset.com

LINKS

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Job ID: 400-193437-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative
400-193437-1

RAD

Method 9315: Radium-226 Prep Batch 160-483946. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA17113 MW-4 (400-193437-1), BA17114 MW-5 (400-193437-2), BA17115 MW-5 DUP (400-193437-3), BA17116 MW-6 (400-193437-4), BA17116 MW-6 (400-193437-4[MS]), BA17116 MW-6 (400-193437-4[MSD]), BA17117 FB-1 (400-193437-5), BA17118 MW-7 (400-193437-6), BA17119 MW-11 (400-193437-7), BA17120 MW-8 (400-193437-8), BA17121 MW-3 (400-193437-9), BA17122 MW-2 (400-193437-10), BA17123 MW-1 (400-193437-11), BA17124 MW-9 (400-193437-12), BA17125 FB-2 (400-193437-13), BA17126 MW-10 (400-193437-14), BA17127 MW-10DUP (400-193437-15) and BA17128 EB-1 (400-193437-16)

Method 9320: Ra228 prep batch 160-483948. Any minimum detectable concentration (MDC), critical value (DLC), or Safe Drinking Water Act detection limit (SDWA DL) is sample-specific unless otherwise stated elsewhere in this narrative. Radiochemistry sample results are reported with the count date/time applied as the Activity Reference Date. BA17113 MW-4 (400-193437-1), BA17114 MW-5 (400-193437-2), BA17115 MW-5 DUP (400-193437-3), BA17116 MW-6 (400-193437-4), BA17116 MW-6 (400-193437-4[MS]), BA17116 MW-6 (400-193437-4[MSD]), BA17117 FB-1 (400-193437-5), BA17118 MW-7 (400-193437-6), BA17119 MW-11 (400-193437-7), BA17120 MW-8 (400-193437-8), BA17121 MW-3 (400-193437-9), BA17122 MW-2 (400-193437-10), BA17123 MW-1 (400-193437-11), BA17124 MW-9 (400-193437-12), BA17125 FB-2 (400-193437-13), BA17126 MW-10 (400-193437-14), BA17127 MW-10DUP (400-193437-15) and BA17128 EB-1 (400-193437-16)

Method PrecSep_0: Radium 228 Prep Batch 160-483948. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA17113 MW-4 (400-193437-1), BA17114 MW-5 (400-193437-2), BA17115 MW-5 DUP (400-193437-3), BA17116 MW-6 (400-193437-4), BA17116 MW-6 (400-193437-4[MS]), BA17116 MW-6 (400-193437-4[MSD]), BA17117 FB-1 (400-193437-5), BA17118 MW-7 (400-193437-6), BA17119 MW-11 (400-193437-7), BA17120 MW-8 (400-193437-8), BA17121 MW-3 (400-193437-9), BA17122 MW-2 (400-193437-10), BA17123 MW-1 (400-193437-11), BA17124 MW-9 (400-193437-12), BA17125 FB-2 (400-193437-13), BA17126 MW-10 (400-193437-14), BA17127 MW-10DUP (400-193437-15) and BA17128 EB-1 (400-193437-16).

Method PrecSep-21: Radium 226 Prep Batch 160-483946. The following samples were prepared at a reduced aliquot to insure sufficient volume remains if needed for analysis: BA17113 MW-4 (400-193437-1), BA17114 MW-5 (400-193437-2), BA17115 MW-5 DUP (400-193437-3), BA17116 MW-6 (400-193437-4), BA17116 MW-6 (400-193437-4[MS]), BA17116 MW-6 (400-193437-4[MSD]), BA17117 FB-1 (400-193437-5), BA17118 MW-7 (400-193437-6), BA17119 MW-11 (400-193437-7), BA17120 MW-8 (400-193437-8), BA17121 MW-3 (400-193437-9), BA17122 MW-2 (400-193437-10), BA17123 MW-1 (400-193437-11), BA17124 MW-9 (400-193437-12), BA17125 FB-2 (400-193437-13), BA17126 MW-10 (400-193437-14), BA17127 MW-10DUP (400-193437-15) and BA17128 EB-1 (400-193437-16).

Method Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
PrecSep_0	Preparation, Precipitate Separation	None	TAL SL
PrecSep-21	Preparation, Precipitate Separation (21-Day In-Growth)	None	TAL SL

Protocol References:

None = None

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL-STL = TestAmerica Laboratories, St. Louis, Facility Standard Operating Procedure.

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

Sample Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-193437-1	BA17113 MW-4	Water	09/08/20 13:36	09/21/20 10:55	
400-193437-2	BA17114 MW-5	Water	09/08/20 14:36	09/21/20 10:55	
400-193437-3	BA17115 MW-5 DUP	Water	09/08/20 14:36	09/21/20 10:55	
400-193437-4	BA17116 MW-6	Water	09/08/20 16:00	09/21/20 10:55	
400-193437-5	BA17117 FB-1	Water	09/08/20 16:35	09/21/20 10:55	
400-193437-6	BA17118 MW-7	Water	09/08/20 17:03	09/21/20 10:55	
400-193437-7	BA17119 MW-11	Water	09/08/20 17:55	09/21/20 10:55	
400-193437-8	BA17120 MW-8	Water	09/08/20 18:40	09/21/20 10:55	
400-193437-9	BA17121 MW-3	Water	09/09/20 08:35	09/21/20 10:55	
400-193437-10	BA17122 MW-2	Water	09/09/20 09:29	09/21/20 10:55	
400-193437-11	BA17123 MW-1	Water	09/09/20 10:23	09/21/20 10:55	
400-193437-12	BA17124 MW-9	Water	09/09/20 11:15	09/21/20 10:55	
400-193437-13	BA17125 FB-2	Water	09/09/20 11:50	09/21/20 10:55	
400-193437-14	BA17126 MW-10	Water	09/09/20 12:15	09/21/20 10:55	
400-193437-15	BA17127 MW-10 DUP	Water	09/09/20 12:15	09/21/20 10:55	
400-193437-16	BA17128 EB-1	Water	09/09/20 12:40	09/21/20 10:55	

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17113 MW-4

Date Collected: 09/08/20 13:36
Date Received: 09/21/20 10:55

Lab Sample ID: 400-193437-1

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.521		0.249	0.253	1.00	0.269	pCi/L	09/28/20 06:20	10/22/20 10:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*40 - 110*	*09/28/20 06:20*	*10/22/20 10:24*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.752		0.398	0.404	1.00	0.583	pCi/L	09/28/20 06:57	10/21/20 11:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.7*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*
Y Carrier	*72.9*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.27		0.469	0.477	5.00	0.583	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17114 MW-5

Date Collected: 09/08/20 14:36
Date Received: 09/21/20 10:55

Lab Sample ID: 400-193437-2

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.552**		0.268	0.273	1.00	0.297	pCi/L	09/28/20 06:20	10/22/20 10:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.6*		*40 - 110*	*09/28/20 06:20*	*10/22/20 10:24*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.293	U	0.441	0.442	1.00	0.740	pCi/L	09/28/20 06:57	10/21/20 11:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*79.6*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*
Y Carrier	*72.5*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**0.845**		0.516	0.520	5.00	0.740	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17115 MW-5 DUP

Lab Sample ID: 400-193437-3

Date Collected: 09/08/20 14:36
Matrix: Water
Date Received: 09/21/20 10:55

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.11		0.373	0.387	1.00	0.338	pCi/L	09/28/20 06:20	10/22/20 10:24	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.0*		*40 - 110*	*09/28/20 06:20*	*10/22/20 10:24*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.61		0.564	0.583	1.00	0.765	pCi/L	09/28/20 06:57	10/21/20 11:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*76.0*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*
Y Carrier	*75.1*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.72		0.676	0.700	5.00	0.765	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17116 MW-6

Lab Sample ID: 400-193437-4

Date Collected: 09/08/20 16:00
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.349	U	0.262	0.264	1.00	0.376	pCi/L	09/28/20 06:20	10/22/20 10:25	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*09/28/20 06:20*	*10/22/20 10:25*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0533	U	0.403	0.403	1.00	0.716	pCi/L	09/28/20 06:57	10/21/20 11:46	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*77.8*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*
Y Carrier	*73.6*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:46*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.402	U	0.481	0.482	5.00	0.716	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17117 FB-1

Lab Sample ID: 400-193437-5

Date Collected: 09/08/20 16:35
Matrix: Water
Date Received: 09/21/20 10:55

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.00439	U	0.122	0.122	1.00	0.264	pCi/L	09/28/20 06:20	10/22/20 12:21	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*40 - 110*	*09/28/20 06:20*	*10/22/20 12:21*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.191	U	0.351	0.351	1.00	0.668	pCi/L	09/28/20 06:57	10/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*86.4*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*
Y Carrier	*73.6*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.186	U	0.372	0.372	5.00	0.668	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17118 MW-7

Lab Sample ID: 400-193437-6

Date Collected: 09/08/20 17:03
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.462**		0.238	0.242	1.00	0.272	pCi/L	09/28/20 06:20	10/22/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*09/28/20 06:20*	*10/22/20 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.665	U	0.497	0.501	1.00	0.786	pCi/L	09/28/20 06:57	10/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.5*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*
Y Carrier	*74.0*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.13**		0.551	0.556	5.00	0.786	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17119 MW-11

Lab Sample ID: 400-193437-7

Date Collected: 09/08/20 17:55
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.395**		0.228	0.231	1.00	0.285	pCi/L	09/28/20 06:20	10/22/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*40 - 110*	*09/28/20 06:20*	*10/22/20 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0724	U	0.370	0.370	1.00	0.652	pCi/L	09/28/20 06:57	10/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*90.5*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*
Y Carrier	*72.5*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.468	U	0.435	0.436	5.00	0.652	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17120 MW-8

Lab Sample ID: 400-193437-8

Date Collected: 09/08/20 18:40
Matrix: Water
Date Received: 09/21/20 10:55

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.356	U	0.254	0.256	1.00	0.358	pCi/L	09/28/20 06:20	10/22/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.2*		*40 - 110*	*09/28/20 06:20*	*10/22/20 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.331	U	0.414	0.416	1.00	0.792	pCi/L	09/28/20 06:57	10/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*80.2*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*
Y Carrier	*74.8*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0249	U	0.486	0.488	5.00	0.792	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17121 MW-3

Lab Sample ID: 400-193437-9

Date Collected: 09/09/20 08:35
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.281	U	0.220	0.222	1.00	0.319	pCi/L	09/28/20 06:20	10/22/20 12:22	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*09/28/20 06:20*	*10/22/20 12:22*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	**0.769**		0.425	0.431	1.00	0.637	pCi/L	09/28/20 06:57	10/21/20 11:47	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.1*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*
Y Carrier	*74.4*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:47*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.05**		0.479	0.485	5.00	0.637	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17122 MW-2

Lab Sample ID: 400-193437-10

Date Collected: 09/09/20 09:29
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.627**		0.296	0.302	1.00	0.368	pCi/L	09/28/20 06:20	10/22/20 14:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.6*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0258	U	0.387	0.387	1.00	0.688	pCi/L	09/28/20 06:57	10/21/20 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.6*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:51*	*1*
Y Carrier	*71.4*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.653	U	0.487	0.491	5.00	0.688	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17123 MW-1

Lab Sample ID: 400-193437-11

Date Collected: 09/09/20 10:23
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.730		0.275	0.283	1.00	0.256	pCi/L	09/28/20 06:20	10/22/20 14:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.04		0.437	0.447	1.00	0.611	pCi/L	09/28/20 06:57	10/21/20 11:51	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*87.3*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:51*	*1*
Y Carrier	*73.6*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:51*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.77		0.516	0.529	5.00	0.611	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17124 MW-9

Lab Sample ID: 400-193437-12

Date Collected: 09/09/20 11:15
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	1.04		0.328	0.341	1.00	0.272	pCi/L	09/28/20 06:20	10/22/20 14:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.7*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.07		0.460	0.471	1.00	0.648	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*83.7*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*
Y Carrier	*72.9*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	2.11		0.565	0.581	5.00	0.648	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17125 FB-2

Lab Sample ID: 400-193437-13

Date Collected: 09/09/20 11:50
Date Received: 09/21/20 10:55

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0575	U	0.112	0.112	1.00	0.281	pCi/L	09/28/20 06:20	10/22/20 14:06	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:06*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.498	U	0.386	0.389	1.00	0.607	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*
Y Carrier	*71.0*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.440	U	0.402	0.405	5.00	0.607	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17126 MW-10

Date Collected: 09/09/20 12:15
Date Received: 09/21/20 10:55

Lab Sample ID: 400-193437-14

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.599		0.275	0.280	1.00	0.318	pCi/L	09/28/20 06:20	10/22/20 14:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.724		0.392	0.397	1.00	0.583	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*89.9*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*
Y Carrier	*79.3*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.32		0.479	0.486	5.00	0.583	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17127 MW-10 DUP

Date Collected: 09/09/20 12:15
Date Received: 09/21/20 10:55

Lab Sample ID: 400-193437-15

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	**0.811**		0.313	0.322	1.00	0.324	pCi/L	09/28/20 06:20	10/22/20 14:07	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*09/28/20 06:20*	*10/22/20 14:07*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.205	U	0.391	0.392	1.00	0.668	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*85.2*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*
Y Carrier	*71.8*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	**1.02**		0.501	0.507	5.00	0.668	pCi/L		10/23/20 16:13	1

Client Sample Results

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17128 EB-1

Date Collected: 09/09/20 12:40
Date Received: 09/21/20 10:55

Lab Sample ID: 400-193437-16

Matrix: Water

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.306	U	0.223	0.224	1.00	0.324	pCi/L	09/28/20 06:20	10/22/20 22:00	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*09/28/20 06:20*	*10/22/20 22:00*	*1*

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.108	U	0.307	0.307	1.00	0.573	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Carrier	*%Yield*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*94.1*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*
Y Carrier	*77.0*		*40 - 110*	*09/28/20 06:57*	*10/21/20 11:52*	*1*

Method: Ra226_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.198	U	0.379	0.380	5.00	0.573	pCi/L		10/23/20 16:13	1

Definitions/Glossary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Qualifiers

Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17113 MW-4
Lab Sample ID: 400-193437-1

Date Collected: 09/08/20 13:36
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 10:24	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:46	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17114 MW-5
Lab Sample ID: 400-193437-2

Date Collected: 09/08/20 14:36
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 10:24	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:46	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17115 MW-5 DUP
Lab Sample ID: 400-193437-3

Date Collected: 09/08/20 14:36
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 10:24	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:46	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17116 MW-6
Lab Sample ID: 400-193437-4

Date Collected: 09/08/20 16:00
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 10:25	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:46	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17117 FB-1 — Lab Sample ID: 400-193437-5

Date Collected: 09/08/20 16:35 — **Matrix: Water**
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 12:21	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:47	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17118 MW-7 — Lab Sample ID: 400-193437-6

Date Collected: 09/08/20 17:03 — **Matrix: Water**
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 12:22	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:47	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17119 MW-11 — Lab Sample ID: 400-193437-7

Date Collected: 09/08/20 17:55 — **Matrix: Water**
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 12:22	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:47	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17120 MW-8 — Lab Sample ID: 400-193437-8

Date Collected: 09/08/20 18:40 — **Matrix: Water**
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 12:22	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:47	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17121 MW-3

Lab Sample ID: 400-193437-9
Date Collected: 09/09/20 08:35
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 12:22	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486424	10/21/20 11:47	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17122 MW-2

Lab Sample ID: 400-193437-10
Date Collected: 09/09/20 09:29
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:06	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:51	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17123 MW-1

Lab Sample ID: 400-193437-11
Date Collected: 09/09/20 10:23
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:06	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:51	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17124 MW-9

Lab Sample ID: 400-193437-12
Date Collected: 09/09/20 11:15
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:06	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:52	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Lab Chronicle

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Client Sample ID: BA17125 FB-2
Lab Sample ID: 400-193437-13
Date Collected: 09/09/20 11:50
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:06	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:52	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17126 MW-10
Lab Sample ID: 400-193437-14
Date Collected: 09/09/20 12:15
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:07	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:52	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17127 MW-10 DUP
Lab Sample ID: 400-193437-15
Date Collected: 09/09/20 12:15
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 14:07	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:52	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Client Sample ID: BA17128 EB-1
Lab Sample ID: 400-193437-16
Date Collected: 09/09/20 12:40
Matrix: Water
Date Received: 09/21/20 10:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			483946	09/28/20 06:20	AVB	TAL SL
Total/NA	Analysis	9315		1	486605	10/22/20 22:00	CMM	TAL SL
Total/NA	Prep	PrecSep_0			483948	09/28/20 06:57	AVB	TAL SL
Total/NA	Analysis	9320		1	486421	10/21/20 11:52	FLC	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	486661	10/23/20 16:13	GRW	TAL SL

Laboratory References:

TAL SL = Eurofins TestAmerica, St. Louis, 13715 Rider Trail North, Earth City, MO 63045, TEL (314)298-8566

QC Association Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Rad

Prep Batch: 483946

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193437-1	BA17113 MW-4	Total/NA	Water	PrecSep-21	
400-193437-2	BA17114 MW-5	Total/NA	Water	PrecSep-21	
400-193437-3	BA17115 MW-5 DUP	Total/NA	Water	PrecSep-21	
400-193437-4	BA17116 MW-6	Total/NA	Water	PrecSep-21	
400-193437-5	BA17117 FB-1	Total/NA	Water	PrecSep-21	
400-193437-6	BA17118 MW-7	Total/NA	Water	PrecSep-21	
400-193437-7	BA17119 MW-11	Total/NA	Water	PrecSep-21	
400-193437-8	BA17120 MW-8	Total/NA	Water	PrecSep-21	
400-193437-9	BA17121 MW-3	Total/NA	Water	PrecSep-21	
400-193437-10	BA17122 MW-2	Total/NA	Water	PrecSep-21	
400-193437-11	BA17123 MW-1	Total/NA	Water	PrecSep-21	
400-193437-12	BA17124 MW-9	Total/NA	Water	PrecSep-21	
400-193437-13	BA17125 FB-2	Total/NA	Water	PrecSep-21	
400-193437-14	BA17126 MW-10	Total/NA	Water	PrecSep-21	
400-193437-15	BA17127 MW-10 DUP	Total/NA	Water	PrecSep-21	
400-193437-16	BA17128 EB-1	Total/NA	Water	PrecSep-21	
MB 160-483946/20-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-483946/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-193437-4 MS	BA17116 MW-6	Total/NA	Water	PrecSep-21	
400-193437-4 MSD	BA17116 MW-6	Total/NA	Water	PrecSep-21	

Prep Batch: 483948

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-193437-1	BA17113 MW-4	Total/NA	Water	PrecSep_0	
400-193437-2	BA17114 MW-5	Total/NA	Water	PrecSep_0	
400-193437-3	BA17115 MW-5 DUP	Total/NA	Water	PrecSep_0	
400-193437-4	BA17116 MW-6	Total/NA	Water	PrecSep_0	
400-193437-5	BA17117 FB-1	Total/NA	Water	PrecSep_0	
400-193437-6	BA17118 MW-7	Total/NA	Water	PrecSep_0	
400-193437-7	BA17119 MW-11	Total/NA	Water	PrecSep_0	
400-193437-8	BA17120 MW-8	Total/NA	Water	PrecSep_0	
400-193437-9	BA17121 MW-3	Total/NA	Water	PrecSep_0	
400-193437-10	BA17122 MW-2	Total/NA	Water	PrecSep_0	
400-193437-11	BA17123 MW-1	Total/NA	Water	PrecSep_0	
400-193437-12	BA17124 MW-9	Total/NA	Water	PrecSep_0	
400-193437-13	BA17125 FB-2	Total/NA	Water	PrecSep_0	
400-193437-14	BA17126 MW-10	Total/NA	Water	PrecSep_0	
400-193437-15	BA17127 MW-10 DUP	Total/NA	Water	PrecSep_0	
400-193437-16	BA17128 EB-1	Total/NA	Water	PrecSep_0	
MB 160-483948/20-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-483948/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-193437-4 MS	BA17116 MW-6	Total/NA	Water	PrecSep_0	
400-193437-4 MSD	BA17116 MW-6	Total/NA	Water	PrecSep_0	

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-483946/20-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486605 — **Prep Batch: 483946**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1918		0.132	0.133	1.00	0.174	pCi/L	09/28/20 06:20	10/22/20 22:01	1

Carrier	*MB %Yield*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
Ba Carrier	*88.2*		*40 - 110*	*09/28/20 06:20*	*10/22/20 22:01*	*1*

Lab Sample ID: LCS 160-483946/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486605 — **Prep Batch: 483946**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226			11.3	11.03		1.36	1.00	0.323	pCi/L	97	75 - 125		

Carrier	*LCS %Yield*	*LCS Qualifier*	*Limits*
Ba Carrier	*78.7*		*40 - 110*

Lab Sample ID: 400-193437-4 MS — **Client Sample ID: BA17116 MW-6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486605 — **Prep Batch: 483946**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-226	0.349	U	15.1	14.05		1.73	1.00	0.347	pCi/L	90	75 - 138		

Carrier	*MS %Yield*	*MS Qualifier*	*Limits*
Ba Carrier	*83.1*		*40 - 110*

Lab Sample ID: 400-193437-4 MSD — **Client Sample ID: BA17116 MW-6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486605 — **Prep Batch: 483946**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	0.349	U	15.1	15.22		1.80	1.00	0.377	pCi/L	98	75 - 138	0.33	1

Carrier	*MSD %Yield*	*MSD Qualifier*	*Limits*
Ba Carrier	*89.3*		*40 - 110*

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-483948/20-A — **Client Sample ID: Method Blank**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486421 — **Prep Batch: 483948**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1672	U	0.273	0.273	1.00	0.461	pCi/L	09/28/20 06:57	10/21/20 11:52	1

Method: 9320 - Radium-228 (GFPC) (Continued)

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	88.2		40 - 110	09/28/20 06:57	10/21/20 11:52	1
Y Carrier	79.3		40 - 110	09/28/20 06:57	10/21/20 11:52	1

Lab Sample ID: LCS 160-483948/1-A — **Client Sample ID: Lab Control Sample**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486424 — **Prep Batch: 483948**

Analyte			Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228			7.72	9.436		1.18	1.00	0.496	pCi/L	122	75 - 125		

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	78.7		40 - 110
Y Carrier	75.1		40 - 110

Lab Sample ID: 400-193437-4 MS — **Client Sample ID: BA17116 MW-6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486424 — **Prep Batch: 483948**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		
Radium-228	0.0533	U	10.3	13.67		1.66	1.00	0.643	pCi/L	132	45 - 150		

Carrier	MS %Yield	MS Qualifier	Limits
Ba Carrier	83.1		40 - 110
Y Carrier	75.5		40 - 110

Lab Sample ID: 400-193437-4 MSD — **Client Sample ID: BA17116 MW-6**
Matrix: Water — **Prep Type: Total/NA**
Analysis Batch: 486424 — **Prep Batch: 483948**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-228	0.0533	U	10.3	12.90		1.57	1.00	0.658	pCi/L	125	45 - 150	0.24	1

Carrier	MSD %Yield	MSD Qualifier	Limits
Ba Carrier	89.3		40 - 110
Y Carrier	74.0		40 - 110

TestAmerica Pensacola
3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2671

Chain of Custody Record

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

Client Information (Sub Contract Lab)	Sampler: Anthony Goggins	Lab PM: Whitmire, Cheyenne R	Carrier Tracking No(s):	COC No: 400-56525-24537.1
Client Contact: Laura Midkif	Phone:	E-Mail: cheyenne.whitmire@testamericainc.com	State of Origin: Alabama	Page: Page 1 of 1
Company: Alabama Power General Test Laboratory		Accreditations Required (See note):		Job #:
Address: 744 County Rd 87 GSC#8	Due Date Requested:			
City: Calera	TAT Requested (days): Routine			
State, Zip: AL, 35040				
Phone: 205-664-6197	PO #: APC67309-0001			
Email: lbmidkif@southernco.com	WO #:			
Project Name: CCR	Project #: 40007143			
Site: Barry Gypsum 1299	SSOW#:			

Analysis Requested

400-193437 COC

Preservation Codes:
A - HCL, B - NaOH, C - Zn Acetate, D - Nitric Acid, E - NaHSO4, F - MeOH, G - Amchlor, H - Ascorbic Acid, I - Ice, J - DI Water, K - EDTA, L - EDA
M - Hexane, N - None, O - AsNaO2, P - Na2O4S, Q - Na2SO3, R - Na2S2O3, S - H2SO4, T - TSP Dodecahydrate, U - Acetone, V - MCAA, W - pH 4-5, Z - other (specify)
Other:

Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (Wwater, Ssolid, Owaste/oil, BT=Tissue, A=Air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F_C	SM 4500 Cl_E	SM 4500 SO4_E	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPC	Total Number of containers	Special Instructions/Note:
			Preservation Code:									
BA17113	9/8/20	13:36	G	Water						X	1	MW-4
BA17114	9/8/20	14:36	G	Water						X	1	MW-5
BA17115	9/8/20	14:36	G	Water						X	1	MW-5 DUP (Sample Duplicate)
BA17116	9/8/20	16:00	G	Water		X				X	3	MW-6
BA17117	9/8/20	16:35	G	Water						X	1	FB-1 (Field Blank)
BA17118	9/8/20	17:03	G	Water						X	1	MW-7
BA17119	9/8/20	17:55	G	Water						X	1	MW-11
BA17120	9/8/20	18:40	G	Water						X	1	MW-8
BA17121	9/9/20	08:35	G	Water						X	1	MW-3
BA17122	9/9/20	09:29	G	Water						X	1	MW-2
BA17123	9/9/20	10:23	G	Water						X	1	MW-1
BA17124	9/9/20	11:15	G	Water						X	1	MW-9
BA17125	9/9/20	11:50	G	Water						X	1	FB-2 (Field Blank)
BA17126	9/9/20	12:15	G	Water						X	1	MW-10
BA17127	9/9/20	12:15	G	Water						X	1	MW-10 DUP (Sample Duplicate)
BA17128	9/9/20	12:40	G	Water						X	1	EB-1 (Equipment Blank)

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon out subcontract laboratories. This sample shipment is forwarded under chain-of-custody. If the laboratory does not currently maintain accreditation in the State of Origin listed above for analysis/tests/matrix being analyzed, the samples must be shipped back to the TestAmerica laboratory or other instructions will be provided. Any changes to accreditation status should be brought to TestAmerica Laboratories, Inc. attention immediately. If all requested accreditations are current to date, return the signed Chain of Custody attesting to said complicance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
Unconfirmed

Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)
☐ *Return To Client* ☐ *Disposal By Lab* ☐ *Archive For* _____ *Months*

Deliverable Requested: I, II, III, IV, Other (specify) 44048 Special Instructions/QC Requirements:

Empty Kit Relinquished by:	Date:	Time:	Method of Shipment:		
Relinquished by: Laura Midkiff	Date/Time: 09/10/2020 1610	Company: Water APC	Received by:	Date/Time:	Company
Relinquished by:	Date/Time:	Company	Received by:	Date/Time:	Company
Relinquished by:	0	Company	Received by:	Date/Time: 9/21/20 10:55	Company: TAPen
Custody Seals Intact:			Cooler Temperature(s) °C and Other Remarks:		

Ver: 09/20/2016

21.7°C
TR 7

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-193437-1
SDG Number: Barry Gypsum 1299

Login Number: 193437
List Number: 1
Creator: Gore, Beija K

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	21.7 °C IR 7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-193437-1
SDG Number: Barry Gypsum 1299

Login Number: 193437
List Number: 2
Creator: Mazariegos, Leonel A

List Source: Eurofins TestAmerica, St. Louis
List Creation: 09/25/20 08:33 AM

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

Accreditation/Certification Summary

Client: Alabama Power General Test Laboratory
Project/Site: CCR Plant Barry

Job ID: 400-193437-1
SDG: Barry Gypsum 1299

Laboratory: Eurofins TestAmerica, St. Louis

All accreditations/certifications held by this laboratory are listed. Not all accreditations/certifications are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Alaska (UST)	State	20-001	05-06-22
ANAB	Dept. of Defense ELAP	L2305	04-06-22
ANAB	Dept. of Energy	L2305.01	04-06-22
ANAB	ISO/IEC 17025	L2305	04-06-22
Arizona	State	AZ0813	12-08-20
California	Los Angeles County Sanitation Districts	10259	06-30-21
California	State	2886	06-30-21
Connecticut	State	PH-0241	03-31-21
Florida	NELAP	E87689	06-30-21
HI - RadChem Recognition	State	n/a	06-30-21
Illinois	NELAP	004553	11-30-20
Iowa	State	373	12-01-20
Kansas	NELAP	E-10236	10-31-20
Kentucky (DW)	State	KY90125	12-31-20
Louisiana	NELAP	04080	06-30-21
Louisiana (DW)	State	LA011	12-31-20
Maryland	State	310	09-30-21
MI - RadChem Recognition	State	9005	06-30-21
Missouri	State	780	06-30-22
Nevada	State	MO000542020-1	07-31-21
New Jersey	NELAP	MO002	06-30-21
New York	NELAP	11616	04-01-21
North Dakota	State	R-207	06-30-21
NRC	NRC	24-24817-01	12-31-22
Oklahoma	State	9997	08-31-21
Oregon	NELAP	4157	09-01-21
Pennsylvania	NELAP	68-00540	02-28-21
Texas	NELAP	T104704193-19-13	07-31-21
US Fish & Wildlife	US Federal Programs	058448	07-31-21
USDA	US Federal Programs	P330-17-00028	03-11-23
Utah	NELAP	MO000542019-11	07-31-21
Virginia	NELAP	10310	06-14-21
Washington	State	C592	08-30-21
West Virginia DEP	State	381	10-31-21

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-1	9/9/2020 10:05	Conductivity	66.24	uS/cm
BY-GSA-MW-1	9/9/2020 10:05	DO	0.15	mg/L
BY-GSA-MW-1	9/9/2020 10:05	Depth to Water Detail	15.42	ft
BY-GSA-MW-1	9/9/2020 10:05	Oxidation Reduction Potention	190.03	mv
BY-GSA-MW-1	9/9/2020 10:05	pH	4.72	pH
BY-GSA-MW-1	9/9/2020 10:05	Temperature	21.43	C
BY-GSA-MW-1	9/9/2020 10:05	Turbidity	2.9	NTU
BY-GSA-MW-1	9/9/2020 10:10	Conductivity	66.22	uS/cm
BY-GSA-MW-1	9/9/2020 10:10	DO	0.11	mg/L
BY-GSA-MW-1	9/9/2020 10:10	Depth to Water Detail	15.42	ft
BY-GSA-MW-1	9/9/2020 10:10	Oxidation Reduction Potention	194.91	mv
BY-GSA-MW-1	9/9/2020 10:10	pH	4.73	pH
BY-GSA-MW-1	9/9/2020 10:10	Temperature	21.44	C
BY-GSA-MW-1	9/9/2020 10:10	Turbidity	1.31	NTU
BY-GSA-MW-1	9/9/2020 10:15	Conductivity	66.66	uS/cm
BY-GSA-MW-1	9/9/2020 10:15	DO	0.11	mg/L
BY-GSA-MW-1	9/9/2020 10:15	Depth to Water Detail	15.42	ft
BY-GSA-MW-1	9/9/2020 10:15	Oxidation Reduction Potention	199.88	mv
BY-GSA-MW-1	9/9/2020 10:15	pH	4.67	pH
BY-GSA-MW-1	9/9/2020 10:15	Temperature	21.42	C
BY-GSA-MW-1	9/9/2020 10:15	Turbidity	1.02	NTU
BY-GSA-MW-1	9/9/2020 10:20	Conductivity	66.68	uS/cm
BY-GSA-MW-1	9/9/2020 10:20	DO	0.1	mg/L
BY-GSA-MW-1	9/9/2020 10:20	Depth to Water Detail	15.42	ft
BY-GSA-MW-1	9/9/2020 10:20	Oxidation Reduction Potention	205.82	mv
BY-GSA-MW-1	9/9/2020 10:20	pH	4.65	pH
BY-GSA-MW-1	9/9/2020 10:20	Temperature	21.21	C
BY-GSA-MW-1	9/9/2020 10:20	Turbidity	1.02	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-2	9/9/2020 9:10	Conductivity	61.53	uS/cm
BY-GSA-MW-2	9/9/2020 9:10	DO	6.77	mg/L
BY-GSA-MW-2	9/9/2020 9:10	Depth to Water Detail	14.85	ft
BY-GSA-MW-2	9/9/2020 9:10	Oxidation Reduction Potention	220.73	mv
BY-GSA-MW-2	9/9/2020 9:10	pH	4.61	pH
BY-GSA-MW-2	9/9/2020 9:10	Temperature	20.84	C
BY-GSA-MW-2	9/9/2020 9:10	Turbidity	9.87	NTU
BY-GSA-MW-2	9/9/2020 9:15	Conductivity	60.37	uS/cm
BY-GSA-MW-2	9/9/2020 9:15	DO	6.67	mg/L
BY-GSA-MW-2	9/9/2020 9:15	Depth to Water Detail	14.85	ft
BY-GSA-MW-2	9/9/2020 9:15	Oxidation Reduction Potention	235.03	mv
BY-GSA-MW-2	9/9/2020 9:15	pH	4.65	pH
BY-GSA-MW-2	9/9/2020 9:15	Temperature	20.79	C
BY-GSA-MW-2	9/9/2020 9:15	Turbidity	12.1	NTU
BY-GSA-MW-2	9/9/2020 9:20	Conductivity	60.11	uS/cm
BY-GSA-MW-2	9/9/2020 9:20	DO	6.61	mg/L
BY-GSA-MW-2	9/9/2020 9:20	Depth to Water Detail	14.85	ft
BY-GSA-MW-2	9/9/2020 9:20	Oxidation Reduction Potention	245.85	mv
BY-GSA-MW-2	9/9/2020 9:20	pH	4.66	pH
BY-GSA-MW-2	9/9/2020 9:20	Temperature	20.82	C
BY-GSA-MW-2	9/9/2020 9:20	Turbidity	10.9	NTU
BY-GSA-MW-2	9/9/2020 9:25	Conductivity	59.7	uS/cm
BY-GSA-MW-2	9/9/2020 9:25	DO	6.52	mg/L
BY-GSA-MW-2	9/9/2020 9:25	Depth to Water Detail	14.85	ft
BY-GSA-MW-2	9/9/2020 9:25	Oxidation Reduction Potention	256.03	mv
BY-GSA-MW-2	9/9/2020 9:25	pH	4.67	pH
BY-GSA-MW-2	9/9/2020 9:25	Temperature	20.79	C
BY-GSA-MW-2	9/9/2020 9:25	Turbidity	9.32	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-3	9/9/2020 8:18	Conductivity	52.45	uS/cm
BY-GSA-MW-3	9/9/2020 8:18	DO	6.12	mg/L
BY-GSA-MW-3	9/9/2020 8:18	Depth to Water Detail	17.46	ft
BY-GSA-MW-3	9/9/2020 8:18	Oxidation Reduction Potention	211.13	mv
BY-GSA-MW-3	9/9/2020 8:18	pH	4.81	pH
BY-GSA-MW-3	9/9/2020 8:18	Temperature	20.68	C
BY-GSA-MW-3	9/9/2020 8:18	Turbidity	4.55	NTU
BY-GSA-MW-3	9/9/2020 8:23	Conductivity	52.33	uS/cm
BY-GSA-MW-3	9/9/2020 8:23	DO	5.97	mg/L
BY-GSA-MW-3	9/9/2020 8:23	Depth to Water Detail	17.46	ft
BY-GSA-MW-3	9/9/2020 8:23	Oxidation Reduction Potention	218.02	mv
BY-GSA-MW-3	9/9/2020 8:23	pH	4.84	pH
BY-GSA-MW-3	9/9/2020 8:23	Temperature	20.69	C
BY-GSA-MW-3	9/9/2020 8:23	Turbidity	3.68	NTU
BY-GSA-MW-3	9/9/2020 8:28	Conductivity	52.43	uS/cm
BY-GSA-MW-3	9/9/2020 8:28	DO	5.95	mg/L
BY-GSA-MW-3	9/9/2020 8:28	Depth to Water Detail	17.46	ft
BY-GSA-MW-3	9/9/2020 8:28	Oxidation Reduction Potention	221.92	mv
BY-GSA-MW-3	9/9/2020 8:28	pH	4.74	pH
BY-GSA-MW-3	9/9/2020 8:28	Temperature	20.67	C
BY-GSA-MW-3	9/9/2020 8:28	Turbidity	3.22	NTU
BY-GSA-MW-3	9/9/2020 8:33	Conductivity	52.56	uS/cm
BY-GSA-MW-3	9/9/2020 8:33	DO	5.92	mg/L
BY-GSA-MW-3	9/9/2020 8:33	Depth to Water Detail	17.46	ft
BY-GSA-MW-3	9/9/2020 8:33	Oxidation Reduction Potention	236.75	mv
BY-GSA-MW-3	9/9/2020 8:33	pH	4.76	pH
BY-GSA-MW-3	9/9/2020 8:33	Temperature	20.6	C
BY-GSA-MW-3	9/9/2020 8:33	Turbidity	2.24	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-4	9/8/2020 13:18	Conductivity	54.34	uS/cm
BY-GSA-MW-4	9/8/2020 13:18	DO	6.59	mg/L
BY-GSA-MW-4	9/8/2020 13:18	Depth to Water Detail	23.59	ft
BY-GSA-MW-4	9/8/2020 13:18	Oxidation Reduction Potention	252.37	mv
BY-GSA-MW-4	9/8/2020 13:18	pH	4.72	pH
BY-GSA-MW-4	9/8/2020 13:18	Temperature	22.76	C
BY-GSA-MW-4	9/8/2020 13:18	Turbidity	9.59	NTU
BY-GSA-MW-4	9/8/2020 13:23	Conductivity	54.13	uS/cm
BY-GSA-MW-4	9/8/2020 13:23	DO	6.5	mg/L
BY-GSA-MW-4	9/8/2020 13:23	Depth to Water Detail	23.59	ft
BY-GSA-MW-4	9/8/2020 13:23	Oxidation Reduction Potention	258.17	mv
BY-GSA-MW-4	9/8/2020 13:23	pH	4.76	pH
BY-GSA-MW-4	9/8/2020 13:23	Temperature	23.01	C
BY-GSA-MW-4	9/8/2020 13:23	Turbidity	5.08	NTU
BY-GSA-MW-4	9/8/2020 13:28	Conductivity	53.88	uS/cm
BY-GSA-MW-4	9/8/2020 13:28	DO	6.46	mg/L
BY-GSA-MW-4	9/8/2020 13:28	Depth to Water Detail	23.59	ft
BY-GSA-MW-4	9/8/2020 13:28	Oxidation Reduction Potention	259.27	mv
BY-GSA-MW-4	9/8/2020 13:28	pH	4.8	pH
BY-GSA-MW-4	9/8/2020 13:28	Temperature	22.86	C
BY-GSA-MW-4	9/8/2020 13:28	Turbidity	4.67	NTU
BY-GSA-MW-4	9/8/2020 13:33	Conductivity	53.56	uS/cm
BY-GSA-MW-4	9/8/2020 13:33	DO	6.38	mg/L
BY-GSA-MW-4	9/8/2020 13:33	Depth to Water Detail	23.59	ft
BY-GSA-MW-4	9/8/2020 13:33	Oxidation Reduction Potention	267.52	mv
BY-GSA-MW-4	9/8/2020 13:33	pH	4.75	pH
BY-GSA-MW-4	9/8/2020 13:33	Temperature	22.86	C
BY-GSA-MW-4	9/8/2020 13:33	Turbidity	4.76	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-5	9/8/2020 14:13	Conductivity	86.5	uS/cm
BY-GSA-MW-5	9/8/2020 14:13	DO	4.77	mg/L
BY-GSA-MW-5	9/8/2020 14:13	Depth to Water Detail	29.76	ft
BY-GSA-MW-5	9/8/2020 14:13	Oxidation Reduction Potention	259.46	mv
BY-GSA-MW-5	9/8/2020 14:13	pH	4.76	pH
BY-GSA-MW-5	9/8/2020 14:13	Temperature	24.11	C
BY-GSA-MW-5	9/8/2020 14:13	Turbidity	2	NTU
BY-GSA-MW-5	9/8/2020 14:18	Conductivity	87.25	uS/cm
BY-GSA-MW-5	9/8/2020 14:18	DO	4.65	mg/L
BY-GSA-MW-5	9/8/2020 14:18	Depth to Water Detail	29.76	ft
BY-GSA-MW-5	9/8/2020 14:18	Oxidation Reduction Potention	266.65	mv
BY-GSA-MW-5	9/8/2020 14:18	pH	4.76	pH
BY-GSA-MW-5	9/8/2020 14:18	Temperature	24.02	C
BY-GSA-MW-5	9/8/2020 14:18	Turbidity	1.1	NTU
BY-GSA-MW-5	9/8/2020 14:23	Conductivity	81.77	uS/cm
BY-GSA-MW-5	9/8/2020 14:23	DO	4.78	mg/L
BY-GSA-MW-5	9/8/2020 14:23	Depth to Water Detail	29.76	ft
BY-GSA-MW-5	9/8/2020 14:23	Oxidation Reduction Potention	274.38	mv
BY-GSA-MW-5	9/8/2020 14:23	pH	4.7	pH
BY-GSA-MW-5	9/8/2020 14:23	Temperature	23.79	C
BY-GSA-MW-5	9/8/2020 14:23	Turbidity	0.9	NTU
BY-GSA-MW-5	9/8/2020 14:28	Conductivity	80.25	uS/cm
BY-GSA-MW-5	9/8/2020 14:28	DO	4.64	mg/L
BY-GSA-MW-5	9/8/2020 14:28	Depth to Water Detail	29.76	ft
BY-GSA-MW-5	9/8/2020 14:28	Oxidation Reduction Potention	273.36	mv
BY-GSA-MW-5	9/8/2020 14:28	pH	4.75	pH
BY-GSA-MW-5	9/8/2020 14:28	Temperature	23.91	C
BY-GSA-MW-5	9/8/2020 14:28	Turbidity	0.77	NTU
BY-GSA-MW-5	9/8/2020 14:33	Conductivity	78.96	uS/cm
BY-GSA-MW-5	9/8/2020 14:33	DO	4.68	mg/L
BY-GSA-MW-5	9/8/2020 14:33	Depth to Water Detail	29.76	ft
BY-GSA-MW-5	9/8/2020 14:33	Oxidation Reduction Potention	274.81	mv
BY-GSA-MW-5	9/8/2020 14:33	pH	4.77	pH
BY-GSA-MW-5	9/8/2020 14:33	Temperature	23.46	C
BY-GSA-MW-5	9/8/2020 14:33	Turbidity	0.62	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-6	9/8/2020 15:40	Conductivity	84.59	uS/cm
BY-GSA-MW-6	9/8/2020 15:40	DO	4.99	mg/L
BY-GSA-MW-6	9/8/2020 15:40	Depth to Water Detail	17.68	ft
BY-GSA-MW-6	9/8/2020 15:40	Oxidation Reduction Potention	224.8	mv
BY-GSA-MW-6	9/8/2020 15:40	pH	5.1	pH
BY-GSA-MW-6	9/8/2020 15:40	Temperature	23.4	C
BY-GSA-MW-6	9/8/2020 15:40	Turbidity	1.34	NTU
BY-GSA-MW-6	9/8/2020 15:45	Conductivity	84.73	uS/cm
BY-GSA-MW-6	9/8/2020 15:45	DO	4.94	mg/L
BY-GSA-MW-6	9/8/2020 15:45	Depth to Water Detail	17.68	ft
BY-GSA-MW-6	9/8/2020 15:45	Oxidation Reduction Potention	232.41	mv
BY-GSA-MW-6	9/8/2020 15:45	pH	5.17	pH
BY-GSA-MW-6	9/8/2020 15:45	Temperature	23.5	C
BY-GSA-MW-6	9/8/2020 15:45	Turbidity	1.99	NTU
BY-GSA-MW-6	9/8/2020 15:50	Conductivity	85.2	uS/cm
BY-GSA-MW-6	9/8/2020 15:50	DO	4.91	mg/L
BY-GSA-MW-6	9/8/2020 15:50	Depth to Water Detail	17.68	ft
BY-GSA-MW-6	9/8/2020 15:50	Oxidation Reduction Potention	236	mv
BY-GSA-MW-6	9/8/2020 15:50	pH	5.17	pH
BY-GSA-MW-6	9/8/2020 15:50	Temperature	23.48	C
BY-GSA-MW-6	9/8/2020 15:50	Turbidity	2.11	NTU
BY-GSA-MW-6	9/8/2020 15:55	Conductivity	85.69	uS/cm
BY-GSA-MW-6	9/8/2020 15:55	DO	4.88	mg/L
BY-GSA-MW-6	9/8/2020 15:55	Depth to Water Detail	17.68	ft
BY-GSA-MW-6	9/8/2020 15:55	Oxidation Reduction Potention	241.31	mv
BY-GSA-MW-6	9/8/2020 15:55	pH	5.15	pH
BY-GSA-MW-6	9/8/2020 15:55	Temperature	23.41	C
BY-GSA-MW-6	9/8/2020 15:55	Turbidity	3.38	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-7	9/8/2020 16:33	Conductivity	38.78	uS/cm
BY-GSA-MW-7	9/8/2020 16:33	DO	3.79	mg/L
BY-GSA-MW-7	9/8/2020 16:33	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:33	Oxidation Reduction Potention	268.73	mv
BY-GSA-MW-7	9/8/2020 16:33	pH	4.78	pH
BY-GSA-MW-7	9/8/2020 16:33	Temperature	22.17	C
BY-GSA-MW-7	9/8/2020 16:33	Turbidity	6.53	NTU
BY-GSA-MW-7	9/8/2020 16:38	Conductivity	40.61	uS/cm
BY-GSA-MW-7	9/8/2020 16:38	DO	3.75	mg/L
BY-GSA-MW-7	9/8/2020 16:38	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:38	Oxidation Reduction Potention	285.44	mv
BY-GSA-MW-7	9/8/2020 16:38	pH	4.64	pH
BY-GSA-MW-7	9/8/2020 16:38	Temperature	22.04	C
BY-GSA-MW-7	9/8/2020 16:38	Turbidity	7.05	NTU
BY-GSA-MW-7	9/8/2020 16:43	Conductivity	42.77	uS/cm
BY-GSA-MW-7	9/8/2020 16:43	DO	3.72	mg/L
BY-GSA-MW-7	9/8/2020 16:43	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:43	Oxidation Reduction Potention	295.37	mv
BY-GSA-MW-7	9/8/2020 16:43	pH	4.56	pH
BY-GSA-MW-7	9/8/2020 16:43	Temperature	22.08	C
BY-GSA-MW-7	9/8/2020 16:43	Turbidity	6.61	NTU
BY-GSA-MW-7	9/8/2020 16:48	Conductivity	46.35	uS/cm
BY-GSA-MW-7	9/8/2020 16:48	DO	3.65	mg/L
BY-GSA-MW-7	9/8/2020 16:48	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:48	Oxidation Reduction Potention	303.52	mv
BY-GSA-MW-7	9/8/2020 16:48	pH	4.49	pH
BY-GSA-MW-7	9/8/2020 16:48	Temperature	22.03	C
BY-GSA-MW-7	9/8/2020 16:48	Turbidity	4.77	NTU
BY-GSA-MW-7	9/8/2020 16:53	Conductivity	47.13	uS/cm
BY-GSA-MW-7	9/8/2020 16:53	DO	3.62	mg/L
BY-GSA-MW-7	9/8/2020 16:53	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:53	Oxidation Reduction Potention	309.85	mv
BY-GSA-MW-7	9/8/2020 16:53	pH	4.43	pH
BY-GSA-MW-7	9/8/2020 16:53	Temperature	22.18	C
BY-GSA-MW-7	9/8/2020 16:53	Turbidity	3.96	NTU
BY-GSA-MW-7	9/8/2020 16:58	Conductivity	48.46	uS/cm
BY-GSA-MW-7	9/8/2020 16:58	DO	3.59	mg/L
BY-GSA-MW-7	9/8/2020 16:58	Depth to Water Detail	16.68	ft
BY-GSA-MW-7	9/8/2020 16:58	Oxidation Reduction Potention	316.7	mv
BY-GSA-MW-7	9/8/2020 16:58	pH	4.39	pH
BY-GSA-MW-7	9/8/2020 16:58	Temperature	22.14	C
BY-GSA-MW-7	9/8/2020 16:58	Turbidity	2.9	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-8	9/8/2020 18:21	Conductivity	42.02	uS/cm
BY-GSA-MW-8	9/8/2020 18:21	DO	1.02	mg/L
BY-GSA-MW-8	9/8/2020 18:21	Depth to Water Detail	30.05	ft
BY-GSA-MW-8	9/8/2020 18:21	Oxidation Reduction Potention	311.59	mv
BY-GSA-MW-8	9/8/2020 18:21	pH	4.39	pH
BY-GSA-MW-8	9/8/2020 18:21	Temperature	21.61	C
BY-GSA-MW-8	9/8/2020 18:21	Turbidity	6.46	NTU
BY-GSA-MW-8	9/8/2020 18:26	Conductivity	41.84	uS/cm
BY-GSA-MW-8	9/8/2020 18:26	DO	0.9	mg/L
BY-GSA-MW-8	9/8/2020 18:26	Depth to Water Detail	30.05	ft
BY-GSA-MW-8	9/8/2020 18:26	Oxidation Reduction Potention	319.36	mv
BY-GSA-MW-8	9/8/2020 18:26	pH	4.39	pH
BY-GSA-MW-8	9/8/2020 18:26	Temperature	21.57	C
BY-GSA-MW-8	9/8/2020 18:26	Turbidity	3.52	NTU
BY-GSA-MW-8	9/8/2020 18:31	Conductivity	41.87	uS/cm
BY-GSA-MW-8	9/8/2020 18:31	DO	0.87	mg/L
BY-GSA-MW-8	9/8/2020 18:31	Depth to Water Detail	30.05	ft
BY-GSA-MW-8	9/8/2020 18:31	Oxidation Reduction Potention	323.46	mv
BY-GSA-MW-8	9/8/2020 18:31	pH	4.37	pH
BY-GSA-MW-8	9/8/2020 18:31	Temperature	21.53	C
BY-GSA-MW-8	9/8/2020 18:31	Turbidity	2.85	NTU
BY-GSA-MW-8	9/8/2020 18:36	Conductivity	41.97	uS/cm
BY-GSA-MW-8	9/8/2020 18:36	DO	0.88	mg/L
BY-GSA-MW-8	9/8/2020 18:36	Depth to Water Detail	30.05	ft
BY-GSA-MW-8	9/8/2020 18:36	Oxidation Reduction Potention	327.58	mv
BY-GSA-MW-8	9/8/2020 18:36	pH	4.35	pH
BY-GSA-MW-8	9/8/2020 18:36	Temperature	21.56	C
BY-GSA-MW-8	9/8/2020 18:36	Turbidity	2.49	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-9	9/9/2020 10:58	Conductivity	74.85	uS/cm
BY-GSA-MW-9	9/9/2020 10:58	DO	1.61	mg/L
BY-GSA-MW-9	9/9/2020 10:58	Depth to Water Detail	9.01	ft
BY-GSA-MW-9	9/9/2020 10:58	Oxidation Reduction Potention	262.12	mv
BY-GSA-MW-9	9/9/2020 10:58	pH	4.46	pH
BY-GSA-MW-9	9/9/2020 10:58	Temperature	22.66	C
BY-GSA-MW-9	9/9/2020 10:58	Turbidity	4.57	NTU
BY-GSA-MW-9	9/9/2020 11:03	Conductivity	75.17	uS/cm
BY-GSA-MW-9	9/9/2020 11:03	DO	1.52	mg/L
BY-GSA-MW-9	9/9/2020 11:03	Depth to Water Detail	9.01	ft
BY-GSA-MW-9	9/9/2020 11:03	Oxidation Reduction Potention	286.29	mv
BY-GSA-MW-9	9/9/2020 11:03	pH	4.44	pH
BY-GSA-MW-9	9/9/2020 11:03	Temperature	22.37	C
BY-GSA-MW-9	9/9/2020 11:03	Turbidity	2.35	NTU
BY-GSA-MW-9	9/9/2020 11:08	Conductivity	75.17	uS/cm
BY-GSA-MW-9	9/9/2020 11:08	DO	1.51	mg/L
BY-GSA-MW-9	9/9/2020 11:08	Depth to Water Detail	9.01	ft
BY-GSA-MW-9	9/9/2020 11:08	Oxidation Reduction Potention	299.87	mv
BY-GSA-MW-9	9/9/2020 11:08	pH	4.46	pH
BY-GSA-MW-9	9/9/2020 11:08	Temperature	22.4	C
BY-GSA-MW-9	9/9/2020 11:08	Turbidity	1.62	NTU
BY-GSA-MW-9	9/9/2020 11:13	Conductivity	75.22	uS/cm
BY-GSA-MW-9	9/9/2020 11:13	DO	1.51	mg/L
BY-GSA-MW-9	9/9/2020 11:13	Depth to Water Detail	9.01	ft
BY-GSA-MW-9	9/9/2020 11:13	Oxidation Reduction Potention	310.36	mv
BY-GSA-MW-9	9/9/2020 11:13	pH	4.46	pH
BY-GSA-MW-9	9/9/2020 11:13	Temperature	22.47	C
BY-GSA-MW-9	9/9/2020 11:13	Turbidity	1.2	NTU

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Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-10	9/9/2020 11:46	Conductivity	58.59	uS/cm
BY-GSA-MW-10	9/9/2020 11:46	DO	4.16	mg/L
BY-GSA-MW-10	9/9/2020 11:46	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 11:46	Oxidation Reduction Potention	298.97	mv
BY-GSA-MW-10	9/9/2020 11:46	pH	4.59	pH
BY-GSA-MW-10	9/9/2020 11:46	Temperature	21.89	C
BY-GSA-MW-10	9/9/2020 11:46	Turbidity	18.2	NTU
BY-GSA-MW-10	9/9/2020 11:51	Conductivity	57.98	uS/cm
BY-GSA-MW-10	9/9/2020 11:51	DO	4.13	mg/L
BY-GSA-MW-10	9/9/2020 11:51	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 11:51	Oxidation Reduction Potention	313.31	mv
BY-GSA-MW-10	9/9/2020 11:51	pH	4.52	pH
BY-GSA-MW-10	9/9/2020 11:51	Temperature	21.77	C
BY-GSA-MW-10	9/9/2020 11:51	Turbidity	12.9	NTU
BY-GSA-MW-10	9/9/2020 11:56	Conductivity	57.74	uS/cm
BY-GSA-MW-10	9/9/2020 11:56	DO	4.16	mg/L
BY-GSA-MW-10	9/9/2020 11:56	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 11:56	Oxidation Reduction Potention	322.2	mv
BY-GSA-MW-10	9/9/2020 11:56	pH	4.51	pH
BY-GSA-MW-10	9/9/2020 11:56	Temperature	21.55	C
BY-GSA-MW-10	9/9/2020 11:56	Turbidity	12.3	NTU
BY-GSA-MW-10	9/9/2020 12:01	Conductivity	57.44	uS/cm
BY-GSA-MW-10	9/9/2020 12:01	DO	4.08	mg/L
BY-GSA-MW-10	9/9/2020 12:01	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 12:01	Oxidation Reduction Potention	320.69	mv
BY-GSA-MW-10	9/9/2020 12:01	pH	4.59	pH
BY-GSA-MW-10	9/9/2020 12:01	Temperature	22.5	C
BY-GSA-MW-10	9/9/2020 12:01	Turbidity	11.8	NTU
BY-GSA-MW-10	9/9/2020 12:06	Conductivity	58.11	uS/cm
BY-GSA-MW-10	9/9/2020 12:06	DO	3.91	mg/L
BY-GSA-MW-10	9/9/2020 12:06	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 12:06	Oxidation Reduction Potention	308.77	mv
BY-GSA-MW-10	9/9/2020 12:06	pH	4.59	pH
BY-GSA-MW-10	9/9/2020 12:06	Temperature	26.08	C
BY-GSA-MW-10	9/9/2020 12:06	Turbidity	10.71	NTU
BY-GSA-MW-10	9/9/2020 12:11	Conductivity	56.91	uS/cm
BY-GSA-MW-10	9/9/2020 12:11	DO	4.13	mg/L
BY-GSA-MW-10	9/9/2020 12:11	Depth to Water Detail	13.01	ft
BY-GSA-MW-10	9/9/2020 12:11	Oxidation Reduction Potention	326.52	mv
BY-GSA-MW-10	9/9/2020 12:11	pH	4.58	pH
BY-GSA-MW-10	9/9/2020 12:11	Temperature	22.04	C
BY-GSA-MW-10	9/9/2020 12:11	Turbidity	8.93	NTU

Alabama Power Company
Plant Barry Gypsum Pond

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
BY-GSA-MW-11	9/8/2020 17:36	Conductivity	33.38	uS/cm
BY-GSA-MW-11	9/8/2020 17:36	DO	5.62	mg/L
BY-GSA-MW-11	9/8/2020 17:36	Depth to Water Detail	22.36	ft
BY-GSA-MW-11	9/8/2020 17:36	Oxidation Reduction Potention	322.11	mv
BY-GSA-MW-11	9/8/2020 17:36	pH	4.21	pH
BY-GSA-MW-11	9/8/2020 17:36	Temperature	23.03	C
BY-GSA-MW-11	9/8/2020 17:36	Turbidity	2.06	NTU
BY-GSA-MW-11	9/8/2020 17:41	Conductivity	32.29	uS/cm
BY-GSA-MW-11	9/8/2020 17:41	DO	5.59	mg/L
BY-GSA-MW-11	9/8/2020 17:41	Depth to Water Detail	22.36	ft
BY-GSA-MW-11	9/8/2020 17:41	Oxidation Reduction Potention	314.78	mv
BY-GSA-MW-11	9/8/2020 17:41	pH	4.18	pH
BY-GSA-MW-11	9/8/2020 17:41	Temperature	23.08	C
BY-GSA-MW-11	9/8/2020 17:41	Turbidity	1.54	NTU
BY-GSA-MW-11	9/8/2020 17:46	Conductivity	33.13	uS/cm
BY-GSA-MW-11	9/8/2020 17:46	DO	5.58	mg/L
BY-GSA-MW-11	9/8/2020 17:46	Depth to Water Detail	22.36	ft
BY-GSA-MW-11	9/8/2020 17:46	Oxidation Reduction Potention	310.78	mv
BY-GSA-MW-11	9/8/2020 17:46	pH	4.14	pH
BY-GSA-MW-11	9/8/2020 17:46	Temperature	23.07	C
BY-GSA-MW-11	9/8/2020 17:46	Turbidity	0.96	NTU
BY-GSA-MW-11	9/8/2020 17:51	Conductivity	33.02	uS/cm
BY-GSA-MW-11	9/8/2020 17:51	DO	5.57	mg/L
BY-GSA-MW-11	9/8/2020 17:51	Depth to Water Detail	22.36	ft
BY-GSA-MW-11	9/8/2020 17:51	Oxidation Reduction Potention	312.57	mv
BY-GSA-MW-11	9/8/2020 17:51	pH	4.12	pH
BY-GSA-MW-11	9/8/2020 17:51	Temperature	23.1	C
BY-GSA-MW-11	9/8/2020 17:51	Turbidity	1.06	NTU

Appendix E

1st
Semi-Annual
Monitoring Event

Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 7:51 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	BY-AP-MW-1	0.188	n/a	3/30/2020	1.77	Yes	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-8	0.188	n/a	3/30/2020	1.12	Yes	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-9	0.188	n/a	3/31/2020	2.27	Yes	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-10	0.188	n/a	3/31/2020	2.12	Yes	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-16	0.188	n/a	3/31/2020	1.74	Yes	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-AP-MW-1	2.037	n/a	3/30/2020	33.7	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-2	2.037	n/a	3/31/2020	2.95	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-5	2.037	n/a	3/31/2020	14.4	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-7	2.037	n/a	3/30/2020	10.1	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-8	2.037	n/a	3/30/2020	32.2	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-9	2.037	n/a	3/31/2020	40.1	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-10	2.037	n/a	3/31/2020	63.6	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-11	2.037	n/a	3/31/2020	25.1	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-12	2.037	n/a	3/31/2020	22.4	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-13	2.037	n/a	3/31/2020	13.2	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-14	2.037	n/a	3/31/2020	9.04	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-15	2.037	n/a	4/1/2020	7.32	Yes	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-16	2.037	n/a	3/31/2020	14.2	Yes	56	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-1	9.9	n/a	3/30/2020	24.9	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-5	9.9	n/a	3/31/2020	19.8	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-7	9.9	n/a	3/30/2020	13.3	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-8	9.9	n/a	3/30/2020	22.6	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-9	9.9	n/a	3/31/2020	20.6	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-10	9.9	n/a	3/31/2020	26.1	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-11	9.9	n/a	3/31/2020	24.1	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-12	9.9	n/a	3/31/2020	23.9	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-13	9.9	n/a	3/31/2020	44.9	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-14	9.9	n/a	3/31/2020	44.7	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-15	9.9	n/a	4/1/2020	54.7	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-16	9.9	n/a	3/31/2020	20.8	Yes	56	0	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-15	0.1	n/a	4/1/2020	0.187	Yes	60	43.33	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-1	58	n/a	3/30/2020	419	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-5	58	n/a	3/31/2020	243	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-7	58	n/a	3/30/2020	135	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-8	58	n/a	3/30/2020	310	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-9	58	n/a	3/31/2020	330	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-10	58	n/a	3/31/2020	387	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-11	58	n/a	3/31/2020	393	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-12	58	n/a	3/31/2020	331	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-13	58	n/a	3/31/2020	290	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-14	58	n/a	3/31/2020	317	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-15	58	n/a	4/1/2020	231	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-16	58	n/a	3/31/2020	276	Yes	56	12.5	n/a	0.000...	NP Inter (normality) ...

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 7:51 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	**BY-AP-MW-1**	**0.188**	**n/a**	**3/30/2020**	**1.77**	**Yes**	**55**	**81.82**	**n/a**	**0.000...**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	BY-AP-MW-2	0.188	n/a	3/31/2020	0.1ND	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-3	0.188	n/a	3/31/2020	0.1ND	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-4	0.188	n/a	3/31/2020	0.1ND	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-5	0.188	n/a	3/31/2020	0.0782	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-6	0.188	n/a	3/31/2020	0.1ND	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-7	0.188	n/a	3/30/2020	0.0369	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	**BY-AP-MW-8**	**0.188**	**n/a**	**3/30/2020**	**1.12**	**Yes**	**55**	**81.82**	**n/a**	**0.000...**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-AP-MW-9**	**0.188**	**n/a**	**3/31/2020**	**2.27**	**Yes**	**55**	**81.82**	**n/a**	**0.000...**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-AP-MW-10**	**0.188**	**n/a**	**3/31/2020**	**2.12**	**Yes**	**55**	**81.82**	**n/a**	**0.000...**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	BY-AP-MW-11	0.188	n/a	3/31/2020	0.0815	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-12	0.188	n/a	3/31/2020	0.0856	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-13	0.188	n/a	3/31/2020	0.0505	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-14	0.188	n/a	3/31/2020	0.0655	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-15	0.188	n/a	4/1/2020	0.1	No	55	81.82	n/a	0.000...	NP Inter (NDs) 1 of 2
Boron (mg/L)	**BY-AP-MW-16**	**0.188**	**n/a**	**3/31/2020**	**1.74**	**Yes**	**55**	**81.82**	**n/a**	**0.000...**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**BY-AP-MW-1**	**2.037**	**n/a**	**3/30/2020**	**33.7**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-2**	**2.037**	**n/a**	**3/31/2020**	**2.95**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	BY-AP-MW-3	2.037	n/a	3/31/2020	1.1	No	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-4	2.037	n/a	3/31/2020	0.898	No	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	**BY-AP-MW-5**	**2.037**	**n/a**	**3/31/2020**	**14.4**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	BY-AP-MW-6	2.037	n/a	3/31/2020	1.68	No	56	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	**BY-AP-MW-7**	**2.037**	**n/a**	**3/30/2020**	**10.1**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-8**	**2.037**	**n/a**	**3/30/2020**	**32.2**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-9**	**2.037**	**n/a**	**3/31/2020**	**40.1**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-10**	**2.037**	**n/a**	**3/31/2020**	**63.6**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-11**	**2.037**	**n/a**	**3/31/2020**	**25.1**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-12**	**2.037**	**n/a**	**3/31/2020**	**22.4**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-13**	**2.037**	**n/a**	**3/31/2020**	**13.2**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-14**	**2.037**	**n/a**	**3/31/2020**	**9.04**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-15**	**2.037**	**n/a**	**4/1/2020**	**7.32**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-16**	**2.037**	**n/a**	**3/31/2020**	**14.2**	**Yes**	**56**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Chloride (mg/L)	**BY-AP-MW-1**	**9.9**	**n/a**	**3/30/2020**	**24.9**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	BY-AP-MW-2	9.9	n/a	3/31/2020	8.48	No	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-3	9.9	n/a	3/31/2020	9.07	No	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	BY-AP-MW-4	9.9	n/a	3/31/2020	9.54	No	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	**BY-AP-MW-5**	**9.9**	**n/a**	**3/31/2020**	**19.8**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	BY-AP-MW-6	9.9	n/a	3/31/2020	5.94	No	56	0	n/a	0.000...	NP Inter (normality) ...
Chloride (mg/L)	**BY-AP-MW-7**	**9.9**	**n/a**	**3/30/2020**	**13.3**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	**BY-AP-MW-8**	**9.9**	**n/a**	**3/30/2020**	**22.6**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	**BY-AP-MW-9**	**9.9**	**n/a**	**3/31/2020**	**20.6**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	**BY-AP-MW-10**	**9.9**	**n/a**	**3/31/2020**	**26.1**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	**BY-AP-MW-11**	**9.9**	**n/a**	**3/31/2020**	**24.1**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	**BY-AP-MW-12**	**9.9**	**n/a**	**3/31/2020**	**23.9**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	**BY-AP-MW-13**	**9.9**	**n/a**	**3/31/2020**	**44.9**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	**BY-AP-MW-14**	**9.9**	**n/a**	**3/31/2020**	**44.7**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	**BY-AP-MW-15**	**9.9**	**n/a**	**4/1/2020**	**54.7**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Chloride (mg/L)	**BY-AP-MW-16**	**9.9**	**n/a**	**3/31/2020**	**20.8**	**Yes**	**56**	**0**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Fluoride (mg/L)	BY-AP-MW-1	0.1	n/a	3/30/2020	0.0726	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-2	0.1	n/a	3/31/2020	0.1ND	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-3	0.1	n/a	3/31/2020	0.1ND	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-4	0.1	n/a	3/31/2020	0.1ND	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-5	0.1	n/a	3/31/2020	0.0735	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-6	0.1	n/a	3/31/2020	0.1ND	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-7	0.1	n/a	3/30/2020	0.0933	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-8	0.1	n/a	3/30/2020	0.0701	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-9	0.1	n/a	3/31/2020	0.0655	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-10	0.1	n/a	3/31/2020	0.1ND	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-11	0.1	n/a	3/31/2020	0.078	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-12	0.1	n/a	3/31/2020	0.0755	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-13	0.1	n/a	3/31/2020	0.0665	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	BY-AP-MW-14	0.1	n/a	3/31/2020	0.0867	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	**BY-AP-MW-15**	**0.1**	**n/a**	**4/1/2020**	**0.187**	**Yes**	**60**	**43.33**	**n/a**	**0.000...**	**NP Inter (normality) ...**
Fluoride (mg/L)	BY-AP-MW-16	0.1	n/a	3/31/2020	0.0602	No	60	43.33	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	**BY-AP-MW-1**	**58**	**n/a**	**3/30/2020**	**419**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	BY-AP-MW-2	58	n/a	3/31/2020	42	No	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-3	58	n/a	3/31/2020	37.3	No	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	BY-AP-MW-4	58	n/a	3/31/2020	42.7	No	56	12.5	n/a	0.000...	NP Inter (normality) ...

Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 7:51 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
TDS (mg/L)	**BY-AP-MW-5**	**58**	**n/a**	**3/31/2020**	**243**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	BY-AP-MW-6	58	n/a	3/31/2020	42	No	56	12.5	n/a	0.000...	NP Inter (normality) ...
TDS (mg/L)	**BY-AP-MW-7**	**58**	**n/a**	**3/30/2020**	**135**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	**BY-AP-MW-8**	**58**	**n/a**	**3/30/2020**	**310**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	**BY-AP-MW-9**	**58**	**n/a**	**3/31/2020**	**330**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	**BY-AP-MW-10**	**58**	**n/a**	**3/31/2020**	**387**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	**BY-AP-MW-11**	**58**	**n/a**	**3/31/2020**	**393**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	**BY-AP-MW-12**	**58**	**n/a**	**3/31/2020**	**331**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	**BY-AP-MW-13**	**58**	**n/a**	**3/31/2020**	**290**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	**BY-AP-MW-14**	**58**	**n/a**	**3/31/2020**	**317**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	**BY-AP-MW-15**	**58**	**n/a**	**4/1/2020**	**231**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**
TDS (mg/L)	**BY-AP-MW-16**	**58**	**n/a**	**3/31/2020**	**276**	**Yes**	**56**	**12.5**	**n/a**	**0.000...**	**NP Inter (normality) ...**

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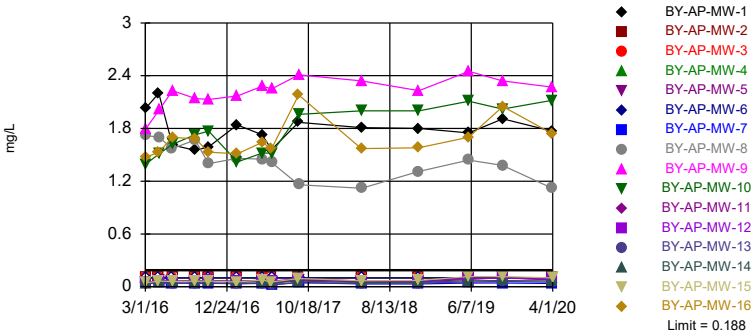
Hollow symbols indicate censored values.

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-16

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 55 background values. 81.82% NDs. Annual per-constituent alpha = 0.01944. Individual comparison alpha = 0.0006133 (1 of 2). Comparing 16 points to limit.

Constituent: Boron Analysis Run 6/8/2020 7:45 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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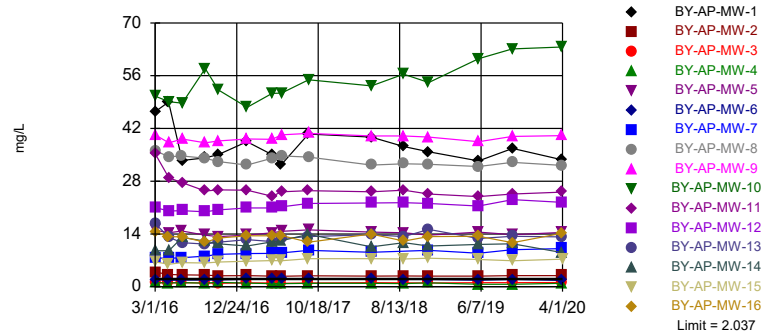
Exceeds Limit: BY-AP-MW-1, BY-AP-MW-2, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10,..

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1.457, Std. Dev.=0.2711, n=56. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9776, critical = 0.942. Kappa = 2.14 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004702. Comparing 16 points to limit.

Constituent: Calcium Analysis Run 6/8/2020 7:45 AM View: Interwell PL

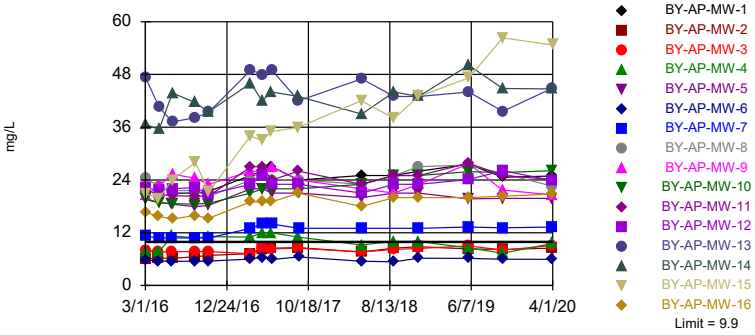
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11,..

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 56 background values. Annual per-constituent alpha = 0.01879. Individual comparison alpha = 0.0005926 (1 of 2). Comparing 16 points to limit.

Constituent: Chloride Analysis Run 6/8/2020 7:46 AM View: Interwell PL

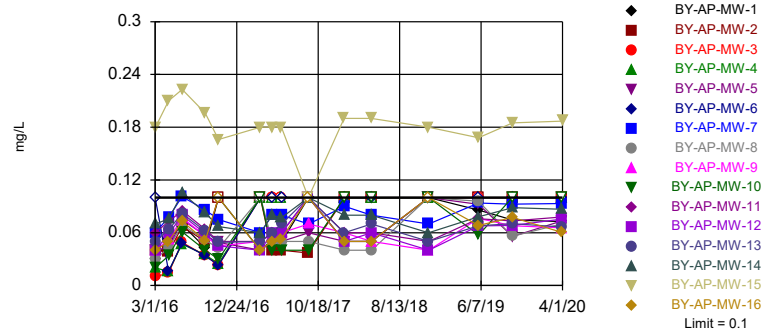
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Exceeds Limit: BY-AP-MW-15

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. 43.33% NDs. Annual per-constituent alpha = 0.01619. Individual comparison alpha = 0.0005099 (1 of 2). Comparing 16 points to limit.

Constituent: Fluoride Analysis Run 6/8/2020 7:46 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-3 (bg)	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-10	BY-AP-MW-7
2/23/2016	0.0252 (J)	0.0212 (J)	0.0257 (J)	<0.1					
3/1/2016					<0.1	0.0462 (J)	<0.1	1.39	0.0546 (J)
3/2/2016									
4/19/2016	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1		
4/20/2016						0.0719 (J)		1.51	0.0472 (J)
6/6/2016		<0.1	<0.1						
6/7/2016	0.0202 (J)			<0.1	<0.1	0.0591 (J)	<0.1		0.0417 (J)
6/8/2016								1.62	
8/30/2016	<0.1	<0.1	<0.1	<0.1	<0.1	0.0675 (J)	<0.1		
8/31/2016								1.73	0.036 (J)
10/18/2016	<0.1	<0.1	0.022 (J)	<0.1		0.0699 (J)			
10/19/2016					<0.1		<0.1	1.77	0.0386 (J)
1/31/2017	<0.1	<0.1	<0.1	<0.1	<0.1	0.0518 (J)	<0.1		0.0343 (J)
2/1/2017								1.42	
5/2/2017	<0.1	<0.1	<0.1	<0.1	<0.1				
5/3/2017						0.0737 (J)	<0.1	1.52	0.037 (J)
6/6/2017	<0.1	<0.1	<0.1	<0.1	<0.1				
6/7/2017						0.0518 (J)	<0.1	1.52	0.0227 (J)
9/12/2017			<0.1		<0.1				
9/13/2017	<0.1	<0.1		<0.1					
9/14/2017						0.0825 (J)	<0.1	1.96	0.0471 (J)
5/1/2018	<0.1		<0.1	<0.1	<0.1				
5/2/2018		0.0362 (J)				0.0603 (J)	<0.1	2	0.0313 (J)
11/26/2018			<0.1						
11/27/2018		0.11		<0.1	<0.1	0.0613 (J)			
11/28/2018							<0.1	2	0.0311 (J)
5/28/2019			<0.1						
5/29/2019	<0.1	0.188		<0.1	<0.1	0.0946 (J)	<0.1		0.042 (J)
5/30/2019								2.11	
9/30/2019								2.02	0.0418 (J)
10/1/2019					<0.1	0.103	<0.1		
10/2/2019	<0.1	0.097 (J)	<0.1	<0.1					
3/30/2020									0.0369 (J)
3/31/2020	<0.1	0.157	<0.1	<0.1	<0.1	0.0782 (J)	<0.1	2.12	
4/1/2020									

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-11	BY-AP-MW-9	BY-AP-MW-3	BY-AP-MW-15	BY-AP-MW-12	BY-AP-MW-16	BY-AP-MW-13	BY-AP-MW-14
2/23/2016									
3/1/2016	1.72	0.0482 (J)	1.79						
3/2/2016				<0.1	0.0447 (J)	0.0502 (J)	1.47	0.0328 (J)	0.0395 (J)
4/19/2016				<0.1	0.0645 (J)		1.53		
4/20/2016	1.7	0.059 (J)	2.01			0.0672 (J)		0.0434 (J)	0.0549 (J)
6/6/2016									
6/7/2016	1.57			<0.1					
6/8/2016		0.0568 (J)	2.23		0.0592 (J)	0.0659 (J)	1.7	0.0391 (J)	0.0593 (J)
8/30/2016	1.67								0.0534 (J)
8/31/2016		0.0651 (J)	2.14	<0.1	0.0632 (J)	0.065 (J)	1.68	0.0401 (J)	
10/18/2016	1.4								0.0597 (J)
10/19/2016		0.06 (J)	2.13	<0.1	0.0637 (J)	0.0721 (J)	1.53	0.0427 (J)	
1/31/2017	1.46			<0.1	0.0536 (J)		1.51	0.034 (J)	0.0479 (J)
2/1/2017		0.0638 (J)	2.17			0.06 (J)			
5/2/2017				<0.1	0.0775 (J)		1.64		0.0587 (J)
5/3/2017	1.45	0.0655 (J)	2.28			0.0768 (J)		0.0416 (J)	
6/6/2017				<0.1	0.0535 (J)		1.57		0.0428 (J)
6/7/2017	1.41	0.0468 (J)	2.25			0.0625 (J)		0.0277 (J)	
9/12/2017				<0.1					
9/13/2017		0.0751 (J)			0.0937 (J)	0.0926 (J)	2.18	0.044 (J)	0.0647 (J)
9/14/2017	1.16		2.41						
5/1/2018				<0.1	0.0683 (J)		1.57		
5/2/2018	1.12	0.0545 (J)	2.34			0.064 (J)		0.0393 (J)	0.0484 (J)
11/26/2018									
11/27/2018	1.31			<0.1	0.0715 (J)		1.58		0.0493 (J)
11/28/2018		0.0545 (J)	2.23			0.064 (J)		0.0417 (J)	
5/28/2019									
5/29/2019	1.44	0.082 (J)		<0.1	0.116	0.0952 (J)	1.7	0.0528 (J)	0.0682 (J)
5/30/2019			2.45						
9/30/2019	1.38	0.103	2.34						
10/1/2019				<0.1	0.116	0.0967 (J)	2.05	0.0604 (J)	0.0701 (J)
10/2/2019									
3/30/2020	1.12								
3/31/2020		0.0815 (J)	2.27	<0.1		0.0856 (J)	1.74	0.0505 (J)	0.0655 (J)
4/1/2020					0.1				

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2
2/23/2016		
3/1/2016		
3/2/2016	2.03	<0.1
4/19/2016	2.2	<0.1
4/20/2016		
6/6/2016		
6/7/2016		
6/8/2016	1.61	<0.1
8/30/2016		
8/31/2016	1.55	<0.1
10/18/2016		
10/19/2016	1.59	<0.1
1/31/2017	1.84	<0.1
2/1/2017		
5/2/2017	1.73	<0.1
5/3/2017		
6/6/2017	1.56	<0.1
6/7/2017		
9/12/2017		<0.1
9/13/2017	1.87	
9/14/2017		
5/1/2018	1.81	<0.1
5/2/2018		
11/26/2018		
11/27/2018		<0.1
11/28/2018	1.8	
5/28/2019		
5/29/2019	1.75	<0.1
5/30/2019		
9/30/2019		
10/1/2019	1.91	<0.1
10/2/2019		
3/30/2020	1.77	
3/31/2020		<0.1
4/1/2020		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)	BY-AP-MW-10	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7
2/23/2016	1.28	1.42	1.77	1.11					
3/1/2016					50.6	1.07	15	1.87	7.65
3/2/2016									
4/19/2016	1.19	1.31	1.68	1.09		0.969		1.69	
4/20/2016					49.1		14.3		7.54
6/6/2016	1.19	1.35							
6/7/2016			1.68	1.16		1.08	14.8	1.75	7.71
6/8/2016					48.7				
8/30/2016	1.11	1.31	1.62	1.08		0.952	13.7	1.77	
8/31/2016					57.9				8.1
10/18/2016	1.04	1.22	1.53	1.03			13.3		
10/19/2016					52.2	1.17		1.8	8.59
1/31/2017	1.19	1.36	1.65	1.23		0.946	13.7	1.98	8.78
2/1/2017					47.6				
5/2/2017	1.05	1.24	1.58	1.28		0.826			
5/3/2017					51.3		14.3	1.97	8.85
6/6/2017	0.978	1.28	1.55	1.25		0.834			
6/7/2017					51.4		14.7	1.98	8.99
9/12/2017		1.47				0.884			
9/13/2017	1.14		1.71	1.6					
9/14/2017					54.9		15.1	2.14	9.64
5/1/2018		1.47	1.76	1.58		0.921			
5/2/2018	1.64				53.3		14.5	2.13	9.14
8/28/2018					56.4	0.8			
8/29/2018							14.3	1.92	
11/26/2018		1.52							
11/27/2018	2.01		1.69	1.49		1.01	13.7		
11/28/2018					54.2			1.91	9.66
5/28/2019		1.6							
5/29/2019	1.85		1.74	1.59		0.627	14.5	1.72	8.88
5/30/2019					60.5				
9/30/2019					63.1				9.8
10/1/2019						0.645	13.8	1.92	
10/2/2019	1.55	1.7	1.86	1.7					
3/30/2020									10.1
3/31/2020	1.96	1.78	1.92	1.43	63.6	0.898	14.4	1.68	
4/1/2020									

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-9	BY-AP-MW-11	BY-AP-MW-2	BY-AP-MW-1	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
2/23/2016									
3/1/2016	36.1	40.3	35.3						
3/2/2016				3.86	46.5	21	16.7	9.53	6.61
4/19/2016				3.22	49				5.97
4/20/2016	34.5	38.2	28.9			20.1	13.1	9.55	
6/6/2016									
6/7/2016	34.7								
6/8/2016		39.2	27.6	3.17	33.5	20.2	11.7	13.1	6.36
8/30/2016	34.1							12.1	
8/31/2016		38.2	25.4	3.07	34.2	19.9	11.3		6.28
10/18/2016	33.2							11.4	
10/19/2016		38.7	25.7	2.91	35.1	20.4	11.8		6.57
1/31/2017	32.3			2.94	38.5		12.5	10.8	6.77
2/1/2017		39.2	25.6			20.9			
5/2/2017				2.82	35.1			11.9	6.94
5/3/2017	34.1	39.1	24			20.9	12		
6/6/2017				2.79	32.4			12.2	6.88
6/7/2017	34.7	40.3	25.2			21.2	12.8		
9/12/2017				2.88					
9/13/2017			25.5		40.5	22.1	13.3	13.9	7.43
9/14/2017	34.4	40.7							
5/1/2018				2.82	39.7				7.42
5/2/2018	32.3	40	25.2			22.2	13.8	10.6	
8/28/2018		40		2.85	37.2				
8/29/2018	32.6		25.6			22.3	13.3	11.7	7.37
11/26/2018									
11/27/2018	32.5			2.8				10.8	7.58
11/28/2018		39.7	24.6		35.8	22.1	15.2		
5/28/2019									
5/29/2019	31.9		23.9	2.82	33.4	21.4	12.8	11.2	7.22
5/30/2019		38.5							
9/30/2019	33	39.9	24.6						
10/1/2019				2.94	36.7	23.1	13.4	11.4	6.9
10/2/2019									
3/30/2020	32.2				33.7				
3/31/2020		40.1	25.1	2.95		22.4	13.2	9.04	
4/1/2020									7.32

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-3
2/23/2016		
3/1/2016		
3/2/2016	14.6	1.11
4/19/2016	13.3	1.01
4/20/2016		
6/6/2016		
6/7/2016		1.06
6/8/2016	13.2	
8/30/2016		
8/31/2016	11.8	0.978
10/18/2016		
10/19/2016	12.9	0.906
1/31/2017	13.5	1.04
2/1/2017		
5/2/2017	13.5	0.969
5/3/2017		
6/6/2017	13.6	0.902
6/7/2017		
9/12/2017		0.988
9/13/2017	11.8	
9/14/2017		
5/1/2018	14	1.07
5/2/2018		
8/28/2018		1.02
8/29/2018	12.1	
11/26/2018		
11/27/2018	13.3	0.999
11/28/2018		
5/28/2019		
5/29/2019	13.4	1.09
5/30/2019		
9/30/2019		
10/1/2019	11.7	1.08
10/2/2019		
3/30/2020		
3/31/2020	14.2	1.1
4/1/2020		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-1 (bg)	BY-GSA-MW-3 (bg)	BY-AP-MW-4	BY-AP-MW-8	BY-AP-MW-7	BY-AP-MW-5	BY-AP-MW-9
2/23/2016	3.99	3.5	3.59	3.68					
3/1/2016					7.74	24.5	11.2	19.7	20.4
3/2/2016									
4/19/2016	4.08	3.63	2.89	3.72	7.66				
4/20/2016						22.5	10.8	18.9	22.7
6/6/2016		3.6	3.12						
6/7/2016	4.28			3.66	11.3	21.6	10.8	18.5	
6/8/2016									25.3
8/30/2016	4.26	3.54	3.91	3.7	10.8	21.6		17.9	
8/31/2016							10.8		24.4
10/18/2016	4.26	3.68	3.9	3.77		20.2		18.2	
10/19/2016					11.1		10.8		23
3/20/2017	4.1	4.6	3.5	3.7					
3/21/2017					11				
3/22/2017						24	13	22	26
5/2/2017	5 (D)	3.9 (D)	3.5 (D)	4.6 (D)	12				
5/3/2017						25	14	22	26
6/6/2017	3.9 (D)	3.4 (D)	3.1 (D)	3.4 (D)	12				
6/7/2017						24	14	21	27
9/12/2017		4.3			11				
9/13/2017	4.3		4	3.9					
9/14/2017						24	13	21	24
5/1/2018	3.7	3.8		4.1	9.2				
5/2/2018			9.9			23	13	20	22
8/28/2018					10				21
8/29/2018						25		21	
11/26/2018		3.6							
11/27/2018	3.2		4.7	3.5	10	27		21	
11/28/2018							13		23
5/28/2019		3.6							
5/29/2019	2.93		5.48	3.58	8.53	27.4	13.3	19.7	
5/30/2019									27.7
9/30/2019						25.5	13.1		21.7
10/1/2019					7.35			19.8	
10/2/2019	2.75	3.5	3.65	3.64					
3/30/2020						22.6	13.3		
3/31/2020	2.72	3.34	3.17	3.47	9.54			19.8	20.6
4/1/2020									

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-6	BY-AP-MW-11	BY-AP-MW-16	BY-AP-MW-3	BY-AP-MW-2	BY-AP-MW-14	BY-AP-MW-12	BY-AP-MW-15
2/23/2016									
3/1/2016	19.6	5.77	21.7						
3/2/2016				16.6	8.04	6.08	36.6	22.2	20.9
4/19/2016		5.57		15.7	7.6	6.2			19.8
4/20/2016	18.8		20.7				35.5	21.7	
6/6/2016									
6/7/2016		5.52			7.7				
6/8/2016	18.6		20.4	15.1		6.2	43.8	22	24
8/30/2016		5.5					41.6		
8/31/2016	18.5		20.3	15.9	7.7	6.51		22.3	28
10/18/2016							39.5		
10/19/2016	18.7	5.55	20.3	15.3	7.73	6.85		20.8	21.3
3/20/2017									
3/21/2017				19	7.2	7.2			34
3/22/2017	21	6	27				46	23	
5/2/2017				19	8.6	8.3	42		33
5/3/2017	22	6.4	27					25	
6/6/2017				19	8.3	8.5	44		35
6/7/2017	22	5.9	24					23	
9/12/2017					8.5	8.6			
9/13/2017			26	21			43	23	36
9/14/2017	22	6.5							
5/1/2018				18	7.6	7.6			42
5/2/2018	23	5.5	23				39	21	
8/28/2018	25				8.2	8.5			
8/29/2018		5.4	25	20			44	23	38
11/26/2018									
11/27/2018				20	8.4	8.8	43		43
11/28/2018	25	6.2	25					23	
5/28/2019									
5/29/2019		6.15	27.8	20	9.01	8.31	50.1	24.1	47.2
5/30/2019	25.9								
9/30/2019	25.7		25						
10/1/2019		5.99		20.3	8.05	8.19	44.8	26.1	56.3
10/2/2019									
3/30/2020									
3/31/2020	26.1	5.94	24.1	20.8	9.07	8.48	44.7	23.9	
4/1/2020									54.7

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	47.3	2.18 (o)
4/19/2016		9.01 (o)
4/20/2016	40.5	
6/6/2016		
6/7/2016		
6/8/2016	37.2	21
8/30/2016		
8/31/2016	38.2	21
10/18/2016		
10/19/2016	39.4	21.4
3/20/2017		
3/21/2017		25
3/22/2017	49	
5/2/2017		26
5/3/2017	48	
6/6/2017		27
6/7/2017	49	
9/12/2017		
9/13/2017	42	24
9/14/2017		
5/1/2018		25
5/2/2018	47	
8/28/2018		25
8/29/2018	43	
11/26/2018		
11/27/2018		
11/28/2018	43	26
5/28/2019		
5/29/2019	44	27.6
5/30/2019		
9/30/2019		
10/1/2019	39.6	24.6
10/2/2019		
3/30/2020		24.9
3/31/2020	44.9	
4/1/2020		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-1 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-4 (bg)	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-8	BY-AP-MW-9
2/23/2016	0.02 (J)	0.03 (J)	0.02 (J)	0.02 (J)					
3/1/2016					0.02 (J)	0.04 (J)	<0.1	0.03 (J)	0.04 (J)
3/2/2016									
4/19/2016	0.021 (J)	0.023 (J)	0.016 (J)	0.015 (J)	0.016 (J)		0.016 (J)		
4/20/2016						0.043 (J)		0.043 (J)	0.052 (J)
6/6/2016		0.062 (J)		0.05 (J)					
6/7/2016	0.06 (J)		0.052 (J)		0.047 (J)	0.075 (J)	0.048 (J)	0.069 (J)	
6/8/2016									0.077 (J)
8/30/2016	0.05 (J)	0.053 (J)	0.038 (J)	0.036 (J)	0.035 (J)	0.057 (J)	0.034 (J)	0.052 (J)	
8/31/2016									0.056 (J)
10/18/2016	0.04 (J)	0.042 (J)	0.03 (J)	0.025 (J)		0.049 (J)		0.042 (J)	
10/19/2016					0.025 (J)		0.023 (J)		0.045 (J)
3/20/2017	<0.1	<0.1	<0.1	<0.1					
3/21/2017					<0.1				
3/22/2017						0.04 (J)	<0.1	<0.1	0.05 (J)
5/2/2017	0.04 (JD)	0.04 (JD)	0.1 (D)	0.1 (D)	<0.1				
5/3/2017						0.05 (J)	<0.1	0.05 (J)	0.06 (J)
6/6/2017	0.04 (JD)	0.1 (D)	0.1 (D)	0.1 (D)	<0.1				
6/7/2017						0.05 (J)	<0.1	0.05 (J)	0.06 (J)
9/12/2017				<0.1	<0.1				
9/13/2017	0.043 (J)	0.04 (J)	<0.1						
9/14/2017						0.06 (J)	<0.1	0.05 (J)	0.07 (J)
1/22/2018									
1/23/2018	0.04 (J)	<0.1	<0.1	<0.1					0.06 (J)
1/24/2018					<0.1	0.05 (J)	<0.1	0.04 (J)	
5/1/2018	0.04 (J)		<0.1	<0.1	<0.1				
5/2/2018		0.04 (J)				0.05 (J)	<0.1	0.04 (J)	0.05 (J)
11/26/2018				<0.1					
11/27/2018	<0.1	<0.1	<0.1		<0.1	<0.1		<0.1	
11/28/2018							<0.1		0.04 (J)
5/28/2019				<0.1					
5/29/2019	<0.1	0.0502 (J)	<0.1		<0.1	0.0923 (J)	<0.1	0.0958 (J)	
5/30/2019									0.0763 (J)
9/30/2019								0.0559 (J)	0.0679 (J)
10/1/2019					<0.1	0.0557 (J)	<0.1		
10/2/2019	<0.1	<0.1	<0.1	<0.1					
3/30/2020								0.0701 (J)	
3/31/2020	<0.1	<0.1	<0.1	<0.1	<0.1	0.0735 (J)	<0.1		0.0655 (J)
4/1/2020									

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-7	BY-AP-MW-10	BY-AP-MW-14	BY-AP-MW-13	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-12	BY-AP-MW-3
2/23/2016									
3/1/2016	0.06 (J)	0.06 (J)	0.02 (J)						
3/2/2016				0.07 (J)	0.05 (J)	0.18 (J)	0.04 (J)	0.04 (J)	0.01 (J)
4/19/2016						0.21 (J)	0.05 (J)		0.014 (J)
4/20/2016	0.073 (J)	0.078 (J)	0.034 (J)	0.076 (J)	0.064 (J)			0.059 (J)	
6/6/2016									
6/7/2016		0.101 (J)							0.049 (J)
6/8/2016	0.085 (J)		0.061 (J)	0.105 (J)	0.082 (J)	0.223 (J)	0.073 (J)	0.08 (J)	
8/30/2016				0.083 (J)					
8/31/2016	0.064 (J)	0.086 (J)	0.04 (J)		0.062 (J)	0.196 (J)	0.051 (J)	0.059 (J)	0.034 (J)
10/18/2016				0.067 (J)					
10/19/2016	0.05 (J)	0.075 (J)	0.03 (J)		0.049 (J)	0.166 (J)	<0.1	0.045 (J)	0.023 (J)
3/20/2017									
3/21/2017						0.18	0.04 (J)		<0.1
3/22/2017	0.05 (J)	0.06 (J)	<0.1	0.06 (J)	0.05 (J)			0.04 (J)	
5/2/2017				0.08 (J)		0.18	0.05 (J)		<0.1
5/3/2017	0.06 (J)	0.08 (J)	0.04 (J)		0.06 (J)			0.06 (J)	
6/6/2017				0.077 (J)		0.18	0.053 (J)		<0.1
6/7/2017	0.06 (J)	0.08 (J)	0.04 (J)		0.07 (J)			0.06 (J)	
9/12/2017									<0.1
9/13/2017	<0.1 (U*)			<0.1 (U*)	<0.1 (U*)	<0.1 (U*)	<0.1 (U*)	<0.1 (U*)	
9/14/2017		0.07 (J)	0.04 (J)						
1/22/2018					0.06 (J)	0.19			
1/23/2018	0.06 (J)		<0.1	0.08 (J)			0.05 (J)	0.05 (J)	
1/24/2018		0.09 (J)							<0.1
5/1/2018						0.19	0.05 (J)		<0.1
5/2/2018	0.06 (J)	0.08 (J)	<0.1	0.08 (J)	0.07 (J)			0.06 (J)	
11/26/2018									
11/27/2018				0.06 (J)		0.18	<0.1		<0.1
11/28/2018	0.05 (J)	0.07 (J)	<0.1		0.05 (J)			0.04 (J)	
5/28/2019									
5/29/2019	0.0759 (J)	0.0937 (J)		0.0781 (J)	0.0679 (J)	0.168	0.0683 (J)	0.0677 (J)	<0.1
5/30/2019			0.0573 (J)						
9/30/2019	0.0733 (J)	0.0925 (J)	<0.1						
10/1/2019				0.0885 (J)	0.0703 (J)	0.185	0.0774 (J)	0.0682 (J)	<0.1
10/2/2019									
3/30/2020		0.0933 (J)							
3/31/2020	0.078 (J)		<0.1	0.0867 (J)	0.0665 (J)		0.0602 (J)	0.0755 (J)	<0.1
4/1/2020						0.187			

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

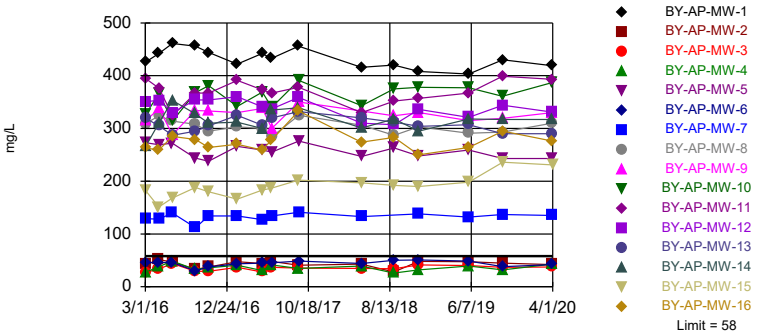
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2
2/23/2016		
3/1/2016		
3/2/2016	0.03 (J)	0.04 (J)
4/19/2016	0.052 (J)	0.038 (J)
4/20/2016		
6/6/2016		
6/7/2016		
6/8/2016	0.069 (J)	0.067 (J)
8/30/2016		
8/31/2016	0.043 (J)	0.05 (J)
10/18/2016		
10/19/2016	<0.1	<0.1
3/20/2017		
3/21/2017	0.04 (J)	<0.1
3/22/2017		
5/2/2017	0.05 (J)	0.04 (J)
5/3/2017		
6/6/2017	0.049 (J)	0.04 (J)
6/7/2017		
9/12/2017		0.037 (J)
9/13/2017	<0.1 (U*)	
9/14/2017		
1/22/2018		
1/23/2018		
1/24/2018	0.05 (J)	<0.1
5/1/2018	0.05 (J)	<0.1
5/2/2018		
11/26/2018		
11/27/2018		<0.1
11/28/2018	<0.1	
5/28/2019		
5/29/2019	0.0858 (J)	<0.1
5/30/2019		
9/30/2019		
10/1/2019	0.0744 (J)	<0.1
10/2/2019		
3/30/2020	0.0726 (J)	
3/31/2020		<0.1
4/1/2020		

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11,..

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 56 background values. 12.5% NDs. Annual per-constituent alpha = 0.01879. Individual comparison alpha = 0.0005926 (1 of 2). Comparing 16 points to limit.

Constituent: TDS Analysis Run 6/8/2020 7:46 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)	BY-AP-MW-10	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7
2/23/2016	26.7	<25	40	30.7					
3/1/2016					326	27.3	273	45.3	129
3/2/2016									
4/19/2016	<25	<25	32	<25		38		46	
4/20/2016					366		269		128
6/6/2016	32.7	28.7							
6/7/2016			38.7	35.3		48.7	272	46	140
6/8/2016					314				
8/30/2016	33.3	25.3	31.3	27.3		32.7	244	30	
8/31/2016					368				112
10/18/2016	27.3	<25	26.7	<25			238		
10/19/2016					381	36		37.3	134
1/31/2017	32	26	30	32.7		40.7	266	43.3	134
2/1/2017					342				
5/2/2017	31.3	<25	30.7	30.7		30.7			
5/3/2017					369		259	44.7	127
6/6/2017	35.3	42.7	32.7	34.7		41.3			
6/7/2017					340		255	45.3	134
9/12/2017		26.7				34.7			
9/13/2017	36.7		38	39.3					
9/14/2017					391		276	48.7	141
5/1/2018		34.7	35.3	42		39.3			
5/2/2018	34				343		247	44	133
8/28/2018					375	26			
8/29/2018							263	50	
11/26/2018		32.7							
11/27/2018	50.7		36	31.3		32	248		
11/28/2018					378			50.7	138
5/28/2019		31.3							
5/29/2019	58		37.3	40		39.3	259	48.7	132
5/30/2019					377				
9/30/2019					361				137
10/1/2019						32	243	38	
10/2/2019	46	36	36.7	41.3					
3/30/2020									135
3/31/2020	53.3	36.7	39.3	40	387	42.7	243	42	
4/1/2020									

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-9	BY-AP-MW-11	BY-AP-MW-2	BY-AP-MW-1	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
2/23/2016									
3/1/2016	309	314	395						
3/2/2016				42	426	351	319	266	182
4/19/2016				51.3	442				151
4/20/2016	324	338	376			353	305	311	
6/6/2016									
6/7/2016	314								
6/8/2016		288	324	46.7	461	330	287	353	168
8/30/2016	308							328	
8/31/2016		334	367	32.7	456	354	295		188
10/18/2016	295							310	
10/19/2016		333	367	37.3	444	354	305		180
1/31/2017	303			47.3	422		325	312	166
2/1/2017		330	391			360			
5/2/2017				44	442			300	183
5/3/2017	300	338	373			341	306		
6/6/2017				48	433			335	187
6/7/2017	284	300	367			337	320		
9/12/2017				40.7					
9/13/2017			378		456	359	332	339	202
9/14/2017	325	350							
5/1/2018				42.7	416				197
5/2/2018	306	333	330			310	320	301	
8/28/2018		324		28	420				
8/29/2018	287		352			307	312	318	192
11/26/2018									
11/27/2018	303			48				295	190
11/28/2018		330	357		408	336	304		
5/28/2019									
5/29/2019	291		367	47.3	403	321	307	318	198
5/30/2019		315							
9/30/2019	293	319	399						
10/1/2019				44.7	430	344	290	317	236
10/2/2019									
3/30/2020	310				419				
3/31/2020		330	393	42		331	290	317	
4/1/2020									231

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 6/8/2020 7:51 AM View: Interwell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-3
2/23/2016		
3/1/2016		
3/2/2016	263	27.3
4/19/2016	259	33.3
4/20/2016		
6/6/2016		
6/7/2016		44
6/8/2016	285	
8/30/2016		
8/31/2016	279	29.3
10/18/2016		
10/19/2016	264	29.3
1/31/2017	270	36.7
2/1/2017		
5/2/2017	259	28
5/3/2017		
6/6/2017	278	36.7
6/7/2017		
9/12/2017		35.3
9/13/2017	333	
9/14/2017		
5/1/2018	274	34.7
5/2/2018		
8/28/2018		34
8/29/2018	283	
11/26/2018		
11/27/2018	250	41.3
11/28/2018		
5/28/2019		
5/29/2019	264	40
5/30/2019		
9/30/2019		
10/1/2019	295	36.7
10/2/2019		
3/30/2020		
3/31/2020	276	37.3
4/1/2020		

Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 7:58 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
pH (pH)	**BY-AP-MW-13**	**6.183**	**6.001**	**3/31/2020**	**5.98**	**Yes**	**15**	**0**	**No**	**0.000...**	**Param Intra 1 of 2**
pH (pH)	**BY-AP-MW-14**	**6.215**	**5.954**	**3/31/2020**	**5.76**	**Yes**	**15**	**0**	**x^2**	**0.000...**	**Param Intra 1 of 2**
pH (pH)	**BY-GSA-MW-3**	**5.095**	**4.729**	**3/31/2020**	**4.4**	**Yes**	**14**	**0**	**No**	**0.000...**	**Param Intra 1 of 2**
pH (pH)	**BY-GSA-MW-4**	**5.043**	**4.641**	**3/31/2020**	**4.51**	**Yes**	**14**	**0**	**No**	**0.000...**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-1**	**6.348**	**n/a**	**3/30/2020**	**28.4**	**Yes**	**13**	**46.15**	**x^3**	**0.000...**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-5**	**5.51**	**n/a**	**3/31/2020**	**23.7**	**Yes**	**13**	**69.23**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-8**	**6.01**	**n/a**	**3/30/2020**	**33.1**	**Yes**	**13**	**76.92**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-9**	**5.91**	**n/a**	**3/31/2020**	**43.5**	**Yes**	**13**	**69.23**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-10**	**5**	**n/a**	**3/31/2020**	**20.1**	**Yes**	**13**	**69.23**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-11**	**19.37**	**n/a**	**3/31/2020**	**57.5**	**Yes**	**13**	**46.15**	**x^(1/3)**	**0.000...**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-12**	**7.04**	**n/a**	**3/31/2020**	**35.8**	**Yes**	**12**	**75**	**n/a**	**0.01077**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-15**	**6.2**	**n/a**	**4/1/2020**	**7.5**	**Yes**	**13**	**76.92**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-16**	**6.72**	**n/a**	**3/31/2020**	**17.5**	**Yes**	**13**	**69.23**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-GSA-MW-1**	**23.3**	**n/a**	**3/31/2020**	**24.3**	**Yes**	**12**	**0**	**n/a**	**0.01077**	**NP Intra (normality) ...**
Sulfate (mg/L)	**BY-GSA-MW-4**	**8.668**	**n/a**	**3/31/2020**	**10.8**	**Yes**	**12**	**0**	**No**	**0.000...**	**Param Intra 1 of 2**

Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 7:58 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
pH (pH)	BY-AP-MW-1	5.947	5.708	3/30/2020	5.79	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-2	6.156	5.437	3/31/2020	5.71	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-3	5.327	4.816	3/31/2020	5.08	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-4	5.362	4.114	3/31/2020	4.69	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-5	6.062	5.922	3/31/2020	6.01	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-6	5.627	5.125	3/31/2020	5.22	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-7	6.419	6.16	3/30/2020	6.32	No	14	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-8	6.288	6.104	3/30/2020	6.2	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-9	6.383	6.124	3/31/2020	6.31	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-10	6.413	6.194	3/31/2020	6.37	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-11	6.407	6.129	3/31/2020	6.26	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-12	6.282	6.038	3/31/2020	6.21	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-13**	**6.183**	**6.001**	**3/31/2020**	**5.98**	**Yes**	**15**	**0**	**No**	**0.000...**	**Param Intra 1 of 2**
pH (pH)	**BY-AP-MW-14**	**6.215**	**5.954**	**3/31/2020**	**5.76**	**Yes**	**15**	**0**	**x^2**	**0.000...**	**Param Intra 1 of 2**
pH (pH)	BY-AP-MW-15	6.831	6.476	4/1/2020	6.72	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-AP-MW-16	5.936	5.675	3/31/2020	5.75	No	15	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-1	4.911	4.482	3/31/2020	4.64	No	14	0	No	0.000...	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-2	4.958	4.493	3/31/2020	4.6	No	14	0	No	0.000...	Param Intra 1 of 2
pH (pH)	**BY-GSA-MW-3**	**5.095**	**4.729**	**3/31/2020**	**4.4**	**Yes**	**14**	**0**	**No**	**0.000...**	**Param Intra 1 of 2**
pH (pH)	**BY-GSA-MW-4**	**5.043**	**4.641**	**3/31/2020**	**4.51**	**Yes**	**14**	**0**	**No**	**0.000...**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-1**	**6.348**	**n/a**	**3/30/2020**	**28.4**	**Yes**	**13**	**46.15**	**x^3**	**0.000...**	**Param Intra 1 of 2**
Sulfate (mg/L)	BY-AP-MW-2	3.3	n/a	3/31/2020	1.69	No	13	69.23	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-3	5	n/a	3/31/2020	1.02	No	13	53.85	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-4	5.906	n/a	3/31/2020	4.12	No	13	7.692	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	**BY-AP-MW-5**	**5.51**	**n/a**	**3/31/2020**	**23.7**	**Yes**	**13**	**69.23**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	BY-AP-MW-6	2.774	n/a	3/31/2020	1.21	No	13	30.77	sqrt(x)	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	BY-AP-MW-7	5	n/a	3/30/2020	4.78	No	12	50	n/a	0.01077	NP Intra (normality) ...
Sulfate (mg/L)	**BY-AP-MW-8**	**6.01**	**n/a**	**3/30/2020**	**33.1**	**Yes**	**13**	**76.92**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-9**	**5.91**	**n/a**	**3/31/2020**	**43.5**	**Yes**	**13**	**69.23**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-10**	**5**	**n/a**	**3/31/2020**	**20.1**	**Yes**	**13**	**69.23**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-11**	**19.37**	**n/a**	**3/31/2020**	**57.5**	**Yes**	**13**	**46.15**	**x^(1/3)**	**0.000...**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-12**	**7.04**	**n/a**	**3/31/2020**	**35.8**	**Yes**	**12**	**75**	**n/a**	**0.01077**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	BY-AP-MW-13	49.5	n/a	3/31/2020	23.2	No	13	38.46	n/a	0.009692	NP Intra (normality) ...
Sulfate (mg/L)	BY-AP-MW-14	67.6	n/a	3/31/2020	34.7	No	13	69.23	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	**BY-AP-MW-15**	**6.2**	**n/a**	**4/1/2020**	**7.5**	**Yes**	**13**	**76.92**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-16**	**6.72**	**n/a**	**3/31/2020**	**17.5**	**Yes**	**13**	**69.23**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-GSA-MW-1**	**23.3**	**n/a**	**3/31/2020**	**24.3**	**Yes**	**12**	**0**	**n/a**	**0.01077**	**NP Intra (normality) ...**
Sulfate (mg/L)	BY-GSA-MW-2	10.46	n/a	3/31/2020	6.83	No	11	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-3	9.409	n/a	3/31/2020	7.98	No	12	0	No	0.000...	Param Intra 1 of 2
Sulfate (mg/L)	**BY-GSA-MW-4**	**8.668**	**n/a**	**3/31/2020**	**10.8**	**Yes**	**12**	**0**	**No**	**0.000...**	**Param Intra 1 of 2**

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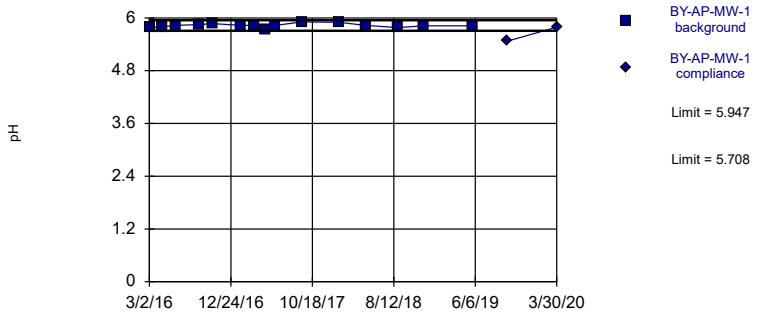
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.827, Std. Dev.=0.04574, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9458, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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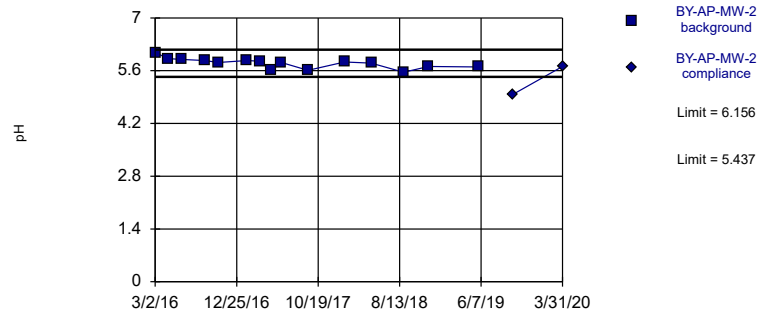
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.797, Std. Dev.=0.1375, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.949, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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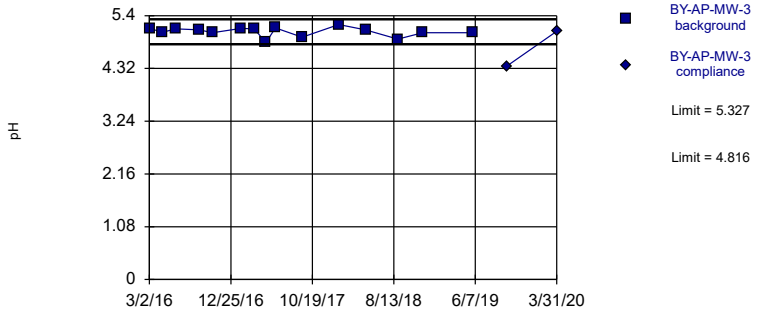
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.071, Std. Dev.=0.0976, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9102, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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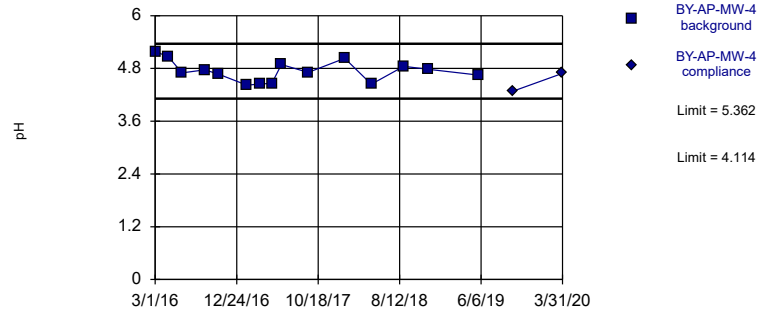
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.738, Std. Dev.=0.2385, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9433, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-1
3/2/2016	5.78	
4/19/2016	5.8	
6/8/2016	5.83	
8/31/2016	5.85	
10/19/2016	5.87	
1/31/2017	5.83	
3/21/2017	5.83	
5/2/2017	5.73	
6/6/2017	5.83	
9/13/2017	5.91	
1/24/2018	5.9	
5/1/2018	5.83	
8/28/2018	5.78	
11/28/2018	5.82	
5/29/2019	5.82	
10/1/2019		5.47
3/30/2020		5.79

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-2
3/2/2016	6.08	
4/19/2016	5.92	
6/8/2016	5.9	
8/31/2016	5.87	
10/19/2016	5.82	
1/31/2017	5.87	
3/21/2017	5.85	
5/2/2017	5.61	
6/6/2017	5.82	
9/12/2017	5.61	
1/24/2018	5.83	
5/1/2018	5.8	
8/28/2018	5.56	
11/27/2018	5.71	
5/29/2019	5.7	
10/1/2019		4.97
3/31/2020		5.71

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-3
3/2/2016	5.14	
4/19/2016	5.06	
6/7/2016	5.13	
8/31/2016	5.11	
10/19/2016	5.05	
1/31/2017	5.14	
3/21/2017	5.13	
5/2/2017	4.85	
6/6/2017	5.15	
9/12/2017	4.96	
1/24/2018	5.22	
5/1/2018	5.11	
8/28/2018	4.92	
11/27/2018	5.05	
5/29/2019	5.05	
10/1/2019		4.37
3/31/2020		5.08

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-4
3/1/2016	5.19	
4/19/2016	5.06	
6/7/2016	4.7	
8/30/2016	4.77	
10/19/2016	4.67	
1/31/2017	4.42	
3/21/2017	4.45	
5/2/2017	4.46	
6/6/2017	4.89	
9/12/2017	4.71	
1/24/2018	5.03	
5/1/2018	4.44	
8/28/2018	4.85	
11/27/2018	4.78	
5/29/2019	4.65	
10/1/2019		4.28
3/31/2020		4.69

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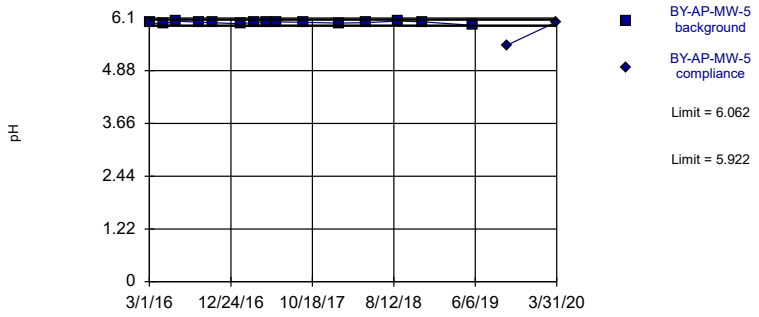
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.992, Std. Dev.=0.02678, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9327, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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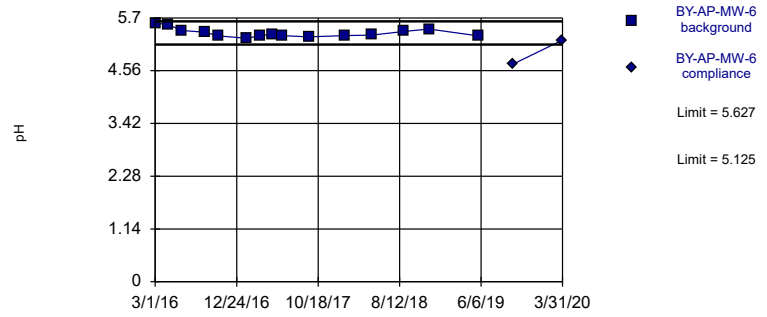
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.376, Std. Dev.=0.09605, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8715, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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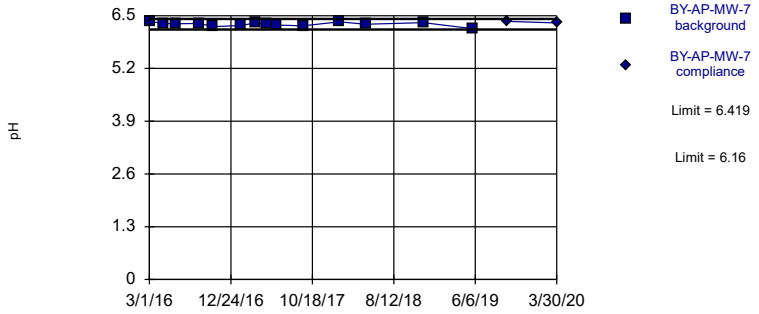
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.289, Std. Dev.=0.04843, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9643, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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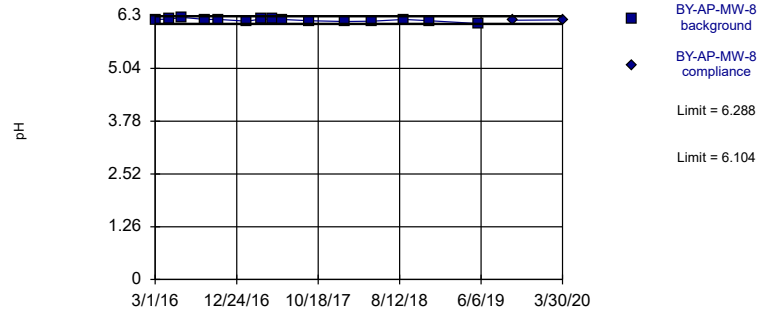
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.196, Std. Dev.=0.03521, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9094, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5
3/1/2016	5.99	
4/20/2016	5.96	
6/7/2016	6.03	
8/30/2016	6	
10/18/2016	5.99	
1/31/2017	5.96	
3/22/2017	6.01	
5/3/2017	5.99	
6/7/2017	6.01	
9/14/2017	6	
1/24/2018	5.98	
5/2/2018	5.99	
8/29/2018	6.03	
11/27/2018	6.01	
5/29/2019	5.93	
10/1/2019		5.47
3/31/2020		6.01

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-6
3/1/2016	5.59	
4/19/2016	5.55	
6/7/2016	5.43	
8/30/2016	5.39	
10/19/2016	5.31	
1/31/2017	5.26	
3/22/2017	5.32	
5/3/2017	5.35	
6/7/2017	5.32	
9/14/2017	5.29	
1/24/2018	5.32	
5/2/2018	5.33	
8/29/2018	5.41	
11/28/2018	5.46	
5/29/2019	5.31	
10/1/2019		4.7
3/31/2020		5.22

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7
3/1/2016	6.36	
4/20/2016	6.31	
6/7/2016	6.3	
8/31/2016	6.31	
10/19/2016	6.23	
1/31/2017	6.26	
3/22/2017	6.32	
5/3/2017	6.29	
6/7/2017	6.27	
9/14/2017	6.25	
1/24/2018	6.35	
5/2/2018	6.29	
11/28/2018	6.33	
5/29/2019	6.18	
9/30/2019		6.36
3/30/2020		6.32

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-8
3/1/2016	6.21	
4/20/2016	6.22	
6/7/2016	6.26	
8/30/2016	6.21	
10/18/2016	6.21	
1/31/2017	6.17	
3/22/2017	6.22	
5/3/2017	6.22	
6/7/2017	6.21	
9/14/2017	6.18	
1/24/2018	6.16	
5/2/2018	6.17	
8/29/2018	6.21	
11/27/2018	6.18	
5/29/2019	6.11	
9/30/2019		6.19
3/30/2020		6.2

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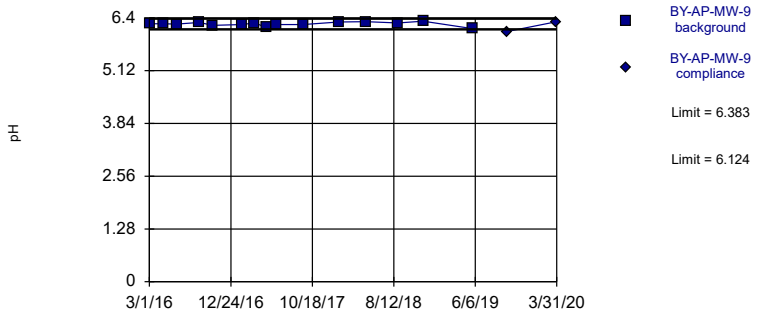
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.253, Std. Dev.=0.04938, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9251, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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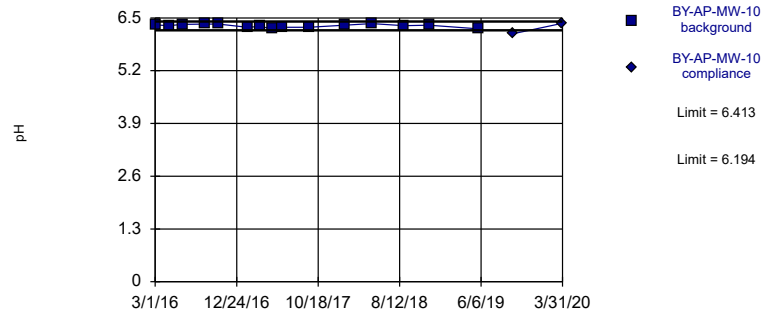
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.303, Std. Dev.=0.04186, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9284, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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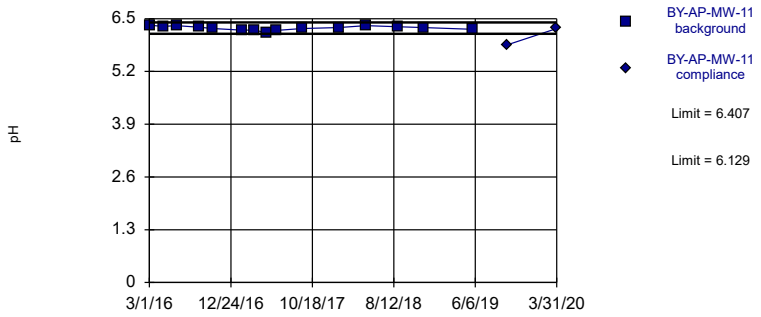
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.268, Std. Dev.=0.05294, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9541, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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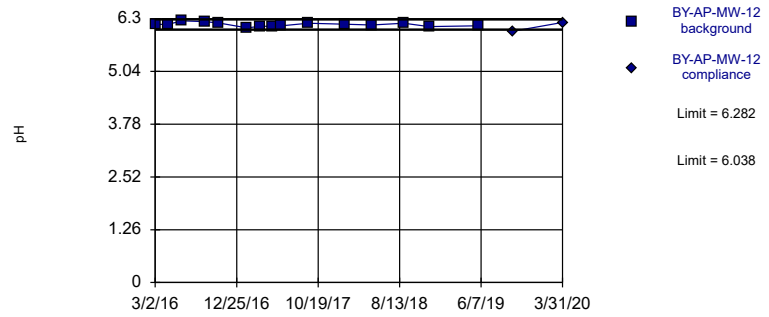
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.16, Std. Dev.=0.04675, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9762, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:54 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-9
3/1/2016	6.26	
4/20/2016	6.26	
6/8/2016	6.25	
8/31/2016	6.29	
10/19/2016	6.22	
2/1/2017	6.24	
3/22/2017	6.28	
5/3/2017	6.17	
6/7/2017	6.24	
9/14/2017	6.24	
1/23/2018	6.3	
5/2/2018	6.31	
8/28/2018	6.28	
11/28/2018	6.32	
5/30/2019	6.14	
9/30/2019		6.07
3/31/2020		6.31

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-10
3/1/2016	6.33	
4/20/2016	6.31	
6/8/2016	6.34	
8/31/2016	6.35	
10/19/2016	6.35	
2/1/2017	6.27	
3/22/2017	6.29	
5/3/2017	6.23	
6/7/2017	6.27	
9/14/2017	6.27	
1/23/2018	6.32	
5/2/2018	6.36	
8/28/2018	6.31	
11/28/2018	6.32	
5/30/2019	6.23	
9/30/2019		6.11
3/31/2020		6.37

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-11
3/1/2016	6.34	
4/20/2016	6.31	
6/8/2016	6.33	
8/31/2016	6.29	
10/19/2016	6.26	
2/1/2017	6.22	
3/22/2017	6.22	
5/3/2017	6.15	
6/7/2017	6.21	
9/13/2017	6.26	
1/23/2018	6.28	
5/2/2018	6.33	
8/29/2018	6.3	
11/28/2018	6.28	
5/29/2019	6.24	
9/30/2019		5.85
3/31/2020		6.26

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-12
3/2/2016	6.16	
4/20/2016	6.17	
6/8/2016	6.25	
8/31/2016	6.23	
10/19/2016	6.2	
2/1/2017	6.08	
3/22/2017	6.12	
5/3/2017	6.12	
6/7/2017	6.13	
9/13/2017	6.19	
1/23/2018	6.17	
5/2/2018	6.15	
8/29/2018	6.19	
11/28/2018	6.11	
5/29/2019	6.13	
10/1/2019		6
3/31/2020		6.21

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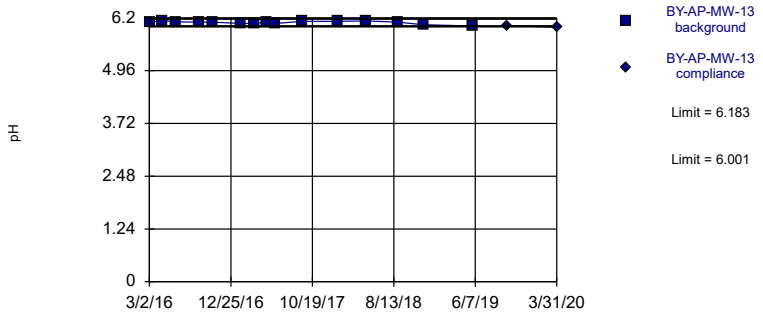
Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.092, Std. Dev.=0.03468, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9128, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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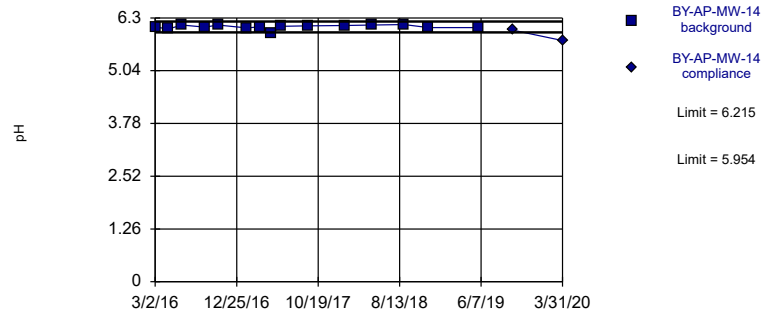
Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=37.04, Std. Dev.=0.6078, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8381, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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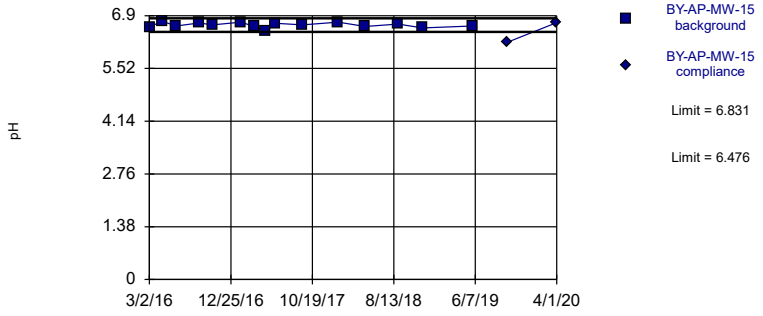
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.653, Std. Dev.=0.06789, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9443, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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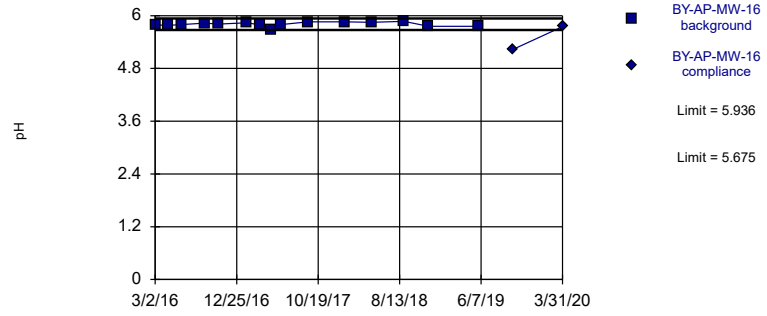
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.805, Std. Dev.=0.04998, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9236, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-13
3/2/2016	6.1	
4/20/2016	6.14	
6/8/2016	6.11	
8/31/2016	6.1	
10/19/2016	6.1	
1/31/2017	6.07	
3/22/2017	6.07	
5/3/2017	6.1	
6/7/2017	6.07	
9/13/2017	6.12	
1/22/2018	6.12	
5/2/2018	6.13	
8/29/2018	6.1	
11/28/2018	6.04	
5/29/2019	6.01	
10/1/2019		6.02
3/31/2020		5.98

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-14
3/2/2016	6.08	
4/20/2016	6.04	
6/8/2016	6.13	
8/30/2016	6.08	
10/18/2016	6.13	
1/31/2017	6.06	
3/22/2017	6.09	
5/2/2017	5.94	
6/6/2017	6.1	
9/13/2017	6.11	
1/23/2018	6.12	
5/2/2018	6.13	
8/29/2018	6.14	
11/27/2018	6.07	
5/29/2019	6.07	
10/1/2019		6.01
3/31/2020		5.76

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-15
3/2/2016	6.61	
4/19/2016	6.75	
6/8/2016	6.63	
8/31/2016	6.71	
10/19/2016	6.66	
1/31/2017	6.73	
3/21/2017	6.62	
5/2/2017	6.49	
6/6/2017	6.7	
9/13/2017	6.66	
1/22/2018	6.73	
5/1/2018	6.62	
8/29/2018	6.68	
11/27/2018	6.58	
5/29/2019	6.63	
10/1/2019		6.2
4/1/2020		6.72

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-16
3/2/2016	5.79	
4/19/2016	5.78	
6/8/2016	5.8	
8/31/2016	5.83	
10/19/2016	5.81	
1/31/2017	5.84	
3/21/2017	5.79	
5/2/2017	5.68	
6/6/2017	5.8	
9/13/2017	5.86	
1/23/2018	5.86	
5/1/2018	5.85	
8/29/2018	5.87	
11/27/2018	5.76	
5/29/2019	5.76	
10/1/2019		5.23
3/31/2020		5.75

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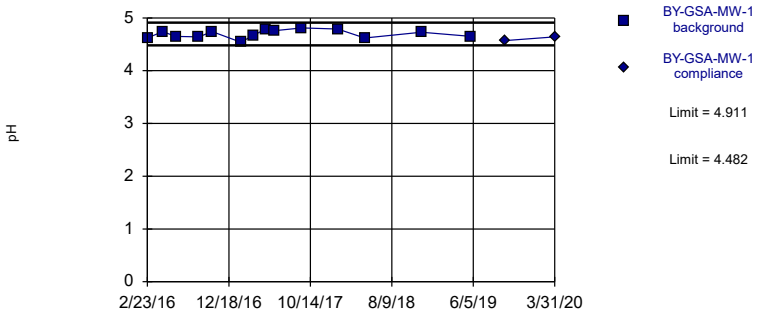
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.696, Std. Dev.=0.08025, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9416, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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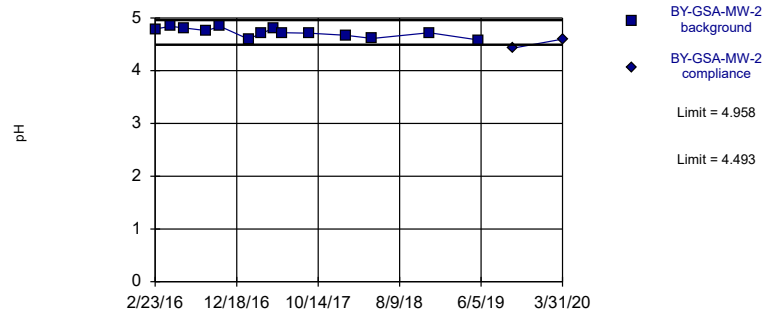
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.726, Std. Dev.=0.08689, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9314, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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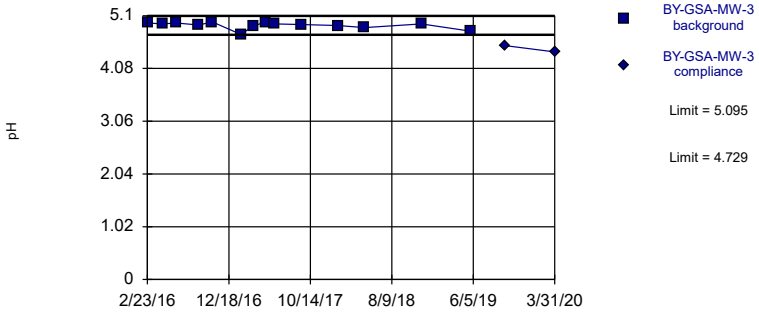
Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.912, Std. Dev.=0.0683, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8283, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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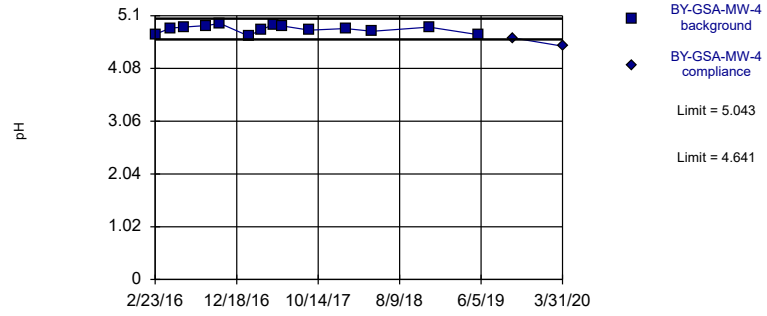
Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.842, Std. Dev.=0.07516, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9458, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1	BY-GSA-MW-1
2/23/2016	4.62	
4/19/2016	4.74	
6/6/2016	4.65	
8/30/2016	4.64	
10/18/2016	4.74	
1/31/2017	4.54	
3/20/2017	4.67	
5/2/2017	4.79	
6/6/2017	4.76	
9/13/2017	4.81	
1/23/2018	4.79	
5/2/2018	4.62	
11/27/2018	4.73	
5/29/2019	4.65	
10/2/2019		4.57
3/31/2020		4.64

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2	BY-GSA-MW-2
2/23/2016	4.79	
4/19/2016	4.84	
6/7/2016	4.81	
8/30/2016	4.76	
10/18/2016	4.84	
1/31/2017	4.6	
3/20/2017	4.71	
5/2/2017	4.8	
6/6/2017	4.72	
9/13/2017	4.71	
1/23/2018	4.67	
5/1/2018	4.61	
11/27/2018	4.72	
5/29/2019	4.58	
10/2/2019		4.43
3/31/2020		4.6

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-3	BY-GSA-MW-3
2/23/2016	4.96	
4/19/2016	4.94	
6/7/2016	4.96	
8/30/2016	4.92	
10/18/2016	4.98	
1/31/2017	4.74	
3/20/2017	4.9	
5/2/2017	4.98	
6/6/2017	4.94	
9/13/2017	4.93	
1/23/2018	4.91	
5/1/2018	4.87	
11/27/2018	4.94	
5/29/2019	4.8	
10/2/2019		4.52
3/31/2020		4.4

Prediction Limit

Constituent: pH (pH) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4	BY-GSA-MW-4
2/23/2016	4.74	
4/19/2016	4.86	
6/6/2016	4.88	
8/30/2016	4.91	
10/18/2016	4.95	
1/31/2017	4.71	
3/20/2017	4.83	
5/2/2017	4.93	
6/6/2017	4.9	
9/12/2017	4.82	
1/23/2018	4.85	
5/1/2018	4.8	
11/26/2018	4.88	
5/28/2019	4.73	
10/2/2019		4.67
3/31/2020		4.51

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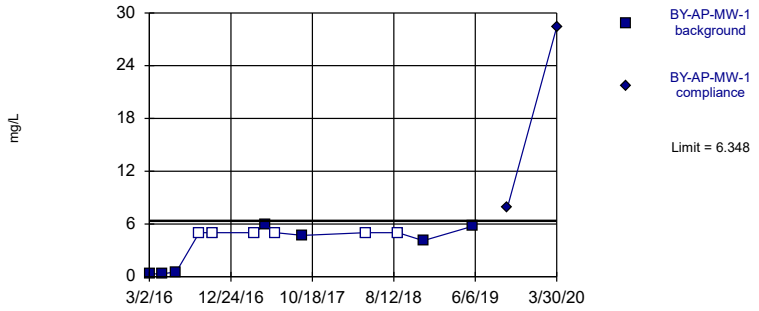
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on cube transformation) (after Kaplan-Meier Adjustment): Mean=52.17, Std. Dev.=74.33, n=13, 46.15% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8687, critical = 0.814. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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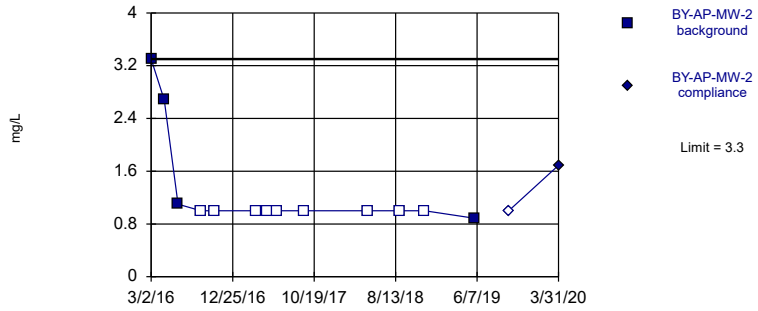
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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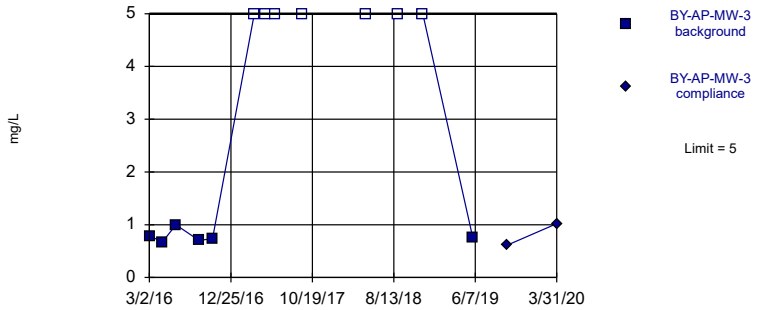
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 53.85% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

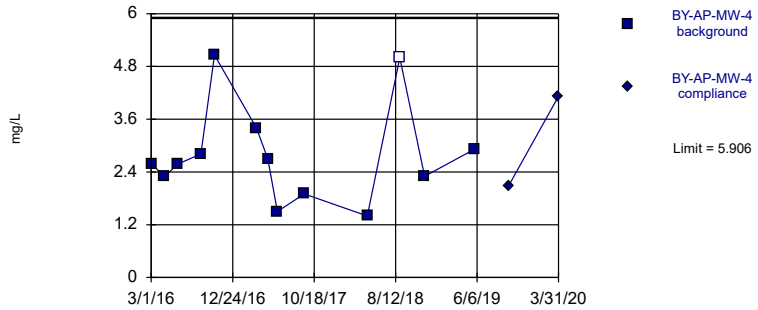
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=2.804, Std. Dev.=1.132, n=13, 7.692% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8682, critical = 0.814. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-1
3/2/2016	0.31 (J)	
4/19/2016	0.335 (J)	
6/8/2016	0.556 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	6	
6/6/2017	<5	
9/13/2017	4.7 (J)	
5/1/2018	<5	
8/28/2018	<5	
11/28/2018	4.1 (J)	
5/29/2019	5.75	
10/1/2019		7.82
3/30/2020		28.4

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-2
3/2/2016	3.3	
4/19/2016	2.68	
6/8/2016	1.1	
8/31/2016	<1	
10/19/2016	<1	
3/21/2017	<1	
5/2/2017	<1	
6/6/2017	<1	
9/12/2017	<1	
5/1/2018	<1	
8/28/2018	<1	
11/27/2018	<1	
5/29/2019	0.885 (J)	
10/1/2019		<1
3/31/2020		1.69

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-3
3/2/2016	0.79 (J)	
4/19/2016	0.674 (J)	
6/7/2016	1	
8/31/2016	0.702 (J)	
10/19/2016	0.739 (J)	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/12/2017	<5	
5/1/2018	<5	
8/28/2018	<5	
11/27/2018	<5	
5/29/2019	0.747 (J)	
10/1/2019		0.61 (J)
3/31/2020		1.02

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-4
3/1/2016	2.58	
4/19/2016	2.3	
6/7/2016	2.58	
8/30/2016	2.81	
10/19/2016	5.06	
3/21/2017	3.4 (J)	
5/2/2017	2.7 (J)	
6/6/2017	1.5 (J)	
9/12/2017	1.9 (J)	
5/1/2018	1.4 (J)	
8/28/2018	<5	
11/27/2018	2.3 (J)	
5/29/2019	2.92	
10/1/2019		2.09
3/31/2020		4.12

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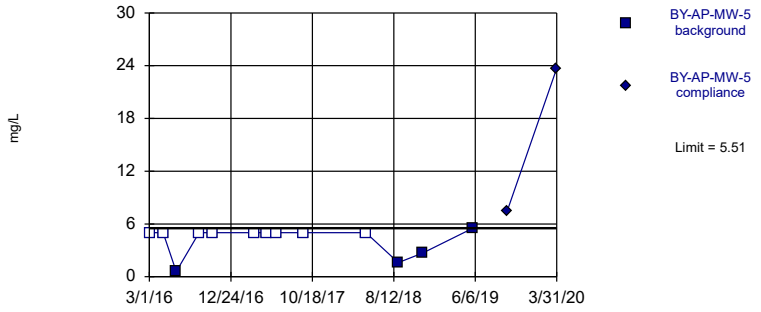
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

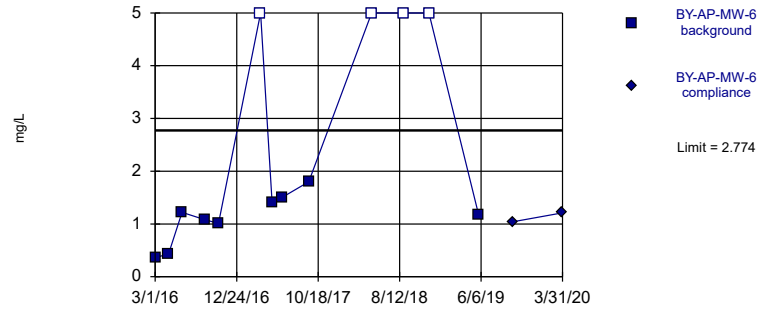
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=1.027, Std. Dev.=0.2332, n=13, 30.77% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8266, critical = 0.814. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

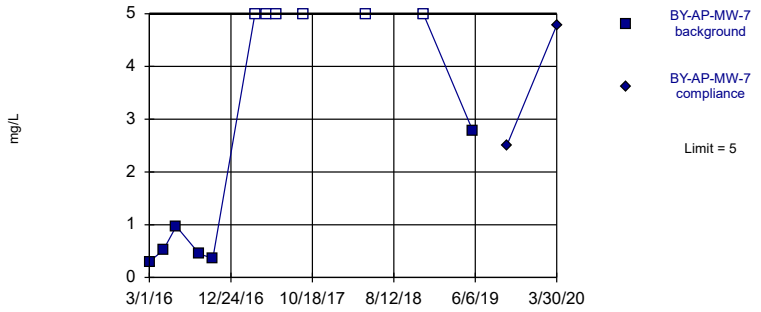
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 50% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:55 AM View: Intrawell PL

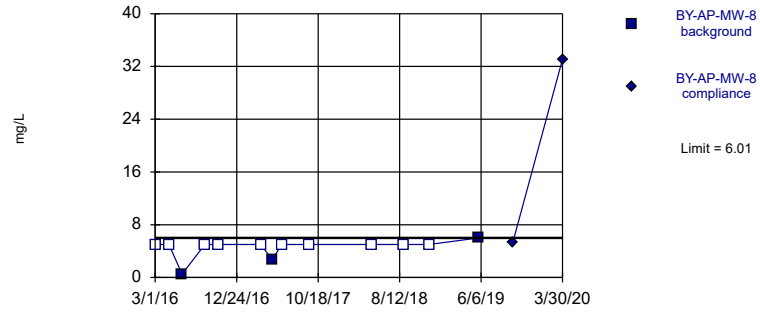
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 76.92% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5
3/1/2016	<5	
4/20/2016	<5	
6/7/2016	0.583 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/3/2017	<5	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/29/2018	1.6 (J)	
11/27/2018	2.7 (J)	
5/29/2019	5.51	
10/1/2019		7.4
3/31/2020		23.7

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-6
3/1/2016	0.36 (J)	
4/19/2016	0.435 (J)	
6/7/2016	1.22	
8/30/2016	1.08	
10/19/2016	1.01	
3/22/2017	<5	
5/3/2017	1.4 (J)	
6/7/2017	1.5 (J)	
9/14/2017	1.8 (J)	
5/2/2018	<5	
8/29/2018	<5	
11/28/2018	<5	
5/29/2019	1.17	
10/1/2019		1.04
3/31/2020		1.21

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7
3/1/2016	0.3 (J)	
4/20/2016	0.514 (J)	
6/7/2016	0.971 (J)	
8/31/2016	0.445 (J)	
10/19/2016	0.366 (J)	
3/22/2017	<5	
5/3/2017	<5	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
11/28/2018	<5	
5/29/2019	2.77	
9/30/2019		2.51
3/30/2020		4.78

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-8
3/1/2016	<5	
4/20/2016	<5	
6/7/2016	0.504 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/3/2017	2.7 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/29/2018	<5	
11/27/2018	<5	
5/29/2019	6.01	
9/30/2019		5.29
3/30/2020		33.1

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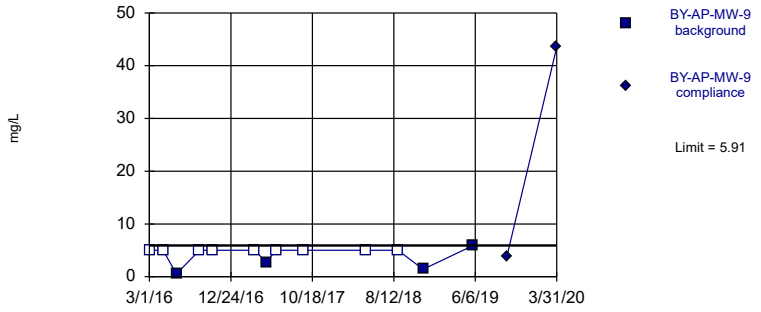
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

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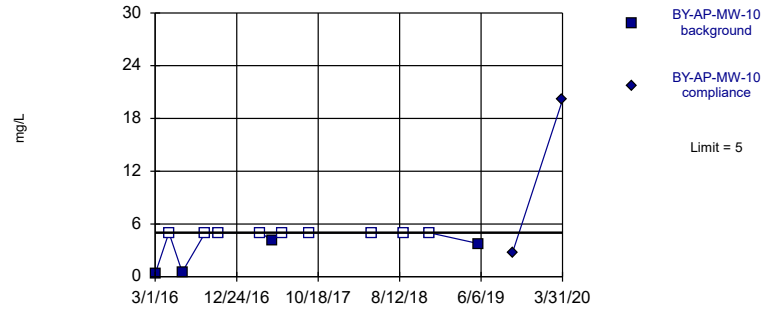
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



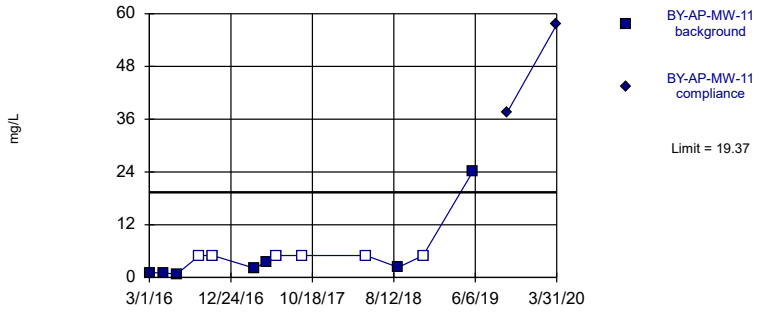
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Parametric



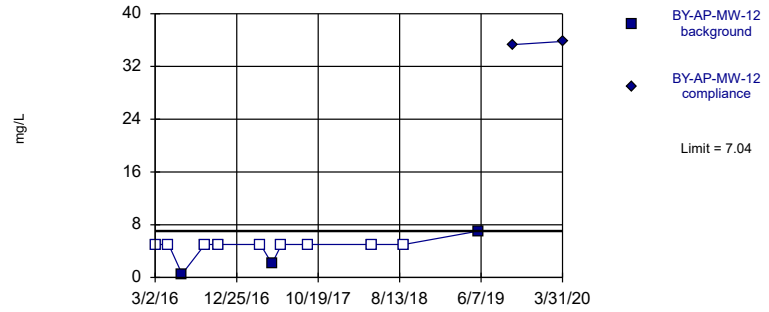
Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=1.308, Std. Dev.=0.5028, n=13, 46.15% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8281, critical = 0.814. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL
Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-9
3/1/2016	<5	
4/20/2016	<5	
6/8/2016	0.51 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	2.7 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/28/2018	<5	
11/28/2018	1.4 (J)	
5/30/2019	5.91	
9/30/2019		3.77
3/31/2020		43.5

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-10
3/1/2016	0.34 (J)	
4/20/2016	<5	
6/8/2016	0.538 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	4.1 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/28/2018	<5	
11/28/2018	<5	
5/30/2019	3.76	
9/30/2019		2.77
3/31/2020		20.1

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-11
3/1/2016	1.02	
4/20/2016	1.1	
6/8/2016	0.701 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	2.1 (J)	
5/3/2017	3.6 (J)	
6/7/2017	<5	
9/13/2017	<5	
5/2/2018	<5	
8/29/2018	2.3 (J)	
11/28/2018	<5	
5/29/2019	24.1	
9/30/2019		37.4
3/31/2020		57.5

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-12
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.511 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	2.1 (J)	
6/7/2017	<5	
9/13/2017	<5	
5/2/2018	<5	
8/29/2018	<5	
11/28/2018	<50 (o)	
5/29/2019	7.04	
10/1/2019		35.3
3/31/2020		35.8

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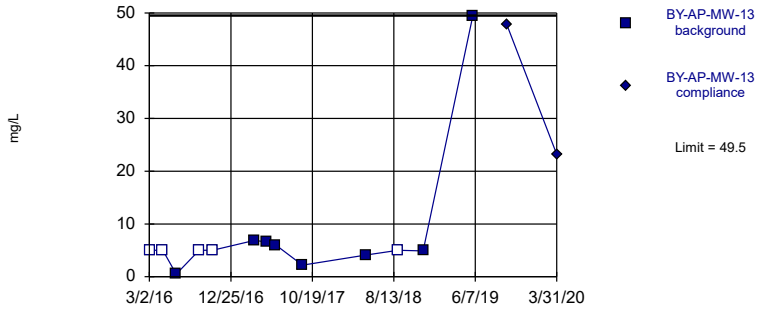
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 13 background values. 38.46% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL

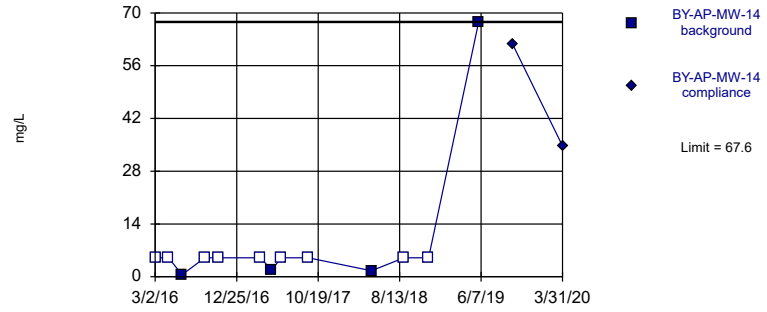
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL

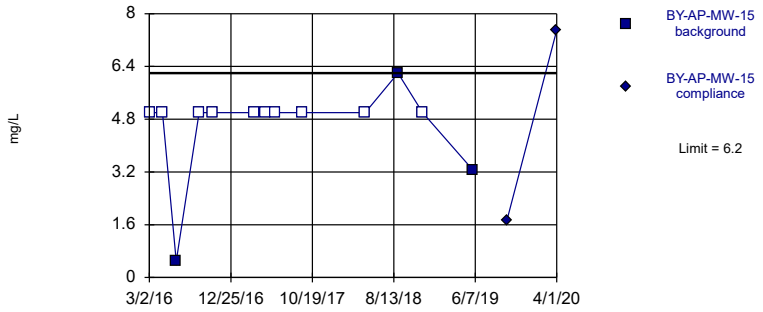
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 76.92% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL

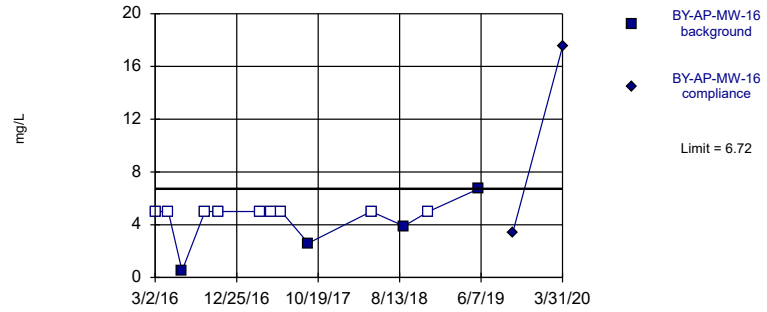
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-13
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.496 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	6.9	
5/3/2017	6.6	
6/7/2017	6	
9/13/2017	2.2 (J)	
5/2/2018	4.1 (J)	
8/29/2018	<5	
11/28/2018	4.9 (J)	
5/29/2019	49.5	
10/1/2019		47.7
3/31/2020		23.2

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-14
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.514 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/2/2017	1.8 (J)	
6/6/2017	<5	
9/13/2017	<5	
5/2/2018	1.6 (J)	
8/29/2018	<5	
11/27/2018	<5	
5/29/2019	67.6	
10/1/2019		61.6
3/31/2020		34.7

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-15
3/2/2016	<5	
4/19/2016	<5	
6/8/2016	0.489 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/13/2017	<5	
5/1/2018	<5	
8/29/2018	6.2	
11/27/2018	<5	
5/29/2019	3.27	
10/1/2019		1.72
4/1/2020		7.5

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-16
3/2/2016	<5	
4/19/2016	<5	
6/8/2016	0.514 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/13/2017	2.6 (J)	
5/1/2018	<5	
8/29/2018	3.9 (J)	
11/27/2018	<5	
5/29/2019	6.72	
10/1/2019		3.4
3/31/2020		17.5

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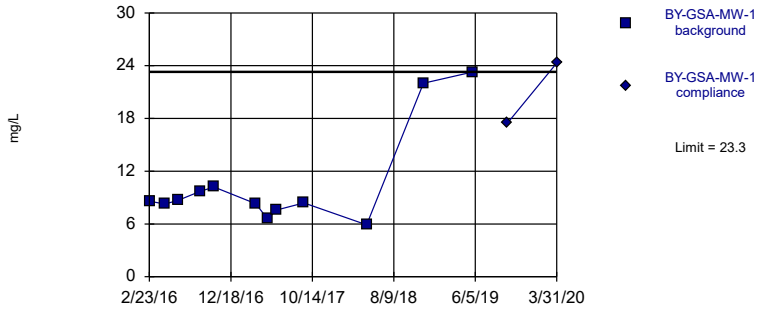
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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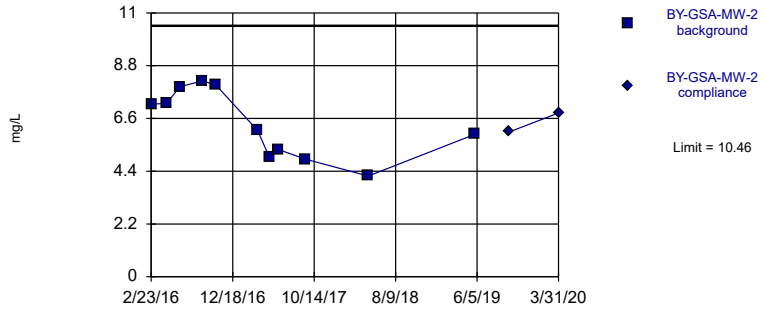
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.358, Std. Dev.=1.408, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9195, critical = 0.792. Kappa = 2.915 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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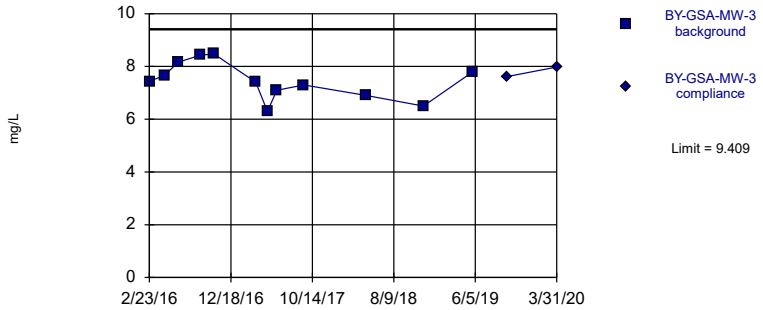
Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.456, Std. Dev.=0.6976, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9647, critical = 0.805. Kappa = 2.8 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

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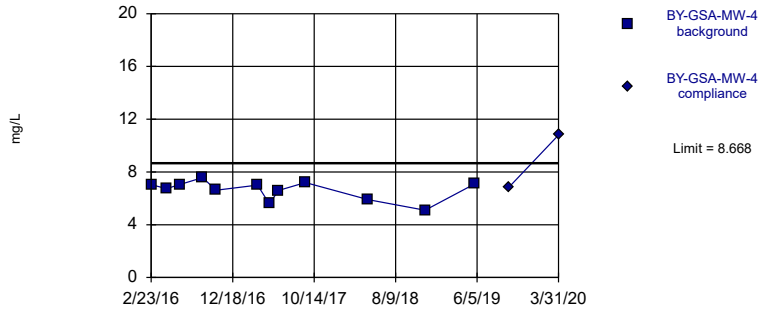
Exceeds Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.626, Std. Dev.=0.7293, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8904, critical = 0.805. Kappa = 2.8 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 6/8/2020 7:56 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1	BY-GSA-MW-1
2/23/2016	8.59	
4/19/2016	8.27	
6/6/2016	8.66	
8/30/2016	9.74	
10/18/2016	10.2	
3/20/2017	8.3	
5/2/2017	6.6 (D)	
6/6/2017	7.6 (D)	
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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2	BY-GSA-MW-2
2/23/2016	7.2	
4/19/2016	7.22	
6/7/2016	7.92	
8/30/2016	8.17	
10/18/2016	7.99	
3/20/2017	6.1	
5/2/2017	5 (D)	
6/6/2017	5.3 (D)	
9/13/2017	4.9 (J)	
5/1/2018	4.2 (J)	
5/29/2019	5.94	
10/2/2019		6.04
3/31/2020		6.83

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-3	BY-GSA-MW-3
2/23/2016	7.44	
4/19/2016	7.66	
6/7/2016	8.16	
8/30/2016	8.43	
10/18/2016	8.47	
3/20/2017	7.4	
5/2/2017	6.3 (D)	
6/6/2017	7.1 (D)	
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

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 6/8/2020 7:58 AM View: Intrawell PL

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4	BY-GSA-MW-4
2/23/2016	7.04	
4/19/2016	6.74	
6/6/2016	7.04	
8/30/2016	7.57	
10/18/2016	6.62	
3/20/2017	7	
5/2/2017	5.6 (D)	
6/6/2017	6.6 (D)	
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

Trend Test - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 8:07 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-AP-MW-1	0.009643	1	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	**BY-AP-MW-8**	**-0.1418**	**-62**	**-48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**BY-AP-MW-9**	**0.09985**	**55**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	**BY-AP-MW-10**	**0.1758**	**67**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	BY-AP-MW-16	0.05316	40	48	No	14	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-1 (bg)	0	25	48	No	14	57.14	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-2 (bg)	0	19	43	No	13	84.62	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-3 (bg)	0	0	48	No	14	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-4 (bg)	0	17	48	No	14	85.71	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-1	-0.8267	-20	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-2	-0.09116	-45	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-5	0	-6	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-AP-MW-7**	**0.6233**	**79**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-AP-MW-8**	**-0.7343**	**-58**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-AP-MW-9	0.2631	23	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-AP-MW-10**	**3.179**	**65**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-AP-MW-11**	**-0.6901**	**-64**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-AP-MW-12**	**0.7337**	**73**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-AP-MW-13	0.3724	33	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-14	-0.1292	-7	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-AP-MW-15**	**0.3415**	**59**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-AP-MW-16	0	-2	-53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-1 (bg)	0.1671	26	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-GSA-MW-2 (bg)**	**0.155**	**55**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-GSA-MW-3 (bg)	0.04214	30	48	No	14	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-GSA-MW-4 (bg)**	**0.1034**	**51**	**48**	**Yes**	**14**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-AP-MW-1	1.093	29	43	No	13	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-5	0.02788	12	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-7	0.6016	43	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-8	0.8147	38	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-9	-0.2901	-7	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**BY-AP-MW-10**	**2.047**	**83**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-AP-MW-11	1.06	32	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-12	0.5573	51	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-13	0.8277	11	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-14	1.508	49	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**BY-AP-MW-15**	**8.811**	**93**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**BY-AP-MW-16**	**1.261**	**67**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-GSA-MW-1 (bg)	0.2367	24	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-2 (bg)	-0.3698	-46	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-3 (bg)	-0.02689	-16	-48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-4 (bg)	-0.03009	-13	-48	No	14	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-AP-MW-15	-0.00...	-14	-53	No	15	6.667	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-1 (bg)	0.009497	37	53	No	15	33.33	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-2 (bg)	0.01478	45	53	No	15	33.33	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-3 (bg)	0.01613	52	53	No	15	53.33	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-4 (bg)	0.0168	52	53	No	15	53.33	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-13	-0.02693	-54	-63	No	17	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-14	-0.00...	-11	-63	No	17	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-1 (bg)	0	-1	-58	No	16	0	n/a	n/a	0.01	NP
pH (pH)	**BY-GSA-MW-2 (bg)**	**-0.06907**	**-72**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-3 (bg)**	**-0.05433**	**-59**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	BY-GSA-MW-4 (bg)	-0.04247	-41	-58	No	16	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**BY-AP-MW-1**	**1.522**	**56**	**53**	**Yes**	**15**	**40**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	BY-AP-MW-5	0	29	53	No	15	60	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-8	0	44	53	No	15	66.67	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-9	0	15	53	No	15	60	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-10	0	17	53	No	15	60	n/a	n/a	0.01	NP
Sulfate (mg/L)	**BY-AP-MW-11**	**3.447**	**66**	**53**	**Yes**	**15**	**40**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	BY-AP-MW-12	0.7439	41	48	No	14	64.29	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-15	0	8	53	No	15	66.67	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-16	0	13	53	No	15	60	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-1 (bg)	2.672	27	48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-2 (bg)	-0.6129	-26	-43	No	13	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-3 (bg)	-0.1255	-11	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-4 (bg)	-0.03734	-4	-48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-1	-8.428	-49	-53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-5.348	-39	-53	No	15	0	n/a	n/a	0.01	NP

Trend Test - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 8:07 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
TDS (mg/L)	BY-AP-MW-7	1.296	22	48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-8	-4.446	-30	-53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-9	-1.116	-10	-53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-10	7.142	41	53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	0	3	53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-12	-6.008	-30	-53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-13	-1.272	-8	-53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-14	1	3	53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-AP-MW-15**	**13.52**	**69**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-AP-MW-16	2.411	15	53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-GSA-MW-1 (bg)**	**7.268**	**65**	**48**	**Yes**	**14**	**7.143**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-GSA-MW-2 (bg)**	**3.541**	**50**	**48**	**Yes**	**14**	**14.29**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-GSA-MW-3 (bg)	1.722	21	48	No	14	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-GSA-MW-4 (bg)**	**3.921**	**51**	**48**	**Yes**	**14**	**28.57**	**n/a**	**n/a**	**0.01**	**NP**

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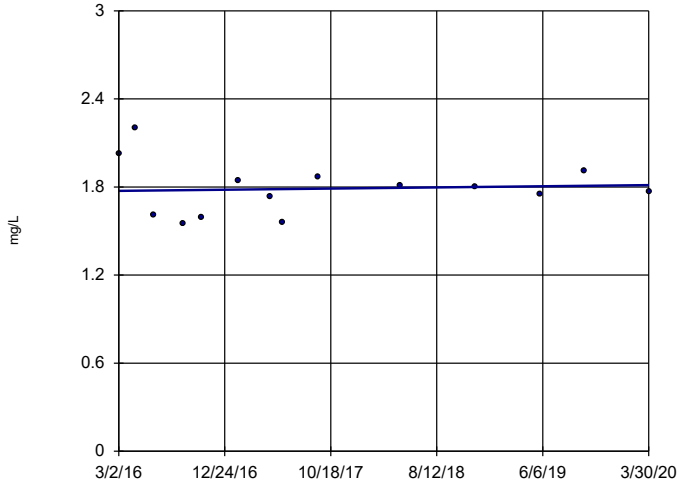
Sen's Slope Estimator

BY-AP-MW-1



n = 14

Slope = 0.009643 units per year.

Mann-Kendall statistic = 1 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

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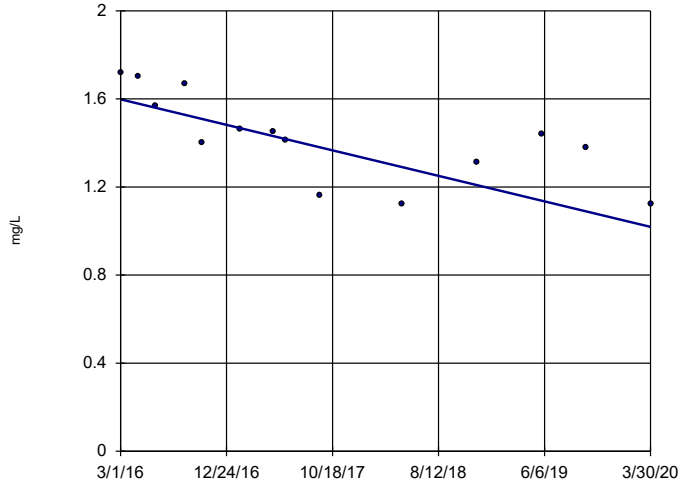
Sen's Slope Estimator

BY-AP-MW-8



n = 14

Slope = -0.1418 units per year.

Mann-Kendall statistic = -62 critical = -48

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

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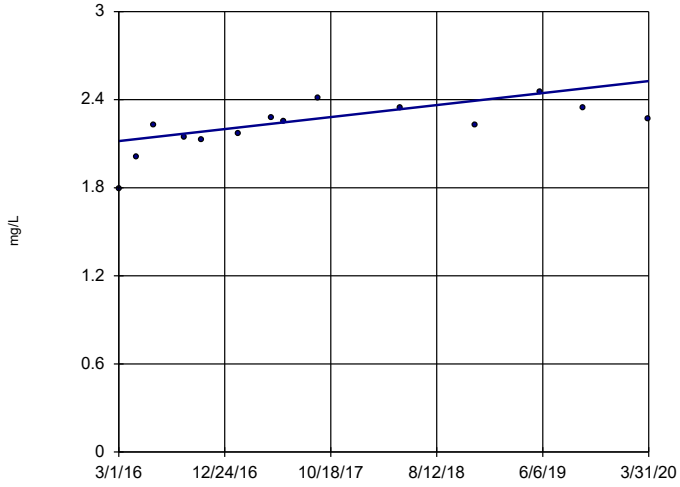
Sen's Slope Estimator

BY-AP-MW-9



n = 14

Slope = 0.09985 units per year.

Mann-Kendall statistic = 55 critical = 48

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

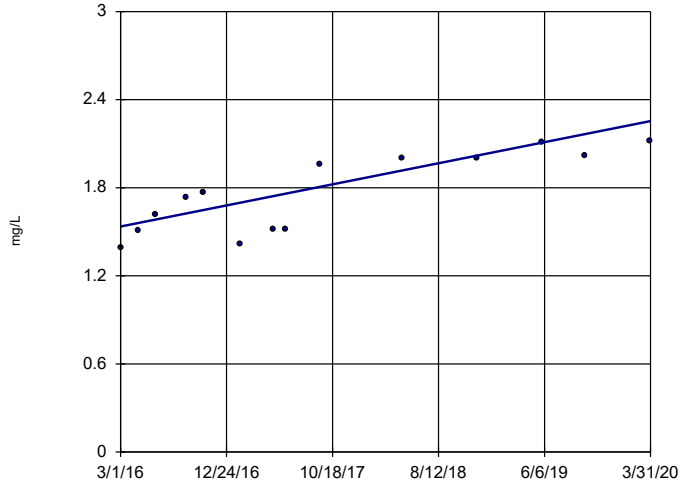
Constituent: Boron Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-10



n = 14

Slope = 0.1758 units per year.

Mann-Kendall statistic = 67 critical = 48

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

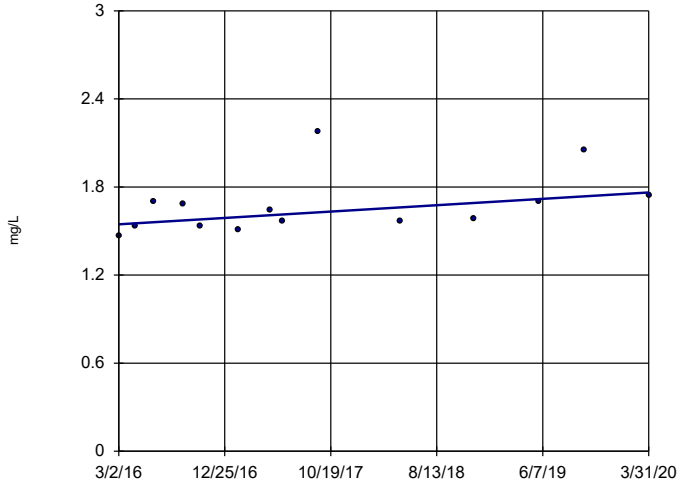
Constituent: Boron Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-16



n = 14

Slope = 0.05316 units per year.

Mann-Kendall statistic = 40 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 6/8/2020 8:02 AM View: Trend Test

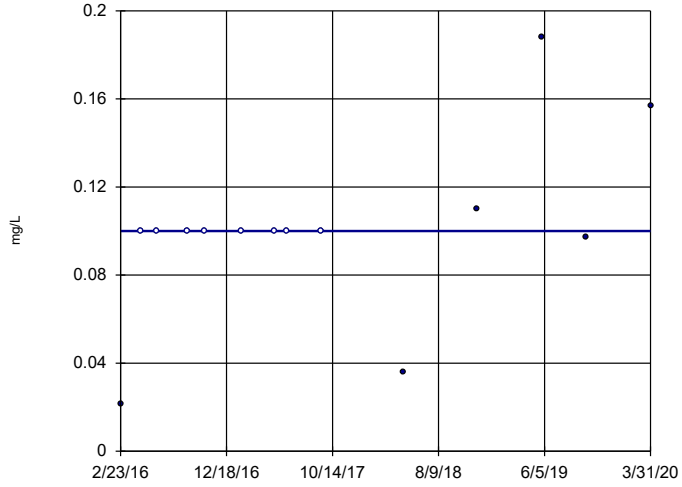
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 25 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 6/8/2020 8:02 AM View: Trend Test

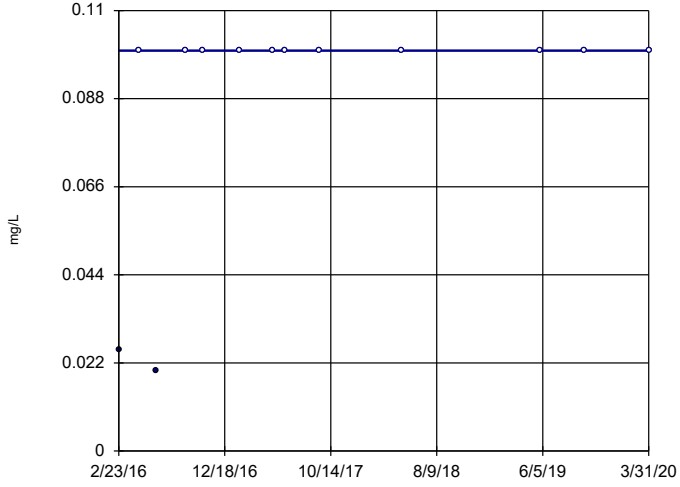
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 13

Slope = 0 units per year.

Mann-Kendall statistic = 19 critical = 43

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Boron Analysis Run 6/8/2020 8:02 AM View: Trend Test

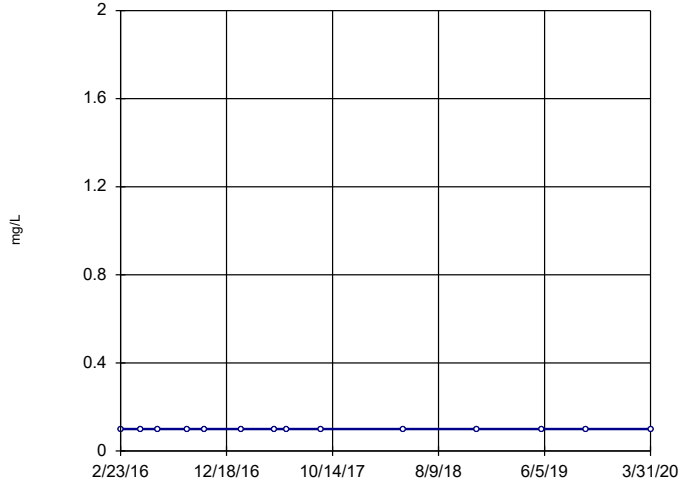
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 0 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

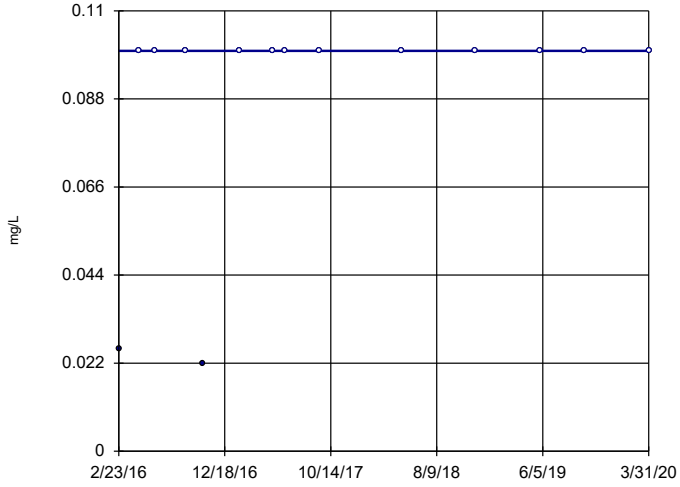
Constituent: Boron Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 14

Slope = 0
units per year.

Mann-Kendall
statistic = 17
critical = 48

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

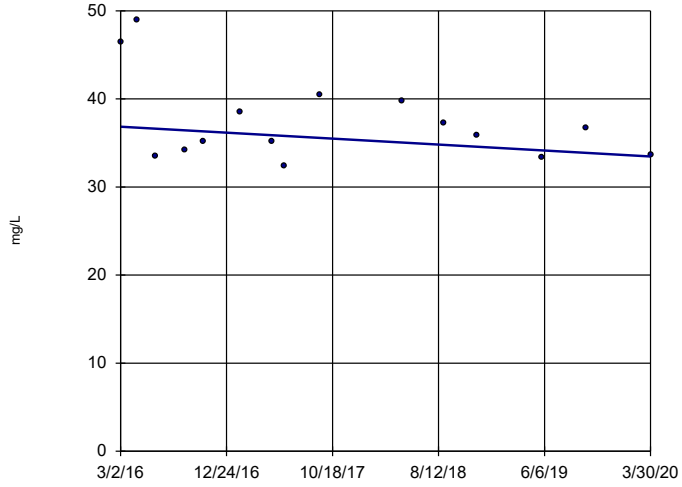
Constituent: Boron Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-1



n = 15

Slope = -0.8267
units per year.

Mann-Kendall
statistic = -20
critical = -53

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

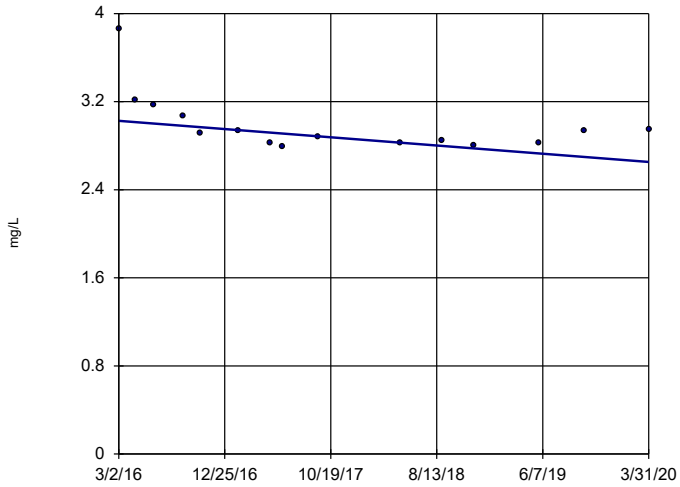
Constituent: Calcium Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-2



n = 15

Slope = -0.09116
units per year.

Mann-Kendall
statistic = -45
critical = -53

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

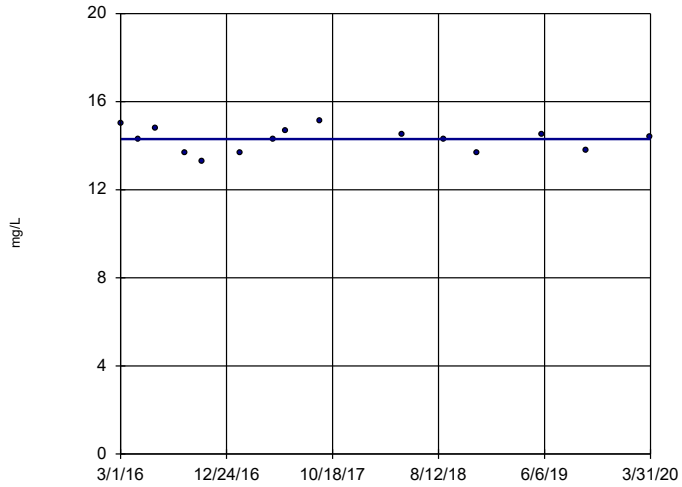
Constituent: Calcium Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-5



n = 15

Slope = 0
units per year.

Mann-Kendall
statistic = -6
critical = -53

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

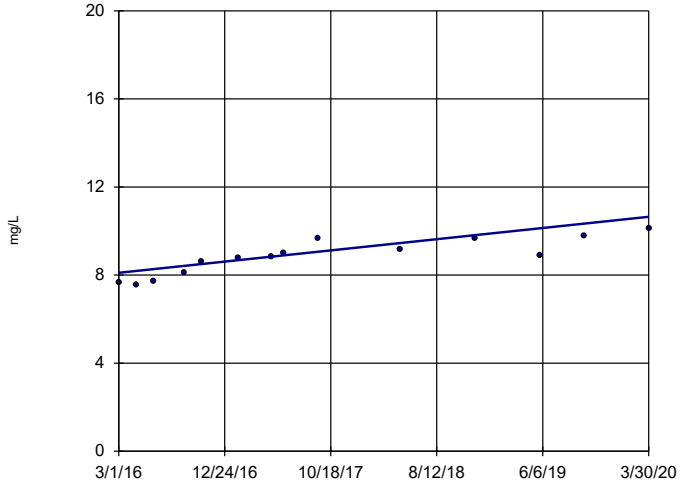
Constituent: Calcium Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-7



n = 14

Slope = 0.6233 units per year.

Mann-Kendall statistic = 79 critical = 48

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

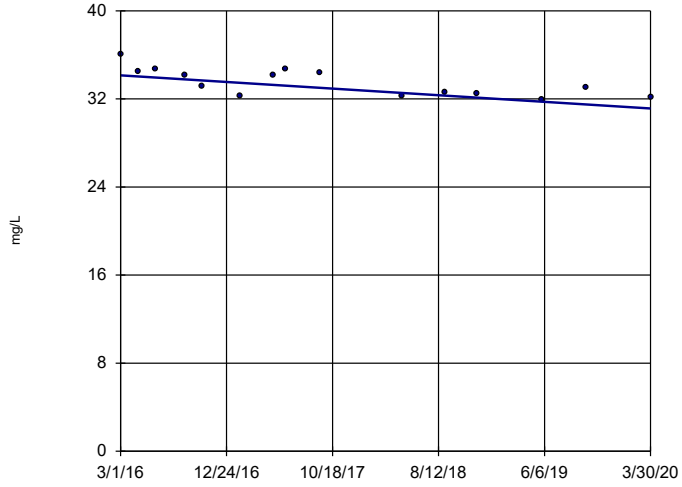
Constituent: Calcium Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-8



n = 15

Slope = -0.7343 units per year.

Mann-Kendall statistic = -58 critical = -53

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

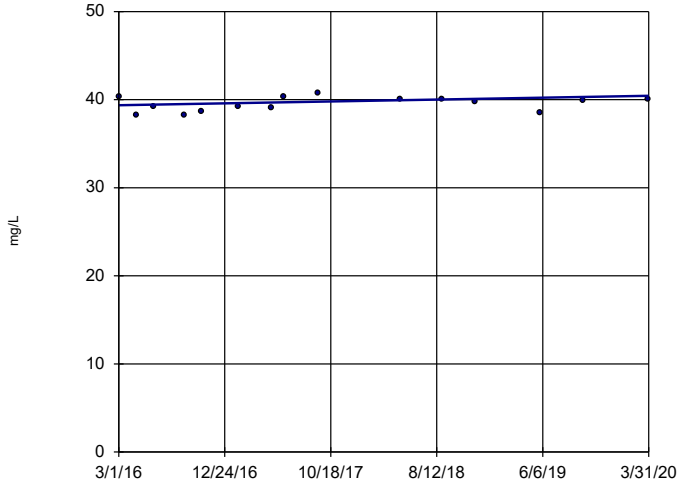
Constituent: Calcium Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-9



n = 15

Slope = 0.2631 units per year.

Mann-Kendall statistic = 23 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

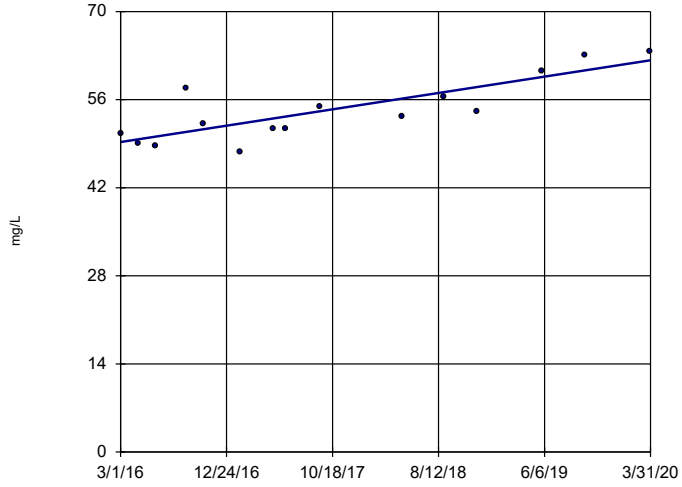
Constituent: Calcium Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-10



n = 15

Slope = 3.179 units per year.

Mann-Kendall statistic = 65 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

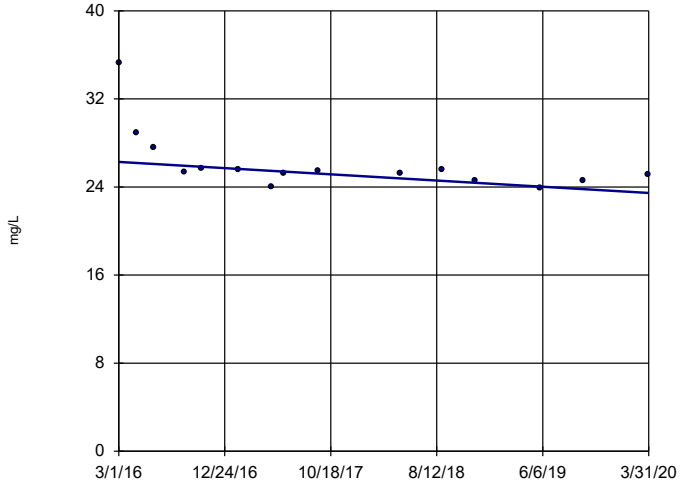
Constituent: Calcium Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-11



n = 15

Slope = -0.6901 units per year.

Mann-Kendall statistic = -64 critical = -53

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

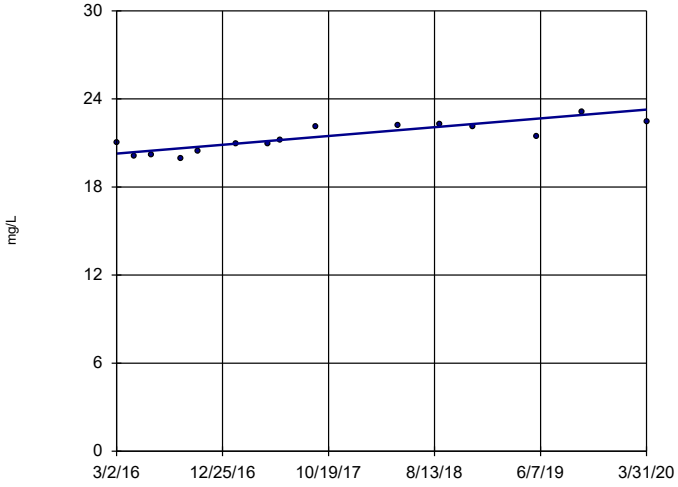
Constituent: Calcium Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-12



n = 15

Slope = 0.7337 units per year.

Mann-Kendall statistic = 73 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

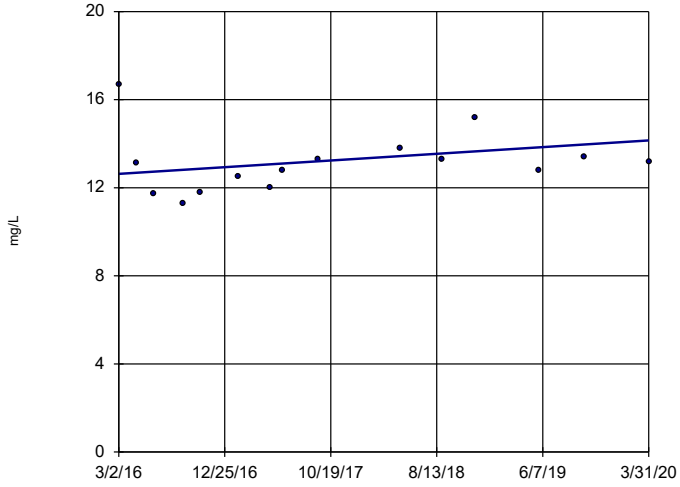
Constituent: Calcium Analysis Run 6/8/2020 8:02 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-13



n = 15

Slope = 0.3724 units per year.

Mann-Kendall statistic = 33 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

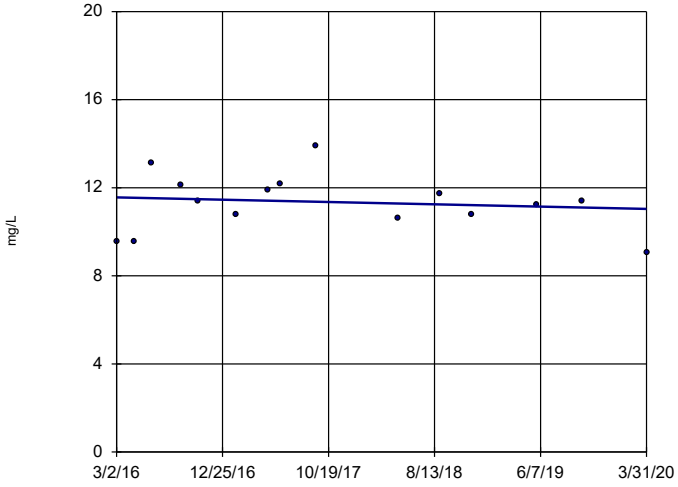
Constituent: Calcium Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-14



n = 15

Slope = -0.1292 units per year.

Mann-Kendall statistic = -7 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

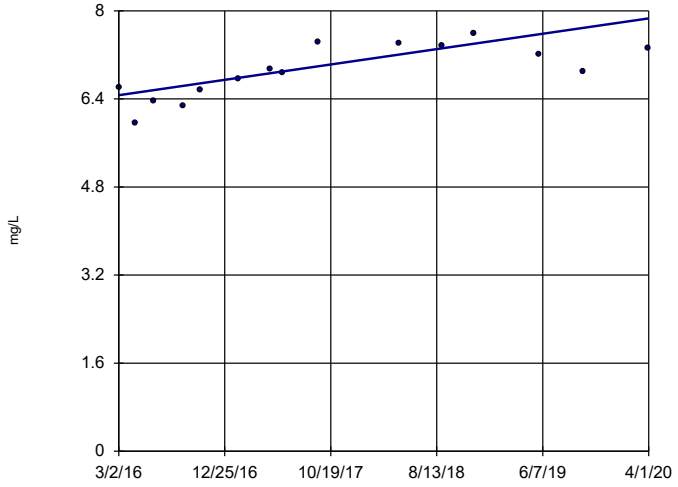
Constituent: Calcium Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-15



n = 15

Slope = 0.3415 units per year.

Mann-Kendall statistic = 59 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

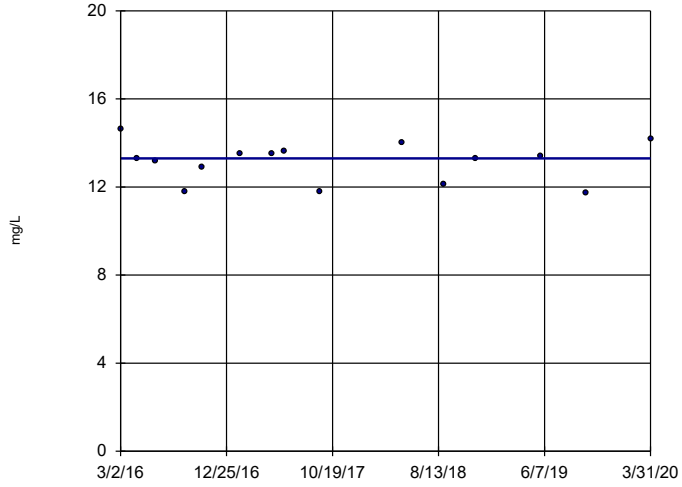
Constituent: Calcium Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-16



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = -2 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

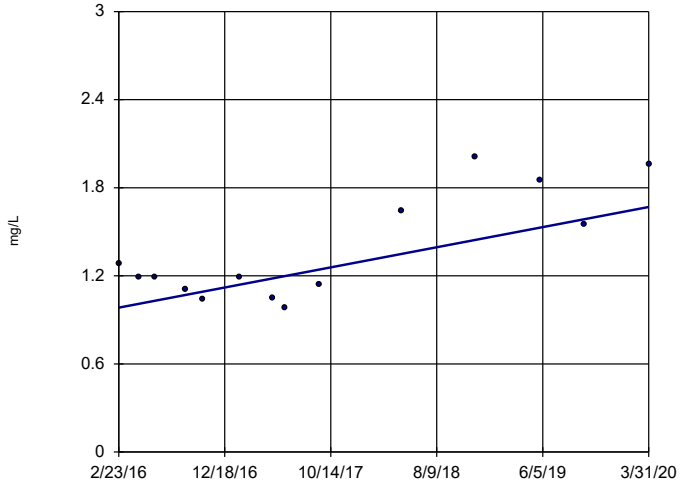
Constituent: Calcium Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 14

Slope = 0.1671 units per year.

Mann-Kendall statistic = 26 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

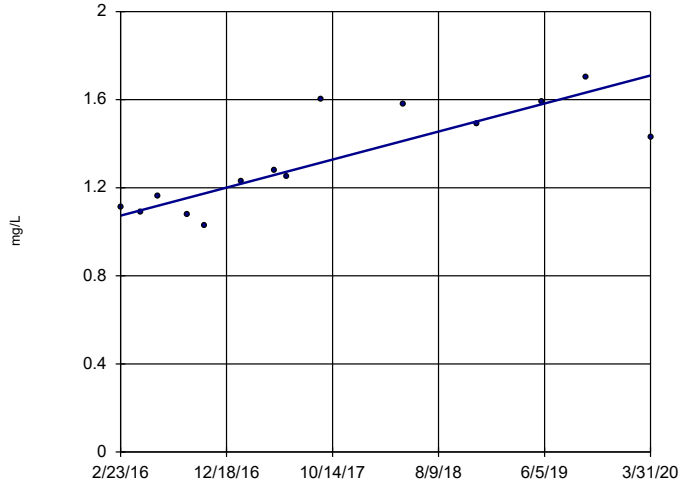
Constituent: Calcium Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 14

Slope = 0.155 units per year.

Mann-Kendall statistic = 55 critical = 48

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

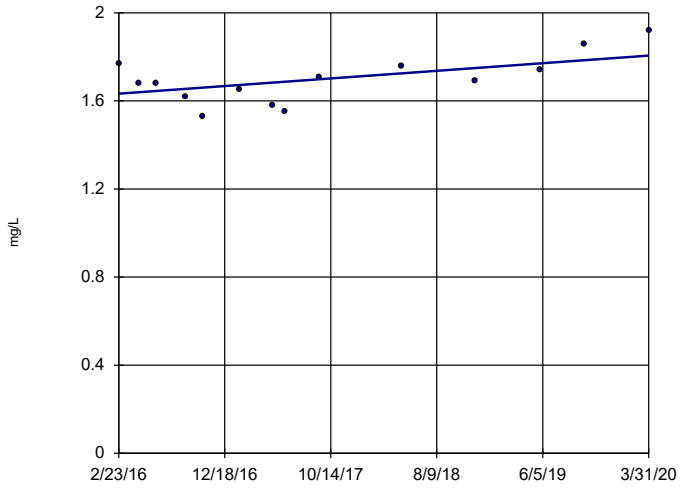
Constituent: Calcium Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 14

Slope = 0.04214 units per year.

Mann-Kendall statistic = 30 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

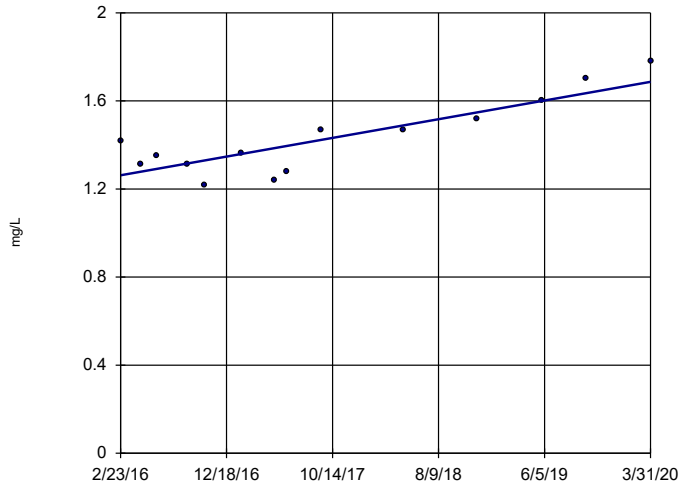
Constituent: Calcium Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 14

Slope = 0.1034 units per year.

Mann-Kendall statistic = 51 critical = 48

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

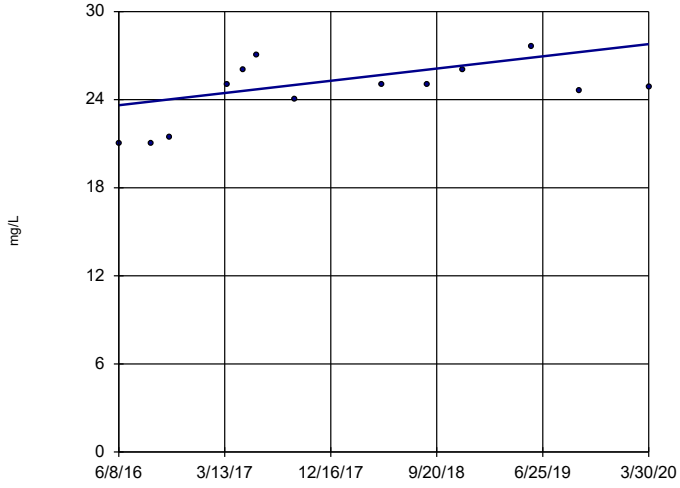
Constituent: Calcium Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-1



n = 13

Slope = 1.093 units per year.

Mann-Kendall statistic = 29 critical = 43

Trend not significant at 99% confidence level (α = 0.005 per tail).

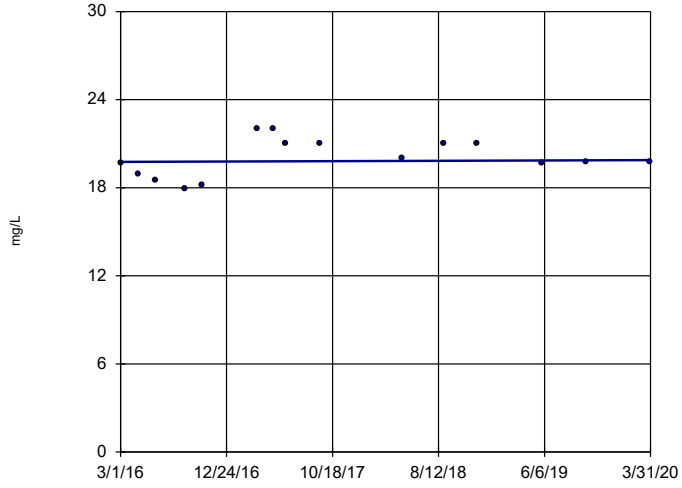
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-5



n = 15

Slope = 0.02788 units per year.

Mann-Kendall statistic = 12 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

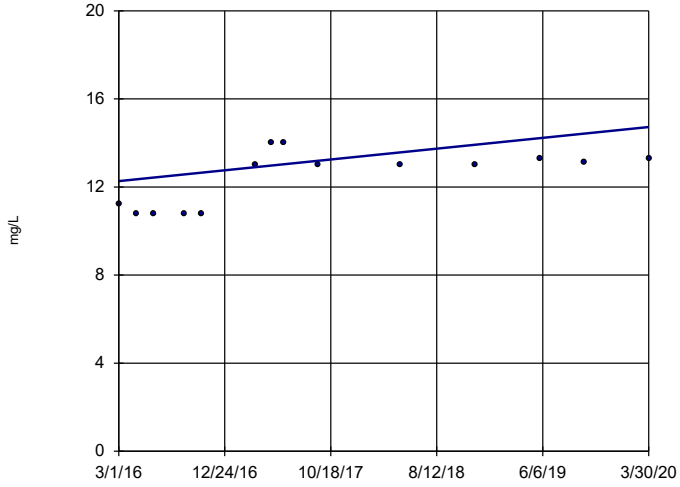
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-7



n = 14

Slope = 0.6016 units per year.

Mann-Kendall statistic = 43 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

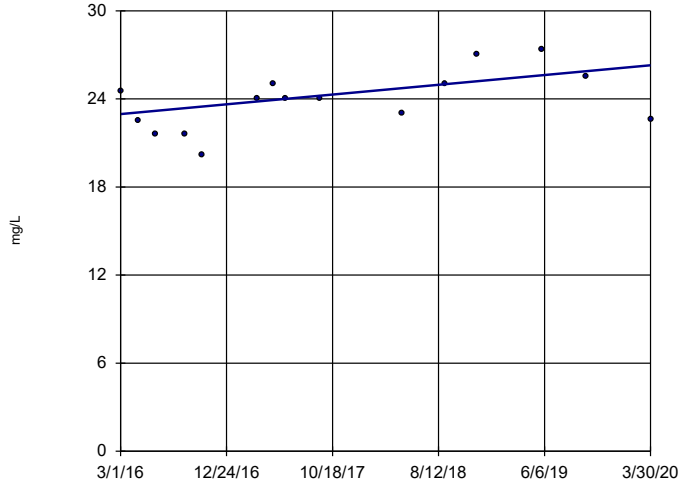
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-8



n = 15

Slope = 0.8147 units per year.

Mann-Kendall statistic = 38 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

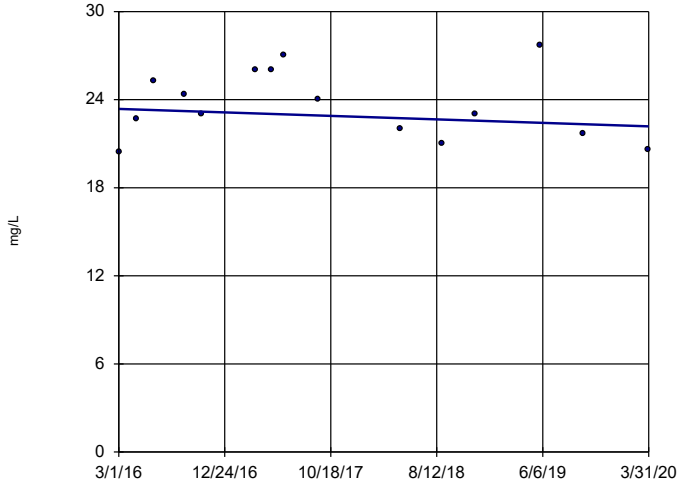
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-9



n = 15

Slope = -0.2901 units per year.

Mann-Kendall statistic = -7 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

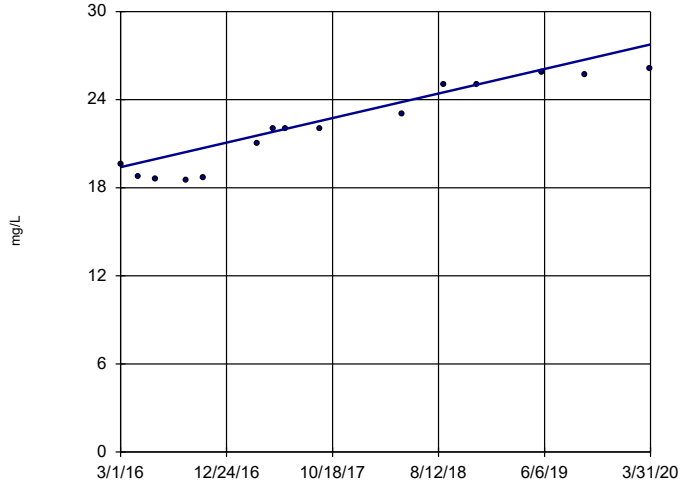
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-10



n = 15

Slope = 2.047 units per year.

Mann-Kendall statistic = 83 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

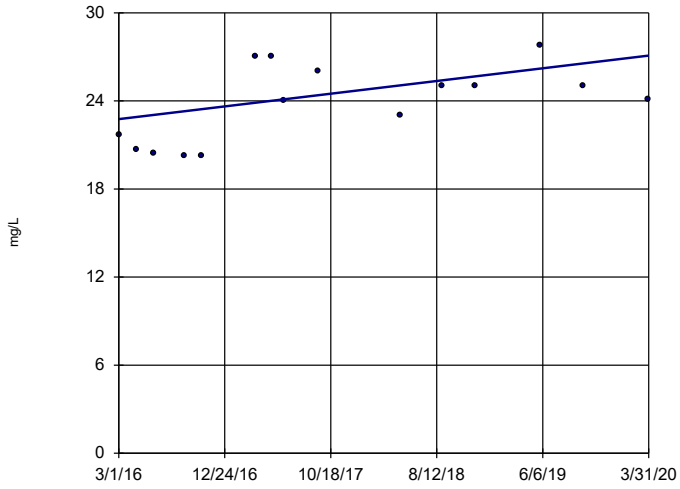
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-11



n = 15

Slope = 1.06 units per year.

Mann-Kendall statistic = 32 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

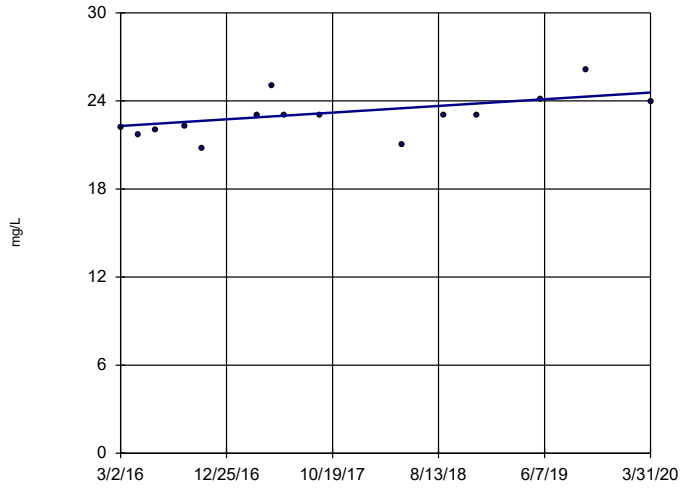
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-12



n = 15

Slope = 0.5573 units per year.

Mann-Kendall statistic = 51 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

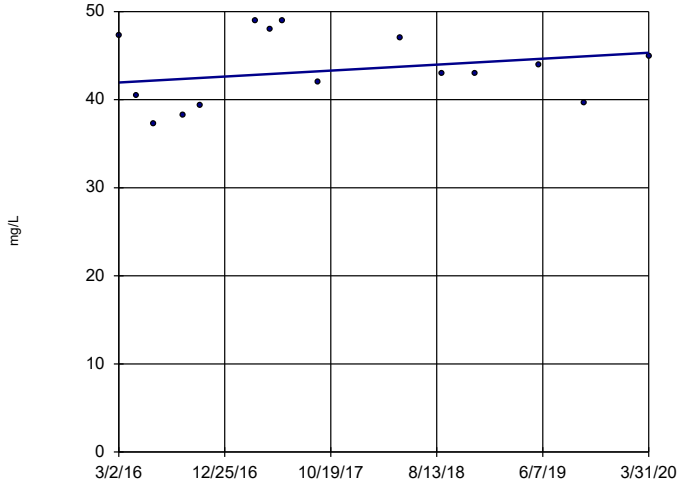
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-13



n = 15

Slope = 0.8277 units per year.

Mann-Kendall statistic = 11 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

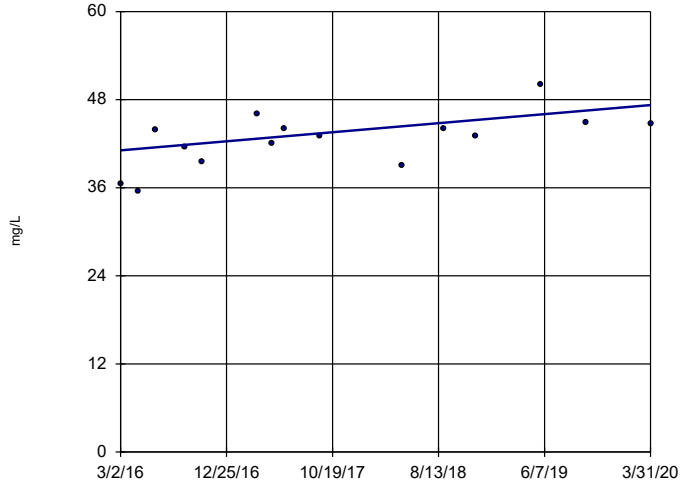
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-14



n = 15

Slope = 1.508 units per year.

Mann-Kendall statistic = 49 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

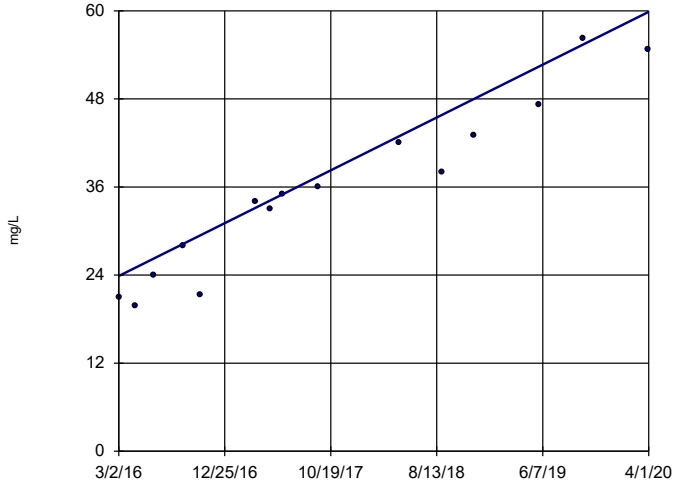
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-15



n = 15

Slope = 8.811 units per year.

Mann-Kendall statistic = 93 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

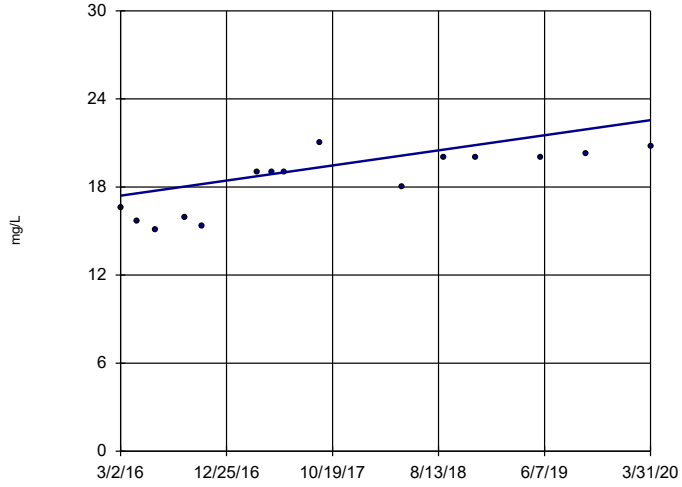
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-16



n = 15

Slope = 1.261 units per year.

Mann-Kendall statistic = 67 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

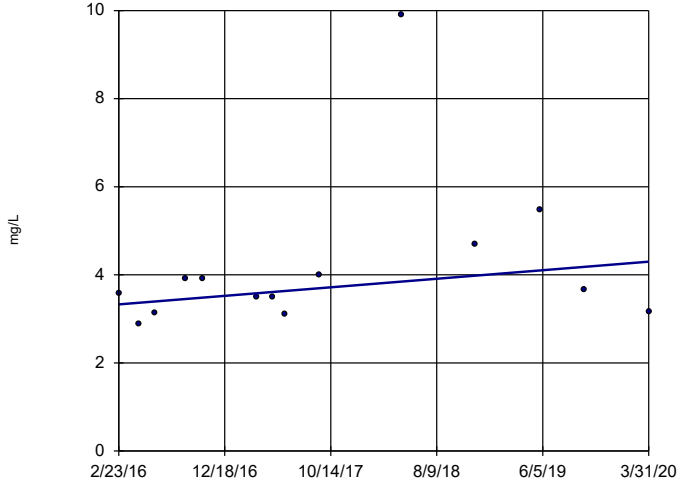
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 14

Slope = 0.2367 units per year.

Mann-Kendall statistic = 24 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

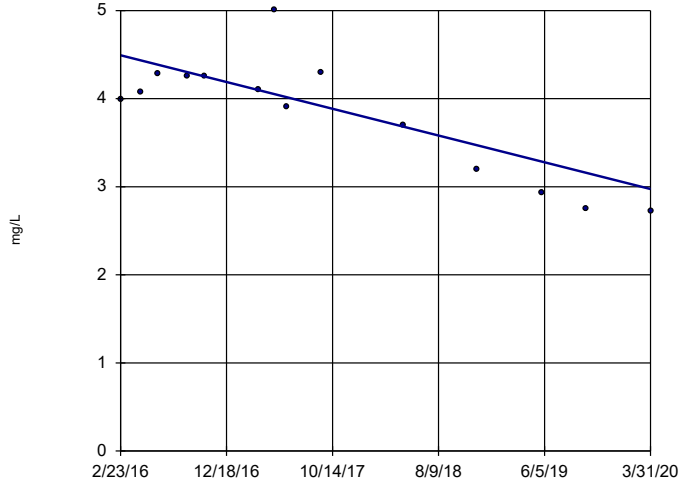
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 14

Slope = -0.3698 units per year.

Mann-Kendall statistic = -46 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

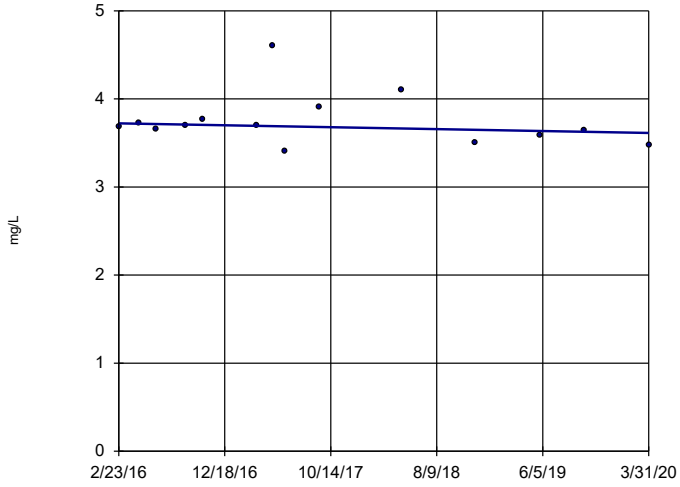
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 14

Slope = -0.02689 units per year.

Mann-Kendall statistic = -16 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

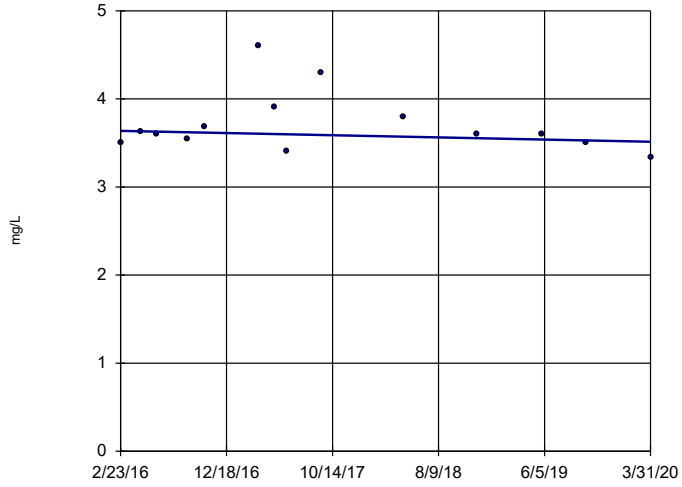
Constituent: Chloride Analysis Run 6/8/2020 8:03 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 14

Slope = -0.03009 units per year.

Mann-Kendall statistic = -13 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

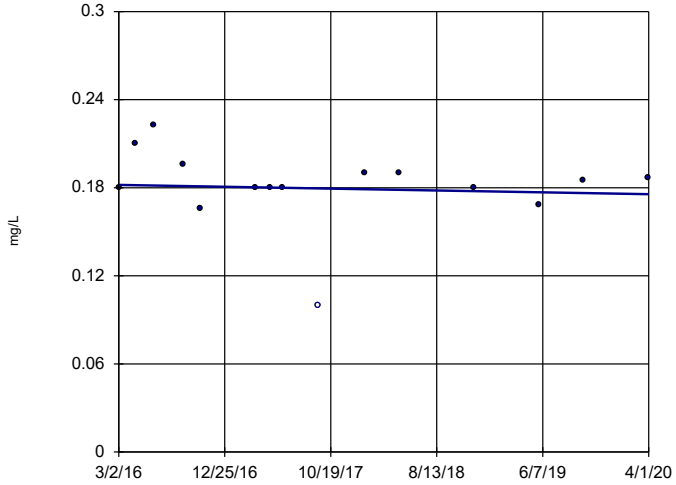
Constituent: Chloride Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-15



n = 15

Slope = -0.001562 units per year.

Mann-Kendall statistic = -14 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

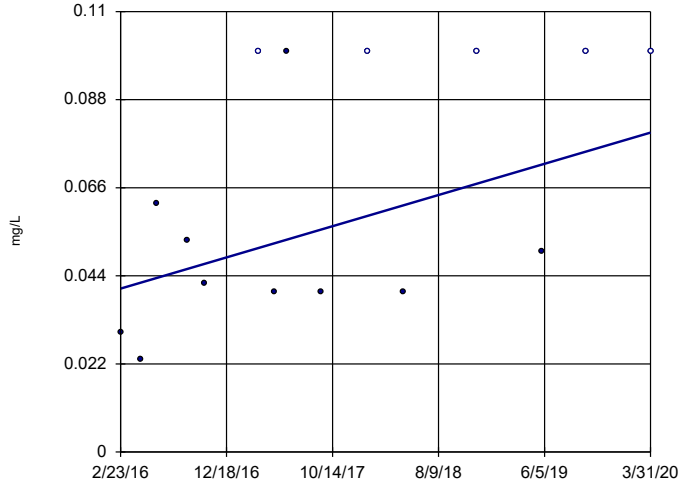
Constituent: Fluoride Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 15

Slope = 0.009497 units per year.

Mann-Kendall statistic = 37 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

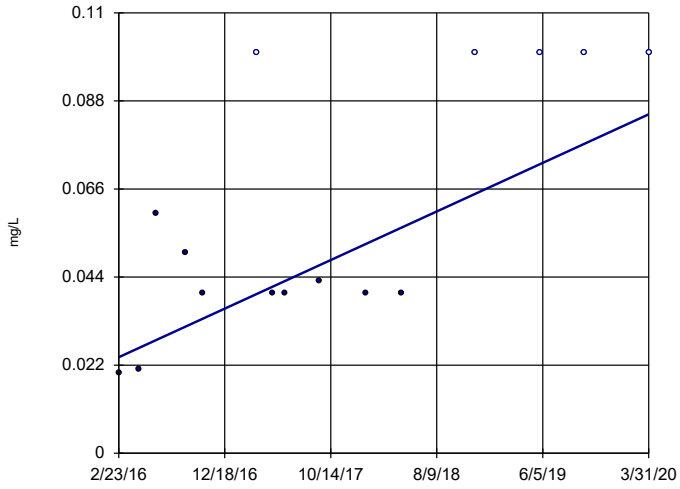
Constituent: Fluoride Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 15

Slope = 0.01478 units per year.

Mann-Kendall statistic = 45 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

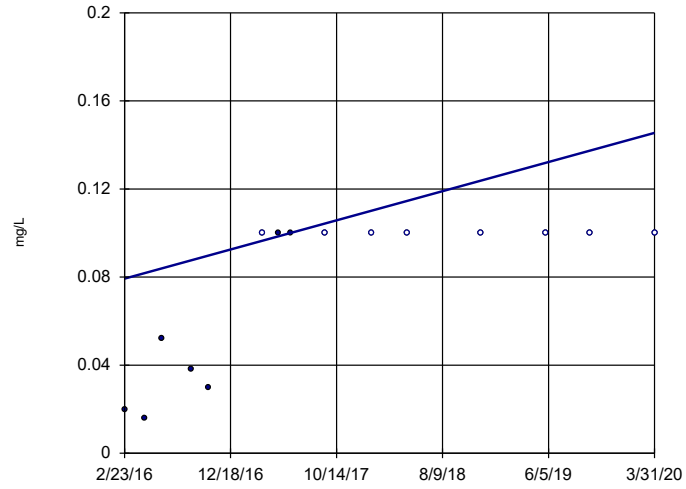
Constituent: Fluoride Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 15

Slope = 0.01613 units per year.

Mann-Kendall statistic = 52 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

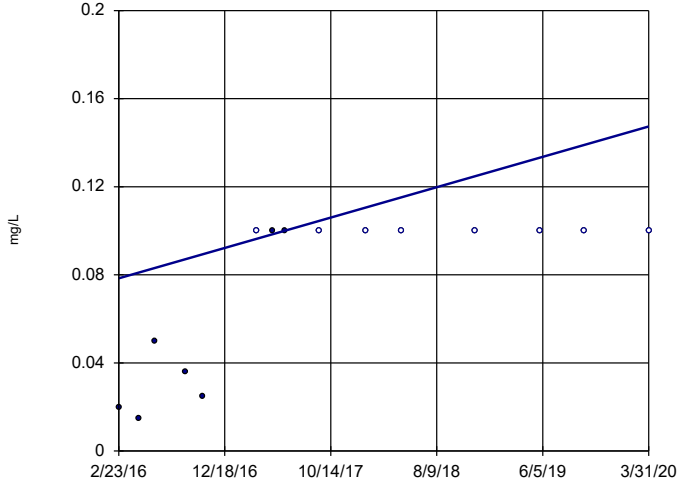
Constituent: Fluoride Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 15

Slope = 0.0168 units per year.

Mann-Kendall statistic = 52 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

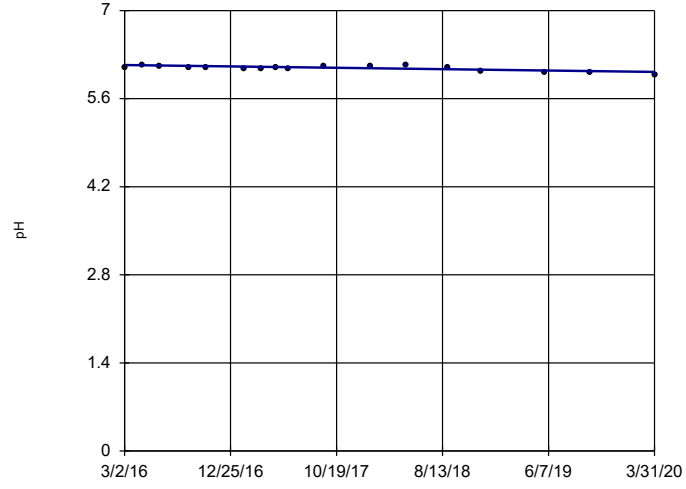
Constituent: Fluoride Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-13



n = 17

Slope = -0.02693 units per year.

Mann-Kendall statistic = -54 critical = -63

Trend not significant at 99% confidence level (α = 0.005 per tail).

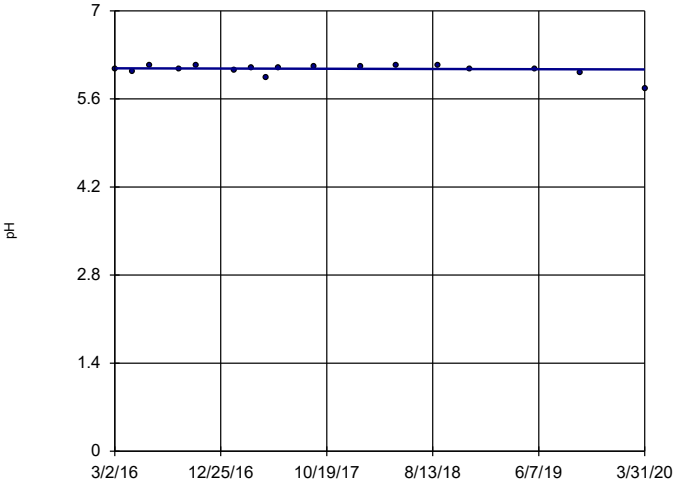
Constituent: pH Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-14



n = 17

Slope = -0.004053 units per year.

Mann-Kendall statistic = -11 critical = -63

Trend not significant at 99% confidence level (α = 0.005 per tail).

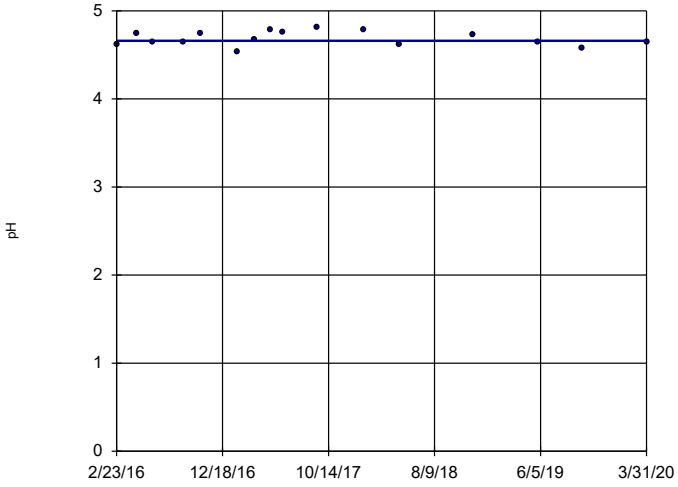
Constituent: pH Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 16

Slope = 0 units per year.

Mann-Kendall statistic = -1 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

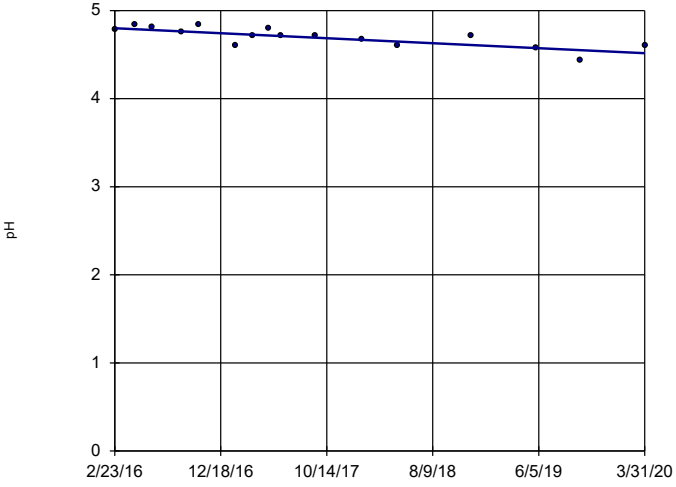
Constituent: pH Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 16

Slope = -0.06907 units per year.

Mann-Kendall statistic = -72 critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

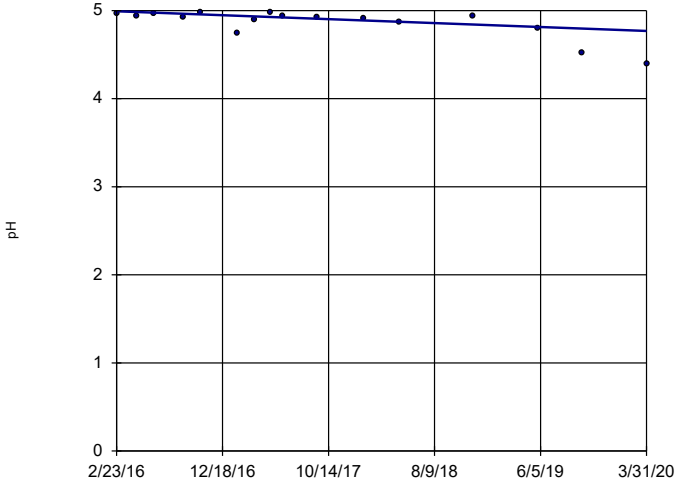
Constituent: pH Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 16

Slope = -0.05433 units per year.

Mann-Kendall statistic = -59 critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

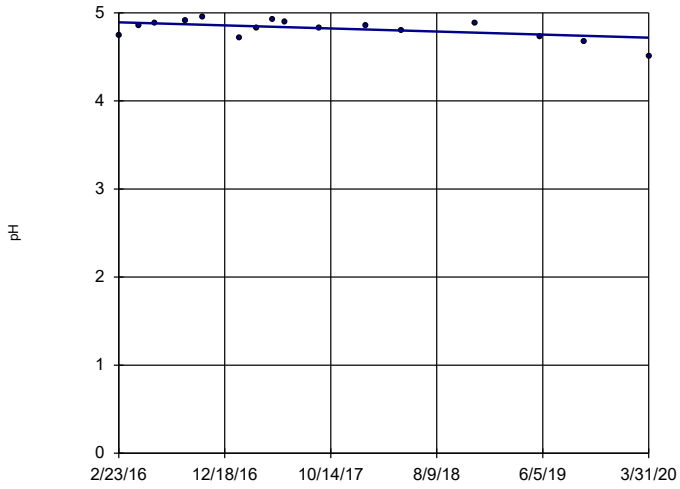
Constituent: pH Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 16

Slope = -0.04247 units per year.

Mann-Kendall statistic = -41 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 6/8/2020 8:04 AM View: Trend Test

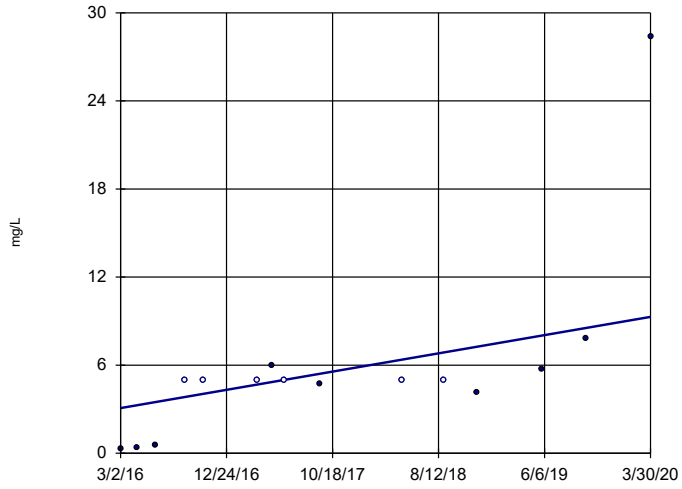
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-1



n = 15

Slope = 1.522 units per year.

Mann-Kendall statistic = 56 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test

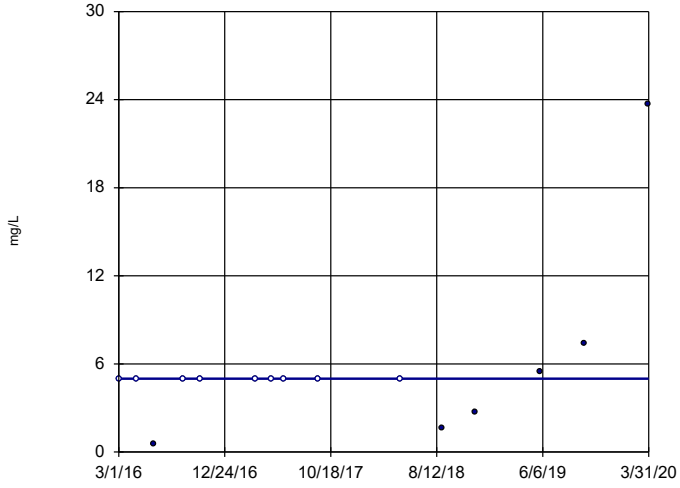
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-5



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = 29 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test

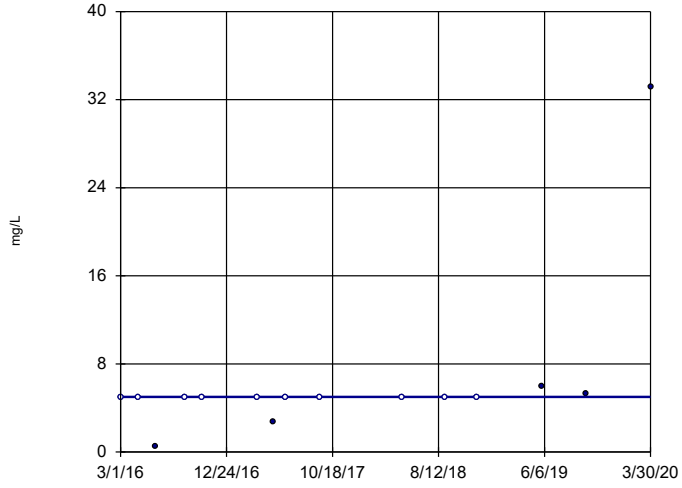
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-8



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = 44 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

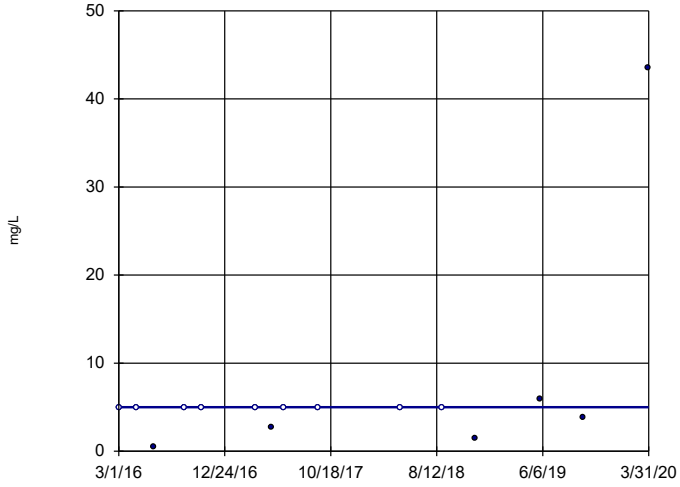
Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-9



n = 15

Slope = 0
units per year.

Mann-Kendall
statistic = 15
critical = 53

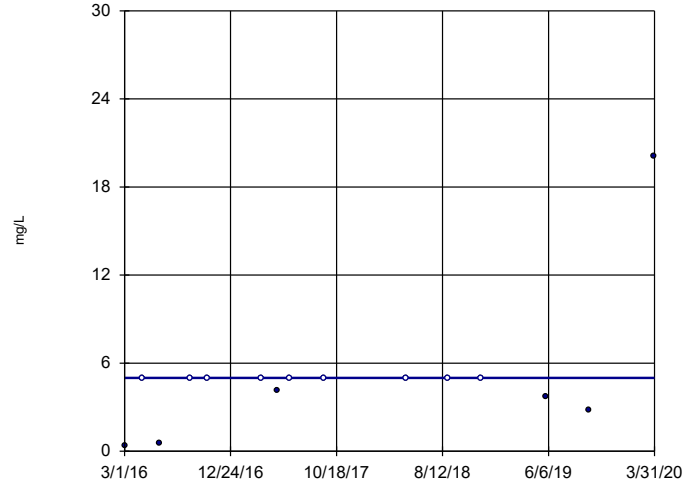
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-10



n = 15

Slope = 0
units per year.

Mann-Kendall
statistic = 17
critical = 53

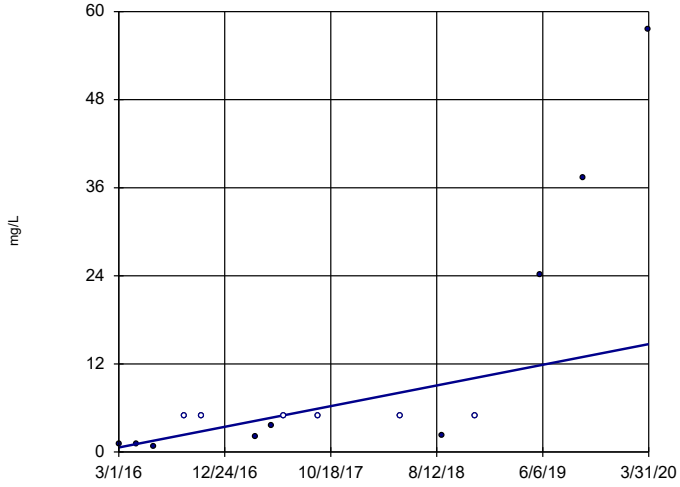
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-11



n = 15

Slope = 3.447
units per year.

Mann-Kendall
statistic = 66
critical = 53

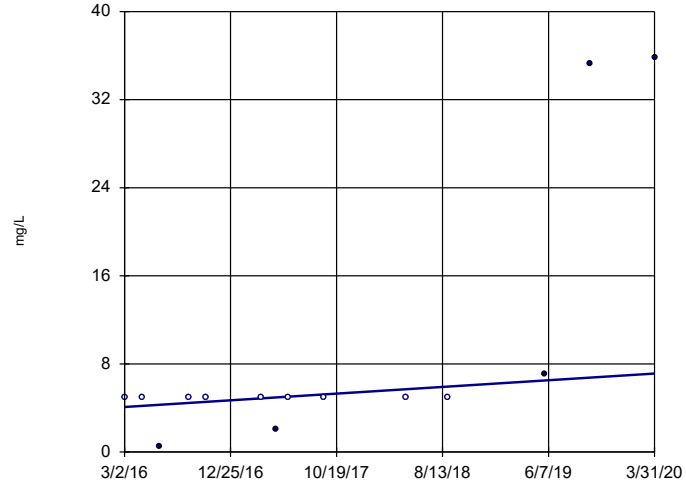
Increasing trend
significant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-12



n = 14

Slope = 0.7439
units per year.

Mann-Kendall
statistic = 41
critical = 48

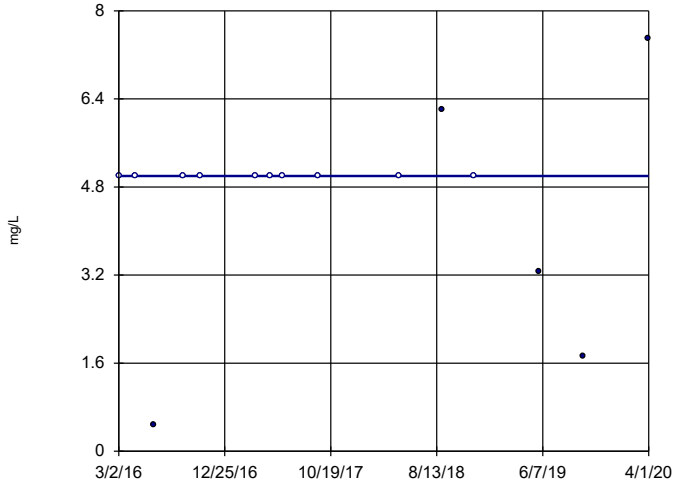
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-15



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = 8 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

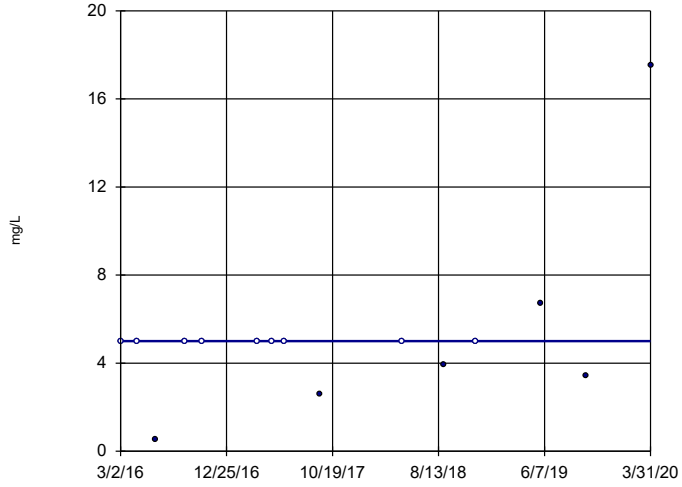
Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-16



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = 13 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

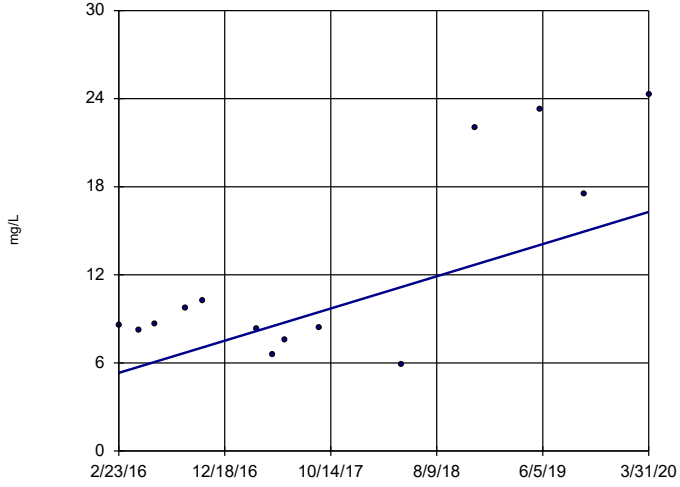
Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 14

Slope = 2.672 units per year.

Mann-Kendall statistic = 27 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

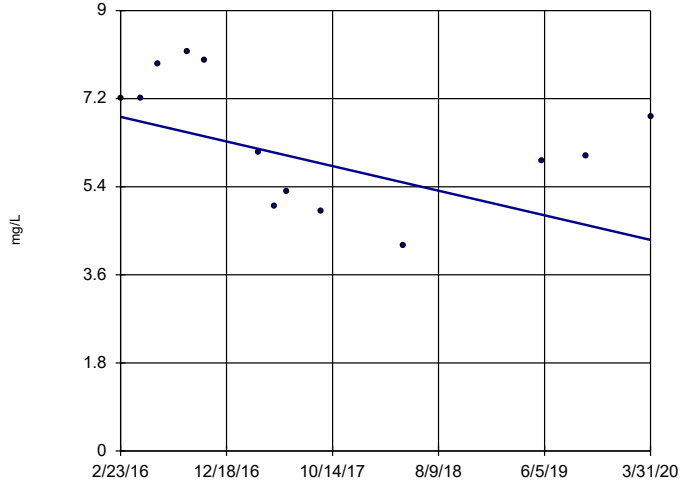
Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 13

Slope = -0.6129 units per year.

Mann-Kendall statistic = -26 critical = -43

Trend not significant at 99% confidence level (α = 0.005 per tail).

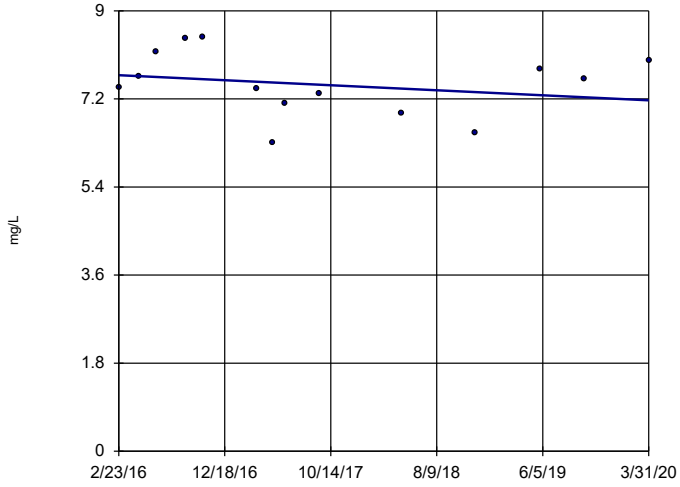
Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 14

Slope = -0.1255 units per year.

Mann-Kendall statistic = -11 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

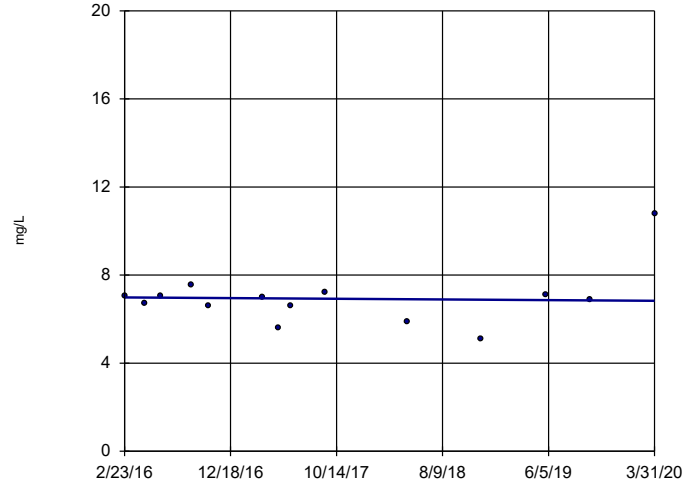
Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 14

Slope = -0.03734 units per year.

Mann-Kendall statistic = -4 critical = -48

Trend not significant at 99% confidence level (α = 0.005 per tail).

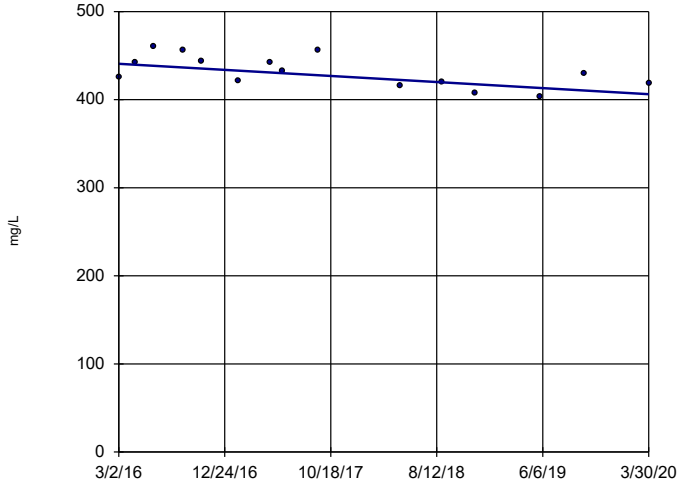
Constituent: Sulfate Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-1



n = 15

Slope = -8.428 units per year.

Mann-Kendall statistic = -49 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

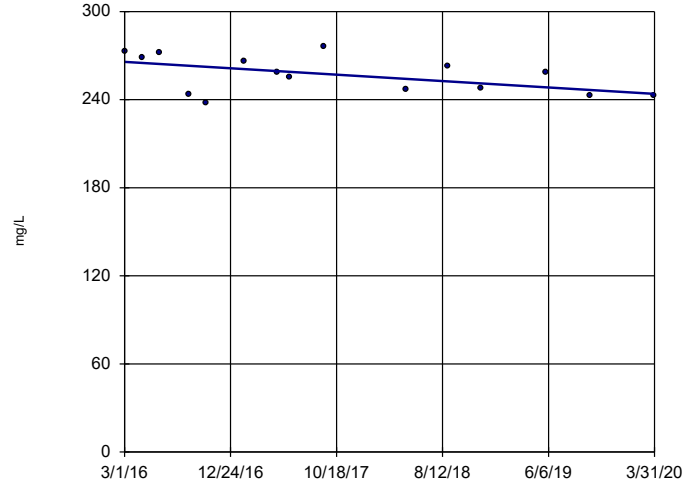
Constituent: TDS Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-5



n = 15

Slope = -5.348 units per year.

Mann-Kendall statistic = -39 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

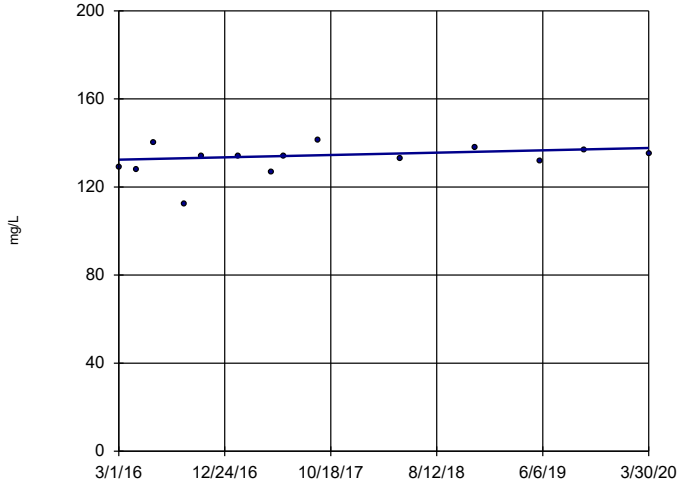
Constituent: TDS Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-7



n = 14

Slope = 1.296 units per year.

Mann-Kendall statistic = 22 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

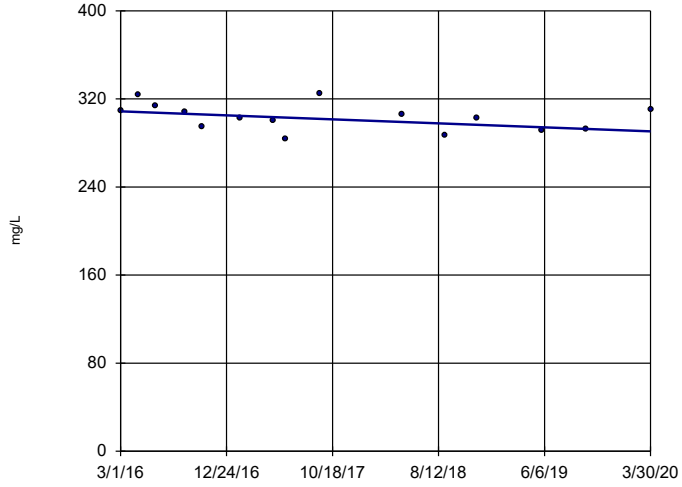
Constituent: TDS Analysis Run 6/8/2020 8:04 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-8



n = 15

Slope = -4.446 units per year.

Mann-Kendall statistic = -30 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

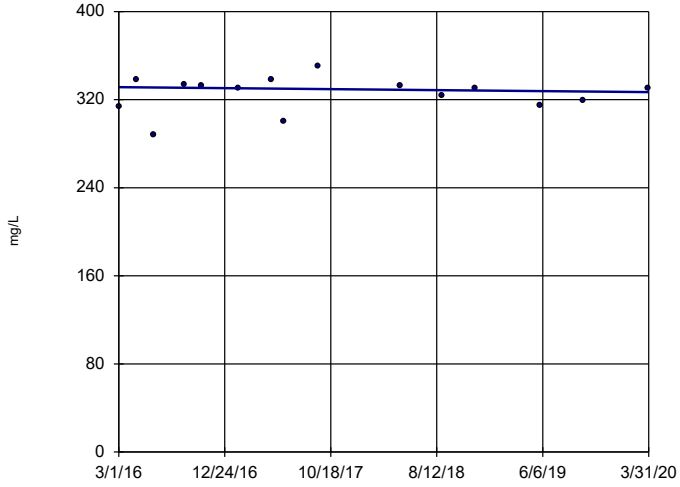
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-9



n = 15

Slope = -1.116 units per year.

Mann-Kendall statistic = -10 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

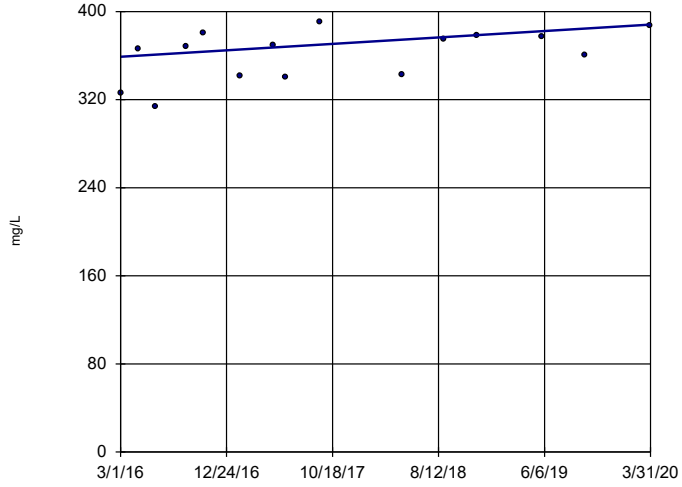
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-10



n = 15

Slope = 7.142 units per year.

Mann-Kendall statistic = 41 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

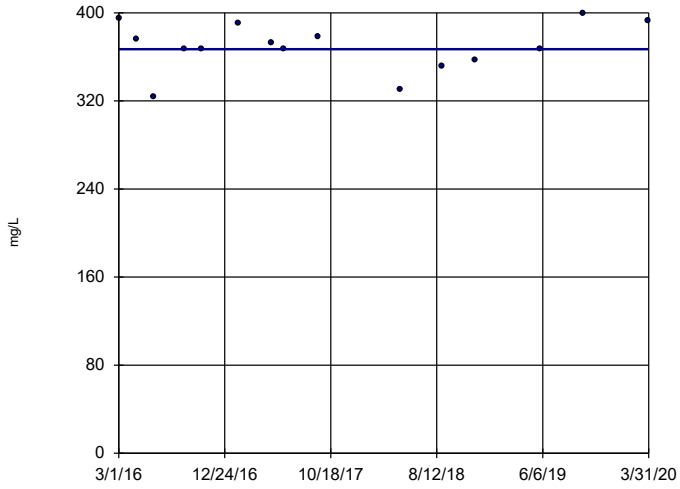
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-11



n = 15

Slope = 0
units per year.

Mann-Kendall
statistic = 3
critical = 53

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

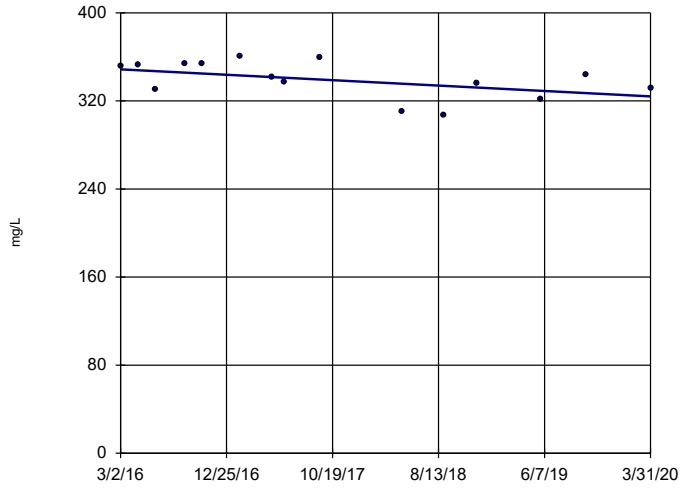
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-12



n = 15

Slope = -6.008
units per year.

Mann-Kendall
statistic = -30
critical = -53

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

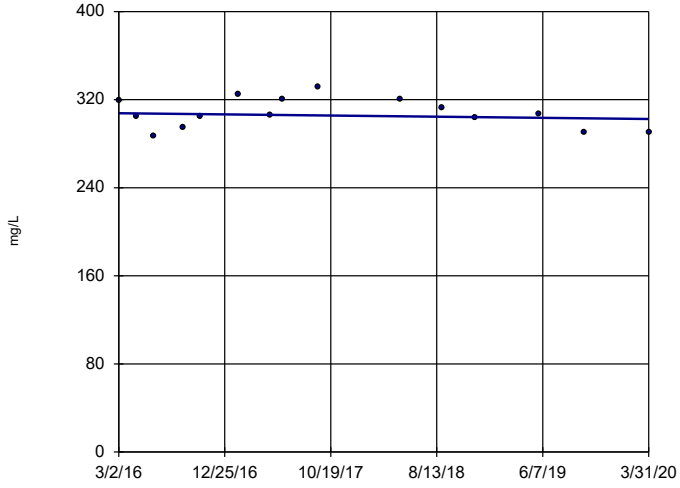
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-13



n = 15

Slope = -1.272
units per year.

Mann-Kendall
statistic = -8
critical = -53

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

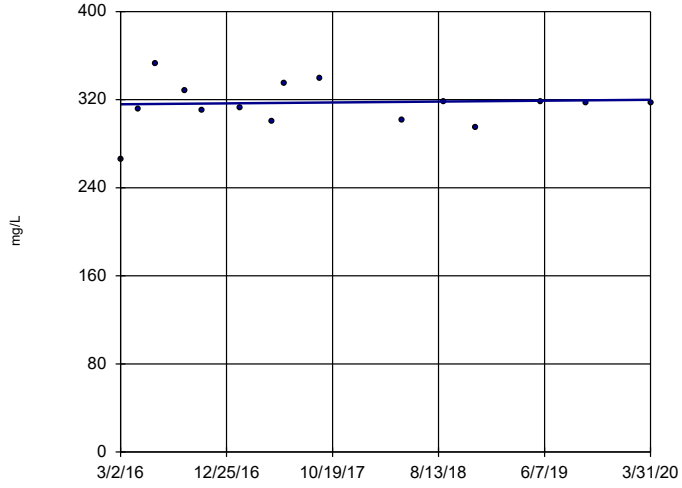
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-14



n = 15

Slope = 1
units per year.

Mann-Kendall
statistic = 3
critical = 53

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

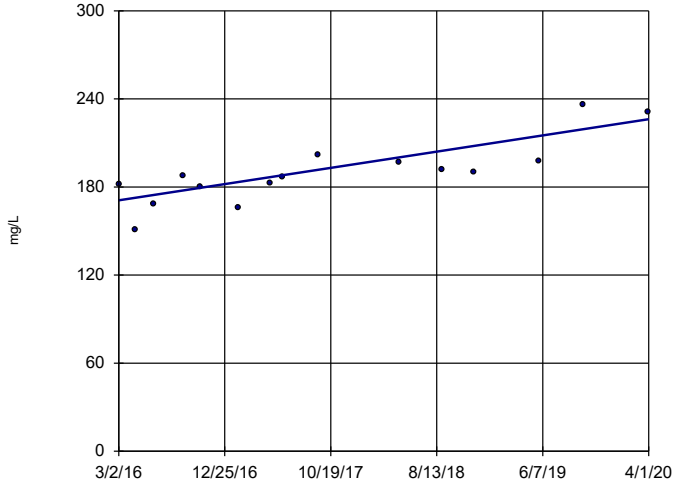
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-15



n = 15

Slope = 13.52 units per year.

Mann-Kendall statistic = 69 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

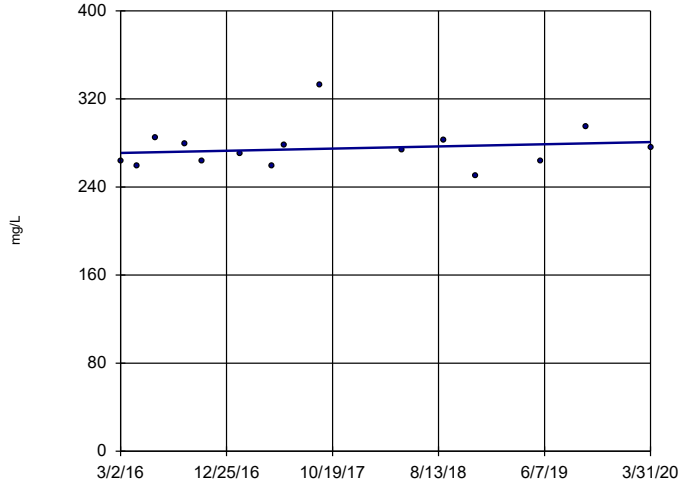
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-AP-MW-16



n = 15

Slope = 2.411 units per year.

Mann-Kendall statistic = 15 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

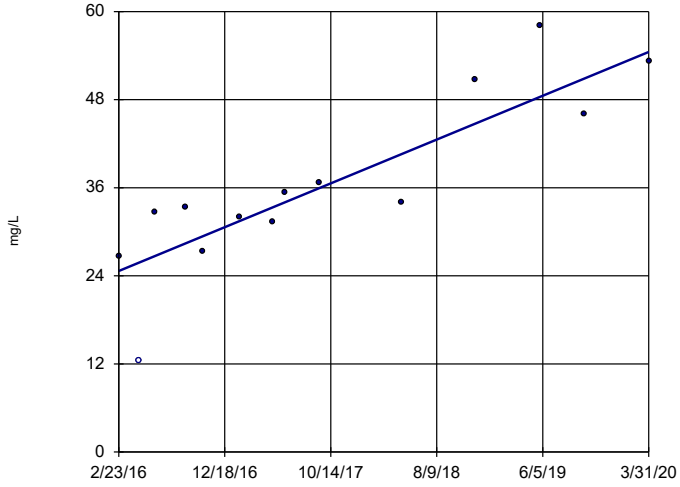
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 14

Slope = 7.268 units per year.

Mann-Kendall statistic = 65 critical = 48

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

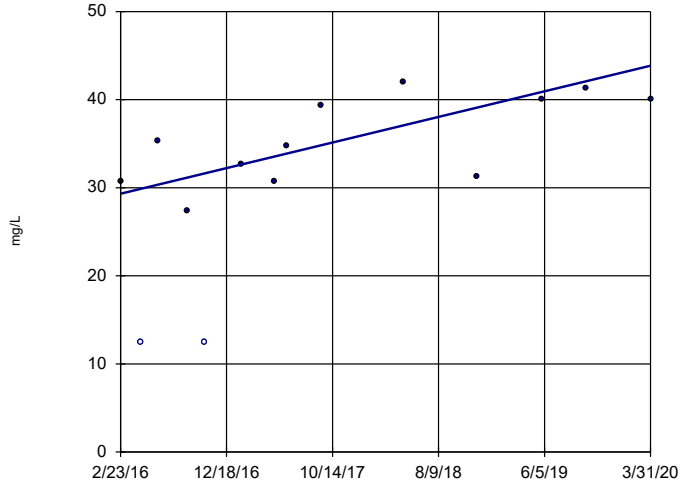
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 14

Slope = 3.541 units per year.

Mann-Kendall statistic = 50 critical = 48

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

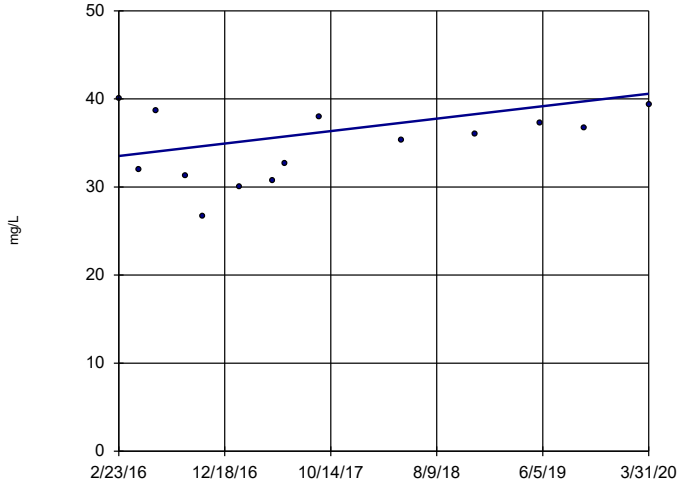
Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 14

Slope = 1.722 units per year.

Mann-Kendall statistic = 21 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

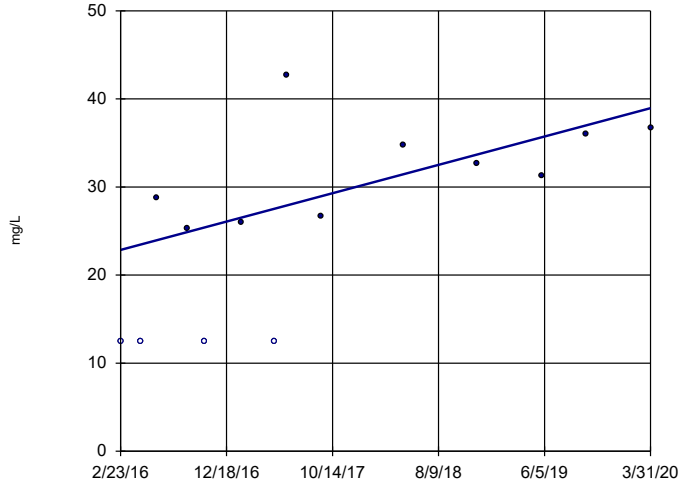
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 14

Slope = 3.921 units per year.

Mann-Kendall statistic = 51 critical = 48

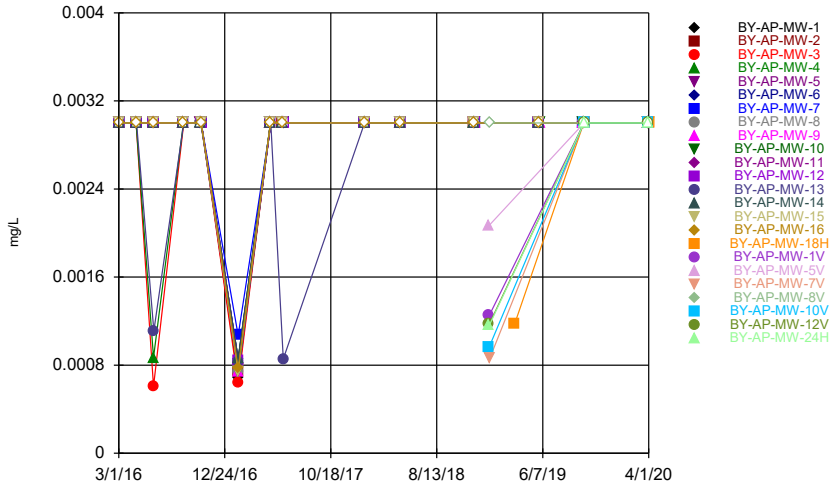
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 6/8/2020 8:05 AM View: Trend Test

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

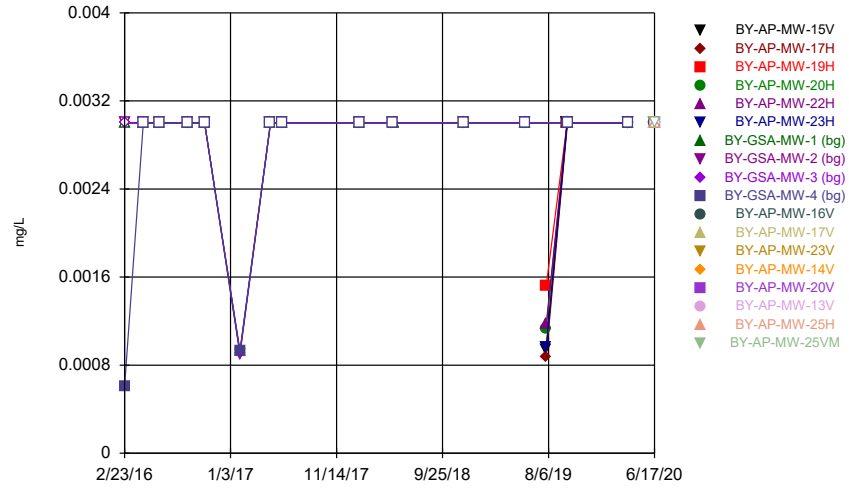
Time Series



Constituent: Antimony Analysis Run 7/27/2020 9:08 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

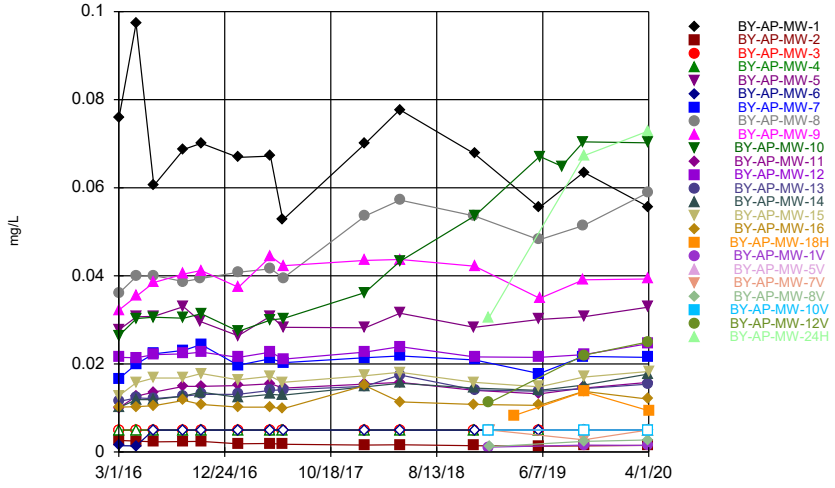
Time Series



Constituent: Antimony Analysis Run 7/27/2020 9:09 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

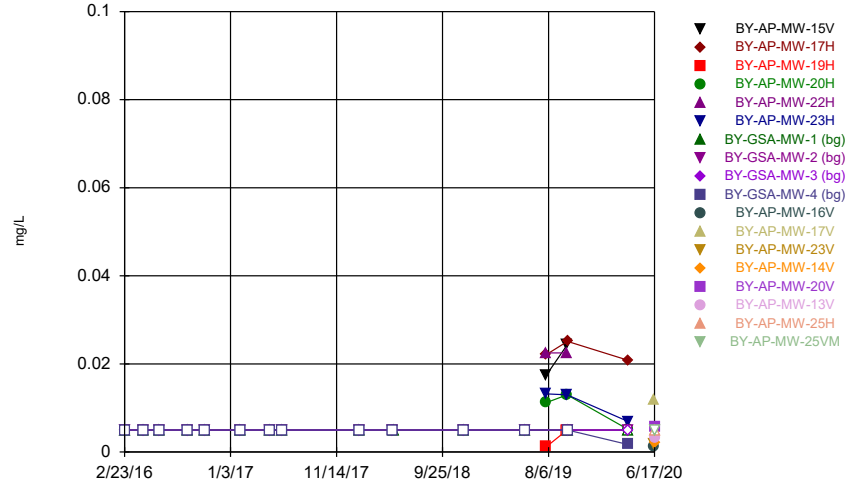
Time Series



Constituent: Arsenic Analysis Run 7/27/2020 9:09 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Arsenic Analysis Run 7/27/2020 9:09 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/2/2016	<0.003	<0.003	<0.003						
4/19/2016	<0.003	<0.003	<0.003	<0.003		<0.003			
4/20/2016					<0.003		<0.003	<0.003	<0.003
6/7/2016			0.000606 (J)	0.000869 (J)	<0.003	<0.003	<0.003	<0.003	
6/8/2016	<0.003	<0.003							<0.003
8/30/2016				<0.003	<0.003	<0.003		<0.003	
8/31/2016	<0.003	<0.003	<0.003				<0.003		<0.003
10/18/2016					<0.003			<0.003	
10/19/2016	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003		<0.003
1/31/2017	0.000687 (J)	0.000739 (J)	0.000637 (J)	0.00086 (J)	0.000765 (J)	0.000852 (J)	0.00107 (J)	0.00074 (J)	
2/1/2017									0.000738 (J)
5/2/2017	<0.003	<0.003	<0.003	<0.003					
5/3/2017					<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2017	<0.003	<0.003	<0.003	<0.003					
6/7/2017					<0.003	<0.003	<0.003	<0.003	<0.003
1/22/2018									
1/23/2018									<0.003
1/24/2018	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
5/1/2018	<0.003	<0.003	<0.003	<0.003					
5/2/2018					<0.003	<0.003	<0.003	<0.003	<0.003
11/27/2018		<0.003	<0.003	<0.003	<0.003			<0.003	
11/28/2018	<0.003					<0.003	<0.003		<0.003
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
5/30/2019									<0.003
9/30/2019							<0.003	<0.003	<0.003
10/1/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
10/2/2019									
3/30/2020	<0.003						<0.003	<0.003	
3/31/2020		<0.003	<0.003	<0.003	<0.003	<0.003			<0.003
4/1/2020									

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.003	<0.003							
3/2/2016			<0.003	<0.003	<0.003	<0.003	<0.003		
4/19/2016						<0.003	<0.003		
4/20/2016	<0.003	<0.003	<0.003	<0.003	<0.003				
6/7/2016									
6/8/2016	<0.003	<0.003	<0.003	0.00111 (J)	<0.003	<0.003	<0.003		
8/30/2016					<0.003				
8/31/2016	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003		
10/18/2016					<0.003				
10/19/2016	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003		
1/31/2017				0.000834 (J)	0.00086 (J)	0.000746 (J)	0.000769 (J)		
2/1/2017	0.000743 (J)	0.000812 (J)	0.000838 (J)						
5/2/2017					<0.003	<0.003	<0.003		
5/3/2017	<0.003	<0.003	<0.003	<0.003					
6/6/2017					<0.003	<0.003	<0.003		
6/7/2017	<0.003	<0.003	<0.003	0.000857 (J)					
1/22/2018				<0.003		<0.003			
1/23/2018	<0.003	<0.003	<0.003		<0.003		<0.003		
1/24/2018									
5/1/2018						<0.003	<0.003		
5/2/2018	<0.003	<0.003	<0.003	<0.003	<0.003				
11/27/2018					<0.003	<0.003	<0.003		
11/28/2018	<0.003	<0.003	<0.003	<0.003					
1/8/2019									0.00125 (J)
1/9/2019									
3/20/2019								0.00117 (J)	
5/29/2019		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		
5/30/2019	<0.003								
9/30/2019	<0.003	<0.003							
10/1/2019			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
10/2/2019									<0.003
3/30/2020									<0.003
3/31/2020	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003		
4/1/2020						<0.003		<0.003	

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	0.00207 (J)			0.000965 (J)	0.00117 (J)	0.00116 (J)
1/9/2019		0.000861 (J)	<0.003			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		<0.003	<0.003	<0.003		
10/2/2019	<0.003				<0.003	<0.003
3/30/2020		<0.003	<0.003			
3/31/2020	<0.003			<0.003	<0.003	<0.003
4/1/2020						

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.003	<0.003	<0.003
4/19/2016							<0.003	<0.003	<0.003
6/6/2016							<0.003		
6/7/2016								<0.003	<0.003
8/30/2016							<0.003	<0.003	<0.003
10/18/2016							<0.003	<0.003	<0.003
1/31/2017							0.000925 (J)	0.000898 (J)	0.000911 (J)
5/2/2017							<0.003	<0.003	<0.003
6/6/2017							<0.003	<0.003	<0.003
1/23/2018							<0.003	<0.003	<0.003
5/1/2018								<0.003	<0.003
5/2/2018							<0.003		
11/26/2018									
11/27/2018							<0.003	<0.003	<0.003
5/28/2019									
5/29/2019							<0.003	<0.003	<0.003
7/31/2019	0.00094 (J)	0.000878 (J)	0.00152 (J)	0.00113 (J)	0.00117 (J)	0.000964 (J)			
10/1/2019	<0.003		<0.003	<0.003	<0.003	<0.003			
10/2/2019		<0.003					<0.003	<0.003	<0.003
3/31/2020							<0.003	<0.003	<0.003
4/1/2020		<0.003		<0.003		<0.003			
6/16/2020									
6/17/2020									

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	0.000606 (J)								
4/19/2016	<0.003								
6/6/2016	<0.003								
6/7/2016									
8/30/2016	<0.003								
10/18/2016	<0.003								
1/31/2017	0.000928 (J)								
5/2/2017	<0.003								
6/6/2017	<0.003								
1/23/2018	<0.003								
5/1/2018	<0.003								
5/2/2018									
11/26/2018	<0.003								
11/27/2018									
5/28/2019	<0.003								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.003								
3/31/2020	<0.003								
4/1/2020									
6/16/2020		<0.003	<0.003	<0.003					
6/17/2020					<0.003	<0.003	<0.003	<0.003	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.005	0.0277	0.00142 (J)	0.0166	0.036	0.0322
3/2/2016	0.076	0.00263 (J)	<0.005						
4/19/2016	0.0973	0.00247 (J)	<0.005	<0.005		0.00138 (J)			
4/20/2016					0.0307		0.02	0.0399	0.0354
6/7/2016			<0.005	<0.005	0.0308	<0.005	0.0223	0.0401	
6/8/2016	0.0605	0.0023 (J)							0.0385
8/30/2016				<0.005	0.033	<0.005		0.0387	
8/31/2016	0.0687	0.00237 (J)	<0.005				0.0231		0.0404
10/18/2016					0.0296			0.0394	
10/19/2016	0.0701	0.00241 (J)	<0.005	<0.005		<0.005	0.0244		0.0412
1/31/2017	0.0669	0.00185 (J)	<0.005	<0.005	0.0264	<0.005	0.0197	0.0408	
2/1/2017									0.0374
5/2/2017	0.0672	0.00194 (J)	<0.005	<0.005					
5/3/2017					0.0309	<0.005	0.0212	0.0416	0.0444
6/6/2017	0.0527	0.00175 (J)	<0.005	<0.005					
6/7/2017					0.0283	<0.005	0.0203	0.0395	0.0423
1/22/2018									
1/23/2018									0.0435
1/24/2018	0.07	0.00158 (J)	<0.005	<0.005	0.0282	<0.005	0.0214	0.0536	
5/1/2018	0.0777	0.00166 (J)	<0.005	<0.005					
5/2/2018					0.0315	<0.005	0.0218	0.0572	0.0437
11/27/2018		0.00144 (J)	<0.005	<0.005	0.0283			0.0536	
11/28/2018	0.0677					<0.005	0.0209		0.0422
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	0.0555	0.00132 (J)	<0.005	<0.005	0.0301	<0.005	0.0178	0.0482	
5/30/2019									0.0349
7/31/2019									
9/30/2019							0.0217	0.0514	0.0391
10/1/2019	0.0635	0.0014 (J)	<0.005	<0.005	0.0307	<0.005			
10/2/2019									
3/30/2020	0.0557						0.0215	0.0589	
3/31/2020		0.00149 (J)	<0.005	<0.005	0.0329	<0.005			0.0393
4/1/2020									

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	0.0264	0.01							
3/2/2016			0.0215	0.0115	0.0101	0.0128	0.0102		
4/19/2016						0.0157	0.0103		
4/20/2016	0.0303	0.0127	0.0214	0.0123	0.0119				
6/7/2016									
6/8/2016	0.0306	0.0136	0.0221	0.0121	0.0119	0.0168	0.0105		
8/30/2016					0.0127				
8/31/2016	0.0304	0.0149	0.0223	0.0127		0.0168	0.0117		
10/18/2016					0.0136				
10/19/2016	0.0314	0.0149	0.0227	0.0131		0.0178	0.0108		
1/31/2017				0.0131	0.0124	0.0164	0.0102		
2/1/2017	0.0274	0.0151	0.0215						
5/2/2017					0.0131	0.0172	0.0102		
5/3/2017	0.03	0.0155	0.0227	0.014					
6/6/2017					0.0129	0.0158	0.00982		
6/7/2017	0.0303	0.0145	0.0211	0.0141					
1/22/2018				0.0149		0.0173			
1/23/2018	0.0362	0.0154	0.0227		0.0148		0.0151		
1/24/2018									
5/1/2018						0.0181	0.0114		
5/2/2018	0.0433	0.0158	0.0239	0.0175	0.0156				
11/27/2018					0.0145	0.0158	0.0108		
11/28/2018	0.0536	0.014	0.0216	0.0141					
1/8/2019									0.00109 (J)
1/9/2019									
3/20/2019								0.00831	
5/29/2019		0.0132	0.0215	0.0138	0.014	0.0148	0.0106		
5/30/2019	0.0671								
7/31/2019	0.0649								
9/30/2019	0.0704	0.0145							
10/1/2019			0.0221	0.0144	0.0152	0.017	0.0138	0.0137	
10/2/2019									0.00157 (J)
3/30/2020									0.00152 (J)
3/31/2020	0.0702	0.0158	0.0246	0.0154	0.0177		0.012		
4/1/2020						0.0183		0.00937	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.005			<0.005	0.0112	0.0306
1/9/2019		<0.005	0.00121 (J)			
3/20/2019						
5/29/2019						
5/30/2019						
7/31/2019						
9/30/2019						
10/1/2019		0.00278 (J)	0.00243 (J)	<0.005		
10/2/2019	<0.005				0.022	0.0673
3/30/2020		0.005	0.00275 (J)			
3/31/2020	<0.005			<0.005	0.025	0.0729
4/1/2020						

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.005	<0.005	<0.005
4/19/2016							<0.005	<0.005	<0.005
6/6/2016							<0.005		
6/7/2016								<0.005	<0.005
8/30/2016							<0.005	<0.005	<0.005
10/18/2016							<0.005	<0.005	<0.005
1/31/2017							<0.005	<0.005	<0.005
5/2/2017							<0.005	<0.005	<0.005
6/6/2017							<0.005	<0.005	<0.005
1/23/2018							<0.005	<0.005	<0.005
5/1/2018								<0.005	<0.005
5/2/2018							<0.005		
11/26/2018									
11/27/2018							<0.005	<0.005	<0.005
5/28/2019									
5/29/2019							<0.005	<0.005	<0.005
7/31/2019	0.0174	0.0221	0.00118 (J)	0.0112	0.0225	0.0132			
10/1/2019	0.0243		<0.005	0.013	0.0225	0.013			
10/2/2019		0.0251					<0.005	<0.005	<0.005
3/31/2020							<0.005	<0.005	<0.005
4/1/2020		0.0208		0.00508		0.00689			
6/16/2020									
6/17/2020									

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.005								
4/19/2016	<0.005								
6/6/2016	<0.005								
6/7/2016									
8/30/2016	<0.005								
10/18/2016	<0.005								
1/31/2017	<0.005								
5/2/2017	<0.005								
6/6/2017	<0.005								
1/23/2018	<0.005								
5/1/2018	<0.005								
5/2/2018									
11/26/2018	<0.005								
11/27/2018									
5/28/2019	<0.005								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.005								
3/31/2020	0.0017 (J)								
4/1/2020									
6/16/2020		0.00135 (J)	0.0117	0.00193 (J)					
6/17/2020					0.00208 (J)	0.00584	0.00321 (J)	<0.005	<0.005

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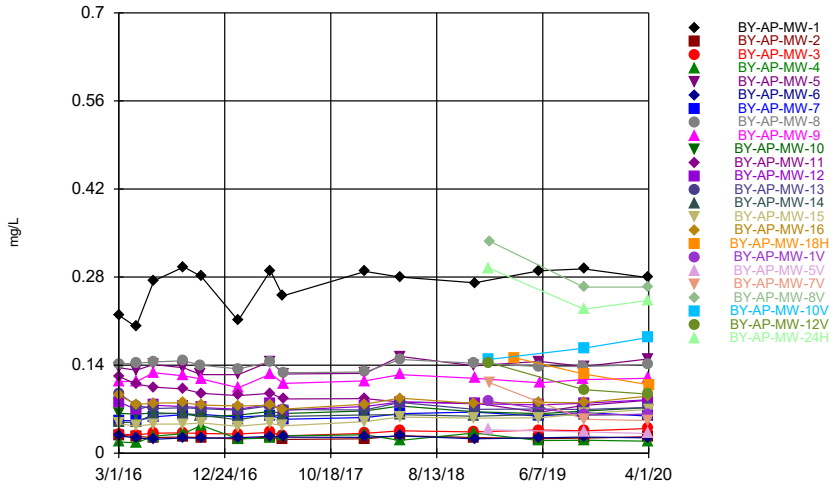
Time Series



Constituent: Barium Analysis Run 7/27/2020 9:09 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

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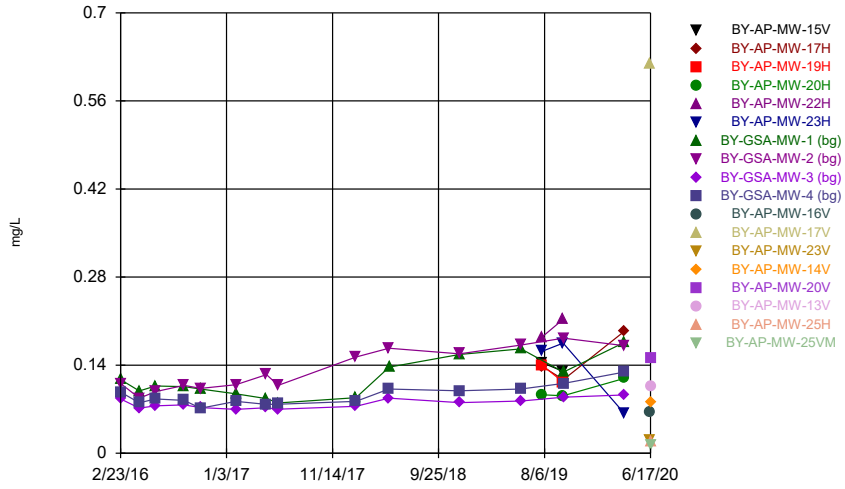
Time Series



Constituent: Barium Analysis Run 7/27/2020 9:09 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

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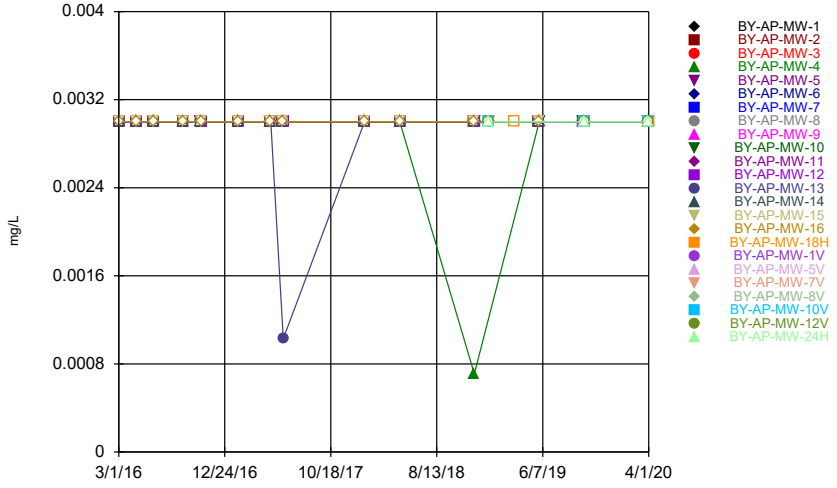
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 7/27/2020 9:09 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

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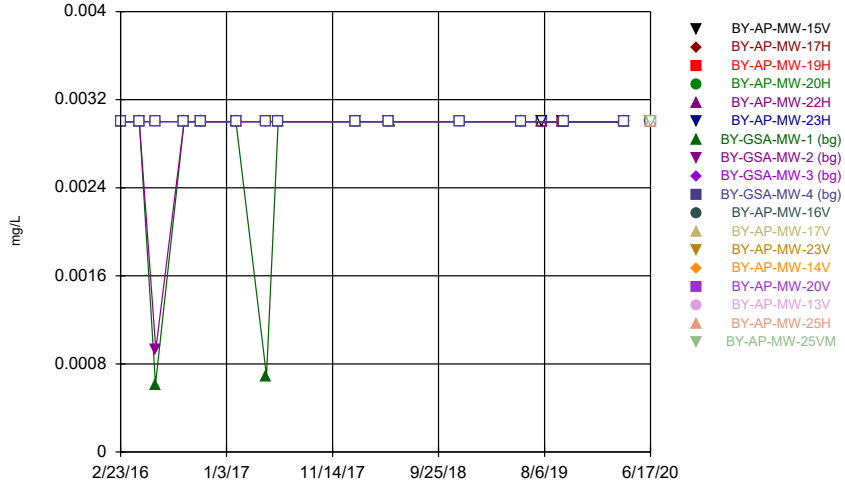
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 7/27/2020 9:09 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Barium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				0.018	0.136	0.0278	0.0519	0.142	0.114
3/2/2016	0.219	0.0285	0.0306						
4/19/2016	0.201	0.0268	0.0292	0.0166		0.0242			
4/20/2016					0.132		0.0517	0.143	0.114
6/7/2016			0.0318	0.0271	0.141	0.0223	0.0577	0.145	
6/8/2016	0.274	0.0248							0.128
8/30/2016				0.0312	0.136	0.0242		0.147	
8/31/2016	0.296	0.026	0.0324				0.0614		0.123
10/18/2016					0.125			0.14	
10/19/2016	0.281	0.0247	0.0313	0.0443		0.024	0.0618		0.118
1/31/2017	0.211	0.0228	0.0306	0.0231	0.125	0.0248	0.0576	0.134	
2/1/2017									0.104
5/2/2017	0.29	0.0257	0.0332	0.0241					
5/3/2017					0.146	0.0268	0.0601	0.145	0.126
6/6/2017	0.25	0.0219	0.0275	0.0276					
6/7/2017					0.126	0.0256	0.054	0.128	0.111
1/22/2018									
1/23/2018									0.115
1/24/2018	0.289	0.0229	0.0317	0.0293	0.127	0.0254	0.0568	0.129	
5/1/2018	0.28	0.0279	0.0356	0.0205					
5/2/2018					0.154	0.0276	0.063	0.149	0.125
11/27/2018		0.0249	0.0339	0.0321	0.139			0.143	
11/28/2018	0.271					0.0231	0.0654		0.119
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	0.29	0.0232	0.037	0.0203	0.146	0.0244	0.059	0.138	
5/30/2019									0.112
9/30/2019							0.0648	0.138	0.117
10/1/2019	0.293	0.0241	0.0356	0.0207	0.138	0.0257			
10/2/2019									
3/30/2020	0.279						0.059	0.141	
3/31/2020		0.0264	0.0393	0.0193	0.15	0.0244			0.119
4/1/2020									

Time Series

Constituent: Barium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	0.0634	0.122							
3/2/2016			0.0815	0.0947	0.0491	0.0468	0.0921		
4/19/2016						0.043	0.0775		
4/20/2016	0.0622	0.11	0.0692	0.0758	0.049				
6/7/2016									
6/8/2016	0.0642	0.105	0.0763	0.071	0.0627	0.0465	0.0798		
8/30/2016					0.0635				
8/31/2016	0.063	0.102	0.0741	0.0722		0.0464	0.0801		
10/18/2016					0.0603				
10/19/2016	0.0577	0.0953	0.0727	0.0707		0.0481	0.0766		
1/31/2017				0.0686	0.0533	0.0427	0.075		
2/1/2017	0.0607	0.0917	0.0701						
5/2/2017					0.0616	0.0473	0.0761		
5/3/2017	0.0665	0.0951	0.078	0.0756					
6/6/2017					0.0585	0.0437	0.07		
6/7/2017	0.0632	0.0864	0.0682	0.0695					
1/22/2018				0.0688		0.0501			
1/23/2018	0.0673	0.0868	0.0744		0.0608		0.0779		
1/24/2018									
5/1/2018						0.0575	0.0877		
5/2/2018	0.0752	0.0816	0.0814	0.0806	0.0614				
11/27/2018					0.0589	0.0557	0.0792		
11/28/2018	0.066	0.0796	0.0788	0.0697					
1/8/2019									0.0826
1/9/2019									
3/20/2019								0.152	
5/29/2019		0.0653	0.0769	0.0704	0.0617	0.0562	0.081		
5/30/2019	0.063								
9/30/2019	0.0669	0.0759							
10/1/2019			0.0795	0.0696	0.0605	0.0628	0.0803	0.126	
10/2/2019									0.0611
3/30/2020									0.062
3/31/2020	0.0727	0.0842	0.0851	0.0728	0.0619		0.091		
4/1/2020						0.0697		0.109	

Time Series

Constituent: Barium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	0.0372			0.149	0.144	0.294
1/9/2019		0.112	0.337			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		0.0541	0.264	0.167		
10/2/2019	0.0338				0.101	0.229
3/30/2020		0.0519	0.264			
3/31/2020	0.0313			0.184	0.0939	0.243
4/1/2020						

Time Series

Constituent: Barium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							0.117	0.111	0.0862
4/19/2016							0.099	0.0875	0.0718
6/6/2016							0.107		
6/7/2016								0.0979	0.0754
8/30/2016							0.106	0.108	0.0768
10/18/2016							0.102	0.103	0.0727
1/31/2017							0.0944	0.109	0.0698
5/2/2017							0.0868	0.125	0.0723
6/6/2017							0.0799	0.108	0.07
1/23/2018							0.0884	0.153	0.0747
5/1/2018								0.167	0.0877
5/2/2018							0.137		
11/26/2018									
11/27/2018							0.157	0.158	0.0804
5/28/2019									
5/29/2019							0.166	0.172	0.0831
7/31/2019	0.144	0.138	0.14	0.0928	0.185	0.162			
10/1/2019	0.13		0.113	0.0913	0.213	0.175			
10/2/2019		0.117					0.129	0.183	0.089
3/31/2020							0.176	0.171	0.0927
4/1/2020		0.194		0.119		0.0629			
6/16/2020									
6/17/2020									

Time Series

Constituent: Barium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	0.0973								
4/19/2016	0.0802								
6/6/2016	0.0862								
6/7/2016									
8/30/2016	0.0841								
10/18/2016	0.0715								
1/31/2017	0.0825								
5/2/2017	0.0777								
6/6/2017	0.078								
1/23/2018	0.0825								
5/1/2018	0.102								
5/2/2018									
11/26/2018	0.0994								
11/27/2018									
5/28/2019	0.102								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	0.111								
3/31/2020	0.129								
4/1/2020									
6/16/2020		0.0658	0.62	0.02					
6/17/2020					0.0809	0.152	0.106	0.0189	0.0132

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
3/2/2016	<0.003	<0.003	<0.003						
4/19/2016	<0.003	<0.003	<0.003	<0.003		<0.003			
4/20/2016					<0.003		<0.003	<0.003	<0.003
6/7/2016			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
6/8/2016	<0.003	<0.003							<0.003
8/30/2016				<0.003	<0.003	<0.003		<0.003	
8/31/2016	<0.003	<0.003	<0.003				<0.003		<0.003
10/18/2016					<0.003			<0.003	
10/19/2016	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003		<0.003
1/31/2017	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
2/1/2017									<0.003
5/2/2017	<0.003	<0.003	<0.003	<0.003					
5/3/2017					<0.003	<0.003	<0.003	<0.003	<0.003
6/6/2017	<0.003	<0.003	<0.003	<0.003					
6/7/2017					<0.003	<0.003	<0.003	<0.003	<0.003
1/22/2018									
1/23/2018									<0.003
1/24/2018	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
5/1/2018	<0.003	<0.003	<0.003	<0.003					
5/2/2018					<0.003	<0.003	<0.003	<0.003	<0.003
11/27/2018		<0.003	<0.003	0.00071 (J)	<0.003			<0.003	
11/28/2018	<0.003					<0.003	<0.003		<0.003
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
5/30/2019									<0.003
9/30/2019							<0.003	<0.003	<0.003
10/1/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
10/2/2019									
3/30/2020	<0.003						<0.003	<0.003	
3/31/2020		<0.003	<0.003	<0.003	<0.003	<0.003			<0.003
4/1/2020									

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.003	<0.003							
3/2/2016			<0.003	<0.003	<0.003	<0.003	<0.003		
4/19/2016						<0.003	<0.003		
4/20/2016	<0.003	<0.003	<0.003	<0.003	<0.003				
6/7/2016									
6/8/2016	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		
8/30/2016					<0.003				
8/31/2016	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003		
10/18/2016					<0.003				
10/19/2016	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003		
1/31/2017				<0.003	<0.003	<0.003	<0.003		
2/1/2017	<0.003	<0.003	<0.003						
5/2/2017					<0.003	<0.003	<0.003		
5/3/2017	<0.003	<0.003	<0.003	<0.003					
6/6/2017					<0.003	<0.003	<0.003		
6/7/2017	<0.003	<0.003	<0.003	0.00103 (J)					
1/22/2018				<0.003		<0.003			
1/23/2018	<0.003	<0.003	<0.003		<0.003		<0.003		
1/24/2018									
5/1/2018						<0.003	<0.003		
5/2/2018	<0.003	<0.003	<0.003	<0.003	<0.003				
11/27/2018					<0.003	<0.003	<0.003		
11/28/2018	<0.003	<0.003	<0.003	<0.003					
1/8/2019									<0.003
1/9/2019									
3/20/2019								<0.003	
5/29/2019		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		
5/30/2019	<0.003								
9/30/2019	<0.003	<0.003							
10/1/2019			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
10/2/2019									<0.003
3/30/2020									<0.003
3/31/2020	<0.003	<0.003	<0.003	<0.003	<0.003		<0.003		
4/1/2020						<0.003		<0.003	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.003			<0.003	<0.003	<0.003
1/9/2019		<0.003	<0.003			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		<0.003	<0.003	<0.003		
10/2/2019	<0.003				<0.003	<0.003
3/30/2020		<0.003	<0.003			
3/31/2020	<0.003			<0.003	<0.003	<0.003
4/1/2020						

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.003	<0.003	<0.003
4/19/2016							<0.003	<0.003	<0.003
6/6/2016							0.000612 (J)		
6/7/2016								0.00093 (J)	<0.003
8/30/2016							<0.003	<0.003	<0.003
10/18/2016							<0.003	<0.003	<0.003
1/31/2017							<0.003	<0.003	<0.003
5/2/2017							0.00069 (J)	<0.003	<0.003
6/6/2017							<0.003	<0.003	<0.003
1/23/2018							<0.003	<0.003	<0.003
5/1/2018								<0.003	<0.003
5/2/2018							<0.003		
11/26/2018									
11/27/2018									<0.003
5/28/2019									
5/29/2019							<0.003	<0.003	<0.003
7/31/2019	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003			
10/1/2019	<0.003		<0.003	<0.003	<0.003	<0.003			
10/2/2019		<0.003					<0.003	<0.003	<0.003
3/31/2020							<0.003	<0.003	<0.003
4/1/2020		<0.003		<0.003		<0.003			
6/16/2020									
6/17/2020									

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.003								
4/19/2016	<0.003								
6/6/2016	<0.003								
6/7/2016									
8/30/2016	<0.003								
10/18/2016	<0.003								
1/31/2017	<0.003								
5/2/2017	<0.003								
6/6/2017	<0.003								
1/23/2018	<0.003								
5/1/2018	<0.003								
5/2/2018									
11/26/2018	<0.003								
11/27/2018									
5/28/2019	<0.003								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.003								
3/31/2020	<0.003								
4/1/2020									
6/16/2020		<0.003	<0.003	<0.003					
6/17/2020					<0.003	<0.003	<0.003	<0.003	<0.003

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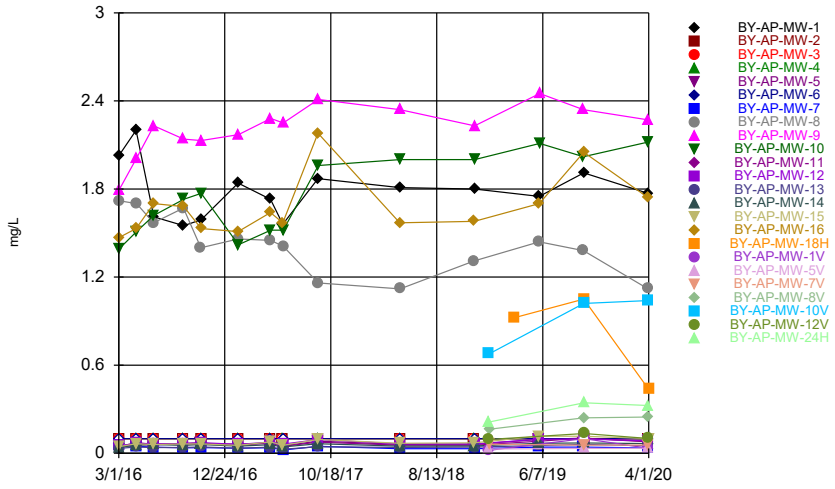
Hollow symbols indicate censored values.

Time Series



Constituent: Boron Analysis Run 7/27/2020 9:09 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

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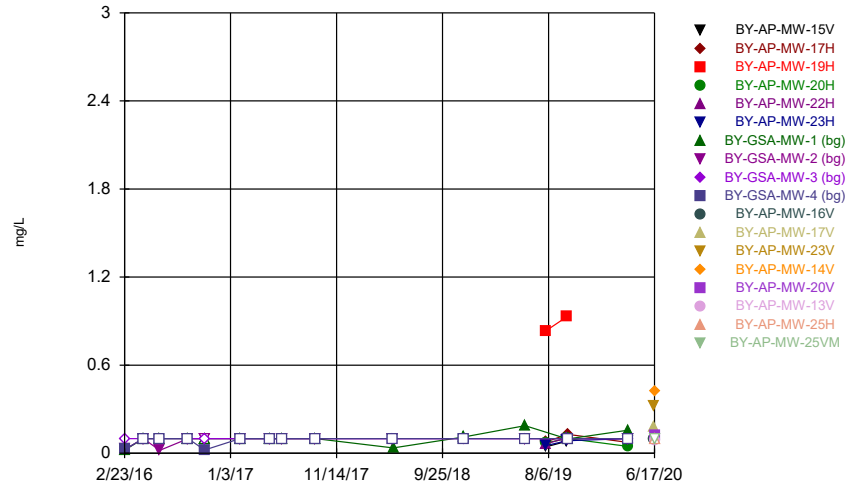
Hollow symbols indicate censored values.

Time Series



Constituent: Boron Analysis Run 7/27/2020 9:09 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

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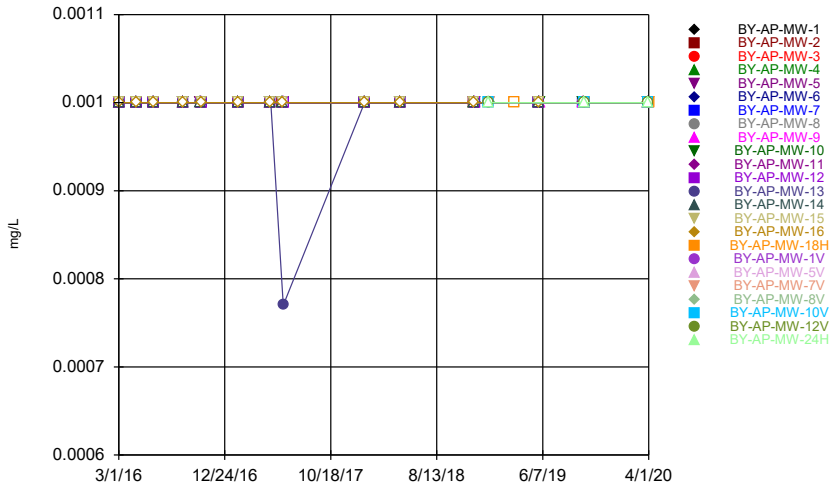
Hollow symbols indicate censored values.

Time Series



Constituent: Cadmium Analysis Run 7/27/2020 9:09 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

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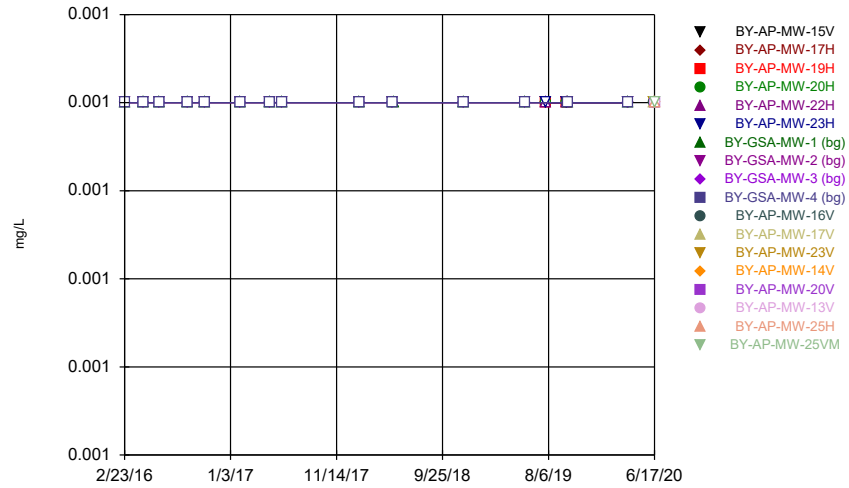
Hollow symbols indicate censored values.

Time Series



Constituent: Cadmium Analysis Run 7/27/2020 9:09 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Boron (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.1	0.0462 (J)	<0.1	0.0546 (J)	1.72	1.79
3/2/2016	2.03	<0.1	<0.1						
4/19/2016	2.2	<0.1	<0.1	<0.1		<0.1			
4/20/2016					0.0719 (J)		0.0472 (J)	1.7	2.01
6/7/2016			<0.1	<0.1	0.0591 (J)	<0.1	0.0417 (J)	1.57	
6/8/2016	1.61	<0.1							2.23
8/30/2016				<0.1	0.0675 (J)	<0.1		1.67	
8/31/2016	1.55	<0.1	<0.1				0.036 (J)		2.14
10/18/2016					0.0699 (J)			1.4	
10/19/2016	1.59	<0.1	<0.1	<0.1		<0.1	0.0386 (J)		2.13
1/31/2017	1.84	<0.1	<0.1	<0.1	0.0518 (J)	<0.1	0.0343 (J)	1.46	
2/1/2017									2.17
5/2/2017	1.73	<0.1	<0.1	<0.1					
5/3/2017					0.0737 (J)	<0.1	0.037 (J)	1.45	2.28
6/6/2017	1.56	<0.1	<0.1	<0.1					
6/7/2017					0.0518 (J)	<0.1	0.0227 (J)	1.41	2.25
9/12/2017		<0.1	<0.1	<0.1					
9/13/2017	1.87								
9/14/2017					0.0825 (J)	<0.1	0.0471 (J)	1.16	2.41
5/1/2018	1.81	<0.1	<0.1	<0.1					
5/2/2018					0.0603 (J)	<0.1	0.0313 (J)	1.12	2.34
11/27/2018		<0.1	<0.1	<0.1	0.0613 (J)			1.31	
11/28/2018	1.8					<0.1	0.0311 (J)		2.23
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	1.75	<0.1	<0.1	<0.1	0.0946 (J)	<0.1	0.042 (J)	1.44	
5/30/2019									2.45
9/30/2019							0.0418 (J)	1.38	2.34
10/1/2019	1.91	<0.1	<0.1	<0.1	0.103	<0.1			
10/2/2019									
3/30/2020	1.77						0.0369 (J)	1.12	
3/31/2020		<0.1	<0.1	<0.1	0.0782 (J)	<0.1			2.27
4/1/2020									

Time Series

Constituent: Boron (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	1.39	0.0482 (J)							
3/2/2016			0.0502 (J)	0.0328 (J)	0.0395 (J)	0.0447 (J)	1.47		
4/19/2016						0.0645 (J)	1.53		
4/20/2016	1.51	0.059 (J)	0.0672 (J)	0.0434 (J)	0.0549 (J)				
6/7/2016									
6/8/2016	1.62	0.0568 (J)	0.0659 (J)	0.0391 (J)	0.0593 (J)	0.0592 (J)	1.7		
8/30/2016					0.0534 (J)				
8/31/2016	1.73	0.0651 (J)	0.065 (J)	0.0401 (J)		0.0632 (J)	1.68		
10/18/2016					0.0597 (J)				
10/19/2016	1.77	0.06 (J)	0.0721 (J)	0.0427 (J)		0.0637 (J)	1.53		
1/31/2017				0.034 (J)	0.0479 (J)	0.0536 (J)	1.51		
2/1/2017	1.42	0.0638 (J)	0.06 (J)						
5/2/2017					0.0587 (J)	0.0775 (J)	1.64		
5/3/2017	1.52	0.0655 (J)	0.0768 (J)	0.0416 (J)					
6/6/2017					0.0428 (J)	0.0535 (J)	1.57		
6/7/2017	1.52	0.0468 (J)	0.0625 (J)	0.0277 (J)					
9/12/2017									
9/13/2017		0.0751 (J)	0.0926 (J)	0.044 (J)	0.0647 (J)	0.0937 (J)	2.18		
9/14/2017	1.96								
5/1/2018						0.0683 (J)	1.57		
5/2/2018	2	0.0545 (J)	0.064 (J)	0.0393 (J)	0.0484 (J)				
11/27/2018					0.0493 (J)	0.0715 (J)	1.58		
11/28/2018	2	0.0545 (J)	0.064 (J)	0.0417 (J)					
1/8/2019									0.0205 (J)
1/9/2019									
3/20/2019								0.924	
5/29/2019		0.082 (J)	0.0952 (J)	0.0528 (J)	0.0682 (J)	0.116	1.7		
5/30/2019	2.11								
9/30/2019	2.02	0.103							
10/1/2019			0.0967 (J)	0.0604 (J)	0.0701 (J)	0.116	2.05	1.05	
10/2/2019									<0.1
3/30/2020									0.0347 (J)
3/31/2020	2.12	0.0815 (J)	0.0856 (J)	0.0505 (J)	0.0655 (J)		1.74		
4/1/2020						0.1		0.435	

Time Series

Constituent: Boron (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
9/12/2017						
9/13/2017						
9/14/2017						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	0.029 (J)			0.677	0.0939 (J)	0.213
1/9/2019		0.0615 (J)	0.164			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		0.0546 (J)	0.241	1.02		
10/2/2019	0.0336 (J)				0.134	0.344
3/30/2020		0.0555 (J)	0.247			
3/31/2020	0.0339 (J)			1.04	0.101	0.325
4/1/2020						

Time Series

Constituent: Boron (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							0.0212 (J)	0.0252 (J)	<0.1
4/19/2016							<0.1	<0.1	<0.1
6/6/2016							<0.1		
6/7/2016								0.0202 (J)	<0.1
8/30/2016							<0.1	<0.1	<0.1
10/18/2016							<0.1	<0.1	<0.1
1/31/2017							<0.1	<0.1	<0.1
5/2/2017							<0.1	<0.1	<0.1
6/6/2017							<0.1	<0.1	<0.1
9/12/2017									
9/13/2017							<0.1	<0.1	<0.1
5/1/2018								<0.1	<0.1
5/2/2018							0.0362 (J)		
11/26/2018									
11/27/2018							0.11		<0.1
5/28/2019									
5/29/2019							0.188	<0.1	<0.1
7/31/2019	0.0439 (J)	0.0782 (J)	0.835	0.0707 (J)	0.0643 (J)	0.0531 (J)			
10/1/2019	0.0824 (J)		0.931	0.101	0.105	0.0856 (J)			
10/2/2019		0.129					0.097 (J)	<0.1	<0.1
3/31/2020							0.157	<0.1	<0.1
4/1/2020		0.073 (J)		0.046 (J)		<0.1			
6/16/2020									
6/17/2020									

Time Series

Constituent: Boron (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	0.0257 (J)								
4/19/2016	<0.1								
6/6/2016	<0.1								
6/7/2016									
8/30/2016	<0.1								
10/18/2016	0.022 (J)								
1/31/2017	<0.1								
5/2/2017	<0.1								
6/6/2017	<0.1								
9/12/2017	<0.1								
9/13/2017									
5/1/2018	<0.1								
5/2/2018									
11/26/2018	<0.1								
11/27/2018									
5/28/2019	<0.1								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.1								
3/31/2020	<0.1								
4/1/2020									
6/16/2020		<0.1	0.176	0.325					
6/17/2020					0.426	0.118	0.0847 (J)	<0.1	<0.1

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/2/2016	<0.001	<0.001	<0.001						
4/19/2016	<0.001	<0.001	<0.001	<0.001		<0.001			
4/20/2016					<0.001		<0.001	<0.001	<0.001
6/7/2016			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
6/8/2016	<0.001	<0.001							<0.001
8/30/2016				<0.001	<0.001	<0.001		<0.001	
8/31/2016	<0.001	<0.001	<0.001				<0.001		<0.001
10/18/2016					<0.001			<0.001	
10/19/2016	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001		<0.001
1/31/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
2/1/2017									<0.001
5/2/2017	<0.001	<0.001	<0.001	<0.001					
5/3/2017					<0.001	<0.001	<0.001	<0.001	<0.001
6/6/2017	<0.001	<0.001	<0.001	<0.001					
6/7/2017					<0.001	<0.001	<0.001	<0.001	<0.001
1/22/2018									
1/23/2018									<0.001
1/24/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
5/1/2018	<0.001	<0.001	<0.001	<0.001					
5/2/2018					<0.001	<0.001	<0.001	<0.001	<0.001
11/27/2018		<0.001	<0.001	<0.001	<0.001			<0.001	
11/28/2018	<0.001					<0.001	<0.001		<0.001
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
5/30/2019									<0.001
9/30/2019							<0.001	<0.001	<0.001
10/1/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
10/2/2019									
3/30/2020	<0.001						<0.001	<0.001	
3/31/2020		<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
4/1/2020									

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.001	<0.001							
3/2/2016			<0.001	<0.001	<0.001	<0.001	<0.001		
4/19/2016						<0.001	<0.001		
4/20/2016	<0.001	<0.001	<0.001	<0.001	<0.001				
6/7/2016									
6/8/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
8/30/2016					<0.001				
8/31/2016	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001		
10/18/2016					<0.001				
10/19/2016	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001		
1/31/2017				<0.001	<0.001	<0.001	<0.001		
2/1/2017	<0.001	<0.001	<0.001						
5/2/2017					<0.001	<0.001	<0.001		
5/3/2017	<0.001	<0.001	<0.001	<0.001					
6/6/2017					<0.001	<0.001	<0.001		
6/7/2017	<0.001	<0.001	<0.001	0.00077 (J)					
1/22/2018				<0.001		<0.001			
1/23/2018	<0.001	<0.001	<0.001		<0.001		<0.001		
1/24/2018									
5/1/2018						<0.001	<0.001		
5/2/2018	<0.001	<0.001	<0.001	<0.001	<0.001				
11/27/2018					<0.001	<0.001	<0.001		
11/28/2018	<0.001	<0.001	<0.001	<0.001					
1/8/2019									<0.001
1/9/2019									
3/20/2019								<0.001	
5/29/2019		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
5/30/2019	<0.001								
9/30/2019	<0.001	<0.001							
10/1/2019			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
10/2/2019									<0.001
3/30/2020									<0.001
3/31/2020	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		
4/1/2020						<0.001		<0.001	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.001			<0.001	<0.001	<0.001
1/9/2019		<0.001	<0.001			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		<0.001	<0.001	<0.001		
10/2/2019	<0.001				<0.001	<0.001
3/30/2020		<0.001	<0.001			
3/31/2020	<0.001			<0.001	<0.001	<0.001
4/1/2020						

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.001	<0.001	<0.001
4/19/2016							<0.001	<0.001	<0.001
6/6/2016							<0.001		
6/7/2016								<0.001	<0.001
8/30/2016							<0.001	<0.001	<0.001
10/18/2016							<0.001	<0.001	<0.001
1/31/2017							<0.001	<0.001	<0.001
5/2/2017							<0.001	<0.001	<0.001
6/6/2017							<0.001	<0.001	<0.001
1/23/2018							<0.001	<0.001	<0.001
5/1/2018								<0.001	<0.001
5/2/2018							<0.001		
11/26/2018									
11/27/2018							<0.001	<0.001	<0.001
5/28/2019									
5/29/2019							<0.001	<0.001	<0.001
7/31/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
10/1/2019	<0.001		<0.001	<0.001	<0.001	<0.001			
10/2/2019		<0.001					<0.001	<0.001	<0.001
3/31/2020							<0.001	<0.001	<0.001
4/1/2020		<0.001		<0.001		<0.001			
6/16/2020									
6/17/2020									

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.001								
4/19/2016	<0.001								
6/6/2016	<0.001								
6/7/2016									
8/30/2016	<0.001								
10/18/2016	<0.001								
1/31/2017	<0.001								
5/2/2017	<0.001								
6/6/2017	<0.001								
1/23/2018	<0.001								
5/1/2018	<0.001								
5/2/2018									
11/26/2018	<0.001								
11/27/2018									
5/28/2019	<0.001								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.001								
3/31/2020	<0.001								
4/1/2020									
6/16/2020		<0.001	<0.001	<0.001					
6/17/2020					<0.001	<0.001	<0.001	<0.001	<0.001

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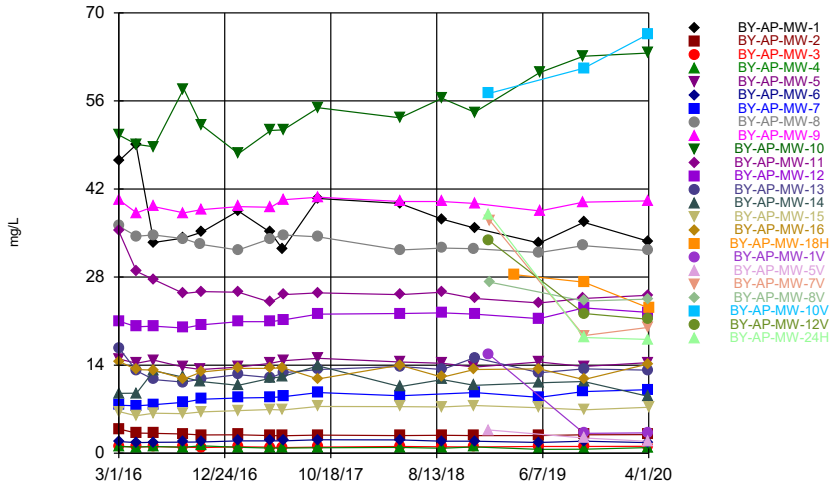
Time Series



Constituent: Calcium Analysis Run 7/27/2020 9:09 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

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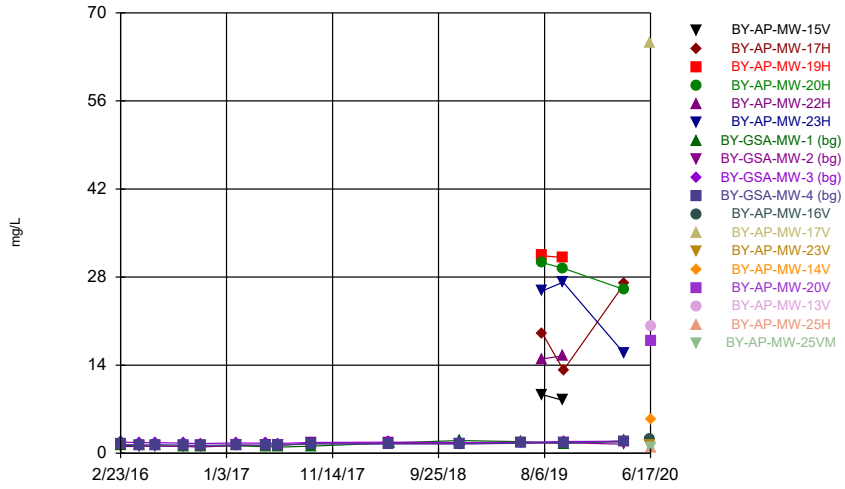
Time Series



Constituent: Calcium Analysis Run 7/27/2020 9:10 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

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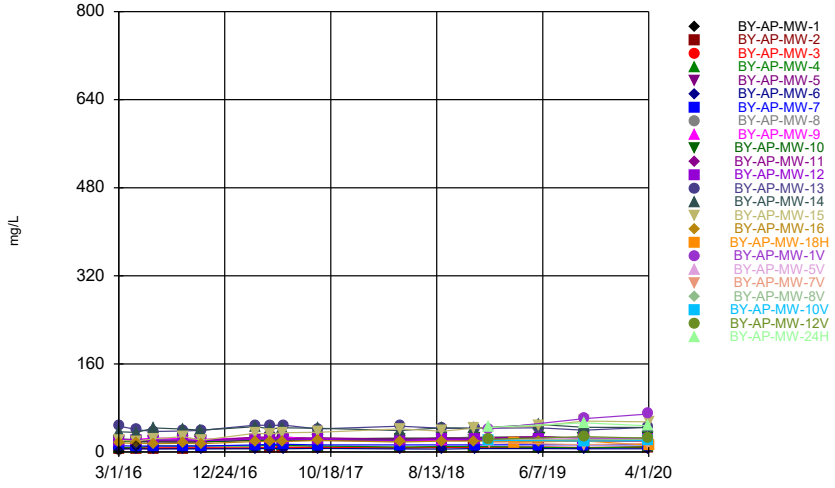
Time Series



Constituent: Chloride Analysis Run 7/27/2020 9:10 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

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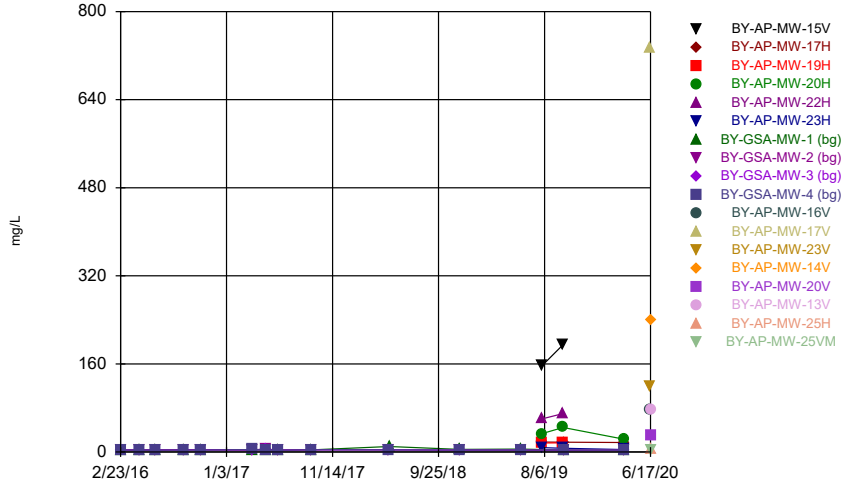
Time Series



Constituent: Chloride Analysis Run 7/27/2020 9:10 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				1.07	15	1.87	7.65	36.1	40.3
3/2/2016	46.5	3.86	1.11						
4/19/2016	49	3.22	1.01	0.969		1.69			
4/20/2016					14.3		7.54	34.5	38.2
6/7/2016			1.06	1.08	14.8	1.75	7.71	34.7	
6/8/2016	33.5	3.17							39.2
8/30/2016				0.952	13.7	1.77		34.1	
8/31/2016	34.2	3.07	0.978				8.1		38.2
10/18/2016					13.3			33.2	
10/19/2016	35.1	2.91	0.906	1.17		1.8	8.59		38.7
1/31/2017	38.5	2.94	1.04	0.946	13.7	1.98	8.78	32.3	
2/1/2017									39.2
5/2/2017	35.1	2.82	0.969	0.826					
5/3/2017					14.3	1.97	8.85	34.1	39.1
6/6/2017	32.4	2.79	0.902	0.834					
6/7/2017					14.7	1.98	8.99	34.7	40.3
9/12/2017		2.88	0.988	0.884					
9/13/2017	40.5								
9/14/2017					15.1	2.14	9.64	34.4	40.7
5/1/2018	39.7	2.82	1.07	0.921					
5/2/2018					14.5	2.13	9.14	32.3	40
8/28/2018	37.2	2.85	1.02	0.8					40
8/29/2018					14.3	1.92		32.6	
11/27/2018		2.8	0.999	1.01	13.7			32.5	
11/28/2018	35.8					1.91	9.66		39.7
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	33.4	2.82	1.09	0.627	14.5	1.72	8.88	31.9	
5/30/2019									38.5
9/30/2019							9.8	33	39.9
10/1/2019	36.7	2.94	1.08	0.645	13.8	1.92			
10/2/2019									
3/30/2020	33.7						10.1	32.2	
3/31/2020		2.95	1.1	0.898	14.4	1.68			40.1
4/1/2020									

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	50.6	35.3							
3/2/2016			21	16.7	9.53	6.61	14.6		
4/19/2016						5.97	13.3		
4/20/2016	49.1	28.9	20.1	13.1	9.55				
6/7/2016									
6/8/2016	48.7	27.6	20.2	11.7	13.1	6.36	13.2		
8/30/2016					12.1				
8/31/2016	57.9	25.4	19.9	11.3		6.28	11.8		
10/18/2016					11.4				
10/19/2016	52.2	25.7	20.4	11.8		6.57	12.9		
1/31/2017				12.5	10.8	6.77	13.5		
2/1/2017	47.6	25.6	20.9						
5/2/2017					11.9	6.94	13.5		
5/3/2017	51.3	24	20.9	12					
6/6/2017					12.2	6.88	13.6		
6/7/2017	51.4	25.2	21.2	12.8					
9/12/2017									
9/13/2017		25.5	22.1	13.3	13.9	7.43	11.8		
9/14/2017	54.9								
5/1/2018						7.42	14		
5/2/2018	53.3	25.2	22.2	13.8	10.6				
8/28/2018	56.4								
8/29/2018		25.6	22.3	13.3	11.7	7.37	12.1		
11/27/2018					10.8	7.58	13.3		
11/28/2018	54.2	24.6	22.1	15.2					
1/8/2019									15.7
1/9/2019									
3/20/2019								28.4	
5/29/2019		23.9	21.4	12.8	11.2	7.22	13.4		
5/30/2019	60.5								
9/30/2019	63.1	24.6							
10/1/2019			23.1	13.4	11.4	6.9	11.7	27.2	
10/2/2019									3.16
3/30/2020									3.23
3/31/2020	63.6	25.1	22.4	13.2	9.04		14.2		
4/1/2020						7.32		23.1	

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
9/12/2017						
9/13/2017						
9/14/2017						
5/1/2018						
5/2/2018						
8/28/2018						
8/29/2018						
11/27/2018						
11/28/2018						
1/8/2019	3.7			57.2	33.8	38
1/9/2019		37	27.2			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		18.7	24.2	61.2		
10/2/2019	2.43				22.2	18.4
3/30/2020		20	24.5			
3/31/2020	1.88			66.6	21.3	18.1
4/1/2020						

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							1.28	1.11	1.77
4/19/2016							1.19	1.09	1.68
6/6/2016							1.19		
6/7/2016								1.16	1.68
8/30/2016							1.11	1.08	1.62
10/18/2016							1.04	1.03	1.53
1/31/2017							1.19	1.23	1.65
5/2/2017							1.05	1.28	1.58
6/6/2017							0.978	1.25	1.55
9/12/2017									
9/13/2017							1.14	1.6	1.71
5/1/2018								1.58	1.76
5/2/2018							1.64		
11/26/2018									
11/27/2018							2.01	1.49	1.69
5/28/2019									
5/29/2019							1.85	1.59	1.74
7/31/2019	9.32	19.1	31.4	30.3	15	25.8			
10/1/2019	8.41		31.1	29.4	15.5	27.2			
10/2/2019		13.2					1.55	1.7	1.86
3/31/2020							1.96	1.43	1.92
4/1/2020		27		26		15.8			
6/16/2020									
6/17/2020									

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	1.42								
4/19/2016	1.31								
6/6/2016	1.35								
6/7/2016									
8/30/2016	1.31								
10/18/2016	1.22								
1/31/2017	1.36								
5/2/2017	1.24								
6/6/2017	1.28								
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									
7/31/2019									
10/1/2019									
10/2/2019	1.7								
3/31/2020	1.78								
4/1/2020									
6/16/2020		2.15	65.3	1.25					
6/17/2020					5.32	17.9	20.2	0.793	0.842

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				7.74	19.7	5.77	11.2	24.5	20.4
3/2/2016	2.18 (o)	6.08	8.04						
4/19/2016	9.01 (o)	6.2	7.6	7.66		5.57			
4/20/2016					18.9		10.8	22.5	22.7
6/7/2016			7.7	11.3	18.5	5.52	10.8	21.6	
6/8/2016	21	6.2							25.3
8/30/2016				10.8	17.9	5.5		21.6	
8/31/2016	21	6.51	7.7				10.8		24.4
10/18/2016					18.2			20.2	
10/19/2016	21.4	6.85	7.73	11.1		5.55	10.8		23
3/21/2017	25	7.2	7.2	11					
3/22/2017					22	6	13	24	26
5/2/2017	26	8.3	8.6	12					
5/3/2017					22	6.4	14	25	26
6/6/2017	27	8.5	8.3	12					
6/7/2017					21	5.9	14	24	27
9/12/2017		8.6	8.5	11					
9/13/2017	24								
9/14/2017					21	6.5	13	24	24
5/1/2018	25	7.6	7.6	9.2					
5/2/2018					20	5.5	13	23	22
8/28/2018	25	8.5	8.2	10					21
8/29/2018					21	5.4		25	
11/27/2018		8.8	8.4	10	21			27	
11/28/2018	26					6.2	13		23
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	27.6	8.31	9.01	8.53	19.7	6.15	13.3	27.4	
5/30/2019									27.7
9/30/2019							13.1	25.5	21.7
10/1/2019	24.6	8.19	8.05	7.35	19.8	5.99			
10/2/2019									
3/30/2020	24.9						13.3	22.6	
3/31/2020		8.48	9.07	9.54	19.8	5.94			20.6
4/1/2020									

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	19.6	21.7							
3/2/2016			22.2	47.3	36.6	20.9	16.6		
4/19/2016						19.8	15.7		
4/20/2016	18.8	20.7	21.7	40.5	35.5				
6/7/2016									
6/8/2016	18.6	20.4	22	37.2	43.8	24	15.1		
8/30/2016					41.6				
8/31/2016	18.5	20.3	22.3	38.2		28	15.9		
10/18/2016					39.5				
10/19/2016	18.7	20.3	20.8	39.4		21.3	15.3		
3/21/2017						34	19		
3/22/2017	21	27	23	49	46				
5/2/2017					42	33	19		
5/3/2017	22	27	25	48					
6/6/2017					44	35	19		
6/7/2017	22	24	23	49					
9/12/2017									
9/13/2017		26	23	42	43	36	21		
9/14/2017	22								
5/1/2018						42	18		
5/2/2018	23	23	21	47	39				
8/28/2018	25								
8/29/2018		25	23	43	44	38	20		
11/27/2018					43	43	20		
11/28/2018	25	25	23	43					
1/8/2019									42
1/9/2019									
3/20/2019								17.6	
5/29/2019		27.8	24.1	44	50.1	47.2	20		
5/30/2019	25.9								
9/30/2019	25.7	25							
10/1/2019			26.1	39.6	44.8	56.3	20.3	20.1	
10/2/2019									60.7
3/30/2020									69.1
3/31/2020	26.1	24.1	23.9	44.9	44.7		20.8		
4/1/2020						54.7		12.2	

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
3/21/2017						
3/22/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
9/12/2017						
9/13/2017						
9/14/2017						
5/1/2018						
5/2/2018						
8/28/2018						
8/29/2018						
11/27/2018						
11/28/2018						
1/8/2019	20.9			21.3	23.1	44.6
1/9/2019		16.9	21.9			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		13.2	22.6	20		
10/2/2019	25.8				28	53
3/30/2020		15.5	22.7			
3/31/2020	25.8			20.7	25	47.5
4/1/2020						

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							3.59	3.99	3.68
4/19/2016							2.89	4.08	3.72
6/6/2016							3.12		
6/7/2016								4.28	3.66
8/30/2016							3.91	4.26	3.7
10/18/2016							3.9	4.26	3.77
3/20/2017							3.5	4.1	3.7
5/2/2017							3.5 (D)	5 (D)	4.6 (D)
6/6/2017							3.1 (D)	3.9 (D)	3.4 (D)
9/12/2017									
9/13/2017							4	4.3	3.9
5/1/2018								3.7	4.1
5/2/2018							9.9		
11/26/2018									
11/27/2018							4.7	3.2	3.5
5/28/2019									
5/29/2019							5.48	2.93	3.58
7/31/2019	157	18	16.4	33.4	60.3	8.03			
10/1/2019	195		16.8	44.7	70	6.7			
10/2/2019		17.7					3.65	2.75	3.64
3/31/2020							3.17	2.72	3.47
4/1/2020		17.2		23.1		4.46			
6/16/2020									
6/17/2020									

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	3.5								
4/19/2016	3.63								
6/6/2016	3.6								
6/7/2016									
8/30/2016	3.54								
10/18/2016	3.68								
3/20/2017	4.6								
5/2/2017	3.9 (D)								
6/6/2017	3.4 (D)								
9/12/2017	4.3								
9/13/2017									
5/1/2018	3.8								
5/2/2018									
11/26/2018	3.6								
11/27/2018									
5/28/2019	3.6								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	3.5								
3/31/2020	3.34								
4/1/2020									
6/16/2020		77.4	734	120					
6/17/2020					240	29.2	77	4.81	4.04

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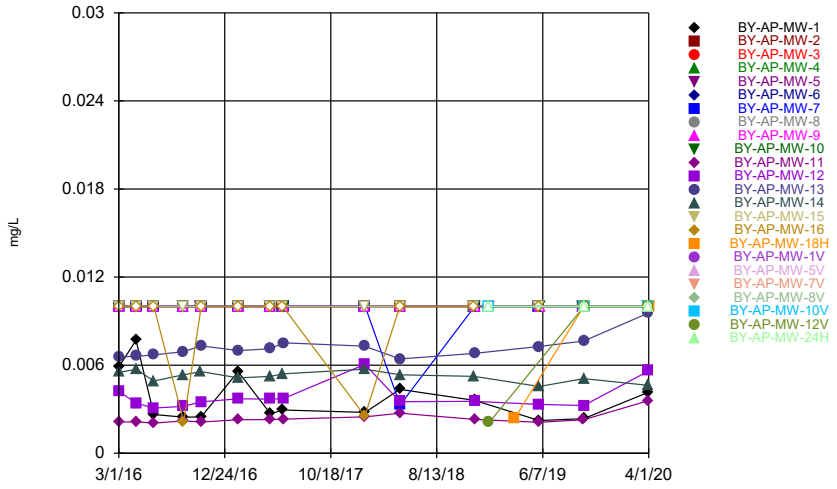
Hollow symbols indicate censored values.

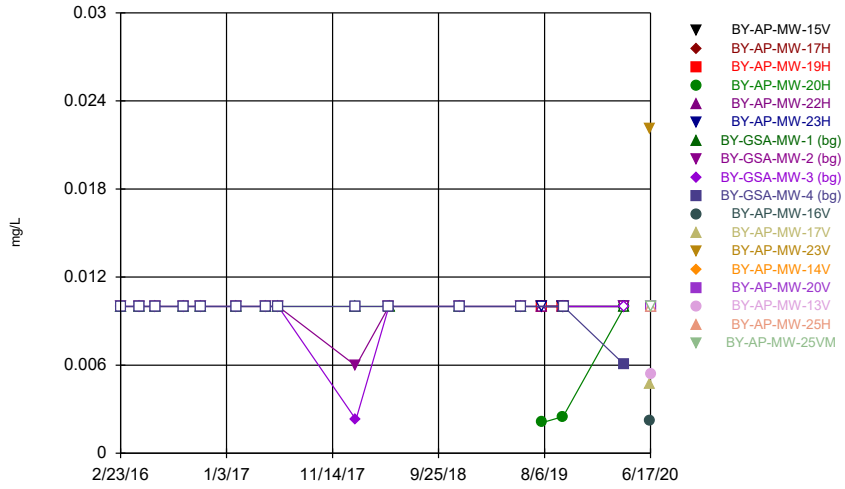
Time Series



Constituent: Chromium Analysis Run 7/27/2020 9:10 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Chromium Analysis Run 7/27/2020 9:10 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

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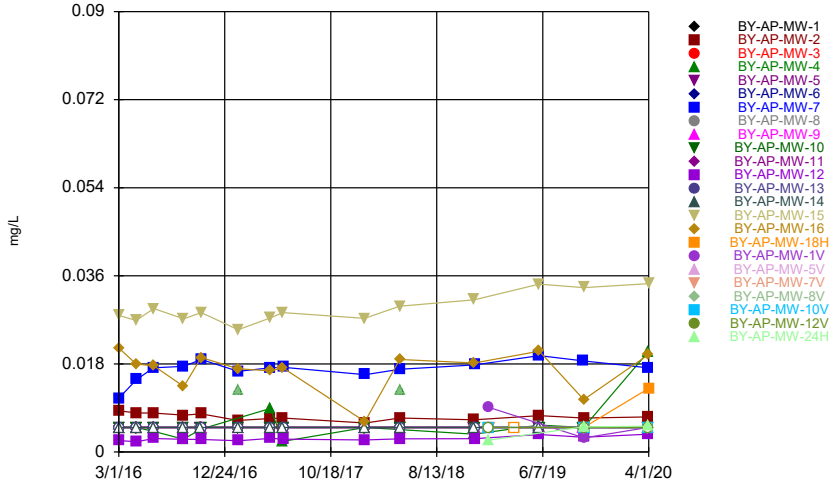
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Analysis Run 7/27/2020 9:10 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

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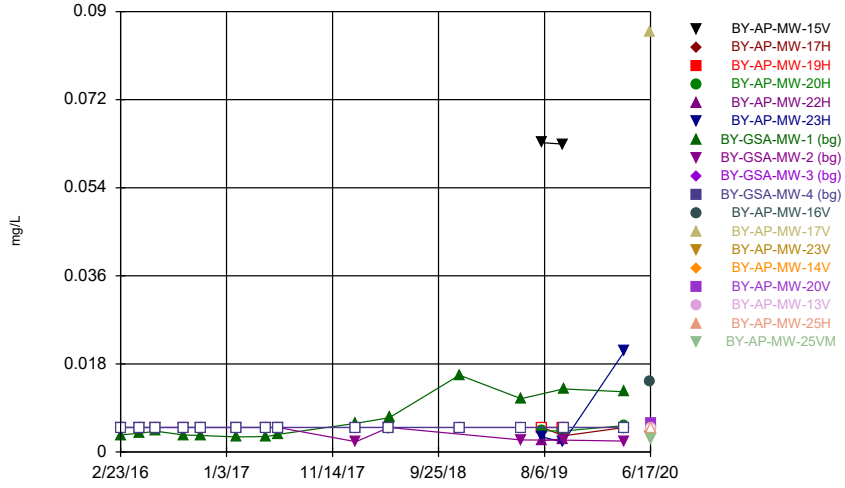
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Analysis Run 7/27/2020 9:10 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3/2/2016	0.00591 (J)	<0.01	<0.01						
4/19/2016	0.0077 (J)	<0.01	<0.01	<0.01		<0.01			
4/20/2016					<0.01		<0.01	<0.01	<0.01
6/7/2016			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
6/8/2016	0.00264 (J)	<0.01							<0.01
8/30/2016				<0.01	<0.01	<0.01		<0.01	
8/31/2016	0.00246 (J)	<0.01	<0.01				<0.01		<0.01
10/18/2016					<0.01			<0.01	
10/19/2016	0.00248 (J)	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01
1/31/2017	0.00556 (J)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
2/1/2017									<0.01
5/2/2017	0.00269 (J)	<0.01	<0.01	<0.01					
5/3/2017					<0.01	<0.01	<0.01	<0.01	<0.01
6/6/2017	0.00295 (J)	<0.01	<0.01	<0.01					
6/7/2017					<0.01	<0.01	<0.01	<0.01	<0.01
1/22/2018									
1/23/2018									<0.01
1/24/2018	0.00278 (J)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
5/1/2018	0.00435 (J)	<0.01	<0.01	<0.01					
5/2/2018					<0.01	<0.01	0.00328 (J)	<0.01	<0.01
11/27/2018		<0.01	<0.01	<0.01	<0.01			<0.01	
11/28/2018	0.0036 (J)					<0.01	<0.01		<0.01
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	0.00223 (J)	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
5/30/2019									<0.01
9/30/2019							<0.01	<0.01	<0.01
10/1/2019	0.00236 (J)	<0.01	<0.01	<0.01	<0.01	<0.01			
10/2/2019									
3/30/2020	0.00415 (J)						<0.01	<0.01	
3/31/2020		<0.01	<0.01	<0.01	<0.01	<0.01			<0.01
4/1/2020									

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.01	0.00213 (J)							
3/2/2016			0.0042 (J)	0.00656 (J)	0.00552 (J)	<0.01	<0.01		
4/19/2016						<0.01	<0.01		
4/20/2016	<0.01	0.00214 (J)	0.0034 (J)	0.00661 (J)	0.00572 (J)				
6/7/2016									
6/8/2016	<0.01	0.00205 (J)	0.00308 (J)	0.0067 (J)	0.00492 (J)	<0.01	<0.01		
8/30/2016					0.00534 (J)				
8/31/2016	<0.01	0.00221 (J)	0.0032 (J)	0.00693 (J)		<0.01	0.00215 (J)		
10/18/2016					0.00556 (J)				
10/19/2016	<0.01	0.00213 (J)	0.0035 (J)	0.00732 (J)		<0.01	<0.01		
1/31/2017				0.00699 (J)	0.00514 (J)	<0.01	<0.01		
2/1/2017	<0.01	0.00228 (J)	0.00371 (J)						
5/2/2017					0.00524 (J)	<0.01	<0.01		
5/3/2017	<0.01	0.00229 (J)	0.00369 (J)	0.00712 (J)					
6/6/2017					0.00541 (J)	<0.01	<0.01		
6/7/2017	<0.01	0.00233 (J)	0.00372 (J)	0.00752 (J)					
1/22/2018				0.00729 (J)		<0.01			
1/23/2018	<0.01	0.00248 (J)	0.00605 (J)		0.00573 (J)		0.00253 (J)		
1/24/2018									
5/1/2018						<0.01	<0.01		
5/2/2018	<0.01	0.00273 (J)	0.00351 (J)	0.00642 (J)	0.00534 (J)				
11/27/2018					0.00523 (J)	<0.01	<0.01		
11/28/2018	<0.01	0.0023 (J)	0.00353 (J)	0.0068 (J)					
1/8/2019									<0.01
1/9/2019									
3/20/2019								0.00236 (J)	
5/29/2019		0.00211 (J)	0.00333 (J)	0.00727 (J)	0.00455 (J)	<0.01	<0.01		
5/30/2019	<0.01								
9/30/2019	<0.01	0.00228 (J)							
10/1/2019			0.00325 (J)	0.00764 (J)	0.00508 (J)	<0.01	<0.01	<0.01	
10/2/2019									<0.01
3/30/2020									<0.01
3/31/2020	<0.01	0.00358 (J)	0.0056 (J)	0.00955 (J)	0.00463 (J)		<0.01		
4/1/2020						<0.01		<0.01	

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.01			<0.01	0.0021 (J)	<0.01
1/9/2019		<0.01	<0.01			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		<0.01	<0.01	<0.01		
10/2/2019	<0.01				<0.01	<0.01
3/30/2020		<0.01	<0.01			
3/31/2020	<0.01			<0.01	<0.01	<0.01
4/1/2020						

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.01	<0.01	<0.01
4/19/2016							<0.01	<0.01	<0.01
6/6/2016							<0.01		
6/7/2016								<0.01	<0.01
8/30/2016							<0.01	<0.01	<0.01
10/18/2016							<0.01	<0.01	<0.01
1/31/2017							<0.01	<0.01	<0.01
5/2/2017							<0.01	<0.01	<0.01
6/6/2017							<0.01	<0.01	<0.01
1/23/2018							<0.01	0.00596 (J)	0.00229 (J)
5/1/2018								<0.01	<0.01
5/2/2018							<0.01		
11/26/2018									
11/27/2018							<0.01	<0.01	<0.01
5/28/2019									
5/29/2019							<0.01	<0.01	<0.01
7/31/2019	<0.01	<0.01	<0.01	0.00209 (J)	<0.01	<0.01			
10/1/2019	<0.01		<0.01	0.0025 (J)	<0.01	<0.01			
10/2/2019		<0.01					<0.01	<0.01	<0.01
3/31/2020							<0.01	<0.01	<0.01
4/1/2020		<0.01		<0.01		<0.01			
6/16/2020									
6/17/2020									

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.01								
4/19/2016	<0.01								
6/6/2016	<0.01								
6/7/2016									
8/30/2016	<0.01								
10/18/2016	<0.01								
1/31/2017	<0.01								
5/2/2017	<0.01								
6/6/2017	<0.01								
1/23/2018	<0.01								
5/1/2018	<0.01								
5/2/2018									
11/26/2018	<0.01								
11/27/2018									
5/28/2019	<0.01								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.01								
3/31/2020	0.00604 (J)								
4/1/2020									
6/16/2020		0.00222 (J)	0.00475 (J)	0.0221					
6/17/2020					<0.01	<0.01	0.00537 (J)	<0.01	<0.01

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.005	<0.005	<0.005	0.011	<0.005	<0.005
3/2/2016	<0.005	0.00842 (J)	<0.005						
4/19/2016	<0.005	0.008 (J)	<0.005	<0.005		<0.005			
4/20/2016					<0.005		0.0148	<0.005	<0.005
6/7/2016			<0.005	0.00424 (J)	<0.005	<0.005	0.0172	<0.005	
6/8/2016	<0.005	0.00796 (J)							<0.005
8/30/2016				0.00262 (J)	<0.005	<0.005		<0.005	
8/31/2016	<0.005	0.00752 (J)	<0.005				0.0175		<0.005
10/18/2016					<0.005			<0.005	
10/19/2016	<0.005	0.00778 (J)	<0.005	0.00469 (J)		<0.005	0.0189		<0.005
1/31/2017	<0.005	0.00647 (J)	<0.005	0.0127 (o)	<0.005	<0.005	0.0165	<0.005	
2/1/2017									<0.005
5/2/2017	<0.005	0.00686 (J)	<0.005	0.00891 (J)					
5/3/2017					<0.005	<0.005	0.0172	<0.005	<0.005
6/6/2017	<0.005	0.00694 (J)	<0.005	0.00217 (J)					
6/7/2017					<0.005	<0.005	0.0173	<0.005	<0.005
1/22/2018									
1/23/2018									<0.005
1/24/2018	<0.005	0.00592 (J)	<0.005	<0.005	<0.005	<0.005	0.0158	<0.005	
5/1/2018	<0.005	0.00693 (J)	<0.005	0.0126 (o)					
5/2/2018					<0.005	<0.005	0.0169	<0.005	<0.005
11/27/2018		0.0066	<0.005	0.00363 (J)	<0.005			<0.005	
11/28/2018	<0.005					<0.005	0.0178		<0.005
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	<0.005	0.00745	<0.005	0.00549	<0.005	<0.005	0.0197	<0.005	
5/30/2019									<0.005
9/30/2019							0.0186	<0.005	<0.005
10/1/2019	<0.005	0.00696	<0.005	<0.005	<0.005	<0.005			
10/2/2019									
3/30/2020	<0.005						0.0172	<0.005	
3/31/2020		0.00716	<0.005	0.0205	<0.005	<0.005			<0.005
4/1/2020									

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.005	<0.005							
3/2/2016			0.00235 (J)	<0.005	<0.005	0.0279	0.0212		
4/19/2016						0.0269	0.018		
4/20/2016	<0.005	<0.005	0.00212 (J)	<0.005	<0.005				
6/7/2016									
6/8/2016	<0.005	<0.005	0.00276 (J)	<0.005	<0.005	0.0293	0.0176		
8/30/2016					<0.005				
8/31/2016	<0.005	<0.005	0.00261 (J)	<0.005		0.0272	0.0134		
10/18/2016					<0.005				
10/19/2016	<0.005	<0.005	0.00256 (J)	<0.005		0.0285	0.0193		
1/31/2017				<0.005	<0.005	0.025	0.017		
2/1/2017	<0.005	<0.005	0.00231 (J)						
5/2/2017					<0.005	0.0274	0.0166		
5/3/2017	<0.005	<0.005	0.00279 (J)	<0.005					
6/6/2017					<0.005	0.0285	0.0172		
6/7/2017	<0.005	<0.005	0.00262 (J)	<0.005					
1/22/2018				<0.005		0.0273			
1/23/2018	<0.005	<0.005	0.00248 (J)		<0.005		0.00621 (J)		
1/24/2018									
5/1/2018						0.0298	0.0189		
5/2/2018	<0.005	<0.005	0.00271 (J)	<0.005	<0.005				
11/27/2018					<0.005	0.0311	0.0182		
11/28/2018	<0.005	<0.005	0.00274 (J)	<0.005					
1/8/2019									0.00911
1/9/2019									
3/20/2019								<0.005	
5/29/2019		<0.005	0.00358 (J)	<0.005	<0.005	0.0343	0.0206		
5/30/2019	<0.005								
9/30/2019	<0.005	<0.005							
10/1/2019			0.00303 (J)	<0.005	<0.005	0.0336	0.0107	<0.005	
10/2/2019									0.00289 (J)
3/30/2020									<0.005
3/31/2020	<0.005	<0.005	0.00364 (J)	<0.005	<0.005		0.0199		
4/1/2020						0.0344		0.013	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.005			<0.005	<0.005	0.00243 (J)
1/9/2019		<0.005	<0.005			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		<0.005	<0.005	<0.005		
10/2/2019	<0.005				<0.005	0.00513
3/30/2020		<0.005	<0.005			
3/31/2020	<0.005			<0.005	<0.005	0.00528
4/1/2020						

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							0.0035 (J)	<0.005	<0.005
4/19/2016							0.0038 (J)	<0.005	<0.005
6/6/2016							0.00427 (J)		
6/7/2016								<0.005	<0.005
8/30/2016							0.00348 (J)	<0.005	<0.005
10/18/2016							0.00338 (J)	<0.005	<0.005
1/31/2017							0.00308 (J)	<0.005	<0.005
5/2/2017							0.00314 (J)	<0.005	<0.005
6/6/2017							0.0036 (J)	<0.005	<0.005
1/23/2018							0.00586 (J)	0.0021 (J)	<0.005
5/1/2018								<0.005	<0.005
5/2/2018							0.00702 (J)		
11/26/2018									
11/27/2018							0.0157		<0.005
5/28/2019									
5/29/2019							0.0109	0.00248 (J)	<0.005
7/31/2019	0.0632	<0.005	<0.005	0.00433 (J)	0.00233 (J)	0.0031 (J)			
10/1/2019	0.0629		<0.005	0.00431 (J)	0.00268 (J)	0.00201 (J)			
10/2/2019		0.0033 (J)					0.0129	0.00244 (J)	<0.005
3/31/2020							0.0123	0.00224 (J)	<0.005
4/1/2020		<0.005		0.00541		0.0206			
6/16/2020									
6/17/2020									

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.005								
4/19/2016	<0.005								
6/6/2016	<0.005								
6/7/2016									
8/30/2016	<0.005								
10/18/2016	<0.005								
1/31/2017	<0.005								
5/2/2017	<0.005								
6/6/2017	<0.005								
1/23/2018	<0.005								
5/1/2018	<0.005								
5/2/2018									
11/26/2018	<0.005								
11/27/2018									
5/28/2019	<0.005								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.005								
3/31/2020	<0.005								
4/1/2020									
6/16/2020		0.0144	0.0858	0.00302 (J)					
6/17/2020					<0.005	0.00593	<0.005	<0.005	0.0026 (J)

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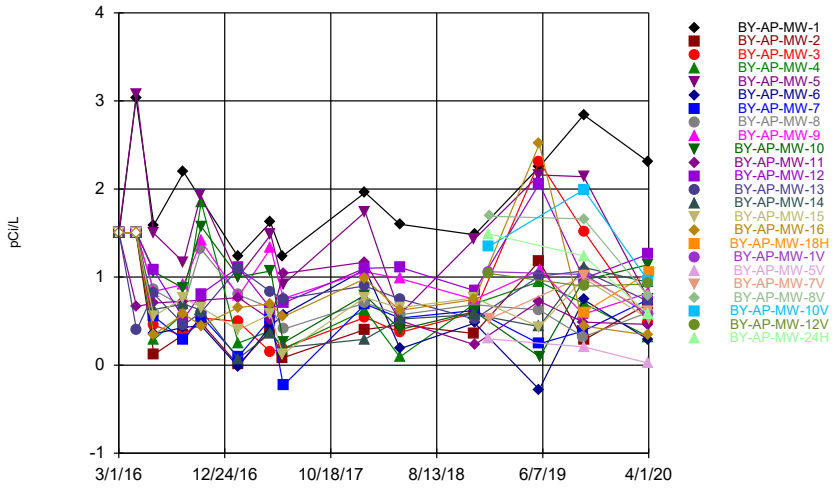
Hollow symbols indicate censored values.

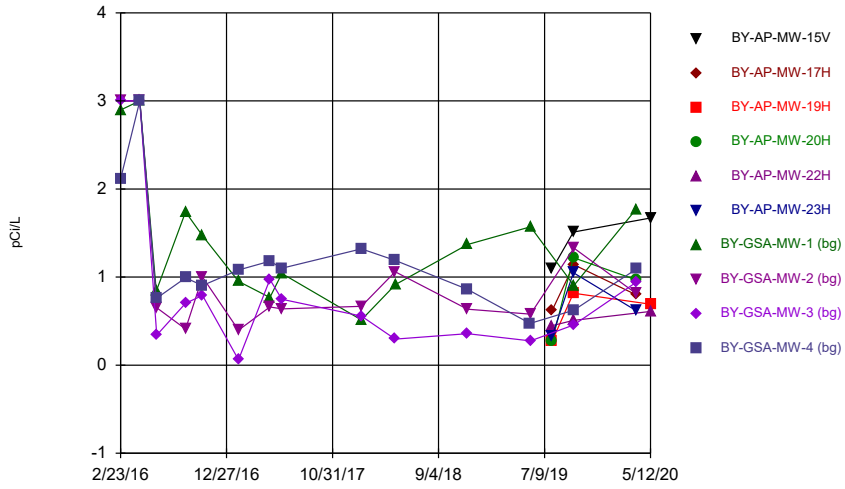
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 7/27/2020 9:10 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

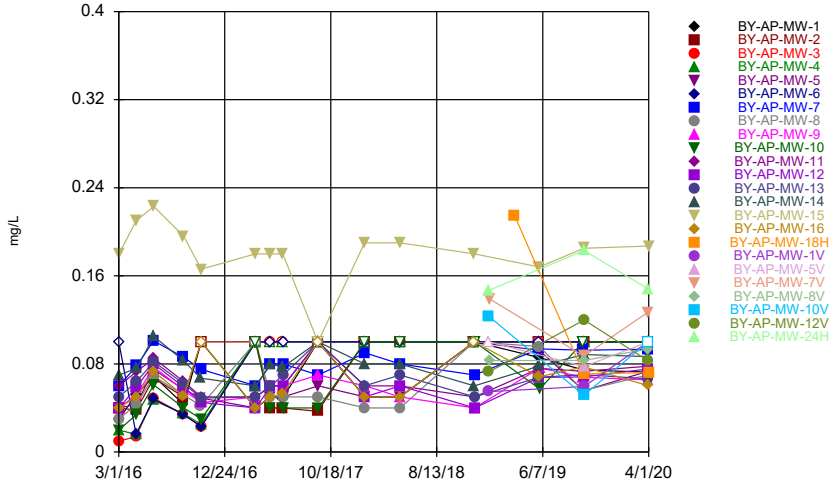
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 7/27/2020 9:10 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 7/27/2020 9:10 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

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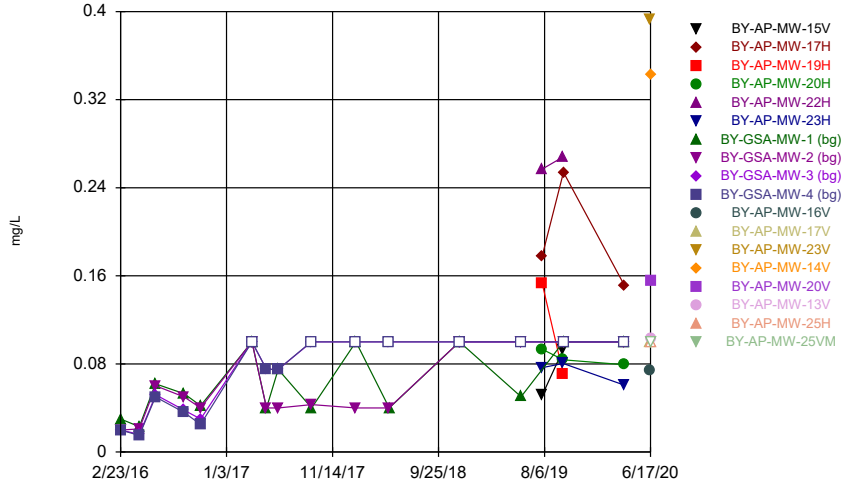
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 7/27/2020 9:10 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<3	<3	<3	<3	<3	<3
3/2/2016	<3	<3	<3						
4/19/2016	3.0268	<3	<3	<3		<3			
4/20/2016					3.0801		<3	<3	<3
6/7/2016			0.455	0.287 (U)	1.5	0.353 (U)	0.555 (U)	0.853	
6/8/2016	1.59	0.121 (U)							0.837
8/30/2016				0.585	1.17	0.428 (U)		0.669	
8/31/2016	2.19	0.348 (U)	0.329 (U)				0.284 (U)		0.917
10/18/2016					1.93			1.32	
10/19/2016		0.48	0.536	1.85		0.449 (U)	0.557 (U)		1.41
1/31/2017	1.23	0.00333 (U)	0.496	0.25 (U)	1	-0.0173 (U)	0.0949 (U)	0.801	
2/1/2017									0.785
5/2/2017	1.62	0.4 (U)	0.149 (U)	0.391 (U)					
5/3/2017					1.48	0.447	0.53	0.648	1.33
6/6/2017	1.24	0.083 (U)	0.191 (U)	0.183 (U)					
6/7/2017					0.915	0.572	-0.231 (U)	0.408 (U)	0.758
1/22/2018									
1/23/2018									1.06 (U)
1/24/2018	1.96 (U)	0.404 (U)	0.543 (U)	0.622 (U)	1.74 (U)	1.09 (U)	0.691 (U)	0.706 (U)	
5/1/2018	1.6	0.457	0.372 (U)	0.0917 (U)					
5/2/2018					0.58	0.187 (U)	0.535	0.572	0.983
11/27/2018		0.359 (U)	0.591	0.695	1.43			0.687	
11/28/2018	1.48					0.478 (U)	0.62		0.747
1/8/2019									
1/9/2019									
5/29/2019	2.25	1.18	2.31	0.947	2.16	-0.276 (U)	0.244 (U)	0.627 (U)	
5/30/2019									1.08
9/30/2019							0.388 (U)	0.321 (U)	0.58
10/1/2019	2.84	0.284 (U)	1.52	0.7	2.14	0.742			
10/2/2019									
3/30/2020	2.31						0.744	0.6	
3/31/2020		0.699	0.478 (U)	0.323 (U)	0.754	0.291 (U)			0.82
4/1/2020									

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<3	<3							
3/2/2016			<3	<3	<3	<3	<3		
4/19/2016						<3	<3		
4/20/2016	<3	0.667	<3	0.398	<3				
6/7/2016			1.08	0.812					
6/8/2016	1.06	0.704			0.631	0.557	0.344 (U)		
8/30/2016					0.693				
8/31/2016	0.871	0.726	0.528	0.46 (U)		0.765	0.582		
10/18/2016					0.626				
10/19/2016	1.575 (D)	0.737	0.81	0.601		0.654	0.448		
1/31/2017				1.1	0.0723 (U)	0.402 (U)	0.653		
2/1/2017	1	0.766	1.11						
5/2/2017					0.363 (U)	0.578	0.698		
5/3/2017	1.07	0.515	0.639	0.832					
6/6/2017					0.198 (U)	0.128 (U)	0.548		
6/7/2017	0.254 (U)	1.04	0.705	0.752					
1/22/2018				0.898 (U)		0.768 (U)			
1/23/2018	0.795 (U)	1.17 (U)	1.1 (U)		0.294 (U)		0.98 (U)		
1/24/2018									
5/1/2018						0.651	0.623		
5/2/2018	0.405	0.505	1.11	0.752	0.522				
11/27/2018					0.576	0.764	0.744		
11/28/2018	0.609	0.232 (U)	0.846	0.523					
1/8/2019									1.06
1/9/2019									
5/29/2019		0.726	2.06	1.01	0.437 (U)	0.433	2.51		
5/30/2019	0.0949 (U)								
9/30/2019	0.965	0.489 (U)							
10/1/2019			0.984	1.07	1.11	0.988	0.443 (U)	0.6	
10/2/2019									1.03
3/30/2020									0.579
3/31/2020	1.14	0.462 (U)	1.26	0.725	0.941		0.341 (U)		
4/1/2020						0.527		1.05	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	0.298 (U)			1.35	1.04	1.49
1/9/2019		0.527	1.69			
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		1.01	1.66	1.99		
10/2/2019	0.206 (U)				0.896	1.24
3/30/2020		0.604	0.787			
3/31/2020	0.024 (U)			0.957	0.923	0.577
4/1/2020						

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							2.8971 (U)	3 (U)	3 (U)
4/19/2016							3 (U)	3 (U)	3 (U)
6/6/2016							0.841		
6/7/2016								0.652	0.342 (U)
8/30/2016							1.74	0.411 (U)	0.702
10/18/2016							1.47	1	0.791
1/31/2017							0.952	0.398 (U)	0.0613 (U)
5/2/2017							0.768	0.66	0.974
6/6/2017							1.04	0.639	0.748
1/23/2018							0.513 (U)	0.669 (U)	0.558 (U)
5/1/2018								1.06	0.296 (U)
5/2/2018							0.916		
11/26/2018									
11/27/2018							1.37	0.636	0.357 (U)
5/28/2019									
5/29/2019							1.57	0.579 (U)	0.275 (U)
7/31/2019	1.09 (D)	0.621 (D)	0.272 (UD)	0.268 (UD)	0.448 (D)	0.331 (UD)			
10/1/2019	1.51		0.817	1.22	0.508	1.05			
10/2/2019		1.14					0.905	1.33	0.458 (U)
3/31/2020							1.77	0.814	0.941
4/1/2020		0.797		0.968		0.618			
5/12/2020	1.67		0.691		0.61				

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)
2/23/2016	2.1138
4/19/2016	3 (U)
6/6/2016	0.757
6/7/2016	
8/30/2016	0.992
10/18/2016	0.905
1/31/2017	1.08
5/2/2017	1.18
6/6/2017	1.1
1/23/2018	1.32 (U)
5/1/2018	1.19
5/2/2018	
11/26/2018	0.863
11/27/2018	
5/28/2019	0.474 (U)
5/29/2019	
7/31/2019	
10/1/2019	
10/2/2019	0.624 (U)
3/31/2020	1.09
4/1/2020	
5/12/2020	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				0.02 (J)	0.04 (J)	<0.1	0.06 (J)	0.03 (J)	0.04 (J)
3/2/2016	0.03 (J)	0.04 (J)	0.01 (J)						
4/19/2016	0.052 (J)	0.038 (J)	0.014 (J)	0.016 (J)		0.016 (J)			
4/20/2016					0.043 (J)		0.078 (J)	0.043 (J)	0.052 (J)
6/7/2016			0.049 (J)	0.047 (J)	0.075 (J)	0.048 (J)	0.101 (J)	0.069 (J)	
6/8/2016	0.069 (J)	0.067 (J)							0.077 (J)
8/30/2016				0.035 (J)	0.057 (J)	0.034 (J)		0.052 (J)	
8/31/2016	0.043 (J)	0.05 (J)	0.034 (J)				0.086 (J)		0.056 (J)
10/18/2016					0.049 (J)			0.042 (J)	
10/19/2016	<0.1	<0.1	0.023 (J)	0.025 (J)		0.023 (J)	0.075 (J)		0.045 (J)
3/21/2017	0.04 (J)	<0.1	<0.1	<0.1					
3/22/2017					0.04 (J)	<0.1	0.06 (J)	<0.1	0.05 (J)
5/2/2017	0.05 (J)	0.04 (J)	<0.1	<0.1					
5/3/2017					0.05 (J)	<0.1	0.08 (J)	0.05 (J)	0.06 (J)
6/6/2017	0.049 (J)	0.04 (J)	<0.1	<0.1					
6/7/2017					0.05 (J)	<0.1	0.08 (J)	0.05 (J)	0.06 (J)
9/12/2017		0.037 (J)	<0.1	<0.1					
9/13/2017	<0.1 (U*)								
9/14/2017					0.06 (J)	<0.1	0.07 (J)	0.05 (J)	0.07 (J)
1/22/2018									
1/23/2018									0.06 (J)
1/24/2018	0.05 (J)	<0.1	<0.1	<0.1	0.05 (J)	<0.1	0.09 (J)	0.04 (J)	
5/1/2018	0.05 (J)	<0.1	<0.1	<0.1					
5/2/2018					0.05 (J)	<0.1	0.08 (J)	0.04 (J)	0.05 (J)
11/27/2018		<0.1	<0.1	<0.1	<0.1			<0.1	
11/28/2018	<0.1					<0.1	0.07 (J)		0.04 (J)
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	0.0858 (J)	<0.1	<0.1	<0.1	0.0923 (J)	<0.1	0.0937 (J)	0.0958 (J)	
5/30/2019									0.0763 (J)
9/30/2019							0.0925 (J)	0.0559 (J)	0.0679 (J)
10/1/2019	0.0744 (J)	<0.1	<0.1	<0.1	0.0557 (J)	<0.1			
10/2/2019									
3/30/2020	0.0726 (J)						0.0933 (J)	0.0701 (J)	
3/31/2020		<0.1	<0.1	<0.1	0.0735 (J)	<0.1			0.0655 (J)
4/1/2020									

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	0.02 (J)	0.06 (J)							
3/2/2016			0.04 (J)	0.05 (J)	0.07 (J)	0.18 (J)	0.04 (J)		
4/19/2016						0.21 (J)	0.05 (J)		
4/20/2016	0.034 (J)	0.073 (J)	0.059 (J)	0.064 (J)	0.076 (J)				
6/7/2016									
6/8/2016	0.061 (J)	0.085 (J)	0.08 (J)	0.082 (J)	0.105 (J)	0.223 (J)	0.073 (J)		
8/30/2016					0.083 (J)				
8/31/2016	0.04 (J)	0.064 (J)	0.059 (J)	0.062 (J)		0.196 (J)	0.051 (J)		
10/18/2016					0.067 (J)				
10/19/2016	0.03 (J)	0.05 (J)	0.045 (J)	0.049 (J)		0.166 (J)	<0.1		
3/21/2017						0.18	0.04 (J)		
3/22/2017	<0.1	0.05 (J)	0.04 (J)	0.05 (J)	0.06 (J)				
5/2/2017					0.08 (J)	0.18	0.05 (J)		
5/3/2017	0.04 (J)	0.06 (J)	0.06 (J)	0.06 (J)					
6/6/2017					0.077 (J)	0.18	0.053 (J)		
6/7/2017	0.04 (J)	0.06 (J)	0.06 (J)	0.07 (J)					
9/12/2017									
9/13/2017		<0.1 (U*)	<0.1 (U*)	<0.1 (U*)	<0.1 (U*)	<0.1 (U*)	<0.1 (U*)		
9/14/2017	0.04 (J)								
1/22/2018				0.06 (J)		0.19			
1/23/2018	<0.1	0.06 (J)	0.05 (J)		0.08 (J)		0.05 (J)		
1/24/2018									
5/1/2018						0.19	0.05 (J)		
5/2/2018	<0.1	0.06 (J)	0.06 (J)	0.07 (J)	0.08 (J)				
11/27/2018					0.06 (J)	0.18	<0.1		
11/28/2018	<0.1	0.05 (J)	0.04 (J)	0.05 (J)					
1/8/2019									0.0548 (J)
1/9/2019									
3/20/2019								0.215	
5/29/2019		0.0759 (J)	0.0677 (J)	0.0679 (J)	0.0781 (J)	0.168	0.0683 (J)		
5/30/2019	0.0573 (J)								
9/30/2019	<0.1	0.0733 (J)							
10/1/2019			0.0682 (J)	0.0703 (J)	0.0885 (J)	0.185	0.0774 (J)	0.071 (J)	
10/2/2019									0.0595 (J)
3/30/2020									<0.1
3/31/2020	<0.1	0.078 (J)	0.0755 (J)	0.0665 (J)	0.0867 (J)		0.0602 (J)		
4/1/2020						0.187		0.0722 (J)	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
3/21/2017						
3/22/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
9/12/2017						
9/13/2017						
9/14/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.1			0.123	0.0729 (J)	0.147
1/9/2019		0.139	0.0831 (J)			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		0.0871 (J)	0.0832 (J)	0.0517 (J)		
10/2/2019	0.0777 (J)				0.12	0.183
3/30/2020		0.127	0.0935 (J)			
3/31/2020	<0.1			<0.1	0.0828 (J)	0.148
4/1/2020						

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							0.03 (J)	0.02 (J)	0.02 (J)
4/19/2016							0.023 (J)	0.021 (J)	0.016 (J)
6/6/2016							0.062 (J)		
6/7/2016								0.06 (J)	0.052 (J)
8/30/2016							0.053 (J)	0.05 (J)	0.038 (J)
10/18/2016							0.042 (J)	0.04 (J)	0.03 (J)
3/20/2017							<0.1	<0.1	<0.1
5/2/2017							0.04 (JD)	0.04 (JD)	0.075 (D)
6/6/2017							0.075 (D)	0.04 (JD)	0.075 (D)
9/12/2017									
9/13/2017							0.04 (J)	0.043 (J)	<0.1
1/23/2018							<0.1	0.04 (J)	<0.1
5/1/2018								0.04 (J)	<0.1
5/2/2018							0.04 (J)		
11/26/2018									
11/27/2018							<0.1	<0.1	<0.1
5/28/2019									
5/29/2019							0.0502 (J)	<0.1	<0.1
7/31/2019	0.0515 (J)	0.178	0.153	0.0934 (J)	0.257	0.0766 (J)			
10/1/2019	0.0931 (J)		0.0712 (J)	0.0838 (J)	0.268	0.0804 (J)			
10/2/2019		0.254					<0.1	<0.1	<0.1
3/31/2020							<0.1	<0.1	<0.1
4/1/2020		0.151		0.0793 (J)		0.0607 (J)			
6/16/2020									
6/17/2020									

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	0.02 (J)								
4/19/2016	0.015 (J)								
6/6/2016	0.05 (J)								
6/7/2016									
8/30/2016	0.036 (J)								
10/18/2016	0.025 (J)								
3/20/2017	<0.1								
5/2/2017	0.075 (D)								
6/6/2017	0.075 (D)								
9/12/2017	<0.1								
9/13/2017									
1/23/2018	<0.1								
5/1/2018	<0.1								
5/2/2018									
11/26/2018	<0.1								
11/27/2018									
5/28/2019	<0.1								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.1								
3/31/2020	<0.1								
4/1/2020									
6/16/2020		0.0744 (J)	0.0994 (J)	0.393					
6/17/2020					0.343	0.155	0.103	<0.1	<0.1

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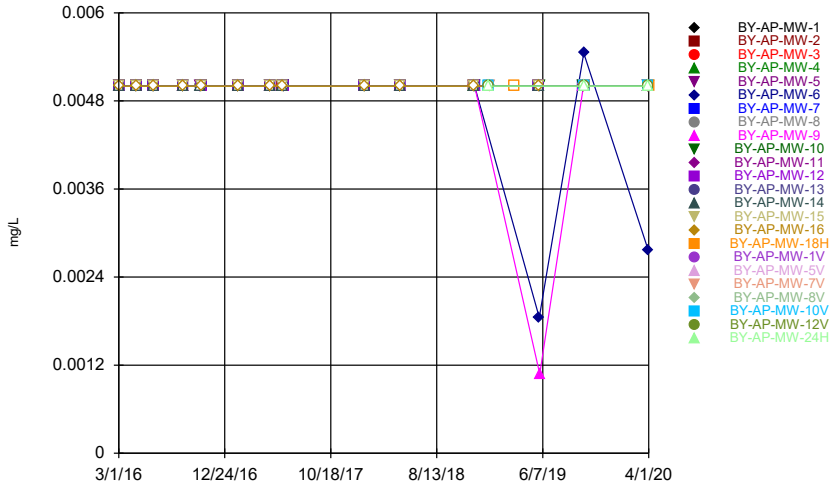
Hollow symbols indicate censored values.

Time Series



Constituent: Lead Analysis Run 7/27/2020 9:10 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

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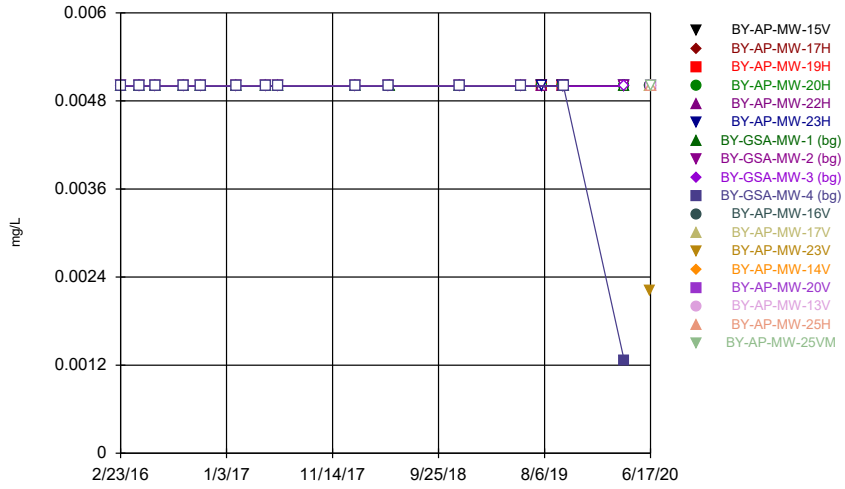
Hollow symbols indicate censored values.

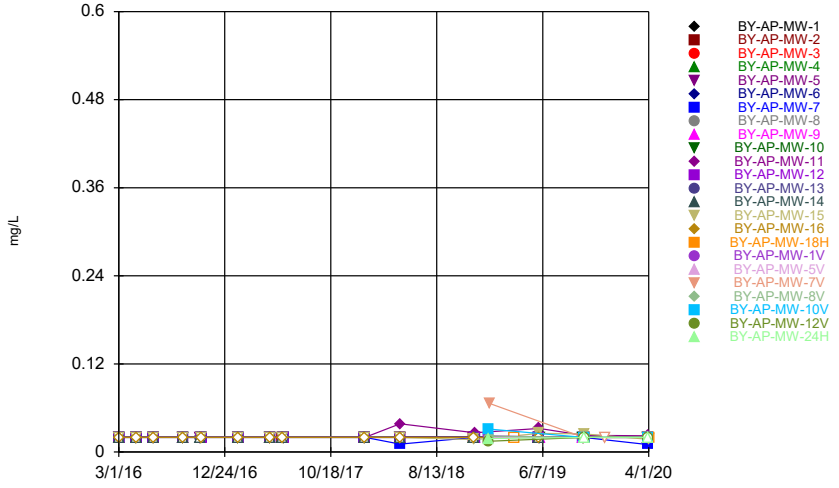
Time Series



Constituent: Lead Analysis Run 7/27/2020 9:11 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

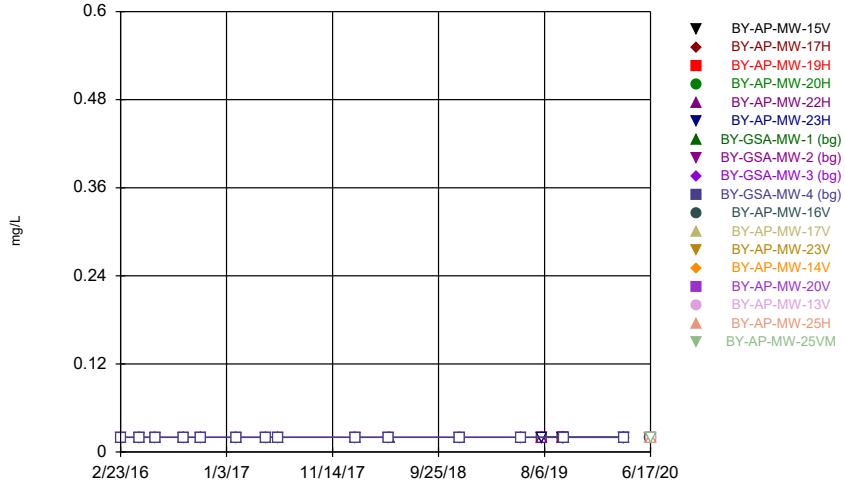
Time Series



Constituent: Lithium Analysis Run 7/27/2020 9:11 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Lithium Analysis Run 7/27/2020 9:11 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Lead (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.005	<0.005	<0.005	<0.005	<0.005	<0.005
3/2/2016	<0.005	<0.005	<0.005						
4/19/2016	<0.005	<0.005	<0.005	<0.005		<0.005			
4/20/2016					<0.005		<0.005	<0.005	<0.005
6/7/2016			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
6/8/2016	<0.005	<0.005							<0.005
8/30/2016				<0.005	<0.005	<0.005		<0.005	
8/31/2016	<0.005	<0.005	<0.005				<0.005		<0.005
10/18/2016					<0.005			<0.005	
10/19/2016	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		<0.005
1/31/2017	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
2/1/2017									<0.005
5/2/2017	<0.005	<0.005	<0.005	<0.005					
5/3/2017					<0.005	<0.005	<0.005	<0.005	<0.005
6/6/2017	<0.005	<0.005	<0.005	<0.005					
6/7/2017					<0.005	<0.005	<0.005	<0.005	<0.005
1/22/2018									
1/23/2018									<0.005
1/24/2018	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
5/1/2018	<0.005	<0.005	<0.005	<0.005					
5/2/2018					<0.005	<0.005	<0.005	<0.005	<0.005
11/27/2018		<0.005	<0.005	<0.005	<0.005			<0.005	
11/28/2018	<0.005					<0.005	<0.005		<0.005
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	<0.005	<0.005	<0.005	<0.005	<0.005	0.00185 (J)	<0.005	<0.005	
5/30/2019									0.00108 (J)
9/30/2019							<0.005	<0.005	<0.005
10/1/2019	<0.005	<0.005	<0.005	<0.005	<0.005	0.00545			
10/2/2019									
3/30/2020	<0.005						<0.005	<0.005	
3/31/2020		<0.005	<0.005	<0.005	<0.005	0.00276 (J)			<0.005
4/1/2020									

Time Series

Constituent: Lead (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.005	<0.005							
3/2/2016			<0.005	<0.005	<0.005	<0.005	<0.005		
4/19/2016						<0.005	<0.005		
4/20/2016	<0.005	<0.005	<0.005	<0.005	<0.005				
6/7/2016									
6/8/2016	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
8/30/2016					<0.005				
8/31/2016	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		
10/18/2016					<0.005				
10/19/2016	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005		
1/31/2017				<0.005	<0.005	<0.005	<0.005		
2/1/2017	<0.005	<0.005	<0.005						
5/2/2017					<0.005	<0.005	<0.005		
5/3/2017	<0.005	<0.005	<0.005	<0.005					
6/6/2017					<0.005	<0.005	<0.005		
6/7/2017	<0.005	<0.005	<0.005	<0.005					
1/22/2018				<0.005		<0.005			
1/23/2018	<0.005	<0.005	<0.005		<0.005		<0.005		
1/24/2018									
5/1/2018						<0.005	<0.005		
5/2/2018	<0.005	<0.005	<0.005	<0.005	<0.005				
11/27/2018					<0.005	<0.005	<0.005		
11/28/2018	<0.005	<0.005	<0.005	<0.005					
1/8/2019									<0.005
1/9/2019									
3/20/2019								<0.005	
5/29/2019		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
5/30/2019	<0.005								
9/30/2019	<0.005	<0.005							
10/1/2019			<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
10/2/2019									<0.005
3/30/2020									<0.005
3/31/2020	<0.005	<0.005	<0.005	<0.005	<0.005		<0.005		
4/1/2020						<0.005		<0.005	

Time Series

Constituent: Lead (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.005			<0.005	<0.005	<0.005
1/9/2019		<0.005	<0.005			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		<0.005	<0.005	<0.005		
10/2/2019	<0.005				<0.005	<0.005
3/30/2020		<0.005	<0.005			
3/31/2020	<0.005			<0.005	<0.005	<0.005
4/1/2020						

Time Series

Constituent: Lead (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.005	<0.005	<0.005
4/19/2016							<0.005	<0.005	<0.005
6/6/2016							<0.005		
6/7/2016								<0.005	<0.005
8/30/2016							<0.005	<0.005	<0.005
10/18/2016							<0.005	<0.005	<0.005
1/31/2017							<0.005	<0.005	<0.005
5/2/2017							<0.005	<0.005	<0.005
6/6/2017							<0.005	<0.005	<0.005
1/23/2018							<0.005	<0.005	<0.005
5/1/2018								<0.005	<0.005
5/2/2018							<0.005		
11/26/2018									
11/27/2018							<0.005	<0.005	<0.005
5/28/2019									
5/29/2019							<0.005	<0.005	<0.005
7/31/2019	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005			
10/1/2019	<0.005		<0.005	<0.005	<0.005	<0.005			
10/2/2019		<0.005					<0.005	<0.005	<0.005
3/31/2020							<0.005	<0.005	<0.005
4/1/2020		<0.005		<0.005		<0.005			
6/16/2020									
6/17/2020									

Time Series

Constituent: Lead (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.005								
4/19/2016	<0.005								
6/6/2016	<0.005								
6/7/2016									
8/30/2016	<0.005								
10/18/2016	<0.005								
1/31/2017	<0.005								
5/2/2017	<0.005								
6/6/2017	<0.005								
1/23/2018	<0.005								
5/1/2018	<0.005								
5/2/2018									
11/26/2018	<0.005								
11/27/2018									
5/28/2019	<0.005								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.005								
3/31/2020	0.00126 (J)								
4/1/2020									
6/16/2020		<0.005	<0.005	0.00222 (J)					
6/17/2020					<0.005	<0.005	<0.005	<0.005	<0.005

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.02	<0.02	<0.02	<0.02	<0.02	<0.02
3/2/2016	<0.02	<0.02	<0.02						
4/19/2016	<0.02	<0.02	<0.02	<0.02		<0.02			
4/20/2016					<0.02		<0.02	<0.02	<0.02
6/7/2016			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
6/8/2016	<0.02	<0.02							<0.02
8/30/2016				<0.02	<0.02	<0.02		<0.02	
8/31/2016	<0.02	<0.02	<0.02				<0.02		<0.02
10/18/2016					<0.02			<0.02	
10/19/2016	<0.02	<0.02	<0.02	<0.02		<0.02	<0.02		<0.02
1/31/2017	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
2/1/2017									<0.02
5/2/2017	<0.02	<0.02	<0.02	<0.02					
5/3/2017					<0.02	<0.02	<0.02	<0.02	<0.02
6/6/2017	<0.02	<0.02	<0.02	<0.02					
6/7/2017					<0.02	<0.02	<0.02	<0.02	<0.02
1/22/2018									
1/23/2018									<0.02
1/24/2018	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
5/1/2018	<0.02	<0.02	<0.02	<0.02					
5/2/2018					<0.02	<0.02	0.0108 (J)	<0.02	<0.02
11/27/2018		<0.02	<0.02	<0.02	<0.02			<0.02	
11/28/2018	<0.02					<0.02	<0.02		<0.02
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
5/30/2019									<0.02
9/30/2019							<0.02	<0.02	<0.02
10/1/2019	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			
10/2/2019									
12/2/2019									
3/30/2020	<0.02						0.0102 (J)	<0.02	
3/31/2020		<0.02	<0.02	<0.02	<0.02	<0.02			<0.02
4/1/2020									

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.02	<0.02							
3/2/2016			<0.02	<0.02	<0.02	<0.02	<0.02		
4/19/2016						<0.02	<0.02		
4/20/2016	<0.02	<0.02	<0.02	<0.02	<0.02				
6/7/2016									
6/8/2016	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
8/30/2016					<0.02				
8/31/2016	<0.02	<0.02	<0.02	<0.02		<0.02	<0.02		
10/18/2016					<0.02				
10/19/2016	<0.02	<0.02	<0.02	<0.02		<0.02	<0.02		
1/31/2017				<0.02	<0.02	<0.02	<0.02		
2/1/2017	<0.02	<0.02	<0.02						
5/2/2017					<0.02	<0.02	<0.02		
5/3/2017	<0.02	<0.02	<0.02	<0.02					
6/6/2017					<0.02	<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	<0.02		<0.02		<0.02		
1/24/2018									
5/1/2018						<0.02	<0.02		
5/2/2018	<0.02	0.0384 (J)	<0.02	<0.02	<0.02				
11/27/2018					<0.02	0.0169 (J)	<0.02		
11/28/2018	<0.02	0.0262	<0.02	<0.02					
1/8/2019									0.0219
1/9/2019									
3/20/2019								<0.02	
5/29/2019		0.0321	<0.02	<0.02	<0.02	0.0254	<0.02		
5/30/2019	<0.02								
9/30/2019	<0.02	0.0228							
10/1/2019			<0.02	<0.02	<0.02	0.0248	<0.02	<0.02	
10/2/2019									<0.02
12/2/2019									
3/30/2020									<0.02
3/31/2020	<0.02	0.022	<0.02	<0.02	<0.02		<0.02		
4/1/2020						0.0174 (J)		<0.02	

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.02			0.0313	0.0148 (J)	0.0183 (J)
1/9/2019		0.0662	0.0217			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		<0.02	<0.02	<0.02		
10/2/2019	<0.02				<0.02	<0.02
12/2/2019		<0.02				
3/30/2020		<0.02	<0.02			
3/31/2020	<0.02			<0.02	<0.02	<0.02
4/1/2020						

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.02	<0.02	<0.02
4/19/2016							<0.02	<0.02	<0.02
6/6/2016							<0.02		
6/7/2016								<0.02	<0.02
8/30/2016							<0.02	<0.02	<0.02
10/18/2016							<0.02	<0.02	<0.02
1/31/2017							<0.02	<0.02	<0.02
5/2/2017							<0.02	<0.02	<0.02
6/6/2017							<0.02	<0.02	<0.02
1/23/2018							<0.02	<0.02	<0.02
5/1/2018								<0.02	<0.02
5/2/2018							<0.02		
11/26/2018									
11/27/2018							<0.02	<0.02	<0.02
5/28/2019									
5/29/2019							<0.02	<0.02	<0.02
7/31/2019	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02			
10/1/2019	<0.02		<0.02	<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
4/1/2020		<0.02		<0.02		<0.02			
6/16/2020									
6/17/2020									

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.02								
4/19/2016	<0.02								
6/6/2016	<0.02								
6/7/2016									
8/30/2016	<0.02								
10/18/2016	<0.02								
1/31/2017	<0.02								
5/2/2017	<0.02								
6/6/2017	<0.02								
1/23/2018	<0.02								
5/1/2018	<0.02								
5/2/2018									
11/26/2018	<0.02								
11/27/2018									
5/28/2019	<0.02								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.02								
3/31/2020	<0.02								
4/1/2020									
6/16/2020		<0.02	<0.02	<0.02					
6/17/2020					<0.02	<0.02	<0.02	<0.02	<0.02

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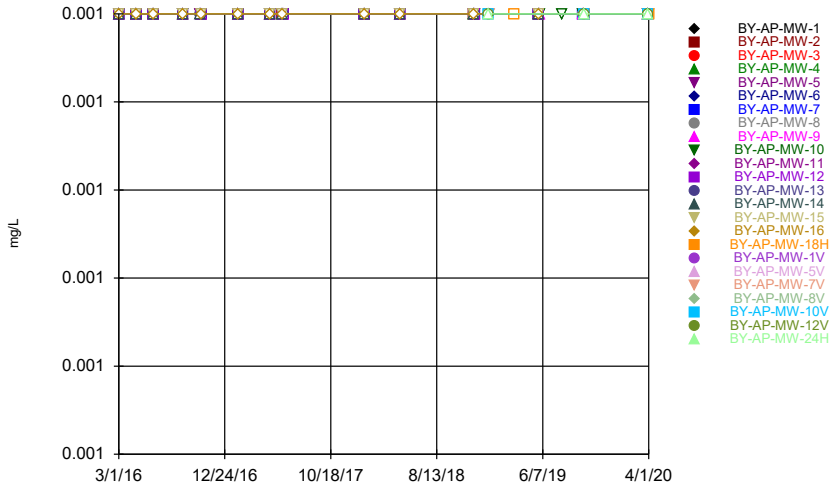
Hollow symbols indicate censored values.

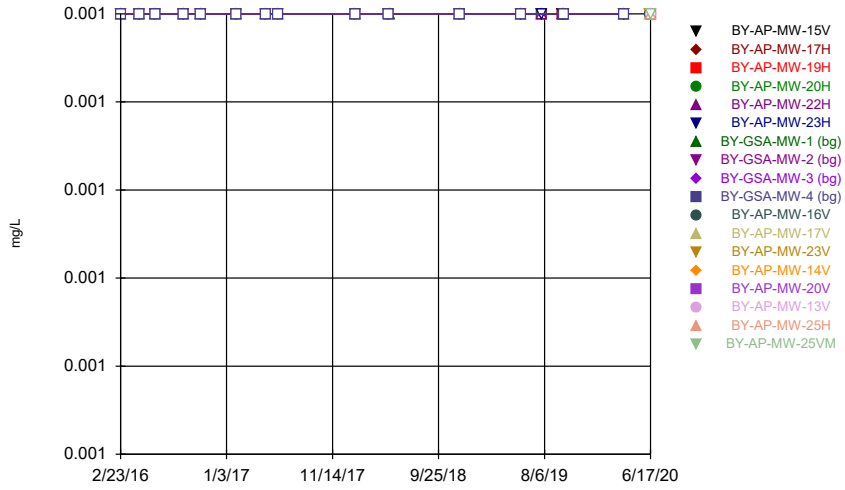
Time Series



Constituent: Mercury Analysis Run 7/27/2020 9:11 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Mercury Analysis Run 7/27/2020 9:11 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

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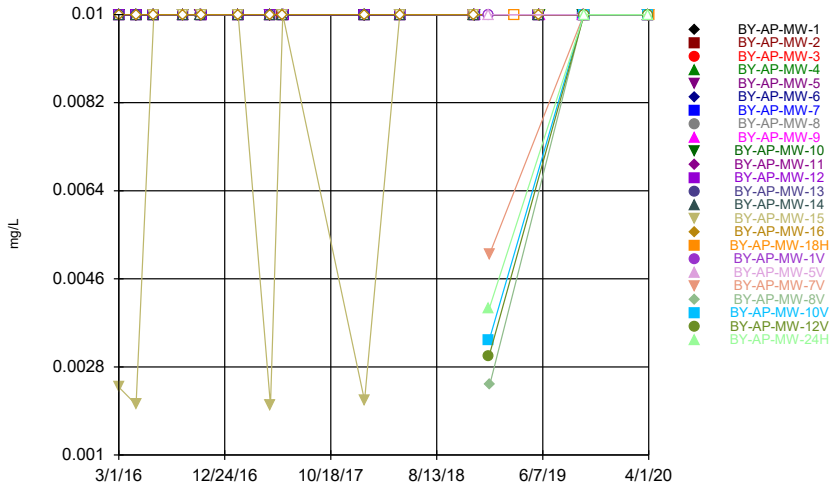
Hollow symbols indicate censored values.

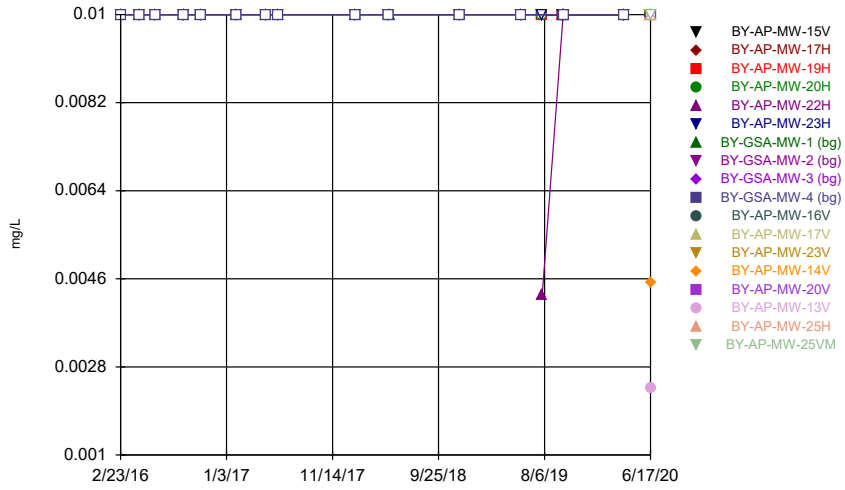
Time Series



Constituent: Molybdenum Analysis Run 7/27/2020 9:11 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Molybdenum Analysis Run 7/27/2020 9:11 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
3/2/2016	<0.0005	<0.0005	<0.0005						
4/19/2016	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005			
4/20/2016					<0.0005		<0.0005	<0.0005	<0.0005
6/7/2016			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
6/8/2016	<0.0005	<0.0005							<0.0005
8/30/2016				<0.0005	<0.0005	<0.0005		<0.0005	
8/31/2016	<0.0005	<0.0005	<0.0005				<0.0005		<0.0005
10/18/2016					<0.0005			<0.0005	
10/19/2016	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005
1/31/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
2/1/2017									<0.0005
5/2/2017	<0.0005	<0.0005	<0.0005	<0.0005					
5/3/2017					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
6/6/2017	<0.0005	<0.0005	<0.0005	<0.0005					
6/7/2017					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
1/22/2018									
1/23/2018									<0.0005
1/24/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
5/1/2018	<0.0005	<0.0005	<0.0005	<0.0005					
5/2/2018					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
11/27/2018		<0.0005	<0.0005	<0.0005	<0.0005			<0.0005	
11/28/2018	<0.0005					<0.0005	<0.0005		<0.0005
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
5/30/2019									<0.0005
7/31/2019									
9/30/2019							<0.0005	<0.0005	<0.0005
10/1/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
10/2/2019									
3/30/2020	<0.0005						<0.0005	<0.0005	
3/31/2020		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			<0.0005
4/1/2020									

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.0005	<0.0005							
3/2/2016			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
4/19/2016						<0.0005	<0.0005		
4/20/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
6/7/2016									
6/8/2016	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
8/30/2016					<0.0005				
8/31/2016	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005		
10/18/2016					<0.0005				
10/19/2016	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005		
1/31/2017				<0.0005	<0.0005	<0.0005	<0.0005		
2/1/2017	<0.0005	<0.0005	<0.0005						
5/2/2017					<0.0005	<0.0005	<0.0005		
5/3/2017	<0.0005	<0.0005	<0.0005	<0.0005					
6/6/2017					<0.0005	<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	<0.0005		<0.0005		<0.0005		
1/24/2018									
5/1/2018						<0.0005	<0.0005		
5/2/2018	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005				
11/27/2018					<0.0005	<0.0005	<0.0005		
11/28/2018	<0.0005	<0.0005	<0.0005	<0.0005					
1/8/2019									<0.0005
1/9/2019									
3/20/2019								<0.0005	
5/29/2019		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
5/30/2019	<0.0005								
7/31/2019	<0.0005								
9/30/2019	<0.0005	<0.0005							
10/1/2019			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
10/2/2019									<0.0005
3/30/2020									<0.0005
3/31/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005		
4/1/2020						<0.0005		<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.0005			<0.0005	<0.0005	<0.0005
1/9/2019		<0.0005	<0.0005			
3/20/2019						
5/29/2019						
5/30/2019						
7/31/2019						
9/30/2019						
10/1/2019		<0.0005	<0.0005	<0.0005		
10/2/2019	<0.0005				<0.0005	<0.0005
3/30/2020		<0.0005	<0.0005			
3/31/2020	<0.0005			<0.0005	<0.0005	<0.0005
4/1/2020						

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.0005	<0.0005	<0.0005
4/19/2016							<0.0005	<0.0005	<0.0005
6/6/2016							<0.0005		
6/7/2016								<0.0005	<0.0005
8/30/2016							<0.0005	<0.0005	<0.0005
10/18/2016							<0.0005	<0.0005	<0.0005
1/31/2017							<0.0005	<0.0005	<0.0005
5/2/2017							<0.0005	<0.0005	<0.0005
6/6/2017							<0.0005	<0.0005	<0.0005
1/23/2018							<0.0005	<0.0005	<0.0005
5/1/2018								<0.0005	<0.0005
5/2/2018							<0.0005		
11/26/2018									
11/27/2018							<0.0005	<0.0005	<0.0005
5/28/2019									
5/29/2019							<0.0005	<0.0005	<0.0005
7/31/2019	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005			
10/1/2019	<0.0005		<0.0005	<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
4/1/2020		<0.0005		<0.0005		<0.0005			
6/16/2020									
6/17/2020									

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.0005								
4/19/2016	<0.0005								
6/6/2016	<0.0005								
6/7/2016									
8/30/2016	<0.0005								
10/18/2016	<0.0005								
1/31/2017	<0.0005								
5/2/2017	<0.0005								
6/6/2017	<0.0005								
1/23/2018	<0.0005								
5/1/2018	<0.0005								
5/2/2018									
11/26/2018	<0.0005								
11/27/2018									
5/28/2019	<0.0005								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.0005								
3/31/2020	<0.0005								
4/1/2020									
6/16/2020		<0.0005	<0.0005	<0.0005					
6/17/2020					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3/2/2016	<0.01	<0.01	<0.01						
4/19/2016	<0.01	<0.01	<0.01	<0.01		<0.01			
4/20/2016					<0.01		<0.01	<0.01	<0.01
6/7/2016			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
6/8/2016	<0.01	<0.01							<0.01
8/30/2016				<0.01	<0.01	<0.01		<0.01	
8/31/2016	<0.01	<0.01	<0.01				<0.01		<0.01
10/18/2016					<0.01			<0.01	
10/19/2016	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01
1/31/2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
2/1/2017									<0.01
5/2/2017	<0.01	<0.01	<0.01	<0.01					
5/3/2017					<0.01	<0.01	<0.01	<0.01	<0.01
6/6/2017	<0.01	<0.01	<0.01	<0.01					
6/7/2017					<0.01	<0.01	<0.01	<0.01	<0.01
1/22/2018									
1/23/2018									<0.01
1/24/2018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
5/1/2018	<0.01	<0.01	<0.01	<0.01					
5/2/2018					<0.01	<0.01	<0.01	<0.01	<0.01
11/27/2018		<0.01	<0.01	<0.01	<0.01			<0.01	
11/28/2018	<0.01					<0.01	<0.01		<0.01
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
5/30/2019									<0.01
9/30/2019							<0.01	<0.01	<0.01
10/1/2019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
10/2/2019									
3/30/2020	<0.01						<0.01	<0.01	
3/31/2020		<0.01	<0.01	<0.01	<0.01	<0.01			<0.01
4/1/2020									

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.01	<0.01							
3/2/2016			<0.01	<0.01	<0.01	0.00238 (J)	<0.01		
4/19/2016						0.00203 (J)	<0.01		
4/20/2016	<0.01	<0.01	<0.01	<0.01	<0.01				
6/7/2016									
6/8/2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
8/30/2016					<0.01				
8/31/2016	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
10/18/2016					<0.01				
10/19/2016	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
1/31/2017				<0.01	<0.01	<0.01	<0.01		
2/1/2017	<0.01	<0.01	<0.01						
5/2/2017					<0.01	0.00201 (J)	<0.01		
5/3/2017	<0.01	<0.01	<0.01	<0.01					
6/6/2017					<0.01	<0.01	<0.01		
6/7/2017	<0.01	<0.01	<0.01	<0.01					
1/22/2018				<0.01		0.00211 (J)			
1/23/2018	<0.01	<0.01	<0.01		<0.01		<0.01		
1/24/2018									
5/1/2018						<0.01	<0.01		
5/2/2018	<0.01	<0.01	<0.01	<0.01	<0.01				
11/27/2018					<0.01	<0.01	<0.01		
11/28/2018	<0.01	<0.01	<0.01	<0.01					
1/8/2019									<0.01
1/9/2019									
3/20/2019								<0.01	
5/29/2019		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
5/30/2019	<0.01								
9/30/2019	<0.01	<0.01							
10/1/2019			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
10/2/2019									<0.01
3/30/2020									<0.01
3/31/2020	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		
4/1/2020						<0.01		<0.01	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.01			0.00335 (J)	0.00303 (J)	0.00399 (J)
1/9/2019		0.00511 (J)	0.00243 (J)			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		<0.01	<0.01	<0.01		
10/2/2019	<0.01				<0.01	<0.01
3/30/2020		<0.01	<0.01			
3/31/2020	<0.01			<0.01	<0.01	<0.01
4/1/2020						

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.01	<0.01	<0.01
4/19/2016							<0.01	<0.01	<0.01
6/6/2016							<0.01		
6/7/2016								<0.01	<0.01
8/30/2016							<0.01	<0.01	<0.01
10/18/2016							<0.01	<0.01	<0.01
1/31/2017							<0.01	<0.01	<0.01
5/2/2017							<0.01	<0.01	<0.01
6/6/2017							<0.01	<0.01	<0.01
1/23/2018							<0.01	<0.01	<0.01
5/1/2018								<0.01	<0.01
5/2/2018							<0.01		
11/26/2018									
11/27/2018							<0.01	<0.01	<0.01
5/28/2019									
5/29/2019							<0.01	<0.01	<0.01
7/31/2019	<0.01	<0.01	<0.01	<0.01	0.00426 (J)	<0.01			
10/1/2019	<0.01		<0.01	<0.01	<0.01	<0.01			
10/2/2019		<0.01					<0.01	<0.01	<0.01
3/31/2020							<0.01	<0.01	<0.01
4/1/2020		<0.01		<0.01		<0.01			
6/16/2020									
6/17/2020									

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.01								
4/19/2016	<0.01								
6/6/2016	<0.01								
6/7/2016									
8/30/2016	<0.01								
10/18/2016	<0.01								
1/31/2017	<0.01								
5/2/2017	<0.01								
6/6/2017	<0.01								
1/23/2018	<0.01								
5/1/2018	<0.01								
5/2/2018									
11/26/2018	<0.01								
11/27/2018									
5/28/2019	<0.01								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.01								
3/31/2020	<0.01								
4/1/2020									
6/16/2020		<0.01	<0.01	<0.01					
6/17/2020					0.00451 (J)	<0.01	0.00237 (J)	<0.01	<0.01

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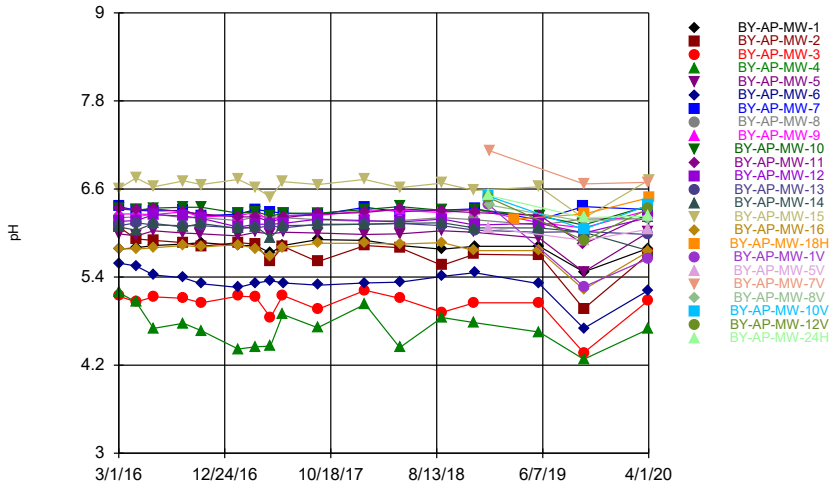
Time Series



Constituent: pH Analysis Run 7/27/2020 9:11 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

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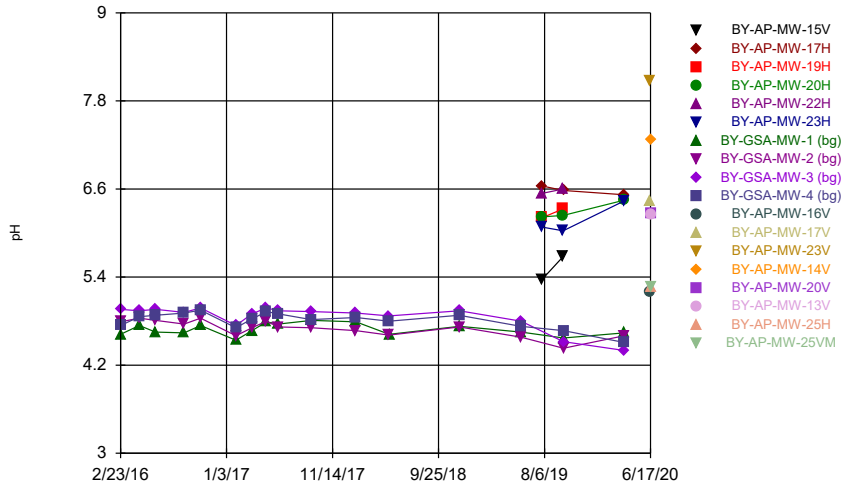
Time Series

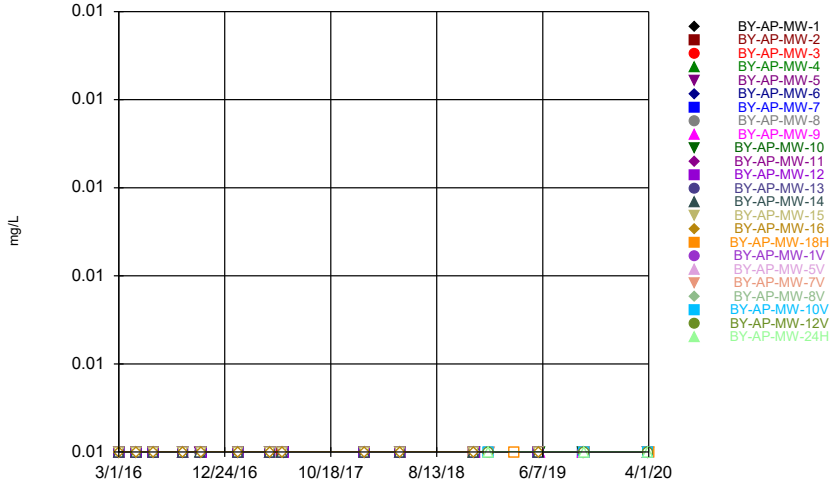


Constituent: pH Analysis Run 7/27/2020 9:11 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Selenium Analysis Run 7/27/2020 9:11 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

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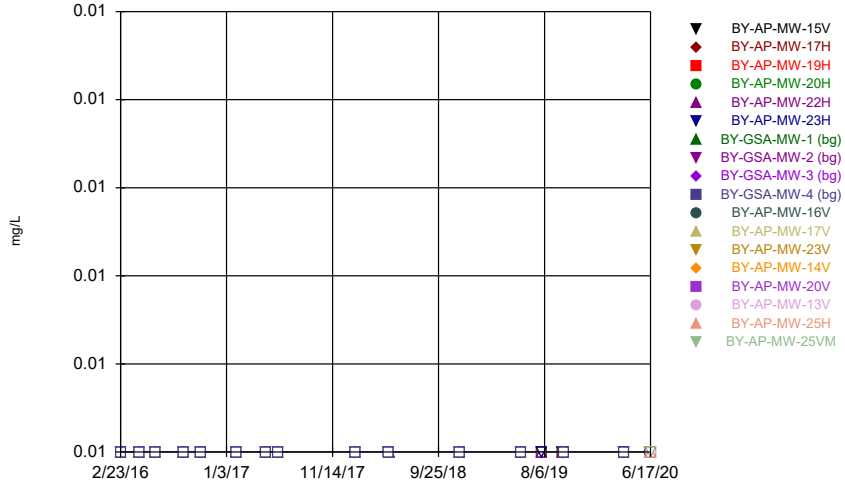
Hollow symbols indicate censored values.

Time Series



Constituent: Selenium Analysis Run 7/27/2020 9:11 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: pH (pH) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				5.19	5.99	5.59	6.36	6.21	6.26
3/2/2016	5.78	6.08	5.14						
4/19/2016	5.8	5.92	5.06	5.06		5.55			
4/20/2016					5.96		6.31	6.22	6.26
6/7/2016			5.13	4.7	6.03	5.43	6.3	6.26	
6/8/2016	5.83	5.9							6.25
8/30/2016				4.77	6	5.39		6.21	
8/31/2016	5.85	5.87	5.11				6.31		6.29
10/18/2016					5.99			6.21	
10/19/2016	5.87	5.82	5.05	4.67		5.31	6.23		6.22
1/31/2017	5.83	5.87	5.14	4.42	5.96	5.26	6.26	6.17	
2/1/2017									6.24
3/21/2017	5.83	5.85	5.13	4.45					
3/22/2017					6.01	5.32	6.32	6.22	6.28
5/2/2017	5.73	5.61	4.85	4.46					
5/3/2017					5.99	5.35	6.29	6.22	6.17
6/6/2017	5.83	5.82	5.15	4.89					
6/7/2017					6.01	5.32	6.27	6.21	6.24
9/12/2017		5.61	4.96	4.71					
9/13/2017	5.91								
9/14/2017					6	5.29	6.25	6.18	6.24
1/22/2018									
1/23/2018									6.3
1/24/2018	5.9	5.83	5.22	5.03	5.98	5.32	6.35	6.16	
5/1/2018	5.83	5.8	5.11	4.44					
5/2/2018					5.99	5.33	6.29	6.17	6.31
8/28/2018	5.78	5.56	4.92	4.85					6.28
8/29/2018					6.03	5.41		6.21	
11/27/2018		5.71	5.05	4.78	6.01			6.18	
11/28/2018	5.82					5.46	6.33		6.32
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	5.82	5.7	5.05	4.65	5.93	5.31	6.18	6.11	
5/30/2019									6.14
9/30/2019							6.36	6.19	6.07
10/1/2019	5.47	4.97	4.37	4.28	5.47	4.7			
10/2/2019									
3/30/2020	5.79						6.32	6.2	
3/31/2020		5.71	5.08	4.69	6.01	5.22			6.31
4/1/2020									

Time Series

Constituent: pH (pH) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	6.33	6.34							
3/2/2016			6.16	6.1	6.08	6.61	5.79		
4/19/2016						6.75	5.78		
4/20/2016	6.31	6.31	6.17	6.14	6.04				
6/7/2016									
6/8/2016	6.34	6.33	6.25	6.11	6.13	6.63	5.8		
8/30/2016					6.08				
8/31/2016	6.35	6.29	6.23	6.1		6.71	5.83		
10/18/2016					6.13				
10/19/2016	6.35	6.26	6.2	6.1		6.66	5.81		
1/31/2017				6.07	6.06	6.73	5.84		
2/1/2017	6.27	6.22	6.08						
3/21/2017						6.62	5.79		
3/22/2017	6.29	6.22	6.12	6.07	6.09				
5/2/2017					5.94	6.49	5.68		
5/3/2017	6.23	6.15	6.12	6.1					
6/6/2017					6.1	6.7	5.8		
6/7/2017	6.27	6.21	6.13	6.07					
9/12/2017									
9/13/2017		6.26	6.19	6.12	6.11	6.66	5.86		
9/14/2017	6.27								
1/22/2018				6.12		6.73			
1/23/2018	6.32	6.28	6.17		6.12		5.86		
1/24/2018									
5/1/2018						6.62	5.85		
5/2/2018	6.36	6.33	6.15	6.13	6.13				
8/28/2018	6.31								
8/29/2018		6.3	6.19	6.1	6.14	6.68	5.87		
11/27/2018					6.07	6.58	5.76		
11/28/2018	6.32	6.28	6.11	6.04					
1/8/2019									6.38
1/9/2019									
3/20/2019								6.19	
5/29/2019		6.24	6.13	6.01	6.07	6.63	5.76		
5/30/2019	6.23								
9/30/2019	6.11	5.85							
10/1/2019			6	6.02	6.01	6.2	5.23	6.26	
10/2/2019									5.27
3/30/2020									5.65
3/31/2020	6.37	6.26	6.21	5.98	5.76		5.75		
4/1/2020						6.72		6.48	

Time Series

Constituent: pH (pH) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
3/21/2017						
3/22/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
9/12/2017						
9/13/2017						
9/14/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
8/28/2018						
8/29/2018						
11/27/2018						
11/28/2018						
1/8/2019	6.07			6.5	6.48	6.51
1/9/2019		7.12	6.38			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		6.67	6.16	6.05		
10/2/2019	5.9				5.9	6.21
3/30/2020		6.69	6.2			
3/31/2020	6.05			6.38	6.33	6.23
4/1/2020						

Time Series

Constituent: pH (pH) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							4.62	4.79	4.96
4/19/2016							4.74	4.84	4.94
6/6/2016							4.65		
6/7/2016								4.81	4.96
8/30/2016							4.64	4.76	4.92
10/18/2016							4.74	4.84	4.98
1/31/2017							4.54	4.6	4.74
3/20/2017							4.67	4.71	4.9
5/2/2017							4.79	4.8	4.98
6/6/2017							4.76	4.72	4.94
9/12/2017									
9/13/2017							4.81	4.71	4.93
1/23/2018							4.79	4.67	4.91
5/1/2018								4.61	4.87
5/2/2018							4.62		
11/26/2018									
11/27/2018							4.73	4.72	4.94
5/28/2019									
5/29/2019							4.65	4.58	4.8
7/31/2019	5.37	6.64	6.21	6.22	6.54	6.08			
10/1/2019	5.68		6.33	6.24	6.6	6.03			
10/2/2019		6.58					4.57	4.43	4.52
3/31/2020							4.64	4.6	4.4
4/1/2020		6.52		6.45		6.44			
6/16/2020									
6/17/2020									

Time Series

Constituent: pH (pH) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	4.74								
4/19/2016	4.86								
6/6/2016	4.88								
6/7/2016									
8/30/2016	4.91								
10/18/2016	4.95								
1/31/2017	4.71								
3/20/2017	4.83								
5/2/2017	4.93								
6/6/2017	4.9								
9/12/2017	4.82								
9/13/2017									
1/23/2018	4.85								
5/1/2018	4.8								
5/2/2018									
11/26/2018	4.88								
11/27/2018									
5/28/2019	4.73								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	4.67								
3/31/2020	4.51								
4/1/2020									
6/16/2020		5.2	6.43	8.08					
6/17/2020					7.27	6.26	6.25	5.27	5.27

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
3/2/2016	<0.01	<0.01	<0.01						
4/19/2016	<0.01	<0.01	<0.01	<0.01		<0.01			
4/20/2016					<0.01		<0.01	<0.01	<0.01
6/7/2016			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
6/8/2016	<0.01	<0.01							<0.01
8/30/2016				<0.01	<0.01	<0.01		<0.01	
8/31/2016	<0.01	<0.01	<0.01				<0.01		<0.01
10/18/2016					<0.01			<0.01	
10/19/2016	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		<0.01
1/31/2017	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
2/1/2017									<0.01
5/2/2017	<0.01	<0.01	<0.01	<0.01					
5/3/2017					<0.01	<0.01	<0.01	<0.01	<0.01
6/6/2017	<0.01	<0.01	<0.01	<0.01					
6/7/2017					<0.01	<0.01	<0.01	<0.01	<0.01
1/22/2018									
1/23/2018									<0.01
1/24/2018	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
5/1/2018	<0.01	<0.01	<0.01	<0.01					
5/2/2018					<0.01	<0.01	<0.01	<0.01	<0.01
11/27/2018		<0.01	<0.01	<0.01	<0.01			<0.01	
11/28/2018	<0.01					<0.01	<0.01		<0.01
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
5/30/2019									<0.01
9/30/2019							<0.01	<0.01	<0.01
10/1/2019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
10/2/2019									
3/30/2020	<0.01						<0.01	<0.01	
3/31/2020		<0.01	<0.01	<0.01	<0.01	<0.01			<0.01
4/1/2020									

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.01	<0.01							
3/2/2016			<0.01	<0.01	<0.01	<0.01	<0.01		
4/19/2016						<0.01	<0.01		
4/20/2016	<0.01	<0.01	<0.01	<0.01	<0.01				
6/7/2016									
6/8/2016	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
8/30/2016					<0.01				
8/31/2016	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
10/18/2016					<0.01				
10/19/2016	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01		
1/31/2017				<0.01	<0.01	<0.01	<0.01		
2/1/2017	<0.01	<0.01	<0.01						
5/2/2017					<0.01	<0.01	<0.01		
5/3/2017	<0.01	<0.01	<0.01	<0.01					
6/6/2017					<0.01	<0.01	<0.01		
6/7/2017	<0.01	<0.01	<0.01	<0.01					
1/22/2018				<0.01		<0.01			
1/23/2018	<0.01	<0.01	<0.01		<0.01		<0.01		
1/24/2018									
5/1/2018						<0.01	<0.01		
5/2/2018	<0.01	<0.01	<0.01	<0.01	<0.01				
11/27/2018					<0.01	<0.01	<0.01		
11/28/2018	<0.01	<0.01	<0.01	<0.01					
1/8/2019									<0.01
1/9/2019									
3/20/2019								<0.01	
5/29/2019		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
5/30/2019	<0.01								
9/30/2019	<0.01	<0.01							
10/1/2019			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
10/2/2019									<0.01
3/30/2020									<0.01
3/31/2020	<0.01	<0.01	<0.01	<0.01	<0.01		<0.01		
4/1/2020						<0.01		<0.01	

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.01			<0.01	<0.01	<0.01
1/9/2019		<0.01	<0.01			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		<0.01	<0.01	<0.01		
10/2/2019	<0.01				<0.01	<0.01
3/30/2020		<0.01	<0.01			
3/31/2020	<0.01			<0.01	<0.01	<0.01
4/1/2020						

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.01	<0.01	<0.01
4/19/2016							<0.01	<0.01	<0.01
6/6/2016							<0.01		
6/7/2016								<0.01	<0.01
8/30/2016							<0.01	<0.01	<0.01
10/18/2016							<0.01	<0.01	<0.01
1/31/2017							<0.01	<0.01	<0.01
5/2/2017							<0.01	<0.01	<0.01
6/6/2017							<0.01	<0.01	<0.01
1/23/2018							<0.01	<0.01	<0.01
5/1/2018								<0.01	<0.01
5/2/2018							<0.01		
11/26/2018									
11/27/2018							<0.01	<0.01	<0.01
5/28/2019									
5/29/2019							<0.01	<0.01	<0.01
7/31/2019	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01			
10/1/2019	<0.01		<0.01	<0.01	<0.01	<0.01			
10/2/2019		<0.01					<0.01	<0.01	<0.01
3/31/2020							<0.01	<0.01	<0.01
4/1/2020		<0.01		<0.01		<0.01			
6/16/2020									
6/17/2020									

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/27/2020 9:13 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.01								
4/19/2016	<0.01								
6/6/2016	<0.01								
6/7/2016									
8/30/2016	<0.01								
10/18/2016	<0.01								
1/31/2017	<0.01								
5/2/2017	<0.01								
6/6/2017	<0.01								
1/23/2018	<0.01								
5/1/2018	<0.01								
5/2/2018									
11/26/2018	<0.01								
11/27/2018									
5/28/2019	<0.01								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.01								
3/31/2020	<0.01								
4/1/2020									
6/16/2020		<0.01	<0.01	<0.01					
6/17/2020					<0.01	<0.01	<0.01	<0.01	<0.01

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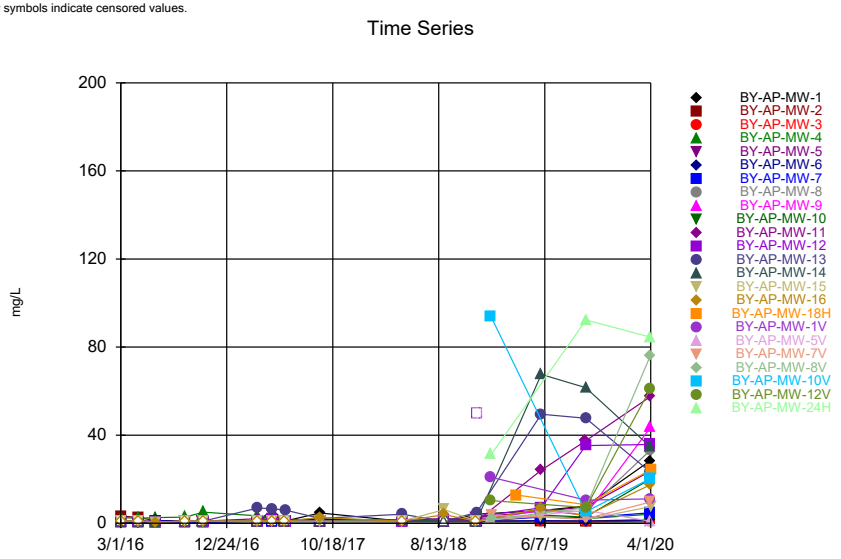
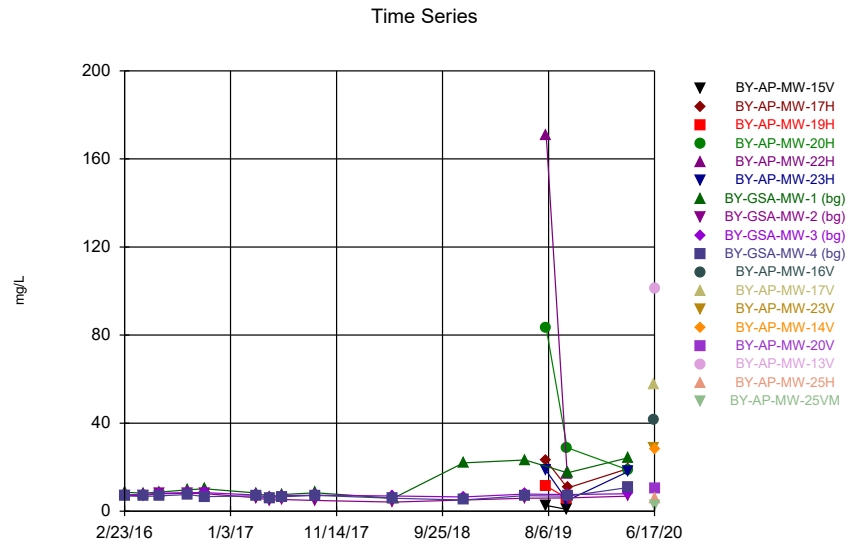
Hollow symbols indicate censored values.



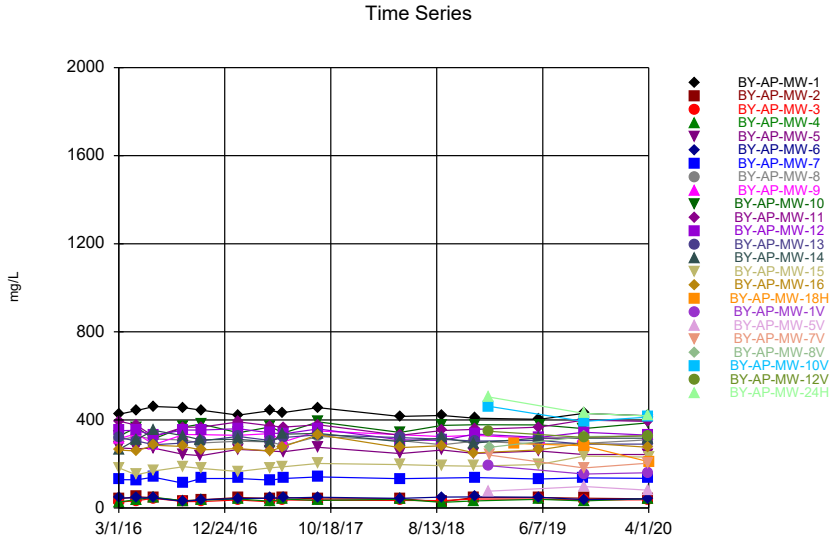
Constituent: Sulfate Analysis Run 7/27/2020 9:12 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



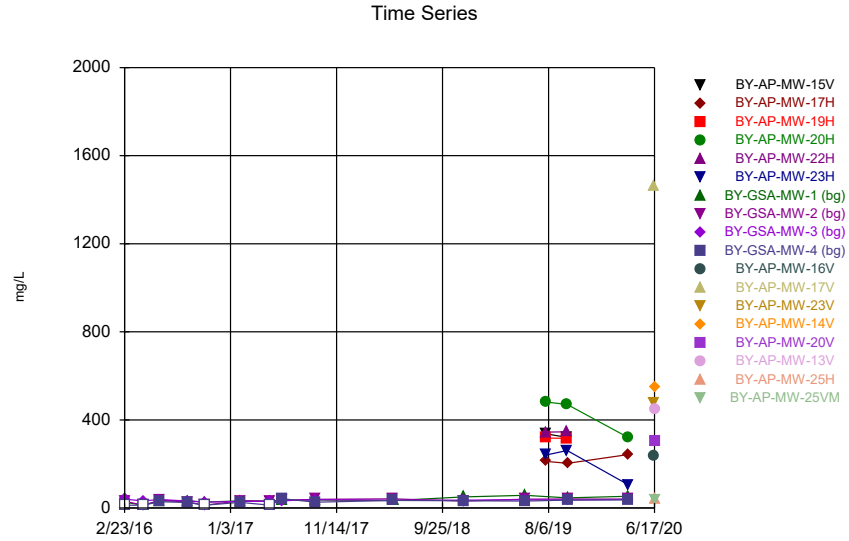
Constituent: Sulfate Analysis Run 7/27/2020 9:12 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



Constituent: TDS Analysis Run 7/27/2020 9:12 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG
Hollow symbols indicate censored values.



Constituent: TDS Analysis Run 7/27/2020 9:12 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				2.58	<1	0.36 (J)	0.3 (J)	<1	<1
3/2/2016	0.31 (J)	3.3	0.79 (J)						
4/19/2016	0.335 (J)	2.68	0.674 (J)	2.3		0.435 (J)			
4/20/2016					<1		0.514 (J)	<1	<1
6/7/2016			1	2.58	0.583 (J)	1.22	0.971 (J)	0.504 (J)	
6/8/2016	0.556 (J)	1.1							0.51 (J)
8/30/2016				2.81	<1	1.08		<1	
8/31/2016	<1	<1	0.702 (J)				0.445 (J)		<1
10/18/2016					<1			<1	
10/19/2016	<1	<1	0.739 (J)	5.06		1.01	0.366 (J)		<1
3/21/2017	<1	<1	<1	3.4 (J)					
3/22/2017					<1	<1	<1	<1	<1
5/2/2017	6	<1	<1	2.7 (J)					
5/3/2017					<1	1.4 (J)	<1	2.7 (J)	2.7 (J)
6/6/2017	<1	<1	<1	1.5 (J)					
6/7/2017					<1	1.5 (J)	<1	<1	<1
9/12/2017		<1	<1	1.9 (J)					
9/13/2017	4.7 (J)								
9/14/2017					<1	1.8 (J)	<1	<1	<1
5/1/2018	<1	<1	<1	1.4 (J)					
5/2/2018					<1	<1	<1	<1	<1
8/28/2018	<1	<1	<1	<1					<1
8/29/2018					1.6 (J)	<1		<1	
11/27/2018		<1	<1	2.3 (J)	2.7 (J)			<1	
11/28/2018	4.1 (J)					<1	<1		1.4 (J)
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	5.75	0.885 (J)	0.747 (J)	2.92	5.51	1.17	2.77	6.01	
5/30/2019									5.91
9/30/2019							2.51	5.29	3.77
10/1/2019	7.82	<1	0.61 (J)	2.09	7.4	1.04			
10/2/2019									
3/30/2020	28.4						4.78	33.1	
3/31/2020		1.69	1.02	4.12	23.7	1.21			43.5
4/1/2020									

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	0.34 (J)	1.02							
3/2/2016			<1	<1	<1	<1	<1		
4/19/2016						<1	<1		
4/20/2016	<1	1.1	<1	<1	<1				
6/7/2016									
6/8/2016	0.538 (J)	0.701 (J)	0.511 (J)	0.496 (J)	0.514 (J)	0.489 (J)	0.514 (J)		
8/30/2016					<1				
8/31/2016	<1	<1	<1	<1		<1	<1		
10/18/2016					<1				
10/19/2016	<1	<1	<1	<1		<1	<1		
3/21/2017						<1	<1		
3/22/2017	<1	2.1 (J)	<1	6.9	<1				
5/2/2017					1.8 (J)	<1	<1		
5/3/2017	4.1 (J)	3.6 (J)	2.1 (J)	6.6					
6/6/2017					<1	<1	<1		
6/7/2017	<1	<1	<1	6					
9/12/2017									
9/13/2017		<1	<1	2.2 (J)	<1	<1	2.6 (J)		
9/14/2017	<1								
5/1/2018						<1	<1		
5/2/2018	<1	<1	<1	4.1 (J)	1.6 (J)				
8/28/2018	<1								
8/29/2018		2.3 (J)	<1	<1	<1	6.2	3.9 (J)		
11/27/2018					<1	<1	<1		
11/28/2018	<1	<1	<50 (o)	4.9 (J)					
1/8/2019									20.9
1/9/2019									
3/20/2019								12.8	
5/29/2019		24.1	7.04	49.5	67.6	3.27	6.72		
5/30/2019	3.76								
9/30/2019	2.77	37.4							
10/1/2019			35.3	47.7	61.6	1.72	3.4	8.49	
10/2/2019									10.5
3/30/2020									11.1
3/31/2020	20.1	57.5	35.8	23.2	34.7		17.5		
4/1/2020						7.5		24.2	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
3/21/2017						
3/22/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
9/12/2017						
9/13/2017						
9/14/2017						
5/1/2018						
5/2/2018						
8/28/2018						
8/29/2018						
11/27/2018						
11/28/2018						
1/8/2019	1.75			93.7	10.3	31.2
1/9/2019		3.69	1.74			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		2	7	5.19		
10/2/2019	5.8				7.18	92.3
3/30/2020		9.65	75.8			
3/31/2020	0.98 (J)			20.3	61.1	84.5
4/1/2020						

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							8.59	7.2	7.44
4/19/2016							8.27	7.22	7.66
6/6/2016							8.66		
6/7/2016								7.92	8.16
8/30/2016							9.74	8.17	8.43
10/18/2016							10.2	7.99	8.47
3/20/2017							8.3	6.1	7.4
5/2/2017							6.6 (D)	5 (D)	6.3 (D)
6/6/2017							7.6 (D)	5.3 (D)	7.1 (D)
9/12/2017									
9/13/2017							8.4	4.9 (J)	7.3
5/1/2018								4.2 (J)	6.9
5/2/2018							5.9		
11/26/2018									
11/27/2018							22		6.5
5/28/2019									
5/29/2019							23.3	5.94	7.81
7/31/2019	2.65	23	11.4	83.2	171	18.4			
10/1/2019	0.854 (J)		5.9	28.9	17.2	4.89			
10/2/2019		10.6					17.5	6.04	7.62
3/31/2020							24.3	6.83	7.98
4/1/2020		19.4		18.7		18.1			
6/16/2020									
6/17/2020									

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	7.04								
4/19/2016	6.74								
6/6/2016	7.04								
6/7/2016									
8/30/2016	7.57								
10/18/2016	6.62								
3/20/2017	7								
5/2/2017	5.6 (D)								
6/6/2017	6.6 (D)								
9/12/2017	7.2								
9/13/2017									
5/1/2018	5.9								
5/2/2018									
11/26/2018	5.1								
11/27/2018									
5/28/2019	7.1								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	6.88								
3/31/2020	10.8								
4/1/2020									
6/16/2020		41.5	57.4	28.6					
6/17/2020					28	10.1	101	6.1	2.39

Time Series

Constituent: TDS (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				27.3	273	45.3	129	309	314
3/2/2016	426	42	27.3						
4/19/2016	442	51.3	33.3	38		46			
4/20/2016					269		128	324	338
6/7/2016			44	48.7	272	46	140	314	
6/8/2016	461	46.7							288
8/30/2016				32.7	244	30		308	
8/31/2016	456	32.7	29.3				112		334
10/18/2016					238			295	
10/19/2016	444	37.3	29.3	36		37.3	134		333
1/31/2017	422	47.3	36.7	40.7	266	43.3	134	303	
2/1/2017									330
5/2/2017	442	44	28	30.7					
5/3/2017					259	44.7	127	300	338
6/6/2017	433	48	36.7	41.3					
6/7/2017					255	45.3	134	284	300
9/12/2017		40.7	35.3	34.7					
9/13/2017	456								
9/14/2017					276	48.7	141	325	350
5/1/2018	416	42.7	34.7	39.3					
5/2/2018					247	44	133	306	333
8/28/2018	420	28	34	26					324
8/29/2018					263	50		287	
11/27/2018		48	41.3	32	248			303	
11/28/2018	408					50.7	138		330
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	403	47.3	40	39.3	259	48.7	132	291	
5/30/2019									315
9/30/2019							137	293	319
10/1/2019	430	44.7	36.7	32	243	38			
10/2/2019									
3/30/2020	419						135	310	
3/31/2020		42	37.3	42.7	243	42			330
4/1/2020									

Time Series

Constituent: TDS (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	326	395							
3/2/2016			351	319	266	182	263		
4/19/2016						151	259		
4/20/2016	366	376	353	305	311				
6/7/2016									
6/8/2016	314	324	330	287	353	168	285		
8/30/2016					328				
8/31/2016	368	367	354	295		188	279		
10/18/2016					310				
10/19/2016	381	367	354	305		180	264		
1/31/2017				325	312	166	270		
2/1/2017	342	391	360						
5/2/2017					300	183	259		
5/3/2017	369	373	341	306					
6/6/2017					335	187	278		
6/7/2017	340	367	337	320					
9/12/2017									
9/13/2017		378	359	332	339	202	333		
9/14/2017	391								
5/1/2018						197	274		
5/2/2018	343	330	310	320	301				
8/28/2018	375								
8/29/2018		352	307	312	318	192	283		
11/27/2018					295	190	250		
11/28/2018	378	357	336	304					
1/8/2019									192
1/9/2019									
3/20/2019								293	
5/29/2019		367	321	307	318	198	264		
5/30/2019	377								
9/30/2019	361	399							
10/1/2019			344	290	317	236	295	283	
10/2/2019									154
3/30/2020									160
3/31/2020	387	393	331	290	317		276		
4/1/2020						231		210	

Time Series

Constituent: TDS (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
9/12/2017						
9/13/2017						
9/14/2017						
5/1/2018						
5/2/2018						
8/28/2018						
8/29/2018						
11/27/2018						
11/28/2018						
1/8/2019	76.7			462	348	504
1/9/2019		240	276			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		182	324	393		
10/2/2019	98				321	430
3/30/2020		204	328			
3/31/2020	81.3			413	328	418
4/1/2020						

Time Series

Constituent: TDS (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							26.7	30.7	40
4/19/2016							<25	<25	32
6/6/2016							32.7		
6/7/2016								35.3	38.7
8/30/2016							33.3	27.3	31.3
10/18/2016							27.3	<25	26.7
1/31/2017							32	32.7	30
5/2/2017							31.3	30.7	30.7
6/6/2017							35.3	34.7	32.7
9/12/2017									
9/13/2017							36.7	39.3	38
5/1/2018								42	35.3
5/2/2018							34		
11/26/2018									
11/27/2018							50.7	31.3	36
5/28/2019									
5/29/2019							58	40	37.3
7/31/2019	337	212	318	481	345	241			
10/1/2019	321		316	470	346	261			
10/2/2019		203					46	41.3	36.7
3/31/2020							53.3	40	39.3
4/1/2020		243		319		105			
6/16/2020									
6/17/2020									

Time Series

Constituent: TDS (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<25								
4/19/2016	<25								
6/6/2016	28.7								
6/7/2016									
8/30/2016	25.3								
10/18/2016	<25								
1/31/2017	26								
5/2/2017	<25								
6/6/2017	42.7								
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									
7/31/2019									
10/1/2019									
10/2/2019	36								
3/31/2020	36.7								
4/1/2020									
6/16/2020		238	1460	479					
6/17/2020					546	301	449	44	37.3

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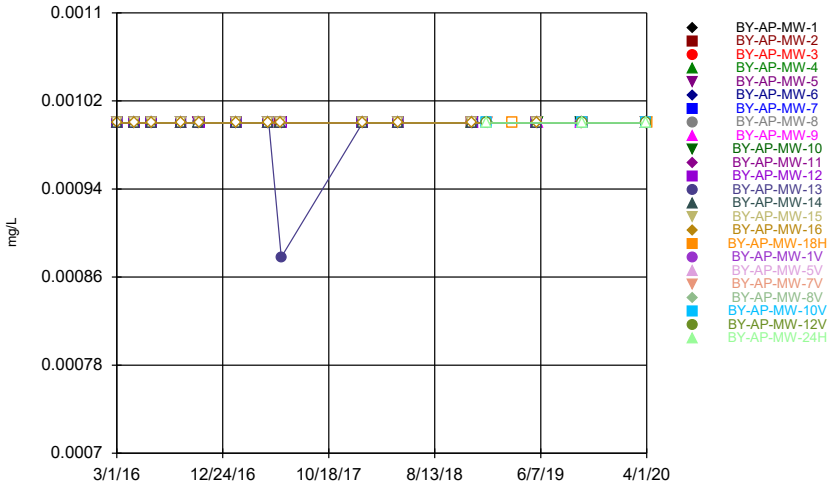
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 7/27/2020 9:12 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

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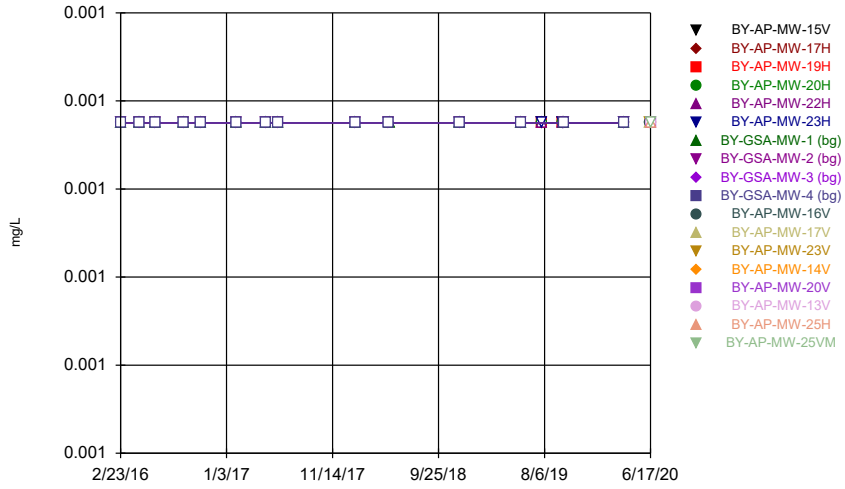
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 7/27/2020 9:12 AM View: Time Series
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-9
3/1/2016				<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
3/2/2016	<0.001	<0.001	<0.001						
4/19/2016	<0.001	<0.001	<0.001	<0.001		<0.001			
4/20/2016					<0.001		<0.001	<0.001	<0.001
6/7/2016			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
6/8/2016	<0.001	<0.001							<0.001
8/30/2016				<0.001	<0.001	<0.001		<0.001	
8/31/2016	<0.001	<0.001	<0.001				<0.001		<0.001
10/18/2016					<0.001			<0.001	
10/19/2016	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001		<0.001
1/31/2017	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
2/1/2017									<0.001
5/2/2017	<0.001	<0.001	<0.001	<0.001					
5/3/2017					<0.001	<0.001	<0.001	<0.001	<0.001
6/6/2017	<0.001	<0.001	<0.001	<0.001					
6/7/2017					<0.001	<0.001	<0.001	<0.001	<0.001
1/22/2018									
1/23/2018									<0.001
1/24/2018	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
5/1/2018	<0.001	<0.001	<0.001	<0.001					
5/2/2018					<0.001	<0.001	<0.001	<0.001	<0.001
11/27/2018		<0.001	<0.001	<0.001	<0.001			<0.001	
11/28/2018	<0.001					<0.001	<0.001		<0.001
1/8/2019									
1/9/2019									
3/20/2019									
5/29/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
5/30/2019									<0.001
9/30/2019							<0.001	<0.001	<0.001
10/1/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
10/2/2019									
3/30/2020	<0.001						<0.001	<0.001	
3/31/2020		<0.001	<0.001	<0.001	<0.001	<0.001			<0.001
4/1/2020									

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15	BY-AP-MW-16	BY-AP-MW-18H	BY-AP-MW-1V
3/1/2016	<0.001	<0.001							
3/2/2016			<0.001	<0.001	<0.001	<0.001	<0.001		
4/19/2016						<0.001	<0.001		
4/20/2016	<0.001	<0.001	<0.001	<0.001	<0.001				
6/7/2016									
6/8/2016	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
8/30/2016					<0.001				
8/31/2016	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001		
10/18/2016					<0.001				
10/19/2016	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001		
1/31/2017				<0.001	<0.001	<0.001	<0.001		
2/1/2017	<0.001	<0.001	<0.001						
5/2/2017					<0.001	<0.001	<0.001		
5/3/2017	<0.001	<0.001	<0.001	<0.001					
6/6/2017					<0.001	<0.001	<0.001		
6/7/2017	<0.001	<0.001	<0.001	0.000878 (J)					
1/22/2018				<0.001		<0.001			
1/23/2018	<0.001	<0.001	<0.001		<0.001		<0.001		
1/24/2018									
5/1/2018						<0.001	<0.001		
5/2/2018	<0.001	<0.001	<0.001	<0.001	<0.001				
11/27/2018					<0.001	<0.001	<0.001		
11/28/2018	<0.001	<0.001	<0.001	<0.001					
1/8/2019									<0.001
1/9/2019									
3/20/2019								<0.001	
5/29/2019		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
5/30/2019	<0.001								
9/30/2019	<0.001	<0.001							
10/1/2019			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
10/2/2019									<0.001
3/30/2020									<0.001
3/31/2020	<0.001	<0.001	<0.001	<0.001	<0.001		<0.001		
4/1/2020						<0.001		<0.001	

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5V	BY-AP-MW-7V	BY-AP-MW-8V	BY-AP-MW-10V	BY-AP-MW-12V	BY-AP-MW-24H
3/1/2016						
3/2/2016						
4/19/2016						
4/20/2016						
6/7/2016						
6/8/2016						
8/30/2016						
8/31/2016						
10/18/2016						
10/19/2016						
1/31/2017						
2/1/2017						
5/2/2017						
5/3/2017						
6/6/2017						
6/7/2017						
1/22/2018						
1/23/2018						
1/24/2018						
5/1/2018						
5/2/2018						
11/27/2018						
11/28/2018						
1/8/2019	<0.001			<0.001	<0.001	<0.001
1/9/2019		<0.001	<0.001			
3/20/2019						
5/29/2019						
5/30/2019						
9/30/2019						
10/1/2019		<0.001	<0.001	<0.001		
10/2/2019	<0.001				<0.001	<0.001
3/30/2020		<0.001	<0.001			
3/31/2020	<0.001			<0.001	<0.001	<0.001
4/1/2020						

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-17H	BY-AP-MW-19H	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016							<0.001	<0.001	<0.001
4/19/2016							<0.001	<0.001	<0.001
6/6/2016							<0.001		
6/7/2016								<0.001	<0.001
8/30/2016							<0.001	<0.001	<0.001
10/18/2016							<0.001	<0.001	<0.001
1/31/2017							<0.001	<0.001	<0.001
5/2/2017							<0.001	<0.001	<0.001
6/6/2017							<0.001	<0.001	<0.001
1/23/2018							<0.001	<0.001	<0.001
5/1/2018								<0.001	<0.001
5/2/2018							<0.001		
11/26/2018									
11/27/2018							<0.001	<0.001	<0.001
5/28/2019									
5/29/2019							<0.001	<0.001	<0.001
7/31/2019	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001			
10/1/2019	<0.001		<0.001	<0.001	<0.001	<0.001			
10/2/2019		<0.001					<0.001	<0.001	<0.001
3/31/2020							<0.001	<0.001	<0.001
4/1/2020		<0.001		<0.001		<0.001			
6/16/2020									
6/17/2020									

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/27/2020 9:14 AM View: Time Series

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.001								
4/19/2016	<0.001								
6/6/2016	<0.001								
6/7/2016									
8/30/2016	<0.001								
10/18/2016	<0.001								
1/31/2017	<0.001								
5/2/2017	<0.001								
6/6/2017	<0.001								
1/23/2018	<0.001								
5/1/2018	<0.001								
5/2/2018									
11/26/2018	<0.001								
11/27/2018									
5/28/2019	<0.001								
5/29/2019									
7/31/2019									
10/1/2019									
10/2/2019	<0.001								
3/31/2020	<0.001								
4/1/2020									
6/16/2020		<0.001	<0.001	<0.001					
6/17/2020					<0.001	<0.001	<0.001	<0.001	<0.001

Upper Tolerance Limits - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 7/23/2020, 4:09 PM

Constituent	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	52	n/a	n/a	90.38	n/a	n/a	0.06944	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Barium (mg/L)	0.183	n/a	52	n/a	n/a	0	n/a	n/a	0.06944	NP Inter(normal...
Beryllium (mg/L)	0.003	n/a	50	n/a	n/a	94	n/a	n/a	0.07694	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	52	n/a	n/a	96.15	n/a	n/a	0.06944	NP Inter(NDs)
Cobalt (mg/L)	0.0157	n/a	51	n/a	n/a	68.63	n/a	n/a	0.0731	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	3.202	n/a	52	0.9903	0.2355	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.1	n/a	56	n/a	n/a	39.29	n/a	n/a	0.05656	NP Inter(normal...
Lead (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Lithium (mg/L)	0.02	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Mercury (mg/L)	0.0005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)

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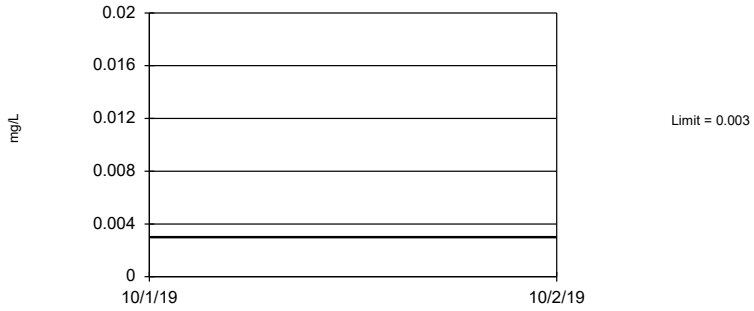
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 90.38% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Antimony Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Arsenic Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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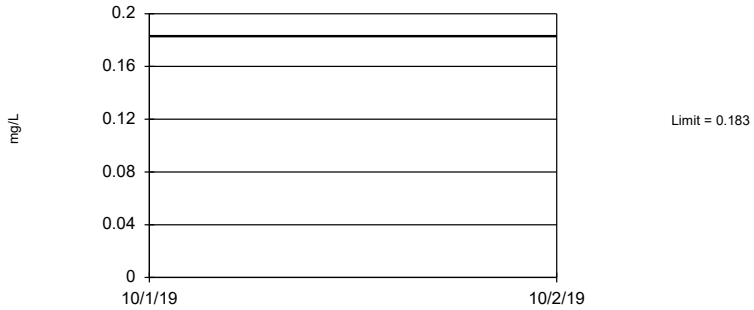
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 52 background values. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Barium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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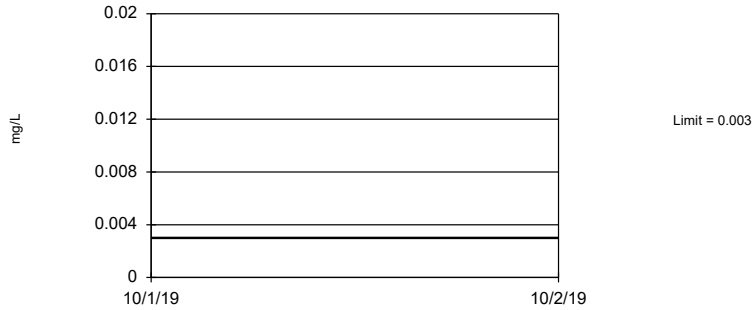
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 50 background values. 94% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.07694.

Constituent: Beryllium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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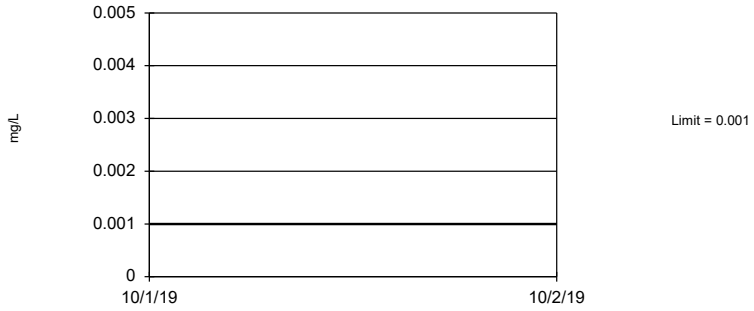
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Cadmium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 96.15% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Chromium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 51 background values. 68.63% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Cobalt Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Tolerance Limit

Interwell Parametric

95% coverage. Background Data Summary (based on cube root transformation): Mean=0.9903, Std. Dev.=0.2355, n=52. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9388, critical = 0.937. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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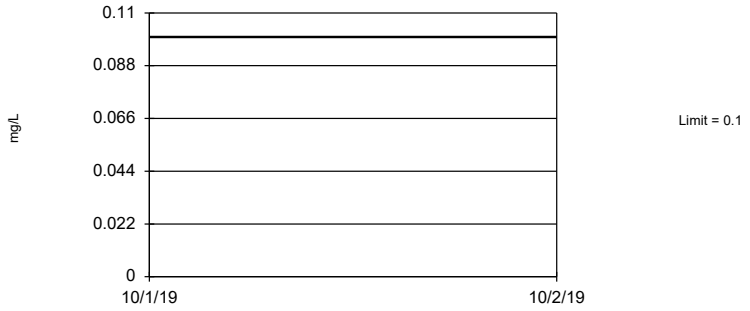
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 56 background values. 39.29% NDs. 91.99% coverage at alpha=0.01; 94.73% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.05656.

Constituent: Fluoride Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Lead Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Lithium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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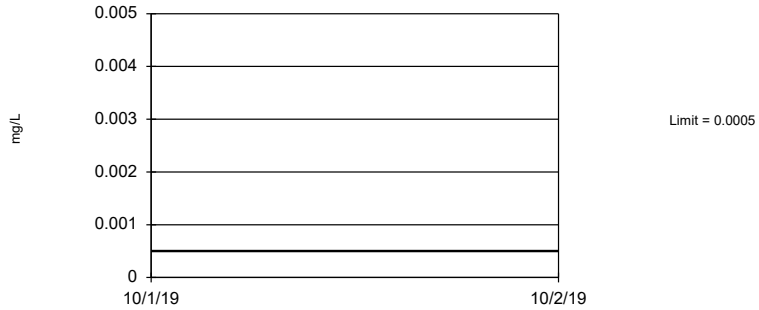
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Mercury Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Molybdenum Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

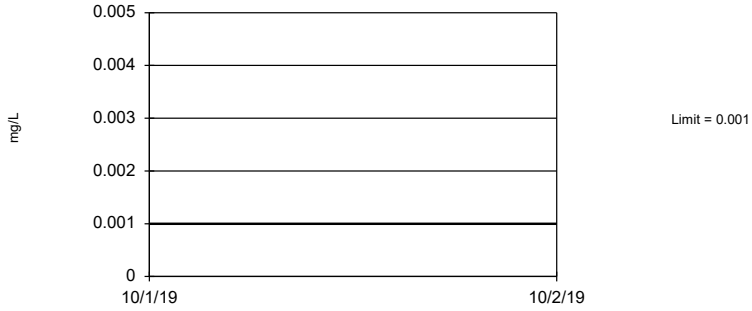
Constituent: Selenium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Thallium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Confidence Intervals - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 8:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	**BY-AP-MW-1**	**0.07579**	**0.05985**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-5**	**0.03132**	**0.02855**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-7**	**0.02232**	**0.01949**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-8**	**0.0572**	**0.0394**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**NP (normality)**
Arsenic (mg/L)	**BY-AP-MW-9**	**0.04219**	**0.03702**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-10**	**0.0671**	**0.03**	**0.01**	**Yes**	**15**	**0**	**No**	**0.01**	**NP (normality)**
Arsenic (mg/L)	**BY-AP-MW-11**	**0.01533**	**0.01331**	**0.01**	**Yes**	**14**	**0**	**x^2**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-12**	**0.02297**	**0.02155**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-13**	**0.01487**	**0.0127**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-14**	**0.01494**	**0.01226**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-15**	**0.0175**	**0.01545**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-16**	**0.012**	**0.0102**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**NP (normality)**
Cobalt (mg/L)	**BY-AP-MW-15**	**0.03145**	**0.02729**	**0.0157**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**

Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 8:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	BY-AP-MW-1	0.003	0.000687	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-2	0.003	0.000739	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-3	0.003	0.000637	0.006	No	14	85.71	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-4	0.003	0.000869	0.006	No	14	85.71	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-5	0.003	0.000765	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-6	0.003	0.000852	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-7	0.003	0.00107	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-8	0.003	0.00074	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-9	0.003	0.000738	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-10	0.003	0.000743	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-11	0.003	0.000812	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-12	0.003	0.000838	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-13	0.003	0.00111	0.006	No	14	78.57	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-14	0.003	0.00086	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-15	0.003	0.000746	0.006	No	14	92.86	No	0.01	NP (NDs)
Antimony (mg/L)	BY-AP-MW-16	0.003	0.000769	0.006	No	14	92.86	No	0.01	NP (NDs)
Arsenic (mg/L)	**BY-AP-MW-1**	**0.07579**	**0.05985**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	BY-AP-MW-2	0.002221	0.001581	0.01	No	14	0	No	0.01	Param.
Arsenic (mg/L)	BY-AP-MW-3	0.005	0.005	0.01	No	14	100	No	0.01	NP (NDs)
Arsenic (mg/L)	BY-AP-MW-4	0.005	0.005	0.01	No	14	100	No	0.01	NP (NDs)
Arsenic (mg/L)	**BY-AP-MW-5**	**0.03132**	**0.02855**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	BY-AP-MW-6	0.005	0.00142	0.01	No	14	85.71	No	0.01	NP (NDs)
Arsenic (mg/L)	**BY-AP-MW-7**	**0.02232**	**0.01949**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-8**	**0.0572**	**0.0394**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**NP (normality)**
Arsenic (mg/L)	**BY-AP-MW-9**	**0.04219**	**0.03702**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-10**	**0.0671**	**0.03**	**0.01**	**Yes**	**15**	**0**	**No**	**0.01**	**NP (normality)**
Arsenic (mg/L)	**BY-AP-MW-11**	**0.01533**	**0.01331**	**0.01**	**Yes**	**14**	**0**	**x^2**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-12**	**0.02297**	**0.02155**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-13**	**0.01487**	**0.0127**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-14**	**0.01494**	**0.01226**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-15**	**0.0175**	**0.01545**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-16**	**0.012**	**0.0102**	**0.01**	**Yes**	**14**	**0**	**No**	**0.01**	**NP (normality)**
Barium (mg/L)	BY-AP-MW-1	0.2876	0.2542	2	No	14	0	x^6	0.01	Param.
Barium (mg/L)	BY-AP-MW-2	0.02644	0.02365	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-3	0.0351	0.03058	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-4	0.03052	0.02008	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-5	0.144	0.1305	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02615	0.0239	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.06193	0.05581	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1446	0.1357	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1221	0.1129	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.06837	0.06192	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.102	0.08098	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.0797	0.07261	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.0758	0.0695	2	No	14	0	No	0.01	NP (normality)
Barium (mg/L)	BY-AP-MW-14	0.0619	0.0533	2	No	14	0	No	0.01	NP (normality)
Barium (mg/L)	BY-AP-MW-15	0.0569	0.04546	2	No	14	0	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.08465	0.07596	2	No	14	0	No	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-1	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-2	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-3	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-4	0.003	0.00071	0.004	No	14	92.86	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-5	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-6	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-7	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-8	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-9	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-10	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-11	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-12	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-13	0.003	0.00103	0.004	No	14	92.86	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-14	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-15	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-16	0.003	0.003	0.004	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-1	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-2	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-3	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-4	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)

Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 8:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cadmium (mg/L)	BY-AP-MW-5	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-6	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-7	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-8	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-9	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-10	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-11	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-12	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-13	0.001	0.00077	0.005	No	14	92.86	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-14	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-15	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-16	0.001	0.001	0.005	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.004528	0.002593	0.1	No	14	0	ln(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-2	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-3	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-4	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-5	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-6	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-7	0.01	0.00328	0.1	No	14	92.86	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-8	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-9	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-10	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-11	0.00248	0.00211	0.1	No	14	0	No	0.01	NP (normality)
Chromium (mg/L)	BY-AP-MW-12	0.0042	0.00325	0.1	No	14	0	No	0.01	NP (normality)
Chromium (mg/L)	BY-AP-MW-13	0.00752	0.00661	0.1	No	14	0	No	0.01	NP (normality)
Chromium (mg/L)	BY-AP-MW-14	0.005499	0.004988	0.1	No	14	0	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-15	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Chromium (mg/L)	BY-AP-MW-16	0.01	0.00253	0.1	No	14	85.71	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-1	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-2	0.007695	0.006729	0.0157	No	14	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-3	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-4	0.00891	0.00262	0.0157	No	12	33.33	No	0.01	NP (Cohens/xfrm)
Cobalt (mg/L)	BY-AP-MW-5	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-6	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-7	0.0183	0.01561	0.0157	No	14	0	x^2	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-8	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-9	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-10	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-11	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-12	0.003044	0.002428	0.0157	No	14	0	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-13	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	BY-AP-MW-14	0.005	0.005	0.0157	No	14	100	No	0.01	NP (NDs)
Cobalt (mg/L)	**BY-AP-MW-15**	**0.03145**	**0.02729**	**0.0157**	**Yes**	**14**	**0**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	BY-AP-MW-16	0.01947	0.01465	0.0157	No	14	0	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.341	1.48	5	No	13	7.692	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-2	0.8312	0.1889	5	No	14	14.29	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-3	1.13	0.3391	5	No	14	14.29	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-4	1.098	0.3195	5	No	14	14.29	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	1.995	1.059	5	No	14	7.143	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	0.9162	0.19	5	No	14	14.29	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	0.905	0.2395	5	No	14	14.29	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	1.031	0.5372	5	No	14	14.29	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	1.236	0.8075	5	No	14	14.29	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	1.24	0.594	5	No	14	14.29	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	0.9607	0.502	5	No	14	7.143	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	1.374	0.8017	5	No	14	14.29	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	1.023	0.6099	5	No	14	7.143	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	0.9896	0.3623	5	No	14	14.29	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	1.002	0.4574	5	No	14	14.29	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	1.139	0.4657	5	No	14	14.29	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-1	0.08615	0.04814	4	No	15	20	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-2	0.1	0.038	4	No	15	53.33	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-3	0.1	0.023	4	No	15	66.67	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-4	0.1	0.025	4	No	15	66.67	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-5	0.06958	0.04686	4	No	15	6.667	x^(1/3)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-6	0.1	0.034	4	No	15	73.33	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-7	0.08897	0.07229	4	No	15	0	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-8	0.07286	0.04359	4	No	15	13.33	sqrt(x)	0.01	Param.

Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 8:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	BY-AP-MW-9	0.06606	0.0499	4	No	15	0	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-10	0.1	0.034	4	No	15	40	No	0.01	NP (normality)
Fluoride (mg/L)	BY-AP-MW-11	0.07621	0.05702	4	No	15	6.667	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-12	0.07159	0.04899	4	No	15	6.667	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-13	0.074	0.05556	4	No	15	6.667	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-14	0.088	0.07084	4	No	15	6.667	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-15	0.198	0.1683	4	No	15	6.667	x^3	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-16	0.1	0.04	4	No	15	20	No	0.01	NP (Cohens/xfrm)
Lead (mg/L)	BY-AP-MW-1	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-2	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-3	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-4	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-5	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-6	0.00545	0.00276	0.015	No	14	78.57	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-7	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-8	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-9	0.005	0.00108	0.015	No	14	92.86	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-10	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-11	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-12	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-13	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-14	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-15	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lead (mg/L)	BY-AP-MW-16	0.005	0.005	0.015	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-1	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-2	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-3	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-4	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-5	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-6	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-7	0.02	0.0108	0.04	No	14	85.71	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-8	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-9	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-10	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-11	0.0262	0.02	0.04	No	14	64.29	No	0.01	NP (normality)
Lithium (mg/L)	BY-AP-MW-12	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-13	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-14	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Lithium (mg/L)	BY-AP-MW-15	0.0248	0.0174	0.04	No	14	71.43	No	0.01	NP (normality)
Lithium (mg/L)	BY-AP-MW-16	0.02	0.02	0.04	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-1	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-2	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-3	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-4	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-5	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-6	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-7	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-8	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-9	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-10	0.0005	0.0005	0.002	No	15	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-11	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-12	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-13	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-14	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-15	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Mercury (mg/L)	BY-AP-MW-16	0.0005	0.0005	0.002	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-1	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-2	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-3	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-4	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-5	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-6	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-7	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-8	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-9	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-10	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-11	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-12	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)

Confidence Intervals - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 6/8/2020, 8:24 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Molybdenum (mg/L)	BY-AP-MW-13	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-14	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-15	0.01	0.00211	0.1	No	14	71.43	No	0.01	NP (normality)
Molybdenum (mg/L)	BY-AP-MW-16	0.01	0.01	0.1	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-1	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-2	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-3	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-4	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-5	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-6	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-7	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-8	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-9	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-10	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-11	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-12	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-13	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-14	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-15	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Selenium (mg/L)	BY-AP-MW-16	0.01	0.01	0.05	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-1	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-2	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-3	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-4	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-5	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-6	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-7	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-8	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-9	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-10	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-11	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-12	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-13	0.001	0.000878	0.002	No	14	92.86	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-14	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-15	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)
Thallium (mg/L)	BY-AP-MW-16	0.001	0.001	0.002	No	14	100	No	0.01	NP (NDs)

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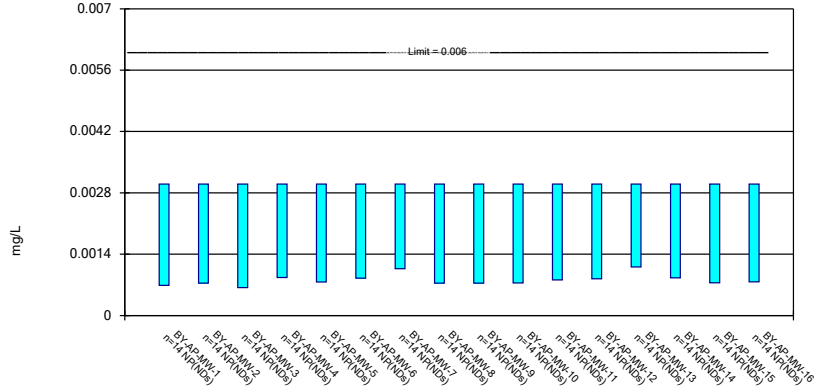
Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Antimony Analysis Run 6/8/2020 8:21 AM View: Confidence Intervals - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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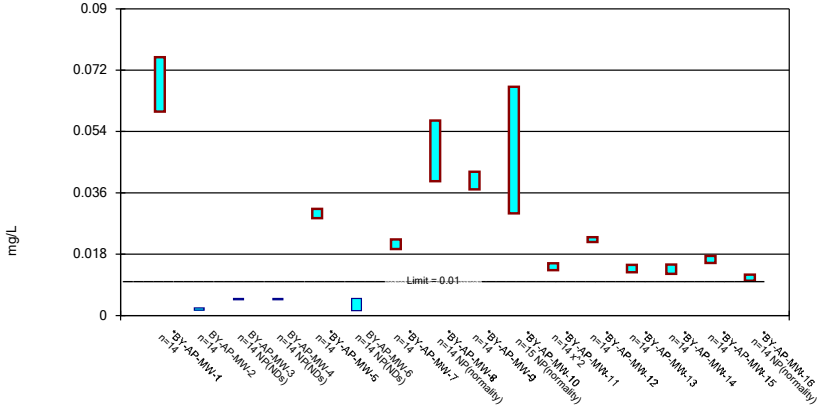
Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 6/8/2020 8:21 AM View: Confidence Intervals - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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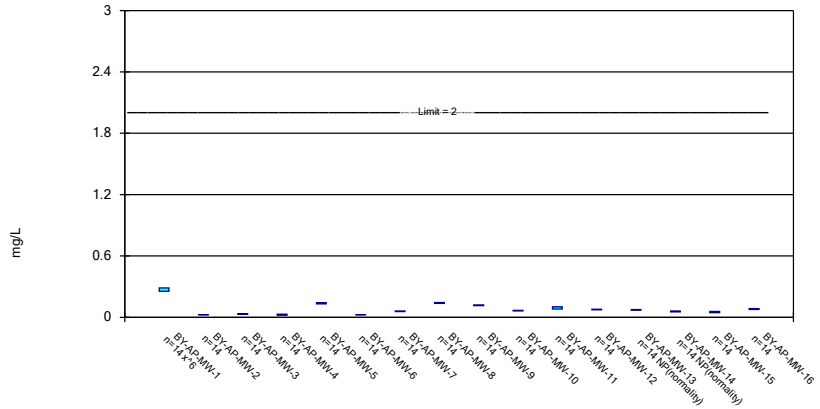
Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



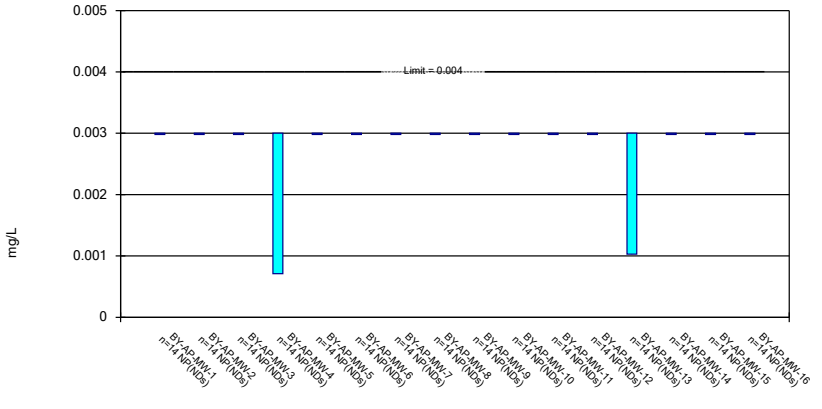
Constituent: Barium Analysis Run 6/8/2020 8:21 AM View: Confidence Intervals - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



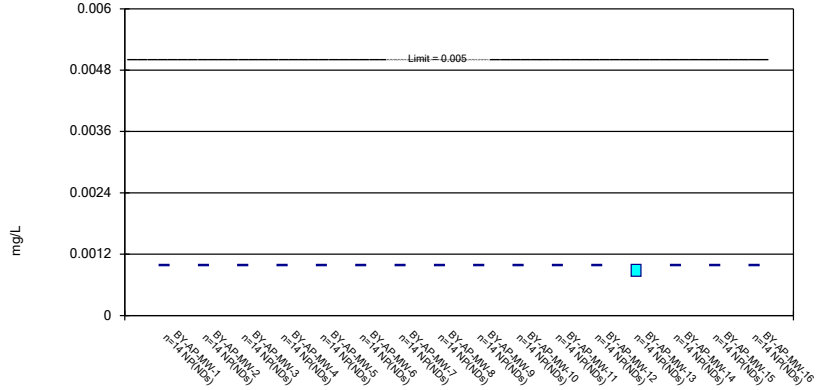
Constituent: Beryllium Analysis Run 6/8/2020 8:22 AM View: Confidence Intervals - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



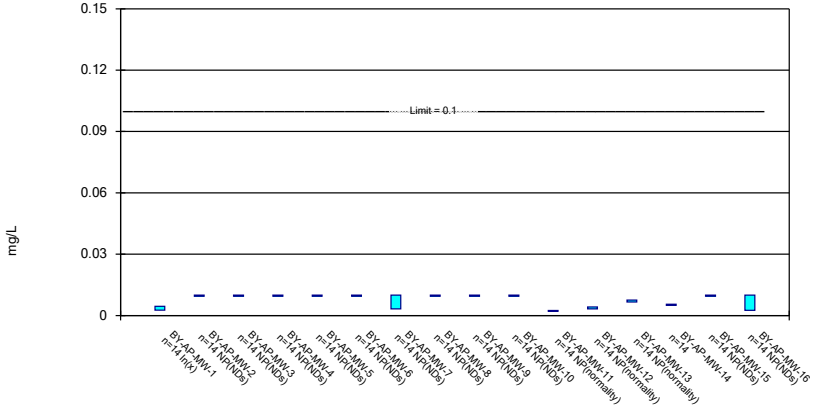
Constituent: Cadmium Analysis Run 6/8/2020 8:22 AM View: Confidence Intervals - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



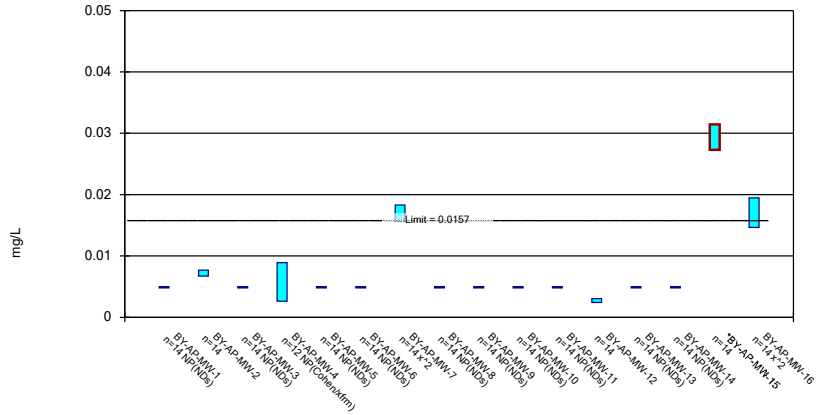
Constituent: Chromium Analysis Run 6/8/2020 8:22 AM View: Confidence Intervals - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



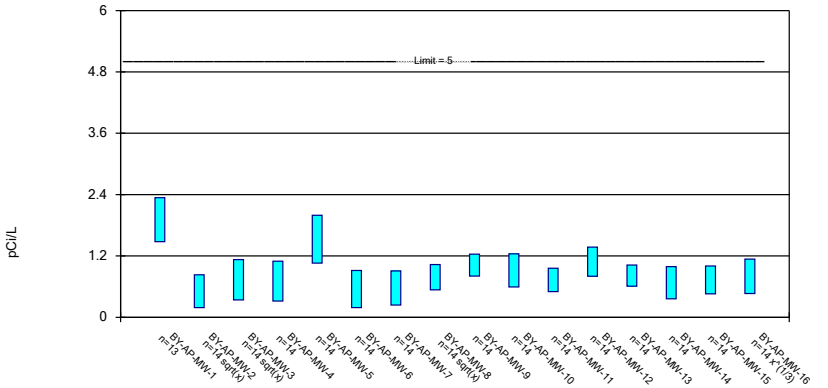
Constituent: Cobalt Analysis Run 6/8/2020 8:22 AM View: Confidence Intervals - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



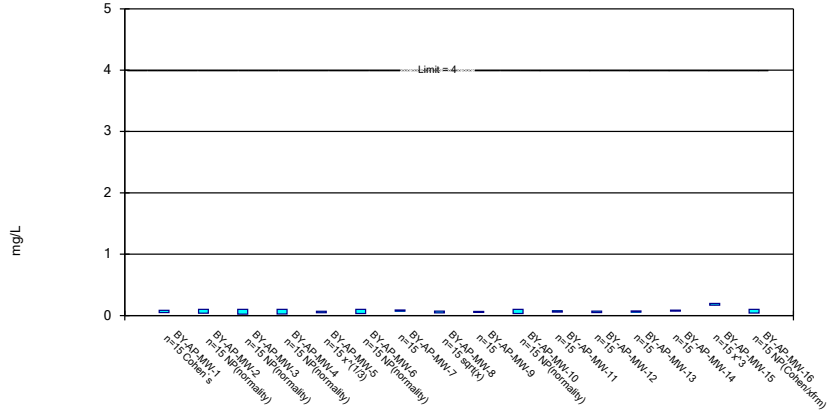
Constituent: Combined Radium 226 + 228 Analysis Run 6/8/2020 8:22 AM View: Confidence Intervals - A

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



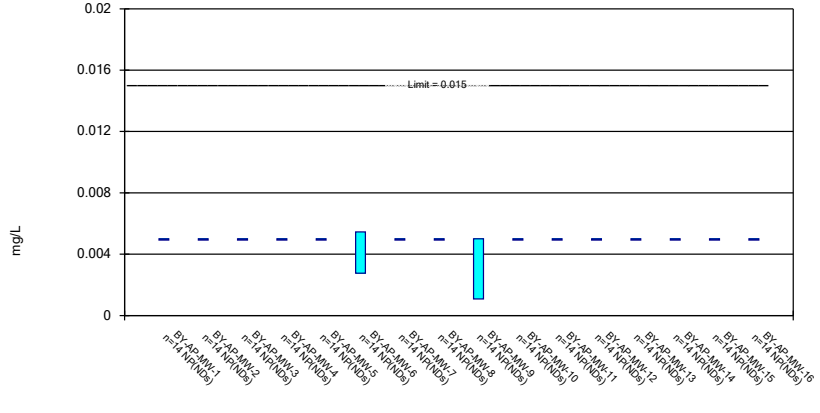
Constituent: Fluoride Analysis Run 6/8/2020 8:22 AM View: Confidence Intervals - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



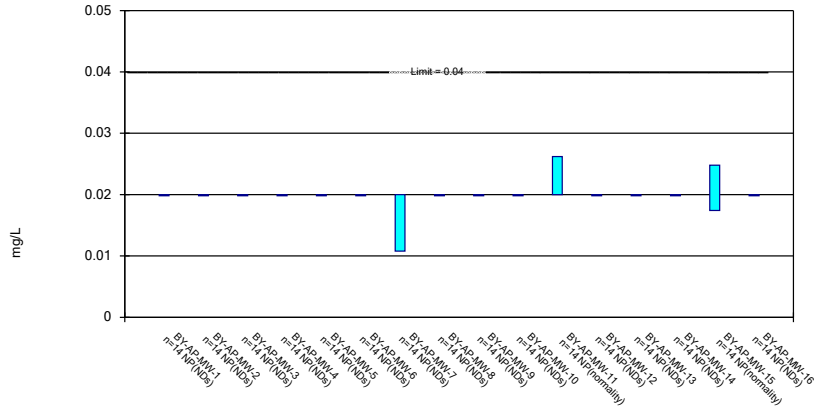
Constituent: Lead Analysis Run 6/8/2020 8:22 AM View: Confidence Intervals - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01.



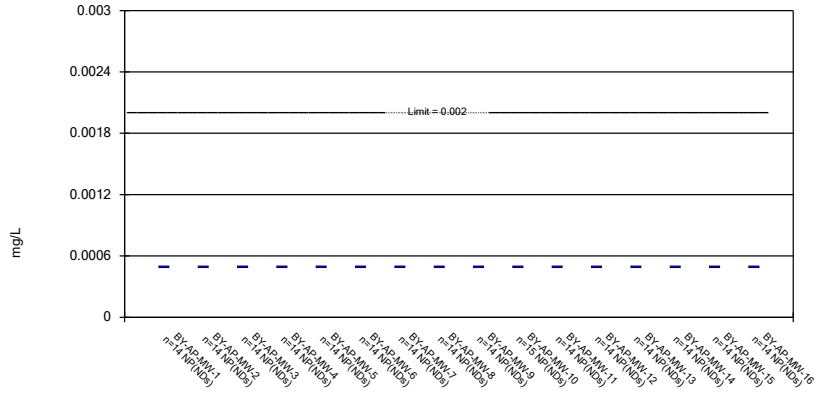
Constituent: Lithium Analysis Run 6/8/2020 8:22 AM View: Confidence Intervals - App IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Non-Parametric Confidence Interval

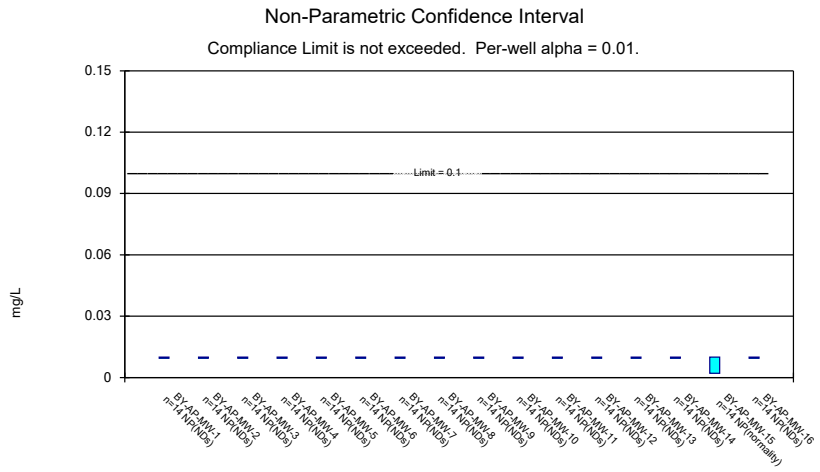
Compliance Limit is not exceeded. Per-well alpha = 0.01.



Constituent: Mercury Analysis Run 6/8/2020 8:22 AM View: Confidence Intervals - App IV

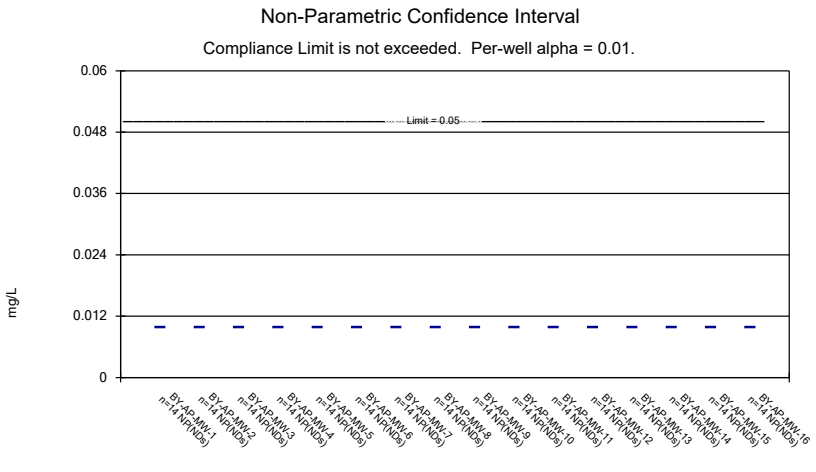
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



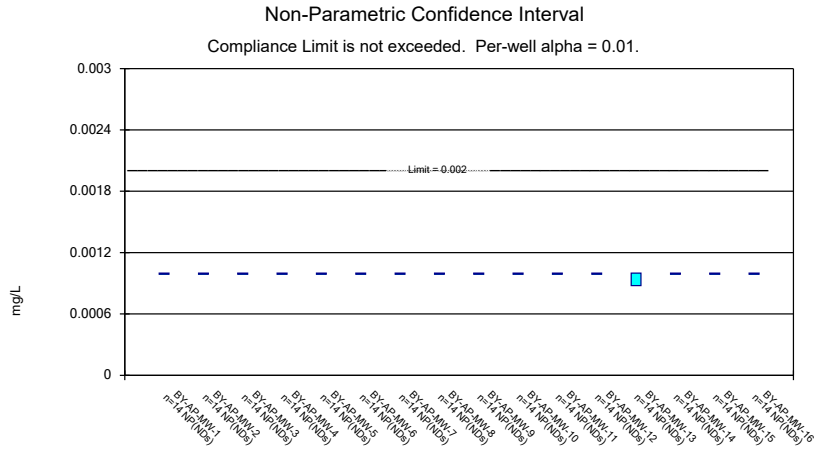
Constituent: Molybdenum Analysis Run 6/8/2020 8:22 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

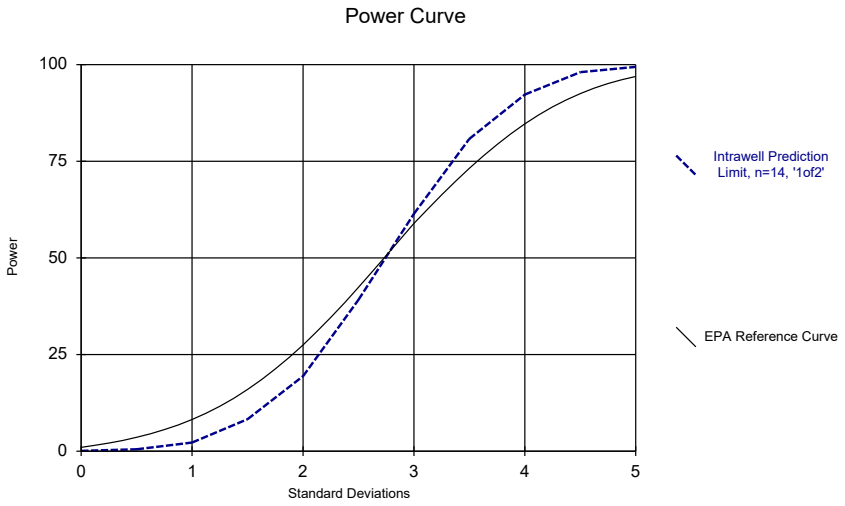


Constituent: Selenium Analysis Run 6/8/2020 8:23 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG



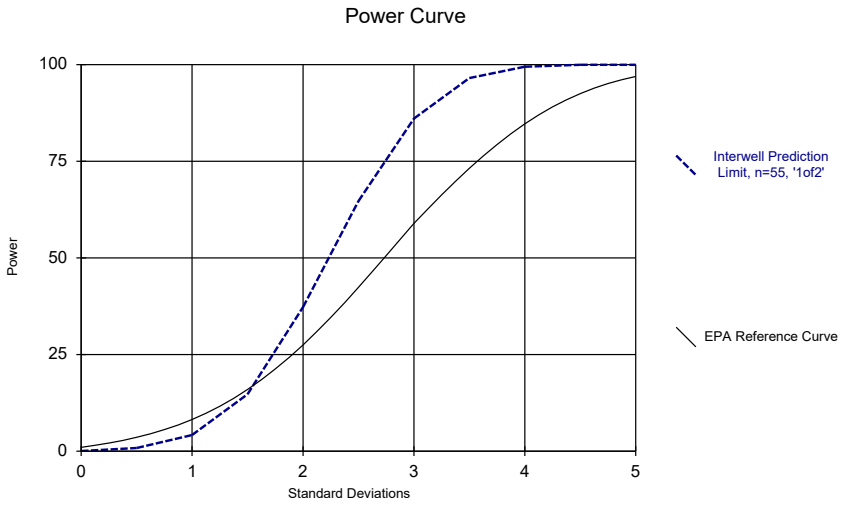
Constituent: Thallium Analysis Run 6/8/2020 8:23 AM View: Confidence Intervals - App IV
Plant Barry Client: Southern Company Data: Barry Ash Pond



Kappa = 2.678, based on 16 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 7/23/2020 4:10 PM View: Power Curves

Plant Barry Client: Southern Company Data: Barry Ash Pond



Kappa = 2.143, based on 16 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 6/8/2020 8:26 AM View: Power Curves

Plant Barry Client: Southern Company Data: Barry Ash Pond

2nd
Semi-Annual
Monitoring Event

GROUNDWATER STATS CONSULTING

December 11, 2020

Southern Company Services
Attn: Mr. Greg Dyer
3535 Colonnade Parkway
Birmingham, AL 35243

Re: Plant Barry Ash Pond
2nd Semi-Annual Statistical Analysis – September 2020 Sampling Event

Dear Mr. Dyer,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the statistical analysis of groundwater data for the 2nd Semi-Annual September 2020 semi-annual sample event for Alabama Power Company's Plant Barry Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015) as well as with the United States Environmental Protection Agency (USEPA) Unified Guidance (2009).

Sampling began at site for the CCR program in 2016. The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** BY-GSA-MW-1, BY-GSA-MW-2, BY-GSA-MW-3, and BY-GSA-MW-4
- **Downgradient wells:** BY-AP-MW-1, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- **Delineation wells:** BY-AP-MW-1V, BY-AP-MW-5V, BY-AP-MW-7V, BY-AP-MW-8V, BY-AP-MW-10V, BY-AP-MW-12V, BY-AP-MW-13V, BY-AP-MW-14V, BY-AP-MW-15V, BY-AP-MW-16V, BY-AP-MW-17V, BY-AP-MW-17H, BY-AP-MW-18H, BY-AP-MW-19H, BY-AP-MW-20H, BY-AP-MW-20V, BY-AP-MW-22H, BY-AP-MW-23V, BY-AP-MW-23H, BY-AP-MW-24H, BY-AP-MW-25H, and BY-AP-MW-25VM
- **Piezometer:** BY-AP-MW-15VM

Data from delineation wells are included on time series and box plots but did not require formal statistics. Piezometer BY-AP-MW-15VM only monitors water levels, and therefore, is not included in this analysis.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was prepared according to the Statistical Analysis Plan approved by Dr. Kirk Cameron, PhD Statistician with MacStat Consulting, primary author of the USEPA Unified Guidance, and Senior Advisor to Groundwater Stats Consulting. The analysis was reviewed by Dr. Jim Loftis, Civil & Environmental Engineering professor emeritus at Colorado State University and Senior Advisor to Groundwater Stats Consulting.

The CCR program consists of the following constituents:

> **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
> **Appendix IV** (Assessment Monitoring) - antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of well/constituent pairs with 100% nondetects follows this letter.

For all constituents, a substitution of the most recent reporting limit is used for nondetect data. In the time series plots, a single reporting limit substitution is used across all wells for a given parameter since the wells are plotted as a group. For calculating prediction limits, the substitution is performed for individual wells and may differ across wells. This generally gives the most conservative limit in each case.

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). 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 provides visual representation of variation within individual wells and between all wells.

In the April 2020 background screening, Appendix III 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. A summary of the background screening is presented in a later section of this letter. Power curves are provided in this report to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests that the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations. Power curves are based on the following statistical methods and site/data characteristics:

- Semi-Annual Sampling
- Intrawell Prediction Limits with 1-of-2 resample plan
- Interwell Prediction Limits with 1-of-2 resample plan
- # Background Samples (Intrawell): 11
- # Background Samples (Interwell): 59
- # Constituents: 7
- # Downgradient wells: 16

Summary of Statistical Methods – Appendix III Parameters

Based on the April 2020 background screening described below, the following statistical methods were selected for Appendix III parameters:

- Intrawell prediction limits, combined with a 1-of-2 resample plan for pH and sulfate
- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, and TDS.

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. While the annual false positive rate associated with parametric limits is fixed at 10% as recommended by the EPA Unified Guidance (2009), the false positive rate associated with nonparametric limits is not fixed and depends upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits as appropriate. Nondetects are handled as follows:

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit

utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.

- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In the interwell case, prediction limits are updated with upgradient well data following each sampling event after careful screening for any new outliers. While not required for this report, in some cases, deselecting the earlier portion of data may be necessary prior to construction of limits so that resulting statistical limits are conservative (lower) from a regulatory perspective and capable of rapidly detecting changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Appendix III Background Screening Summary – April 2020

Background data for Appendix III parameters were screened for outliers using Tukey's test for outliers and/or visual screening, and identified outliers were flagged with "o" in the database and shown in a lighter font on the time series graphs and data pages. A list of flagged outliers is included with this report (Appendix C). Flagged values are excluded from background in the calculation of statistical limits in order to better represent background conditions and to produce limits are that conservative from a regulatory perspective. No seasonal patterns were visually apparent on any of the time series plots, and no seasonal adjustments were made.

The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends. In the absence of suspected contamination, significant trending data are typically not included in the background used for construction of prediction limits. This step serves to reduce variation in background and better represent current background conditions. The results of the trend analyses showed several statistically significant increasing and decreasing trends.

However, the background time period is short, and all trends noted were relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to any of the records. Detailed trend test results were included with the April 2020 screening report.

Selection of appropriate statistical methods for detecting changes in Appendix III parameter concentrations in downgradient wells is based upon two criteria. The first is spatial variation in concentrations among upgradient wells. The second is statistical comparison of average concentrations in downgradient wells to expected upper limits of corresponding concentrations in upgradient wells.

Analysis of Variance (ANOVA) was used to evaluate spatial variation in groundwater quality among upgradient wells. For the downgradient/upgradient comparison, upper tolerance limits on pooled upgradient well data for each constituent were used in conjunction with confidence intervals for each downgradient well/constituent. When parametric limits are used, the upper tolerance limit includes 95% of the pooled upgradient "population" with 99% confidence; and the confidence interval includes the mean of each downgradient well/constituent with 99% confidence. When nonparametric limits are used, the confidence levels and coverage depend upon the background sample size. When the entire confidence interval for at least one downgradient well/constituent exceeds the upper tolerance limit, interwell methods are initially recommended for that constituent.

Based on the results of the ANOVA and tolerance limit/confidence interval analyses, intrawell limits were recommended for sulfate, and interwell methods were recommended for boron, calcium, chloride, fluoride, pH and TDS. However, as shown on the boxplots, the upgradient levels for pH are very low (acid) and are not representative of downgradient water quality. Therefore, intrawell limits were recommended for pH as well—unless or until a future study confirms that those low levels are representative of unimpacted downgradient conditions.

Evaluation of Appendix III Parameters – September 2020

For Appendix III parameters that are analyzed using interwell limits, background (upgradient) well data through September 2020 were re-assessed for potential outliers during this analysis. No new values were flagged. Appendix III parameters analyzed using intrawell prediction limits use background data through May 2019. Those data were screened in the April 2020 analysis summarized above. A list of flagged outliers follows this report (Figure C). As stated earlier, flagged outliers are excluded from calculation of prediction limits.

Interwell prediction limits combined with a 1-of-2 verification strategy were constructed for boron, calcium, chloride, fluoride, and TDS (Figure D). Interwell prediction limits pool upgradient well data through the most recent sampling event to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

Intrawell prediction limits combined with a 1-of-2 verification strategy were constructed for pH and sulfate (Figure E). Intrawell limits are constructed from background data from within each well that are screened over the background time period and updated periodically with newer data and further screening. The most recent sample for each well/constituent pair is compared to its respective background limit. This statistical method removes the element of variation from across wells and eliminates the chance of mistaking natural spatial variation for an impact of the facility. Background data will be re-evaluated when a minimum of 4 compliance samples are available.

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. Both summary tables and complete graphical results for prediction limits may be found in Figure D (interwell) and Figure E (intrawell) following this letter. Exceedances for both interwell and intrawell prediction limits were identified for the following well/constituent pairs:

Interwell:

- Boron: BY-AP-MW-1, BY-AP-MW-8, BY-AP-MW-9, BY-APMW-10, and BY-AP-MW-16
- Calcium: BY-AP-MW-1, BY-AP-MW-2, BY-AP-MW-5, BY-APMW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-APMW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Chloride: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-APMW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-APMW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Fluoride: BY-AP-MW-1, BY-AP-MW-7, and BY-AP-MW-15

- TDS: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-APMW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-APMW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16

Intrawell:

- pH: BY-AP-MW-3, BY-AP-MW-8, BY-AP-MW-9, BY-APMW-11, BY-AP-MW-13, BY-AP-MW-14, and BY-AP-MW-16
- Sulfate: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-8, BY-APMW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-15, and BY-AP-MW-16

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure F). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site. Upgradient trends are an indication of natural variability in groundwater quality unrelated to practices at the site. A summary of the trend test results follows this letter. Statistically significant trends were identified for the following well/constituent pairs:

Increasing:

- Boron: BY-AP-MW-10
- Calcium: BY-GSA-MW-2 (upgradient), BY-GSA-MW-4 (upgradient), BY-AP-MW-7, BY-AP-MW-10, BY-AP-MW-12, and BY-AP-MW-15
- Chloride: BY-AP-MW-10, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Sulfate: BY-AP-MW-1 and BY-AP-MW-11
- TDS: BY-GSA-MW-1 (upgradient), BY-GSA-MW-2 (upgradient), BY-GSA-MW-4 (upgradient), and BY-AP-MW-15

Decreasing:

- Boron: BY-AP-MW-8
- Calcium: BY-AP-MW-8 and BY-AP-MW-11
- Chloride: BY-GSA-MW-2 (upgradient)
- pH: BY-GSA-MW-1 (upgradient), BY-GSA-MW-2 (upgradient), BY-AP-MW-8, and BY-AP-MW-13

Evaluation of Appendix IV Parameters – September 2020

Data from all wells for Appendix IV parameters are reassessed for outliers during each analysis, and no new outliers were flagged. A summary of flagged outliers follows this report (Figure C).

In accordance with Alabama Department of Environmental Management, the Groundwater Protection Standards (GWPS) utilized during the 2019 2nd semi-annual report were used in the confidence interval analysis for this 2020 2nd semi-annual report. The GWPS will be updated during the 2021 2nd semi-annual statistical analysis. The methodology used to create these GWPS is described below.

First, background limits were determined using tolerance limits constructed from pooled upgradient well data. The tolerance limits contain a known fraction (coverage) of the background population with a known level of confidence. When data followed a normal or transformed-normal distribution, parametric tolerance limits were used to calculate background limits for Appendix IV parameters using pooled upgradient well data through October 2019 with a target of 95% confidence and 95% coverage (Figure F).

Nonparametric tolerance limits, which use the highest value in background as the statistical limit, were constructed when data did not follow a normal or transformed-normal distribution or when there were greater than 50% nondetects. The confidence and coverage levels for nonparametric tolerance limits are dependent upon the number of background samples. These background limits were then compared to the Maximum Contaminant Levels (MCLs) for each parameter, and the higher of the two was used as the GWPS (Figure G) in the confidence interval comparisons described below. Note that none of the parametric tolerance limits resulted in higher limits than the established MCLs or CCR-Rule Specified Limits. In future UTL calculations, nonparametric tolerance limits will be used exclusively, as requested by ADEM, to eliminate the effect of variation among upgradient wells.

Confidence intervals were then constructed on downgradient wells using a maximum of the most recent 8 samples through September 2020 for each of the Appendix IV parameters. These intervals were constructed as either parametric or nonparametric confidence intervals depending on the data distribution and percentage of nondetects. As mentioned above, well/constituent pairs with 100% nondetects did not require statistics and were, therefore, excluded from construction of confidence intervals. A list of 100% nondetect well/constituent pairs follows this report. The decision logic, with respect to the use of a parametric or nonparametric confidence intervals, is similar to that used to construct tolerance limits as discussed above. 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.

Exceedances were identified for the following well/constituent pairs:

- Arsenic: BY-AP-MW-1, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, and BY-AP-MW-16
- Cobalt: BY-AP-MW-7 and BY-AP-MW-15

A summary table of these exceedances, followed by complete tabular and graphical comparisons of confidence intervals against GWPS for each Appendix IV constituent, is included in Figure I.

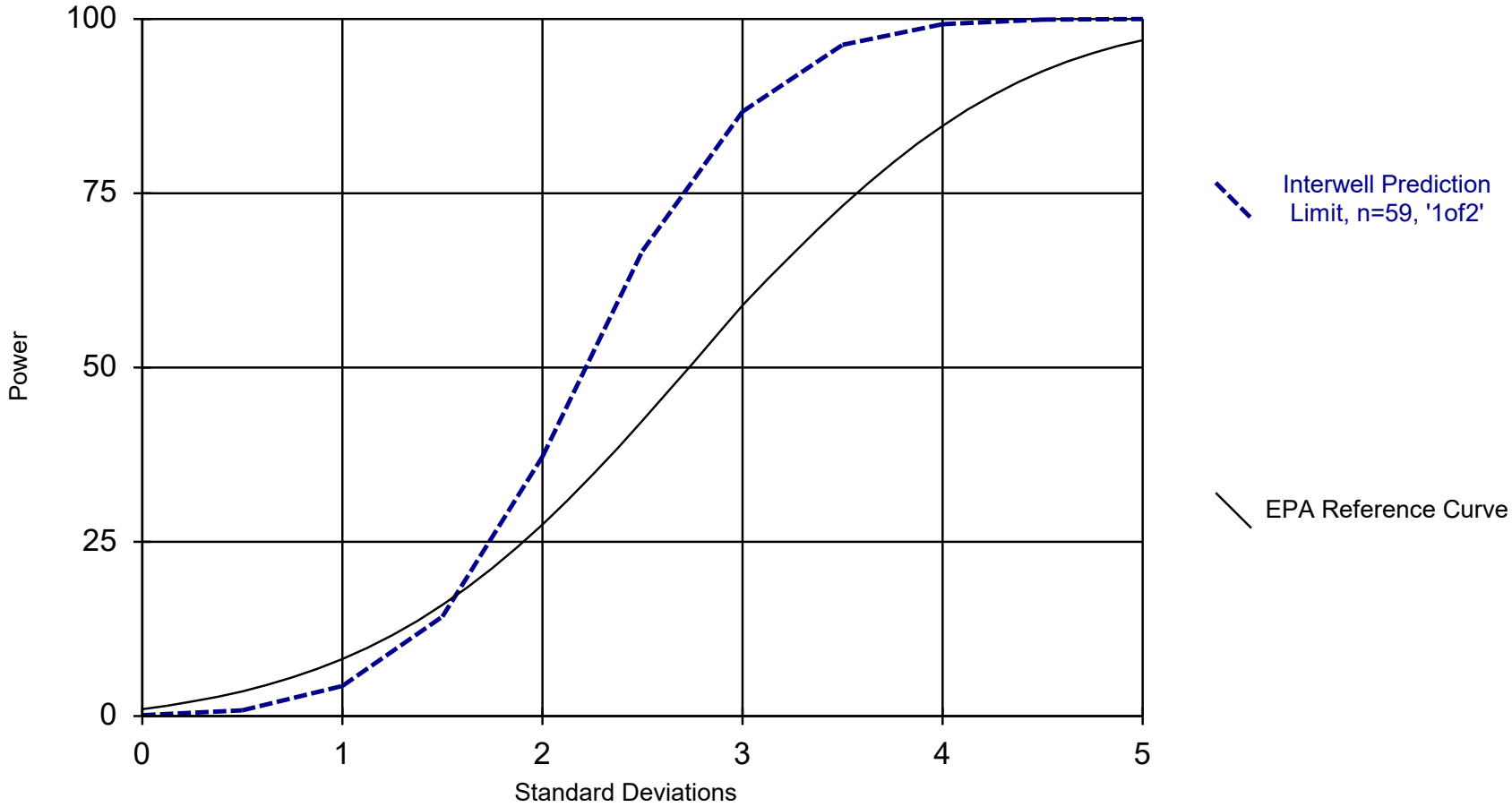
Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Barry Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,

Andrew Collins
Project Manager

Kristina Rayner
Groundwater Statistician

Interwell Power Curve

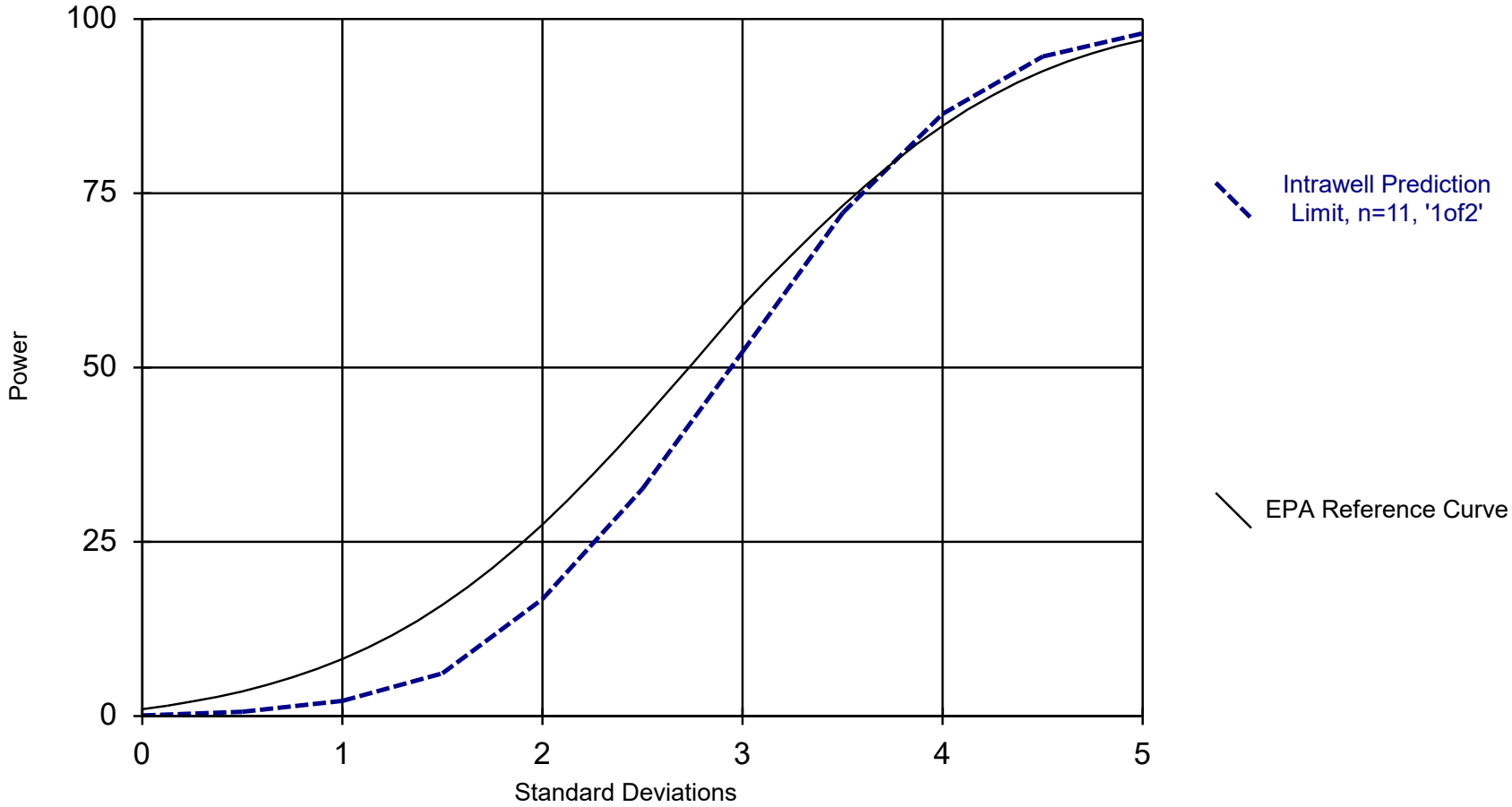


Kappa = 2.131, based on 16 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 12/9/2020 11:44 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Intrawell Power Curve



Kappa = 2.915, based on 16 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 12/9/2020 11:44 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

100% Non-Detects

Analysis Run 12/8/2020 5:16 PM View: Appendix IV - Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Arsenic (mg/L)
BY-AP-MW-3, BY-AP-MW-4

Beryllium (mg/L)
BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Cadmium (mg/L)
BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Chromium (mg/L)
BY-AP-MW-10, BY-AP-MW-15, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-8, BY-AP-MW-9

Cobalt (mg/L)
BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-3, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-8, BY-AP-MW-9

Lead (mg/L)
BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-7, BY-AP-MW-8

Lithium (mg/L)
BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-8, BY-AP-MW-9

Mercury (mg/L)
BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Molybdenum (mg/L)
BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Selenium (mg/L)
BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Thallium (mg/L)
BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-14, BY-AP-MW-15, BY-AP-MW-16, BY-AP-MW-2, BY-AP-MW-3, BY-AP-MW-4, BY-AP-MW-5, BY-AP-MW-6, BY-AP-MW-7, BY-AP-MW-8, BY-AP-MW-9

Appendix III - Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 4:52 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-AP-MW-1	0.188	n/a	9/1/2020	2.11	Yes	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-10	0.188	n/a	9/1/2020	2.02	Yes	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-16	0.188	n/a	9/2/2020	1.9	Yes	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-8	0.188	n/a	9/2/2020	1.26	Yes	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-9	0.188	n/a	9/2/2020	2.05	Yes	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-AP-MW-1	2.063	n/a	9/1/2020	40.5	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-10	2.063	n/a	9/1/2020	57.2	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-11	2.063	n/a	9/1/2020	23.9	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-12	2.063	n/a	9/1/2020	22.2	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-13	2.063	n/a	9/1/2020	12.3	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-14	2.063	n/a	9/2/2020	10.8	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-15	2.063	n/a	9/2/2020	7.04	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-16	2.063	n/a	9/2/2020	13.1	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-2	2.063	n/a	8/31/2020	3	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-5	2.063	n/a	9/1/2020	13.6	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-7	2.063	n/a	9/2/2020	10.4	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-8	2.063	n/a	9/2/2020	31.5	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-9	2.063	n/a	9/2/2020	38	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-1	9.9	n/a	9/1/2020	25.7	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-10	9.9	n/a	9/1/2020	25	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-11	9.9	n/a	9/1/2020	23.2	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-12	9.9	n/a	9/1/2020	23.4	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-13	9.9	n/a	9/1/2020	39.1	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-14	9.9	n/a	9/2/2020	47.2	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-15	9.9	n/a	9/2/2020	47	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-16	9.9	n/a	9/2/2020	20.8	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-5	9.9	n/a	9/1/2020	19.1	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-7	9.9	n/a	9/2/2020	12.9	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-8	9.9	n/a	9/2/2020	22.2	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-9	9.9	n/a	9/2/2020	18.5	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-1	0.1	n/a	9/1/2020	0.194	Yes	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-15	0.1	n/a	9/2/2020	0.18	Yes	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-7	0.1	n/a	9/2/2020	0.109	Yes	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-1	58	n/a	9/1/2020	454	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-10	58	n/a	9/1/2020	392	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-11	58	n/a	9/1/2020	399	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-12	58	n/a	9/1/2020	356	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-13	58	n/a	9/1/2020	285	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-14	58	n/a	9/2/2020	327	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-15	58	n/a	9/2/2020	208	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-16	58	n/a	9/2/2020	279	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-5	58	n/a	9/1/2020	253	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-7	58	n/a	9/2/2020	129	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-8	58	n/a	9/2/2020	298	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-9	58	n/a	9/2/2020	301	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 4:52 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-AP-MW-1**	**0.188**	**n/a**	**9/1/2020**	**2.11**	**Yes**	**59**	**n/a**	**n/a**	**81.36**	**n/a**	**n/a**	**0.0005305**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-AP-MW-10**	**0.188**	**n/a**	**9/1/2020**	**2.02**	**Yes**	**59**	**n/a**	**n/a**	**81.36**	**n/a**	**n/a**	**0.0005305**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	BY-AP-MW-11	0.188	n/a	9/1/2020	0.104	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-12	0.188	n/a	9/1/2020	0.115	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-13	0.188	n/a	9/1/2020	0.0642J	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-14	0.188	n/a	9/2/2020	0.0789J	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-15	0.188	n/a	9/2/2020	0.148	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	**BY-AP-MW-16**	**0.188**	**n/a**	**9/2/2020**	**1.9**	**Yes**	**59**	**n/a**	**n/a**	**81.36**	**n/a**	**n/a**	**0.0005305**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	BY-AP-MW-2	0.188	n/a	8/31/2020	0.1ND	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-3	0.188	n/a	9/1/2020	0.1ND	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-4	0.188	n/a	9/1/2020	0.1ND	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-5	0.188	n/a	9/1/2020	0.115	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-6	0.188	n/a	9/2/2020	0.1ND	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-7	0.188	n/a	9/2/2020	0.042J	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	**BY-AP-MW-8**	**0.188**	**n/a**	**9/2/2020**	**1.26**	**Yes**	**59**	**n/a**	**n/a**	**81.36**	**n/a**	**n/a**	**0.0005305**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-AP-MW-9**	**0.188**	**n/a**	**9/2/2020**	**2.05**	**Yes**	**59**	**n/a**	**n/a**	**81.36**	**n/a**	**n/a**	**0.0005305**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**BY-AP-MW-1**	**2.063**	**n/a**	**9/1/2020**	**40.5**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-10**	**2.063**	**n/a**	**9/1/2020**	**57.2**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-11**	**2.063**	**n/a**	**9/1/2020**	**23.9**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-12**	**2.063**	**n/a**	**9/1/2020**	**22.2**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-13**	**2.063**	**n/a**	**9/1/2020**	**12.3**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-14**	**2.063**	**n/a**	**9/2/2020**	**10.8**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-15**	**2.063**	**n/a**	**9/2/2020**	**7.04**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-16**	**2.063**	**n/a**	**9/2/2020**	**13.1**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-2**	**2.063**	**n/a**	**8/31/2020**	**3**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	BY-AP-MW-3	2.063	n/a	9/1/2020	1.08	No	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-4	2.063	n/a	9/1/2020	0.566	No	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	**BY-AP-MW-5**	**2.063**	**n/a**	**9/1/2020**	**13.6**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	BY-AP-MW-6	2.063	n/a	9/2/2020	1.8	No	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	**BY-AP-MW-7**	**2.063**	**n/a**	**9/2/2020**	**10.4**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-8**	**2.063**	**n/a**	**9/2/2020**	**31.5**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-9**	**2.063**	**n/a**	**9/2/2020**	**38**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Chloride (mg/L)	**BY-AP-MW-1**	**9.9**	**n/a**	**9/1/2020**	**25.7**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-10**	**9.9**	**n/a**	**9/1/2020**	**25**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-11**	**9.9**	**n/a**	**9/1/2020**	**23.2**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-12**	**9.9**	**n/a**	**9/1/2020**	**23.4**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-13**	**9.9**	**n/a**	**9/1/2020**	**39.1**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-14**	**9.9**	**n/a**	**9/2/2020**	**47.2**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-15**	**9.9**	**n/a**	**9/2/2020**	**47**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-16**	**9.9**	**n/a**	**9/2/2020**	**20.8**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	BY-AP-MW-2	9.9	n/a	8/31/2020	8.3	No	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-3	9.9	n/a	9/1/2020	8.97	No	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-4	9.9	n/a	9/1/2020	7.82	No	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	**BY-AP-MW-5**	**9.9**	**n/a**	**9/1/2020**	**19.1**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	BY-AP-MW-6	9.9	n/a	9/2/2020	5.94	No	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	**BY-AP-MW-7**	**9.9**	**n/a**	**9/2/2020**	**12.9**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-8**	**9.9**	**n/a**	**9/2/2020**	**22.2**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-9**	**9.9**	**n/a**	**9/2/2020**	**18.5**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	**BY-AP-MW-1**	**0.1**	**n/a**	**9/1/2020**	**0.194**	**Yes**	**64**	**n/a**	**n/a**	**46.88**	**n/a**	**n/a**	**0.0004581**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	BY-AP-MW-10	0.1	n/a	9/1/2020	0.0794J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-11	0.1	n/a	9/1/2020	0.0841J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-12	0.1	n/a	9/1/2020	0.0845J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-13	0.1	n/a	9/1/2020	0.0757J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-14	0.1	n/a	9/2/2020	0.0957J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	**BY-AP-MW-15**	**0.1**	**n/a**	**9/2/2020**	**0.18**	**Yes**	**64**	**n/a**	**n/a**	**46.88**	**n/a**	**n/a**	**0.0004581**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	BY-AP-MW-16	0.1	n/a	9/2/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 4:52 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	BY-AP-MW-2	0.1	n/a	8/31/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-3	0.1	n/a	9/1/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-4	0.1	n/a	9/1/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-5	0.1	n/a	9/1/2020	0.0921J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-6	0.1	n/a	9/2/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	**BY-AP-MW-7**	**0.1**	**n/a**	**9/2/2020**	**0.109**	**Yes**	**64**	**n/a**	**n/a**	**46.88**	**n/a**	**n/a**	**0.0004581**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	BY-AP-MW-8	0.1	n/a	9/2/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-9	0.1	n/a	9/2/2020	0.0804J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
TDS (mg/L)	**BY-AP-MW-1**	**58**	**n/a**	**9/1/2020**	**454**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-10**	**58**	**n/a**	**9/1/2020**	**392**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-11**	**58**	**n/a**	**9/1/2020**	**399**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-12**	**58**	**n/a**	**9/1/2020**	**356**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-13**	**58**	**n/a**	**9/1/2020**	**285**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-14**	**58**	**n/a**	**9/2/2020**	**327**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-15**	**58**	**n/a**	**9/2/2020**	**208**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-16**	**58**	**n/a**	**9/2/2020**	**279**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	BY-AP-MW-2	58	n/a	8/31/2020	45.3	No	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-3	58	n/a	9/1/2020	39.3	No	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-4	58	n/a	9/1/2020	36	No	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	**BY-AP-MW-5**	**58**	**n/a**	**9/1/2020**	**253**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	BY-AP-MW-6	58	n/a	9/2/2020	37.3	No	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	**BY-AP-MW-7**	**58**	**n/a**	**9/2/2020**	**129**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-8**	**58**	**n/a**	**9/2/2020**	**298**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-9**	**58**	**n/a**	**9/2/2020**	**301**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**

Appendix III - Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 5:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	BY-AP-MW-11	6.407	6.129	9/1/2020	5.87	Yes	15	6.268	0.05294	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-13	6.183	6.001	9/1/2020	5.82	Yes	15	6.092	0.03468	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-14	6.215	5.954	9/2/2020	5.8	Yes	15	37.04	0.6078	0	None	x^2	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-16	5.936	5.675	9/2/2020	5.47	Yes	15	5.805	0.04998	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-3	5.327	4.816	9/1/2020	4.24	Yes	15	5.071	0.0976	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-8	6.288	6.104	9/2/2020	5.89	Yes	15	6.196	0.03521	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-9	6.383	6.124	9/2/2020	5.97	Yes	15	6.253	0.04938	0	None	No	0.0002351	Param Intra 1 of 2
Sulfate (mg/L)	BY-AP-MW-1	6.348	n/a	9/1/2020	23.1	Yes	13	52.17	74.33	46.15	Kaplan-Meier	x^3	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	BY-AP-MW-10	5	n/a	9/1/2020	15.6	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-11	19.37	n/a	9/1/2020	42.8	Yes	13	1.308	0.5028	46.15	Kaplan-Meier	x^(1/3)	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	BY-AP-MW-12	7.04	n/a	9/1/2020	32.1	Yes	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-15	6.2	n/a	9/2/2020	7.61	Yes	13	n/a	n/a	76.92	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-16	6.72	n/a	9/2/2020	13.3	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-5	5.51	n/a	9/1/2020	11	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-8	6.01	n/a	9/2/2020	15.8	Yes	13	n/a	n/a	76.92	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-9	5.91	n/a	9/2/2020	21.9	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2

Appendix III - Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 4:57 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	BY-AP-MW-1	5.947	5.708	9/1/2020	5.89	No	15	5.827	0.04574	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-10	6.413	6.194	9/1/2020	6.33	No	15	6.303	0.04186	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-11**	**6.407**	**6.129**	**9/1/2020**	**5.87**	**Yes**	**15**	**6.268**	**0.05294**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	BY-AP-MW-12	6.282	6.038	9/1/2020	6.19	No	15	6.16	0.04675	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-13**	**6.183**	**6.001**	**9/1/2020**	**5.82**	**Yes**	**15**	**6.092**	**0.03468**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	**BY-AP-MW-14**	**6.215**	**5.954**	**9/2/2020**	**5.8**	**Yes**	**15**	**37.04**	**0.6078**	**0**	**None**	**x^2**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	BY-AP-MW-15	6.831	6.476	9/2/2020	6.57	No	15	6.653	0.06789	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-16**	**5.936**	**5.675**	**9/2/2020**	**5.47**	**Yes**	**15**	**5.805**	**0.04998**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	BY-AP-MW-2	6.156	5.437	8/31/2020	5.57	No	15	5.797	0.1375	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-3**	**5.327**	**4.816**	**9/1/2020**	**4.24**	**Yes**	**15**	**5.071**	**0.0976**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	BY-AP-MW-4	5.362	4.114	9/1/2020	4.23	No	15	4.738	0.2385	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-5	6.062	5.922	9/1/2020	5.93	No	15	5.992	0.02678	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-6	5.627	5.125	9/2/2020	5.16	No	15	5.376	0.09605	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-7	6.419	6.16	9/2/2020	6.25	No	14	6.289	0.04843	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-8**	**6.288**	**6.104**	**9/2/2020**	**5.89**	**Yes**	**15**	**6.196**	**0.03521**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	**BY-AP-MW-9**	**6.383**	**6.124**	**9/2/2020**	**5.97**	**Yes**	**15**	**6.253**	**0.04938**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	BY-GSA-MW-1	4.911	4.482	9/9/2020	4.65	No	14	4.696	0.08025	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-2	4.958	4.493	9/9/2020	4.67	No	14	4.726	0.08689	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-3	5.095	4.729	9/9/2020	4.76	No	14	4.912	0.0683	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-4	5.043	4.641	9/8/2020	4.75	No	14	4.842	0.07516	0	None	No	0.0002351	Param Intra 1 of 2
Sulfate (mg/L)	**BY-AP-MW-1**	**6.348**	**n/a**	**9/1/2020**	**23.1**	**Yes**	**13**	**52.17**	**74.33**	**46.15**	**Kaplan-Meier**	**x^3**	**0.0004702**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-10**	**5**	**n/a**	**9/1/2020**	**15.6**	**Yes**	**13**	**n/a**	**n/a**	**69.23**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-11**	**19.37**	**n/a**	**9/1/2020**	**42.8**	**Yes**	**13**	**1.308**	**0.5028**	**46.15**	**Kaplan-Meier**	**x^(1/3)**	**0.0004702**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-12**	**7.04**	**n/a**	**9/1/2020**	**32.1**	**Yes**	**12**	**n/a**	**n/a**	**75**	**n/a**	**n/a**	**0.01077**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	BY-AP-MW-13	49.5	n/a	9/1/2020	14.2	No	13	n/a	n/a	38.46	n/a	n/a	0.009692	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-AP-MW-14	67.6	n/a	9/2/2020	18.5	No	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	**BY-AP-MW-15**	**6.2**	**n/a**	**9/2/2020**	**7.61**	**Yes**	**13**	**n/a**	**n/a**	**76.92**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-16**	**6.72**	**n/a**	**9/2/2020**	**13.3**	**Yes**	**13**	**n/a**	**n/a**	**69.23**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	BY-AP-MW-2	3.3	n/a	8/31/2020	0.576J	No	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-3	5	n/a	9/1/2020	0.705J	No	13	n/a	n/a	53.85	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-4	5.906	n/a	9/1/2020	1.83	No	13	2.804	1.132	7.692	None	No	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	**BY-AP-MW-5**	**5.51**	**n/a**	**9/1/2020**	**11**	**Yes**	**13**	**n/a**	**n/a**	**69.23**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	BY-AP-MW-6	2.774	n/a	9/2/2020	1.02	No	13	1.027	0.2332	30.77	Kaplan-Meier	sqrt(x)	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	BY-AP-MW-7	5	n/a	9/2/2020	3.59	No	12	n/a	n/a	50	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	**BY-AP-MW-8**	**6.01**	**n/a**	**9/2/2020**	**15.8**	**Yes**	**13**	**n/a**	**n/a**	**76.92**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-9**	**5.91**	**n/a**	**9/2/2020**	**21.9**	**Yes**	**13**	**n/a**	**n/a**	**69.23**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	BY-GSA-MW-1	23.3	n/a	9/9/2020	16.5	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-GSA-MW-2	10.46	n/a	9/9/2020	6.08	No	11	6.358	1.408	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-3	9.409	n/a	9/9/2020	7.13	No	12	7.456	0.6976	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-4	8.668	n/a	9/8/2020	6.52	No	12	6.626	0.7293	0	None	No	0.0004702	Param Intra 1 of 2

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 5:07 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-AP-MW-10	0.15	76	53	Yes	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-8	-0.1051	-70	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-10	2.598	72	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-11	-0.6568	-78	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-12	0.5938	81	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-15	0.2738	62	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-7	0.6035	93	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-8	-0.7237	-73	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-2 (bg)	0.1427	61	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-4 (bg)	0.1144	65	53	Yes	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-10	1.909	90	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-14	1.573	62	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-15	8.091	102	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-16	1.09	79	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-2 (bg)	-0.4186	-60	-53	Yes	15	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-13	-0.02844	-71	-68	Yes	18	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-8	-0.01843	-70	-68	Yes	18	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-2 (bg)	-0.06003	-77	-63	Yes	17	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-3 (bg)	-0.04822	-69	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-1	1.93	69	58	Yes	16	37.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-11	7.04	79	58	Yes	16	37.5	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	11.54	80	58	Yes	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-1 (bg)	6.385	71	53	Yes	15	6.667	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-2 (bg)	3.19	60	53	Yes	15	13.33	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-4 (bg)	3.921	63	53	Yes	15	26.67	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 5:07 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-AP-MW-1	0.02626	13	53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	**BY-AP-MW-10**	**0.15**	**76**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	BY-AP-MW-16	0.06088	50	53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	**BY-AP-MW-8**	**-0.1051**	**-70**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	BY-AP-MW-9	0.06586	45	53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-1 (bg)	0	17	53	No	15	53.33	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-2 (bg)	0	21	48	No	14	85.71	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-3 (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-4 (bg)	0	19	53	No	15	86.67	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-1	-0.4318	-10	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-AP-MW-10**	**2.598**	**72**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-AP-MW-11**	**-0.6568**	**-78**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-AP-MW-12**	**0.5938**	**81**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-AP-MW-13	0.2354	26	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-14	-0.1528	-12	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-AP-MW-15**	**0.2738**	**62**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-AP-MW-16	-0.03773	-7	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-2	-0.05823	-38	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-5	-0.101	-19	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-AP-MW-7**	**0.6035**	**93**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-AP-MW-8**	**-0.7237**	**-73**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-AP-MW-9	0.07965	8	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-1 (bg)	0.1131	30	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-GSA-MW-2 (bg)**	**0.1427**	**61**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-GSA-MW-3 (bg)	0.06599	44	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-GSA-MW-4 (bg)**	**0.1144**	**65**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-AP-MW-1	1.086	34	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**BY-AP-MW-10**	**1.909**	**90**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-AP-MW-11	0.7006	29	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-12	0.4983	58	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-13	0	0	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**BY-AP-MW-14**	**1.573**	**62**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**BY-AP-MW-15**	**8.091**	**102**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**BY-AP-MW-16**	**1.09**	**79**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-AP-MW-5	0	5	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-7	0.4011	39	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-8	0.5549	29	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-9	-0.6738	-22	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-1 (bg)	0.062	12	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**BY-GSA-MW-2 (bg)**	**-0.4186**	**-60**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-GSA-MW-3 (bg)	-0.0446	-27	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-4 (bg)	-0.05577	-27	-53	No	15	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-AP-MW-1	0.0105	48	58	No	16	18.75	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-AP-MW-15	-0.001465	-18	-58	No	16	6.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-AP-MW-7	0.005247	45	58	No	16	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-1 (bg)	0.009724	46	58	No	16	37.5	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-2 (bg)	0.01509	55	58	No	16	37.5	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-3 (bg)	0.01192	57	58	No	16	56.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-4 (bg)	0.009702	57	58	No	16	56.25	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-11	-0.03028	-55	-68	No	18	0	n/a	n/a	0.01	NP
pH (pH)	**BY-AP-MW-13**	**-0.02844**	**-71**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	BY-AP-MW-14	-0.0158	-26	-68	No	18	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-16	-0.0132	-25	-68	No	18	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-3	-0.03874	-53	-68	No	18	0	n/a	n/a	0.01	NP
pH (pH)	**BY-AP-MW-8**	**-0.01843**	**-70**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 5:07 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH (pH)	BY-AP-MW-9	-0.007464	-9	-68	No	18	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-1 (bg)	0	-3	-63	No	17	0	n/a	n/a	0.01	NP
pH (pH)	**BY-GSA-MW-2 (bg)**	**-0.06003**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-3 (bg)**	**-0.04822**	**-69**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	BY-GSA-MW-4 (bg)	-0.03765	-47	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**BY-AP-MW-1**	**1.93**	**69**	**58**	**Yes**	**16**	**37.5**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	BY-AP-MW-10	0	30	58	No	16	56.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	**BY-AP-MW-11**	**7.04**	**79**	**58**	**Yes**	**16**	**37.5**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	BY-AP-MW-12	1.195	51	53	No	15	60	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-15	0	23	58	No	16	62.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-16	0	26	58	No	16	56.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-5	0.1906	42	58	No	16	56.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-8	0.1336	57	58	No	16	62.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-9	0	28	58	No	16	56.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-1 (bg)	2.511	33	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-2 (bg)	-0.3861	-27	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-3 (bg)	-0.1206	-17	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-4 (bg)	-0.0473	-12	-53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-1	-6.195	-40	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-10	7.891	56	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	2.62	17	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-12	-3.211	-19	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-13	-3.901	-23	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-14	1.66	10	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-AP-MW-15**	**11.54**	**80**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-AP-MW-16	2.459	21	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-4.403	-42	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-7	0.7866	15	53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-8	-3.764	-35	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-9	-2.603	-21	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-GSA-MW-1 (bg)**	**6.385**	**71**	**53**	**Yes**	**15**	**6.667**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-GSA-MW-2 (bg)**	**3.19**	**60**	**53**	**Yes**	**15**	**13.33**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-GSA-MW-3 (bg)	1.858	35	53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-GSA-MW-4 (bg)**	**3.921**	**63**	**53**	**Yes**	**15**	**26.67**	**n/a**	**n/a**	**0.01**	**NP**

Upper Tolerance Limits - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 7/23/2020, 4:09 PM

Constituent	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	52	n/a	n/a	90.38	n/a	n/a	0.06944	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Barium (mg/L)	0.183	n/a	52	n/a	n/a	0	n/a	n/a	0.06944	NP Inter(normal...
Beryllium (mg/L)	0.003	n/a	50	n/a	n/a	94	n/a	n/a	0.07694	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	52	n/a	n/a	96.15	n/a	n/a	0.06944	NP Inter(NDs)
Cobalt (mg/L)	0.0157	n/a	51	n/a	n/a	68.63	n/a	n/a	0.0731	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	3.202	n/a	52	0.9903	0.2355	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.1	n/a	56	n/a	n/a	39.29	n/a	n/a	0.05656	NP Inter(normal...
Lead (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Lithium (mg/L)	0.02	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Mercury (mg/L)	0.0005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)

BARRY ASH POND GWPS			
Analyte	**Units**	**Background**	**GWPS**
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.003	0.004
Cadmium	mg/L	0.001	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.0157
Combined Radium-226/228	pCi/L	3.202	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.005	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01	0.1
Selenium	mg/L	0.01	0.05
Thallium	mg/L	0.001	0.002

Notes:

1. mg/L - Milligrams per liter

2. pCi/L - Picocuries per liter

3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.

4. GWPS established during second semi-annual sampling event in 2019.

Confidence Intervals Summary - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/11/2020, 9:28 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	**BY-AP-MW-1**	**0.07668**	**0.05429**	**0.01**	**Yes**	**8**	**0.06549**	**0.01056**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-10**	**0.07544**	**0.04506**	**0.01**	**Yes**	**8**	**0.06025**	**0.01433**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-11**	**0.01612**	**0.0138**	**0.01**	**Yes**	**8**	**0.01496**	**0.001097**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-12**	**0.02427**	**0.02125**	**0.01**	**Yes**	**8**	**0.02276**	**0.001424**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-13**	**0.0175**	**0.0138**	**0.01**	**Yes**	**8**	**0.01488**	**0.00118**	**0**	**None**	**No**	**0.004**	**NP (normality)**
Arsenic (mg/L)	**BY-AP-MW-14**	**0.01699**	**0.01353**	**0.01**	**Yes**	**8**	**0.01526**	**0.00163**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-15**	**0.01915**	**0.01528**	**0.01**	**Yes**	**8**	**0.01721**	**0.001825**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-16**	**0.01412**	**0.01019**	**0.01**	**Yes**	**8**	**0.01215**	**0.001854**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-5**	**0.03414**	**0.02766**	**0.01**	**Yes**	**8**	**0.0309**	**0.00306**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-7**	**0.0228**	**0.0194**	**0.01**	**Yes**	**8**	**0.0211**	**0.001602**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-8**	**0.06075**	**0.04557**	**0.01**	**Yes**	**8**	**0.05316**	**0.00716**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-9**	**0.04413**	**0.03788**	**0.01**	**Yes**	**8**	**0.04103**	**0.003052**	**0**	**None**	**x^2**	**0.01**	**Param.**
Cobalt (mg/L)	**BY-AP-MW-15**	**0.0361**	**0.02827**	**0.0157**	**Yes**	**8**	**0.03219**	**0.003695**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**BY-AP-MW-7**	**0.01933**	**0.01642**	**0.0157**	**Yes**	**8**	**0.01788**	**0.001375**	**0**	**None**	**No**	**0.01**	**Param.**

Confidence Intervals Summary - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/11/2020, 9:28 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BY-AP-MW-1	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-10	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-11	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-12	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-13	0.003	0.000857	0.006	No	8	0.002732	0.0007577	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-14	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-15	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-16	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-2	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-3	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-4	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-5	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-6	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-7	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-8	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-9	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Arsenic (mg/L)	**BY-AP-MW-1**	**0.07668**	**0.05429**	**0.01**	**Yes**	**8**	**0.06549**	**0.01056**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-10**	**0.07544**	**0.04506**	**0.01**	**Yes**	**8**	**0.06025**	**0.01433**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-11**	**0.01612**	**0.0138**	**0.01**	**Yes**	**8**	**0.01496**	**0.001097**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-12**	**0.02427**	**0.02125**	**0.01**	**Yes**	**8**	**0.02276**	**0.001424**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-13**	**0.0175**	**0.0138**	**0.01**	**Yes**	**8**	**0.01488**	**0.00118**	**0**	**None**	**No**	**0.004**	**NP (normality)**
Arsenic (mg/L)	**BY-AP-MW-14**	**0.01699**	**0.01353**	**0.01**	**Yes**	**8**	**0.01526**	**0.00163**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-15**	**0.01915**	**0.01528**	**0.01**	**Yes**	**8**	**0.01721**	**0.001825**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-16**	**0.01412**	**0.01019**	**0.01**	**Yes**	**8**	**0.01215**	**0.001854**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	BY-AP-MW-2	0.001724	0.001376	0.01	No	8	0.00155	0.000164	0	None	No	0.01	Param.
Arsenic (mg/L)	**BY-AP-MW-5**	**0.03414**	**0.02766**	**0.01**	**Yes**	**8**	**0.0309**	**0.00306**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	BY-AP-MW-6	0.0025	0.0025	0.01	No	8	0.0025	0	100	None	No	0.004	NP (NDs)
Arsenic (mg/L)	**BY-AP-MW-7**	**0.0228**	**0.0194**	**0.01**	**Yes**	**8**	**0.0211**	**0.001602**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-8**	**0.06075**	**0.04557**	**0.01**	**Yes**	**8**	**0.05316**	**0.00716**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-9**	**0.04413**	**0.03788**	**0.01**	**Yes**	**8**	**0.04103**	**0.003052**	**0**	**None**	**x^2**	**0.01**	**Param.**
Barium (mg/L)	BY-AP-MW-1	0.3093	0.2612	2	No	8	0.2853	0.02271	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.07497	0.06311	2	No	8	0.06904	0.005594	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.09023	0.0728	2	No	8	0.08151	0.008224	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.08398	0.07277	2	No	8	0.07838	0.005292	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.0806	0.0688	2	No	8	0.0717	0.003855	0	None	No	0.004	NP (normality)
Barium (mg/L)	BY-AP-MW-14	0.0687	0.0585	2	No	8	0.06155	0.003146	0	None	No	0.004	NP (normality)
Barium (mg/L)	BY-AP-MW-15	0.06907	0.04825	2	No	8	0.05866	0.009823	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.09141	0.07422	2	No	8	0.08281	0.008109	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-2	0.0272	0.0225	2	No	8	0.02485	0.002221	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-3	0.03884	0.03081	2	No	8	0.03483	0.003786	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-4	0.02949	0.01623	2	No	8	0.02286	0.006257	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-5	0.1536	0.1299	2	No	8	0.1418	0.01117	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02734	0.02376	2	No	8	0.02555	0.001687	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.06883	0.05529	2	No	8	0.06206	0.006388	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1484	0.1308	2	No	8	0.1396	0.008314	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1231	0.1124	2	No	8	0.1178	0.005092	0	None	No	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-13	0.003	0.00103	0.004	No	8	0.002754	0.0006965	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-4	0.003	0.00071	0.004	No	8	0.002714	0.0008096	87.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-13	0.001	0.00077	0.005	No	8	0.0009713	0.00008132	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.003983	0.002227	0.1	No	8	0.003105	0.0008286	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-11	0.002994	0.002118	0.1	No	8	0.00255	0.0004594	0	None	ln(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-12	0.00605	0.00325	0.1	No	8	0.004039	0.001119	0	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-13	0.008779	0.006564	0.1	No	8	0.007671	0.001045	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-14	0.005532	0.004665	0.1	No	8	0.005099	0.0004088	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-16	0.01	0.00253	0.1	No	8	0.009066	0.002641	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	BY-AP-MW-7	0.01	0.00328	0.1	No	8	0.00916	0.002376	87.5	None	No	0.004	NP (NDs)

Confidence Intervals Summary - All Results

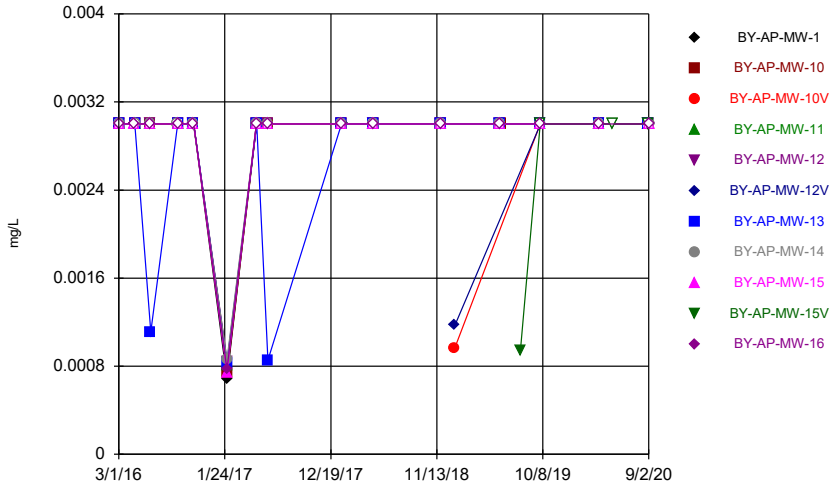
Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/11/2020, 9:28 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	BY-AP-MW-12	0.003448	0.002527	0.0157	No	8	0.002988	0.0004346	0	None	No	0.01	Param.
Cobalt (mg/L)	**BY-AP-MW-15**	**0.0361**	**0.02827**	**0.0157**	**Yes**	**8**	**0.03219**	**0.003695**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	BY-AP-MW-16	0.02052	0.01283	0.0157	No	8	0.01636	0.005129	0	None	x^3	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-2	0.00747	0.006398	0.0157	No	8	0.006934	0.0005056	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-4	0.01247	0.001972	0.0157	No	8	0.006995	0.00645	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Cobalt (mg/L)	**BY-AP-MW-7**	**0.01933**	**0.01642**	**0.0157**	**Yes**	**8**	**0.01788**	**0.001375**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.471	1.274	5	No	8	1.873	0.5649	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	1.292	0.1937	5	No	8	0.7429	0.5181	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	1.005	0.3388	5	No	8	0.672	0.3144	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	1.565	0.7673	5	No	8	1.158	0.4078	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	0.9931	0.6139	5	No	8	0.8035	0.1788	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	1.369	0.2324	5	No	8	0.7748	0.6246	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	1.312	0.2203	5	No	8	0.7661	0.515	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	1.833	0.3455	5	No	8	1.055	0.8431	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-2	0.8261	0.04701	5	No	8	0.4366	0.3675	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-3	1.465	0.1508	5	No	8	0.7704	0.7532	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-4	0.8051	0.1829	5	No	8	0.494	0.2935	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	2.003	0.7016	5	No	8	1.352	0.6139	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	0.8483	-0.01702	5	No	8	0.4156	0.4082	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	0.6952	0.2973	5	No	8	0.4448	0.3172	0	None	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	3.95	0.321	5	No	8	0.9839	1.206	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	1.464	0.6207	5	No	8	1.035	0.5202	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-1	0.1223	0.04378	4	No	8	0.09085	0.04594	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-10	0.1	0.04	4	No	8	0.08459	0.02375	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-AP-MW-11	0.08943	0.05589	4	No	8	0.07266	0.01582	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-12	0.08837	0.04811	4	No	8	0.06824	0.01899	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-13	0.0853	0.0548	4	No	8	0.07005	0.01439	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-14	0.09668	0.07057	4	No	8	0.08363	0.01232	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-15	0.19	0.1	4	No	8	0.1725	0.03016	12.5	None	No	0.004	NP (normality)
Fluoride (mg/L)	BY-AP-MW-16	0.07238	0.05009	4	No	8	0.07574	0.02201	37.5	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-2	0.1	0.037	4	No	8	0.09213	0.02227	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-AP-MW-3	0.1	0.1	4	No	8	0.1	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-AP-MW-4	0.1	0.1	4	No	8	0.1	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-AP-MW-5	0.09357	0.04983	4	No	8	0.0717	0.02063	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-6	0.1	0.1	4	No	8	0.1	0	100	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-AP-MW-7	0.1014	0.07324	4	No	8	0.08731	0.01328	0	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-8	0.07836	0.03928	4	No	8	0.06898	0.02634	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-9	0.07799	0.04953	4	No	8	0.06376	0.01342	0	None	No	0.01	Param.
Lead (mg/L)	BY-AP-MW-6	0.00545	0.00171	0.015	No	8	0.003971	0.001581	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-9	0.005	0.00108	0.015	No	8	0.00451	0.001386	87.5	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-AP-MW-11	0.0384	0.02	0.04	No	8	0.02519	0.006761	37.5	None	No	0.004	NP (normality)
Lithium (mg/L)	BY-AP-MW-15	0.02264	0.01567	0.04	No	8	0.02056	0.003071	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Lithium (mg/L)	BY-AP-MW-7	0.02	0.0102	0.04	No	8	0.01762	0.004401	75	Kaplan-Meier	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-15	0.01	0.00209	0.1	No	8	0.008025	0.003657	75	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-AP-MW-13	0.001	0.000878	0.002	No	8	0.0009848	0.00004313	87.5	None	No	0.004	NP (NDs)

FIGURE A.

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

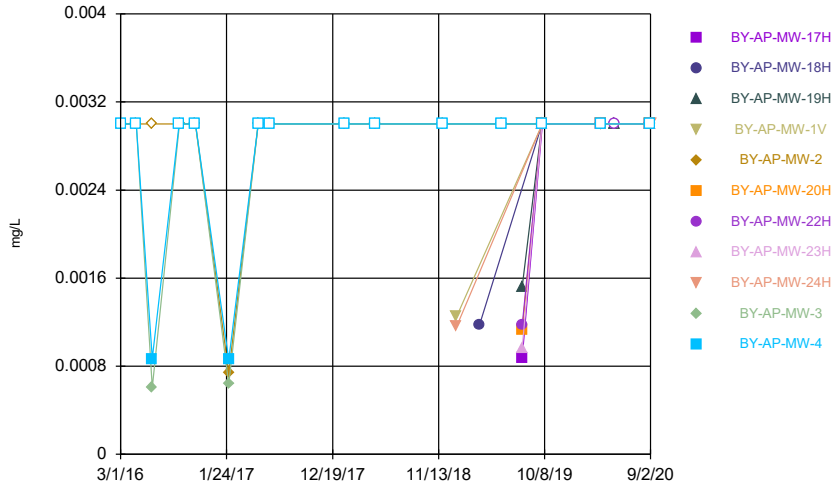
Time Series



Constituent: Antimony Analysis Run 12/11/2020 9:13 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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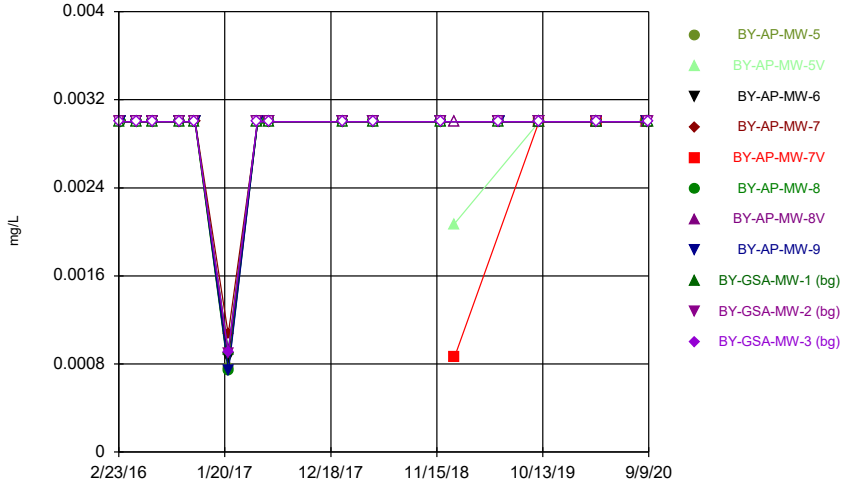
Hollow symbols indicate censored values.

Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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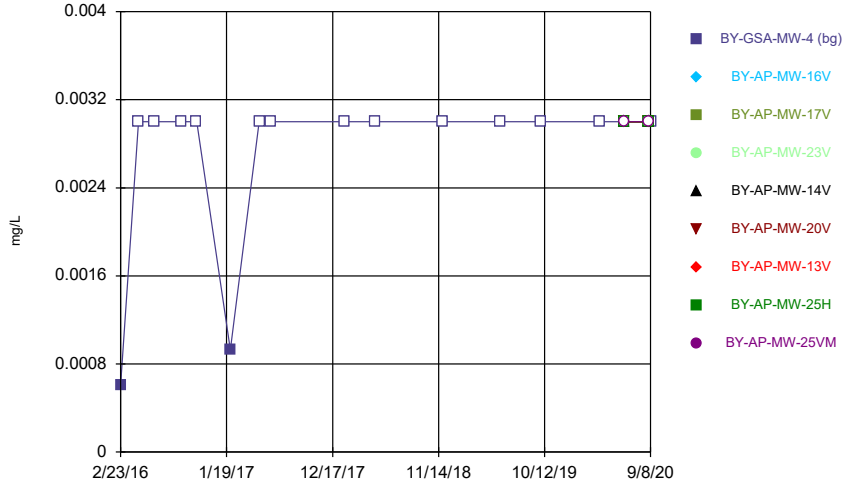
Hollow symbols indicate censored values.

Time Series



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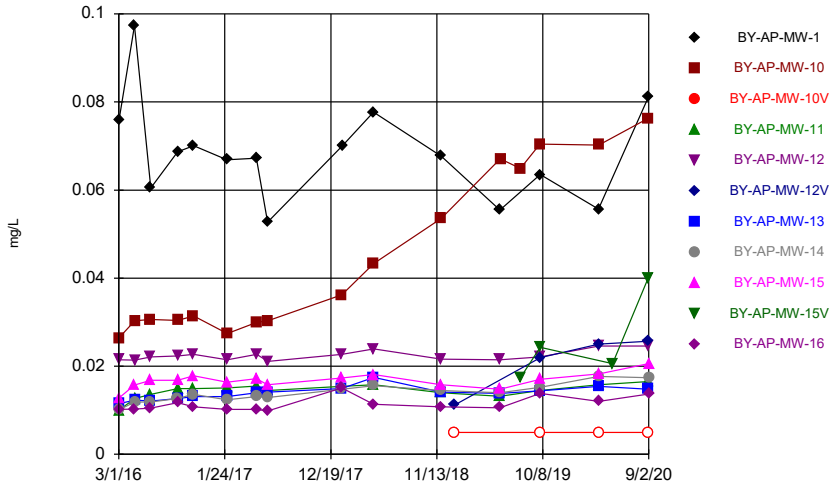
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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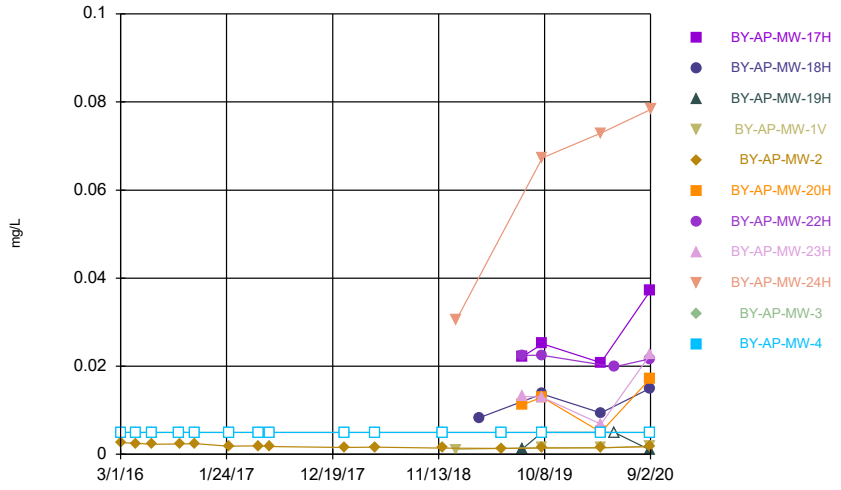
Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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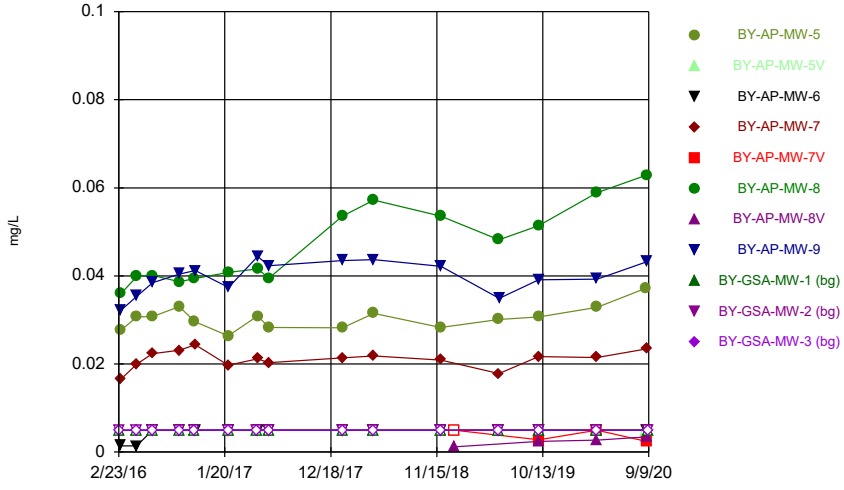
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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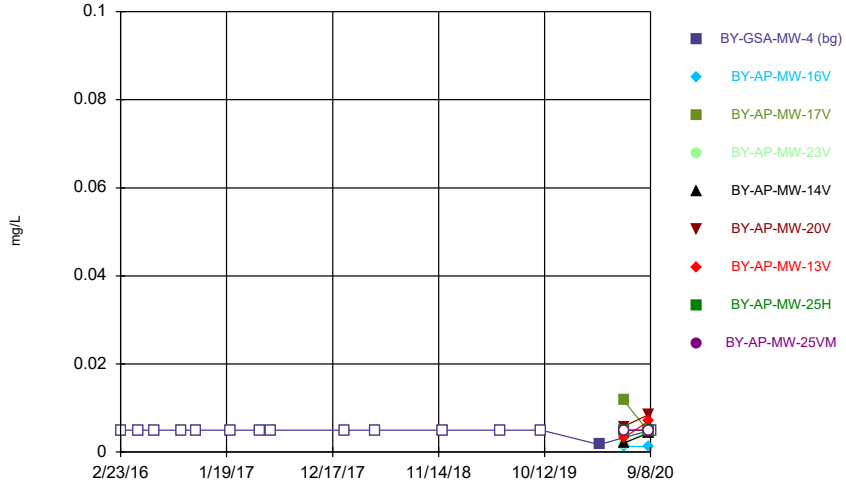
Hollow symbols indicate censored values.

Time Series



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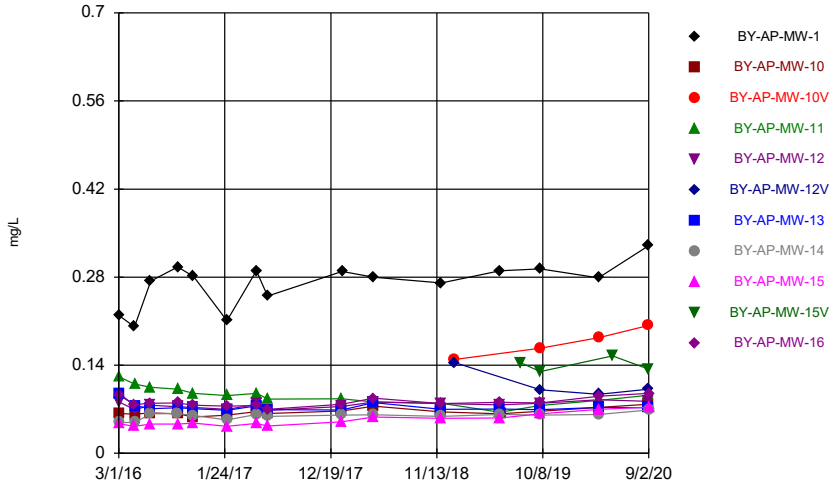
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series



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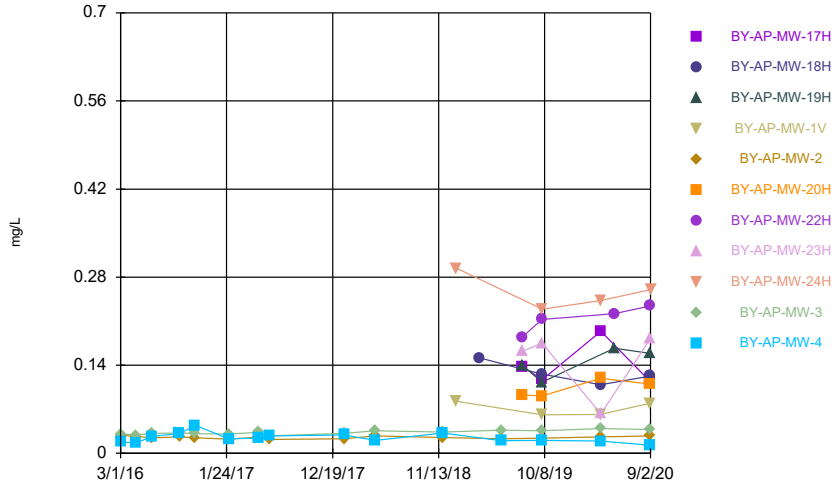
Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series



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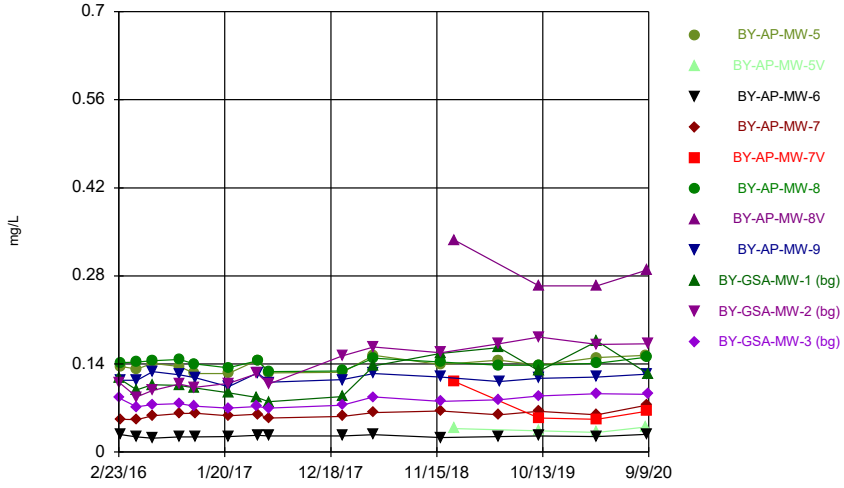
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series



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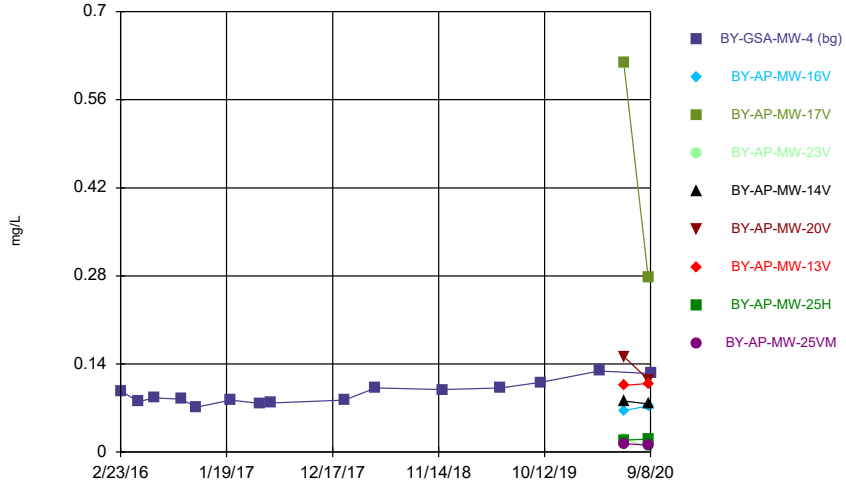
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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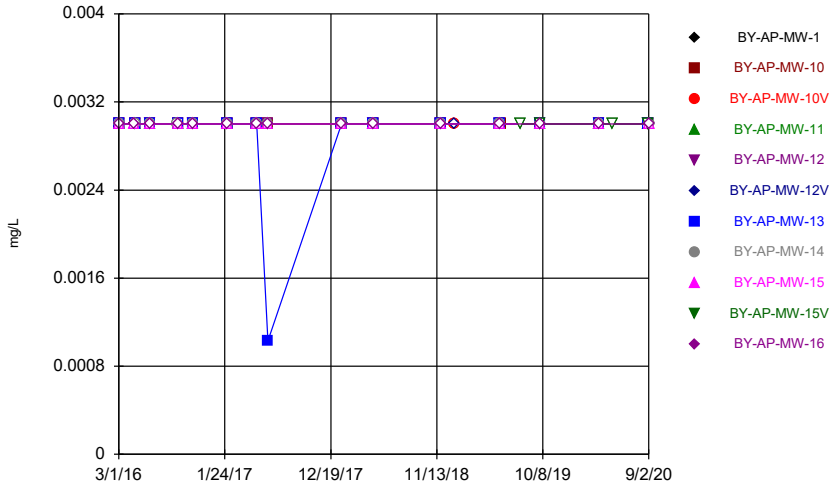
Hollow symbols indicate censored values.

Time Series



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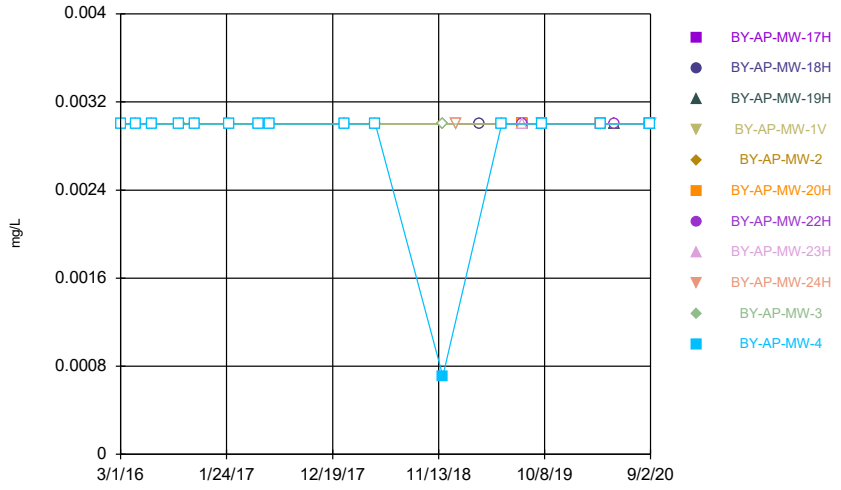
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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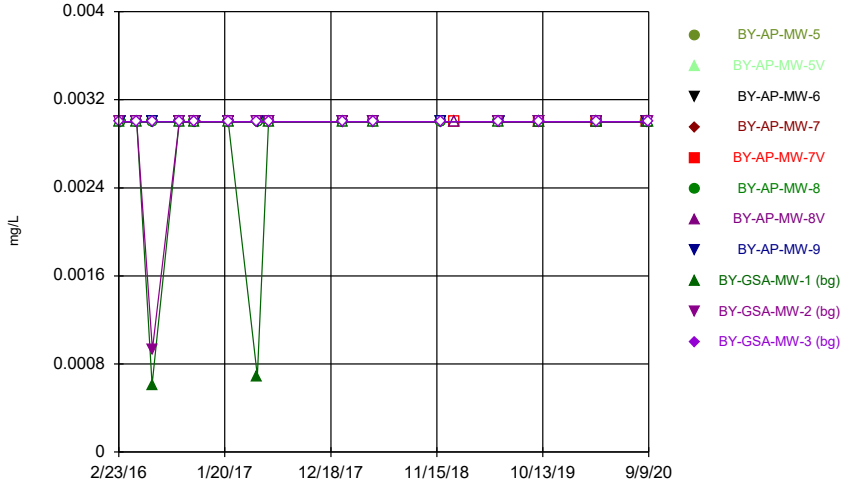
Hollow symbols indicate censored values.

Time Series



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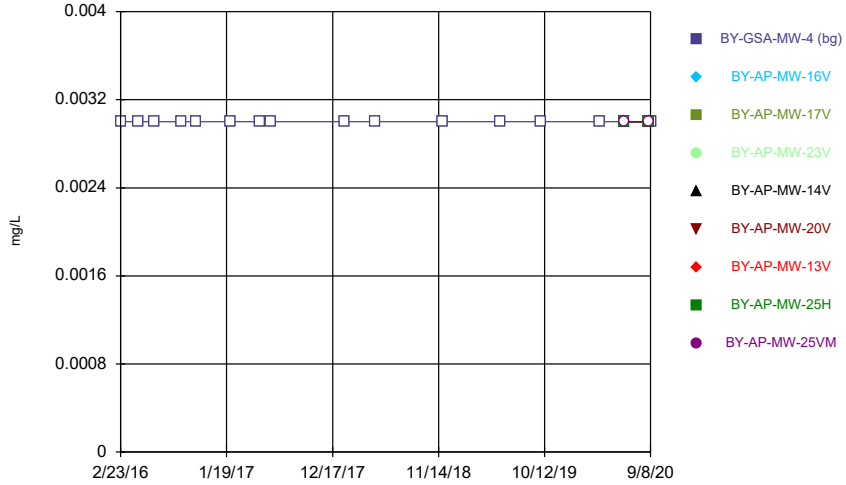
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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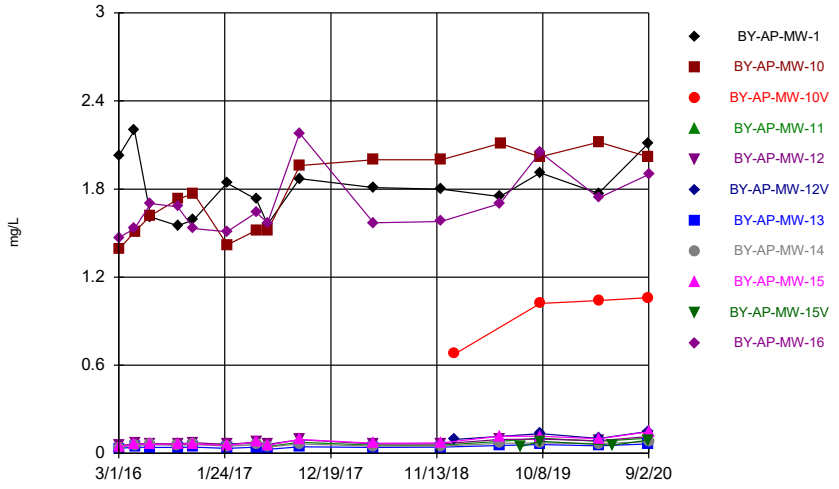
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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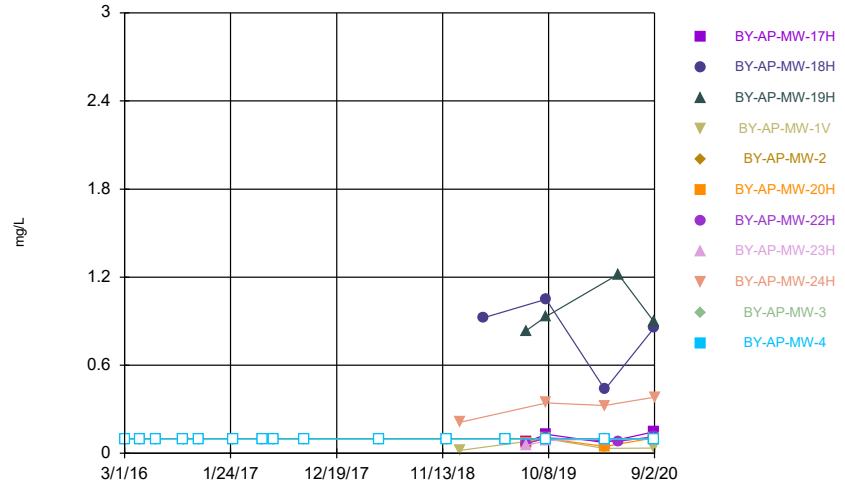
Hollow symbols indicate censored values.

Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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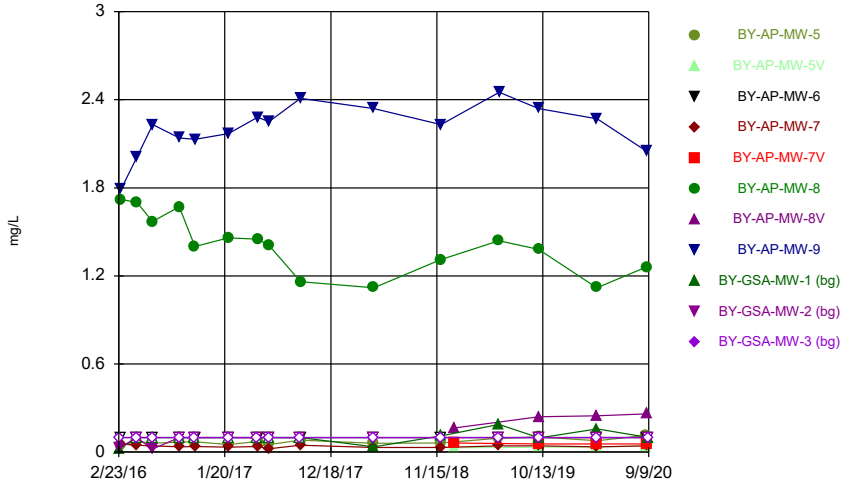

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Plant Barry Client: Southern Company Data: Barry Ash Pond

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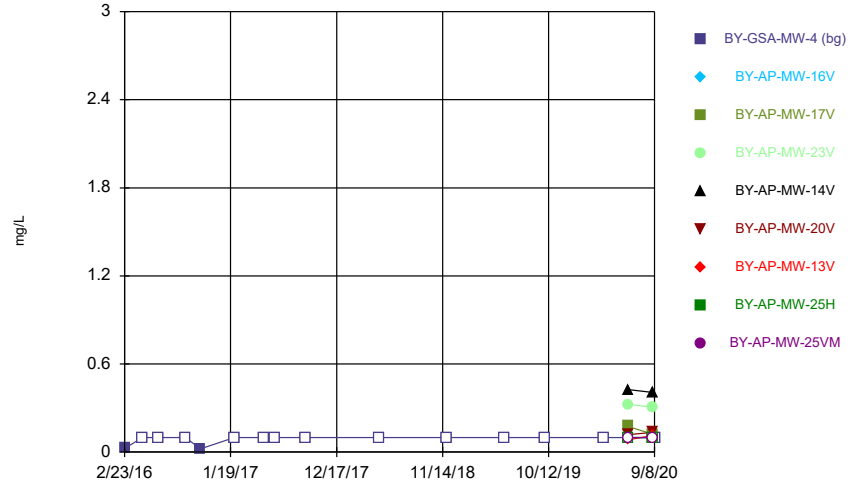
Hollow symbols indicate censored values.

Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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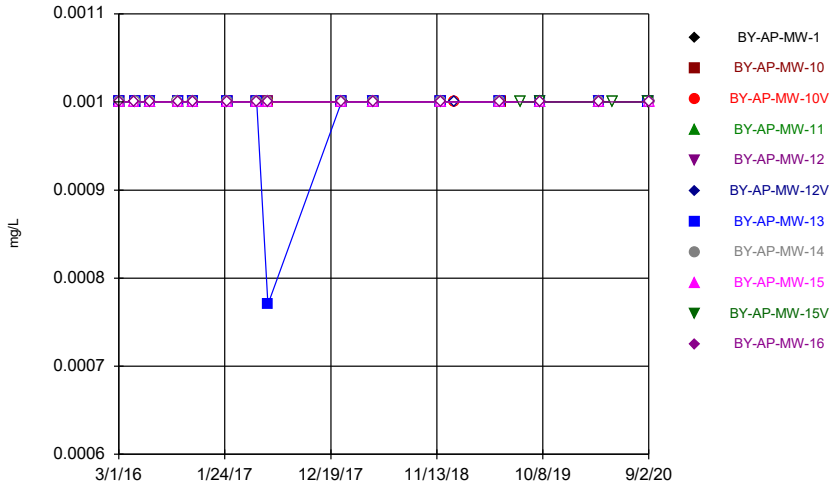
Hollow symbols indicate censored values.

Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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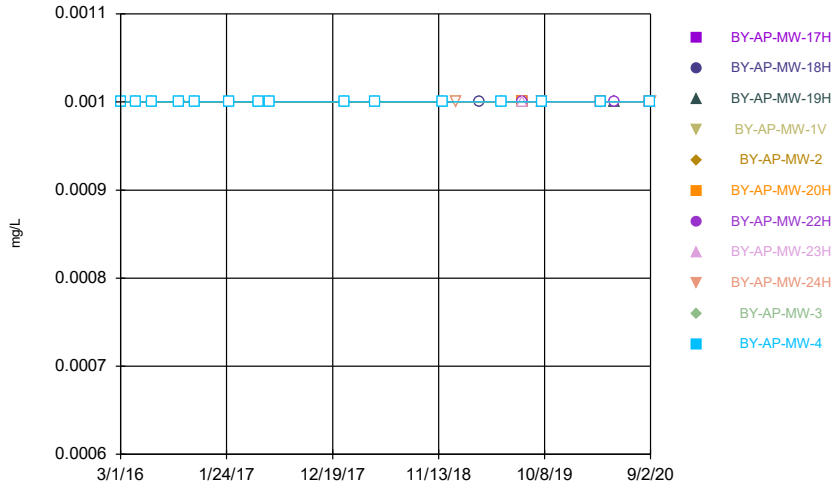
Hollow symbols indicate censored values.

Time Series



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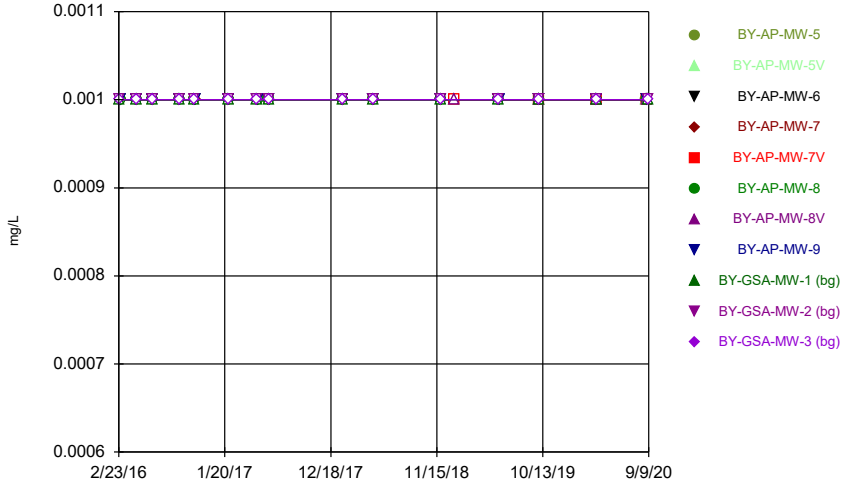
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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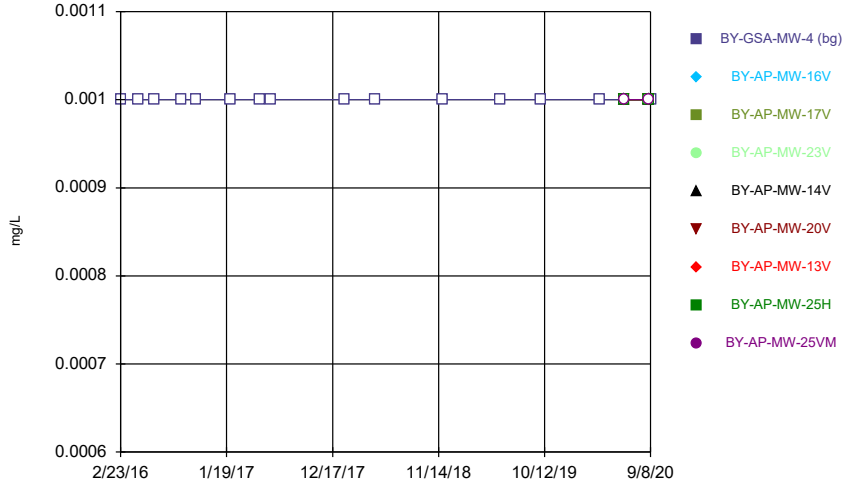
Hollow symbols indicate censored values.

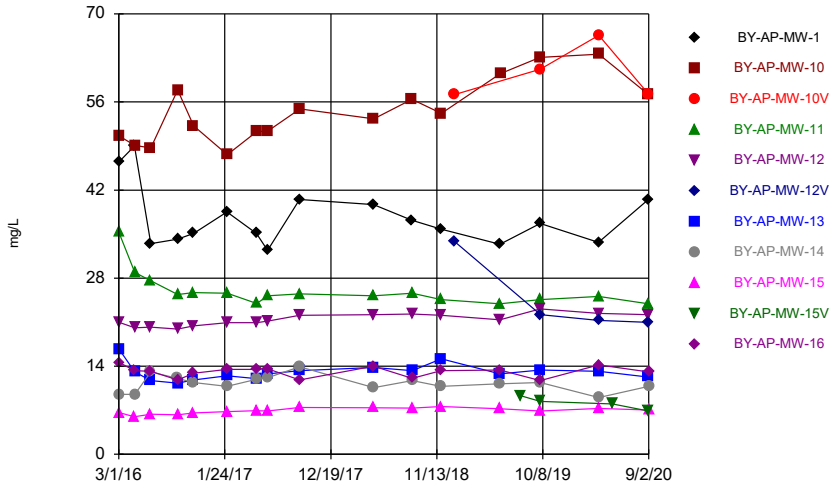
Time Series



Constituent: Cadmium Analysis Run 12/11/2020 9:13 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

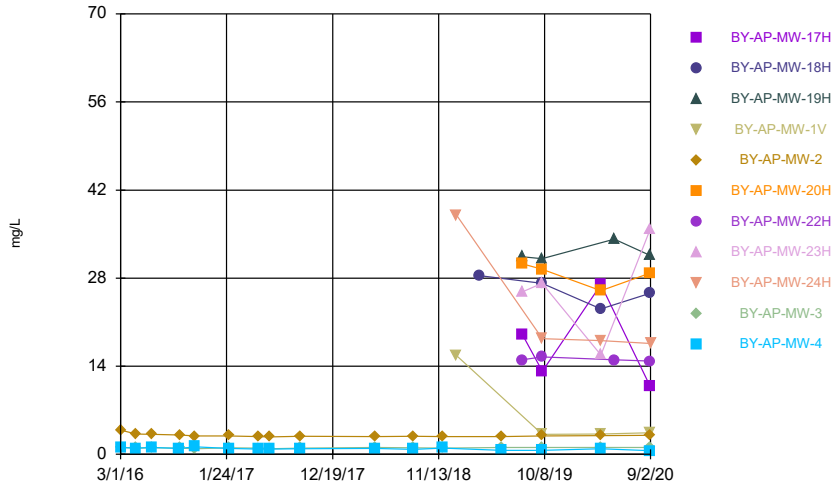


Constituent: Calcium Analysis Run 12/11/2020 9:13 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

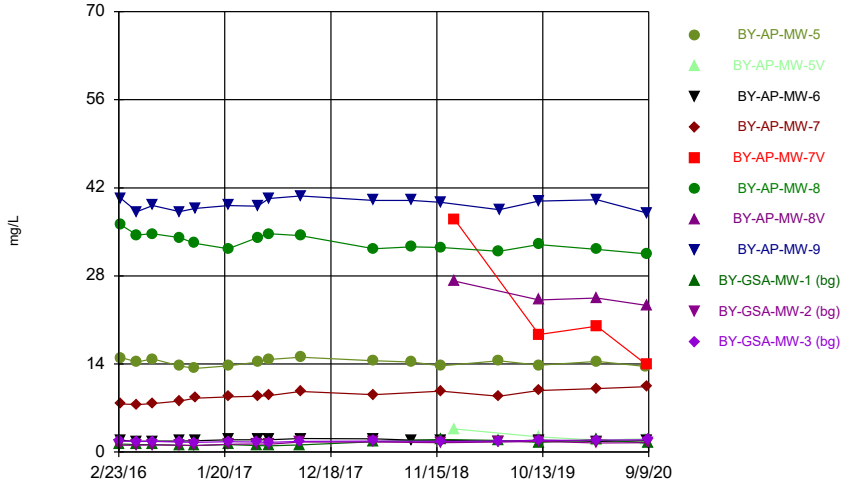


Constituent: Calcium Analysis Run 12/11/2020 9:13 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series



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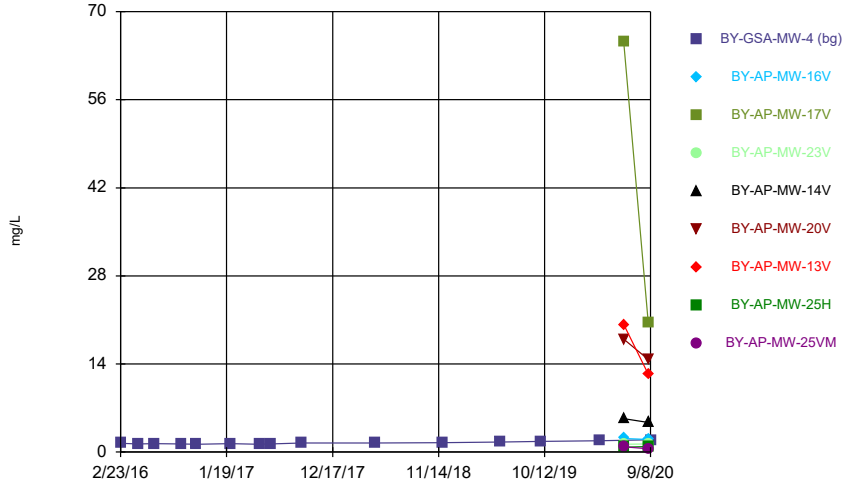
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

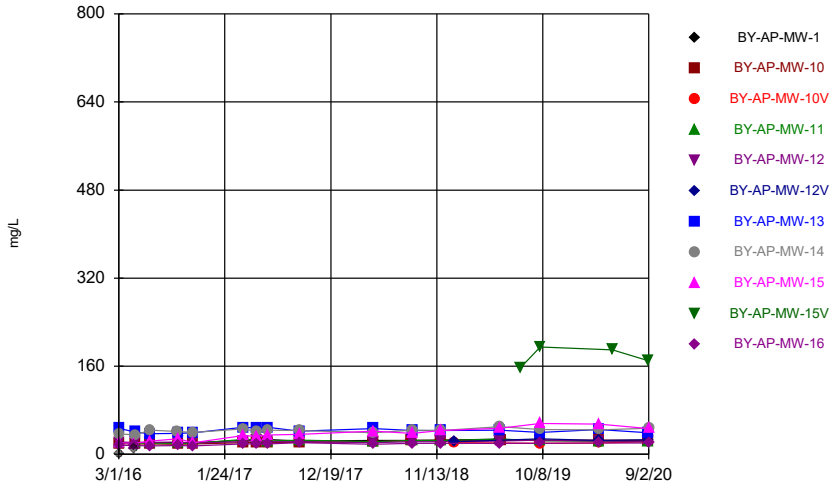


Constituent: Calcium Analysis Run 12/11/2020 9:13 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

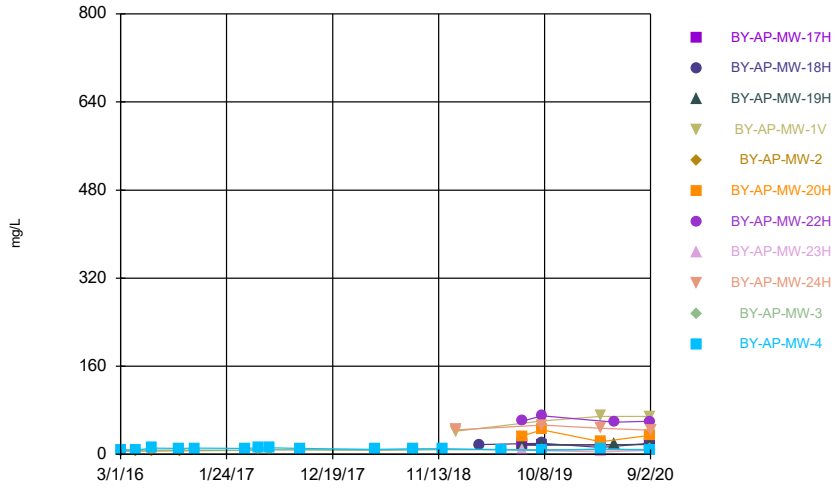


Constituent: Chloride Analysis Run 12/11/2020 9:13 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

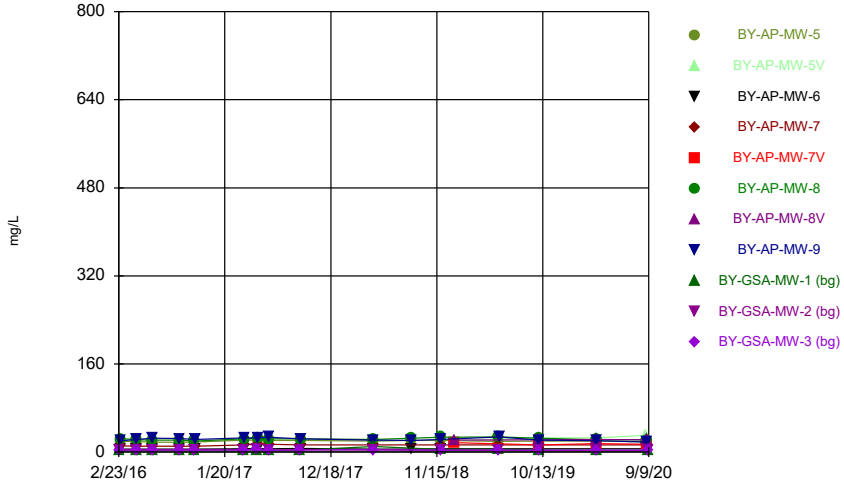


Constituent: Chloride Analysis Run 12/11/2020 9:13 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series



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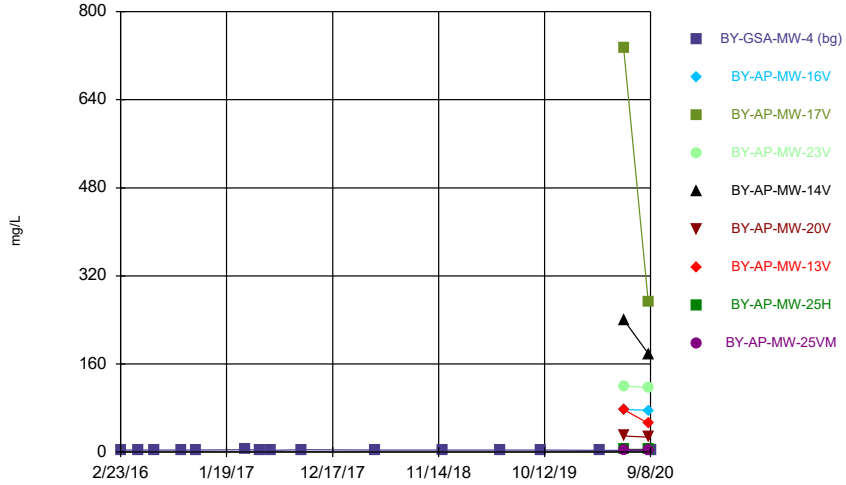
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series



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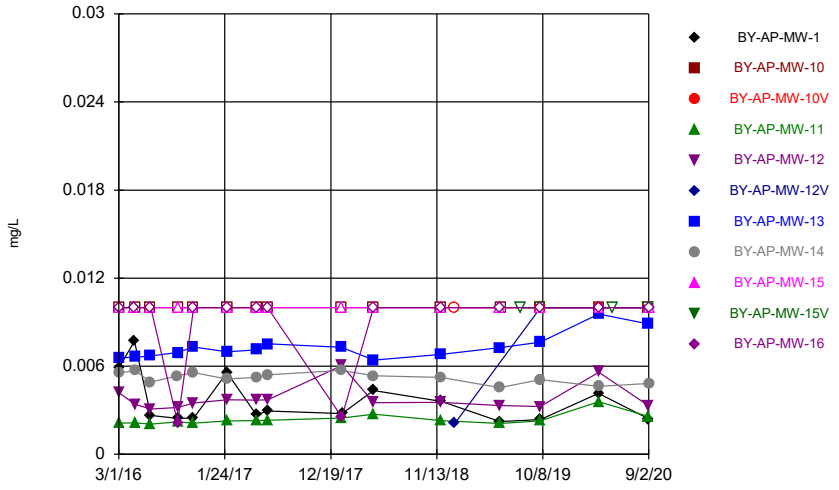
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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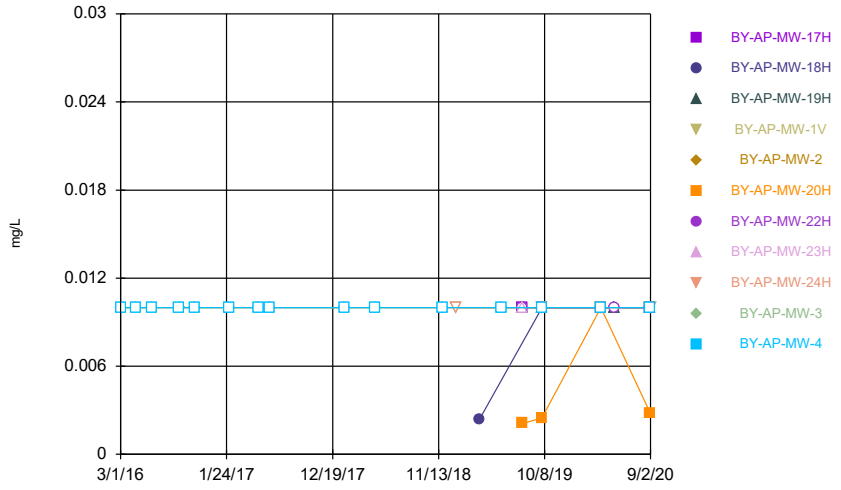
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

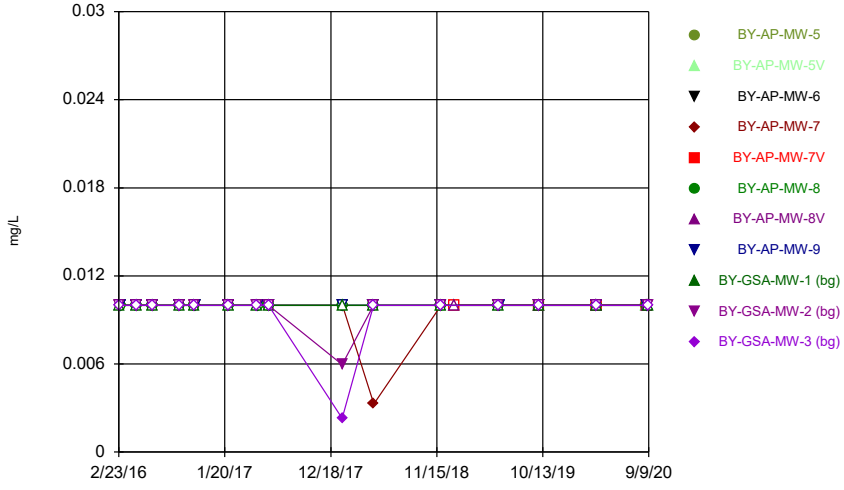
Time Series



Constituent: Chromium Analysis Run 12/11/2020 9:13 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

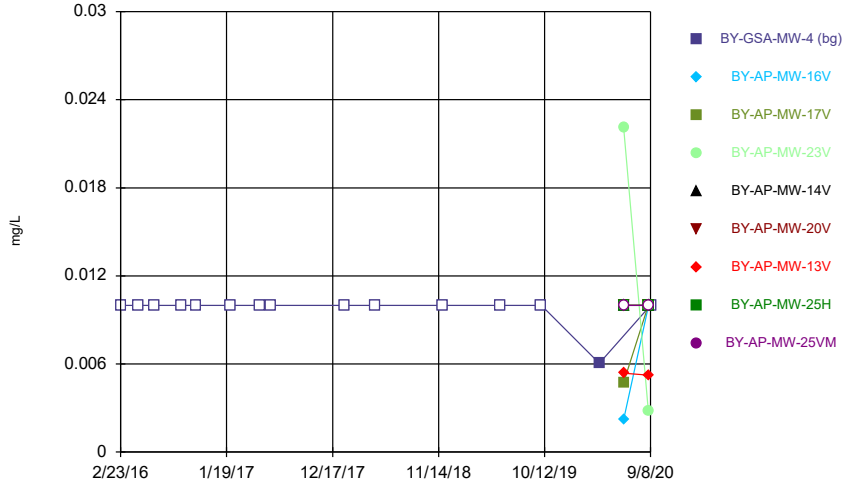
Time Series



Constituent: Chromium Analysis Run 12/11/2020 9:13 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

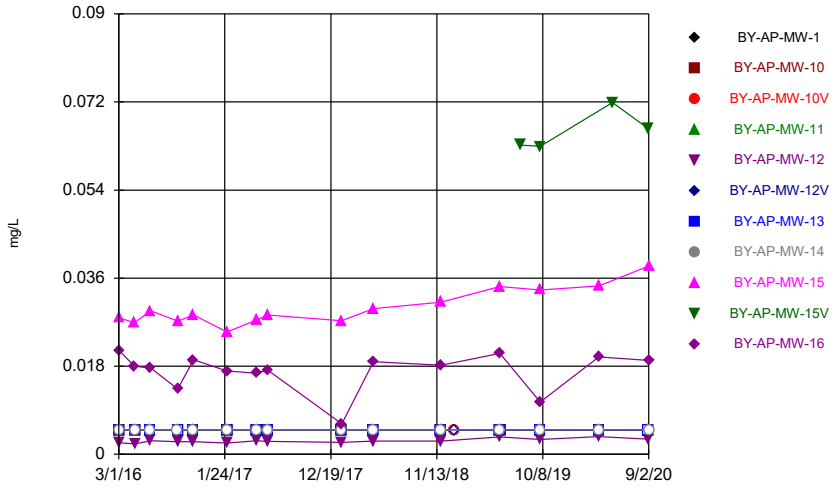
Time Series



Constituent: Chromium Analysis Run 12/11/2020 9:13 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

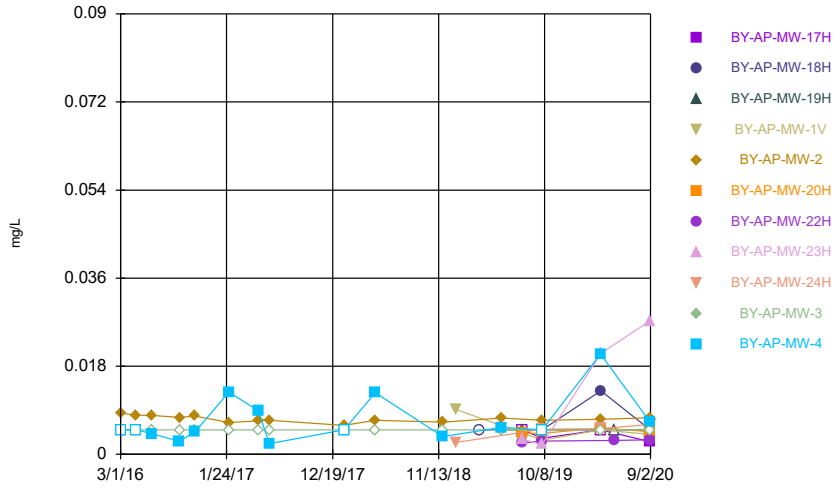
Time Series



Constituent: Cobalt Analysis Run 12/11/2020 9:13 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

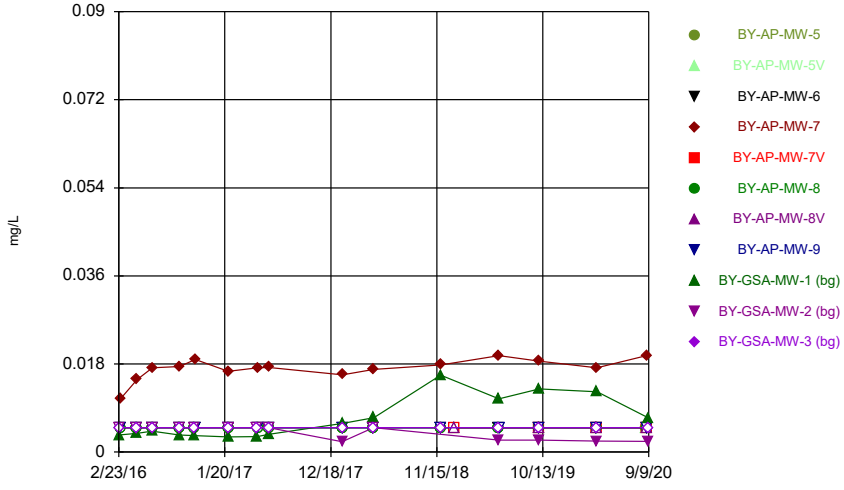
Time Series



Constituent: Cobalt Analysis Run 12/11/2020 9:13 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



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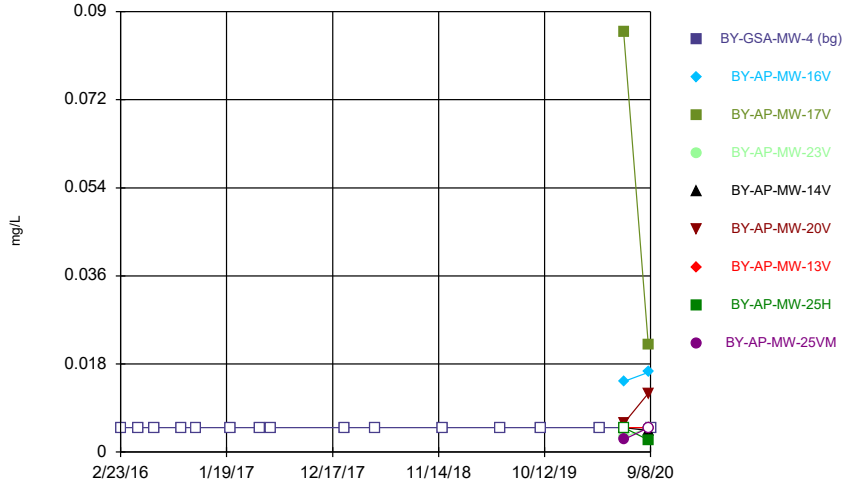
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

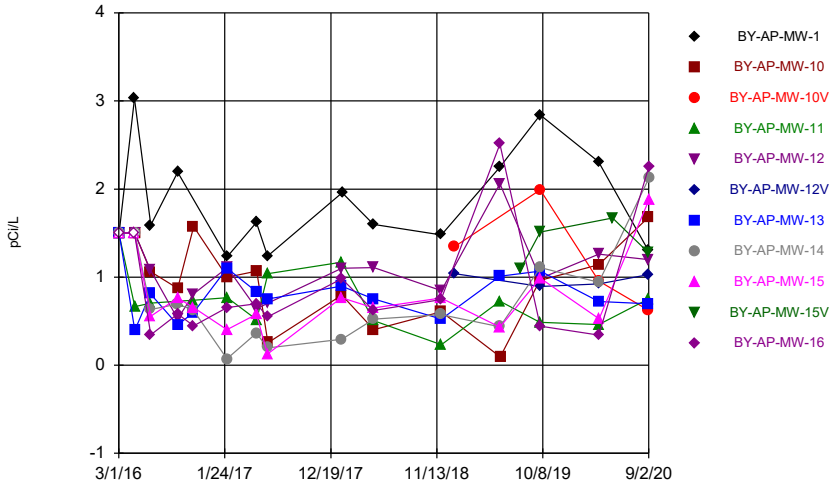
Time Series



Constituent: Cobalt Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

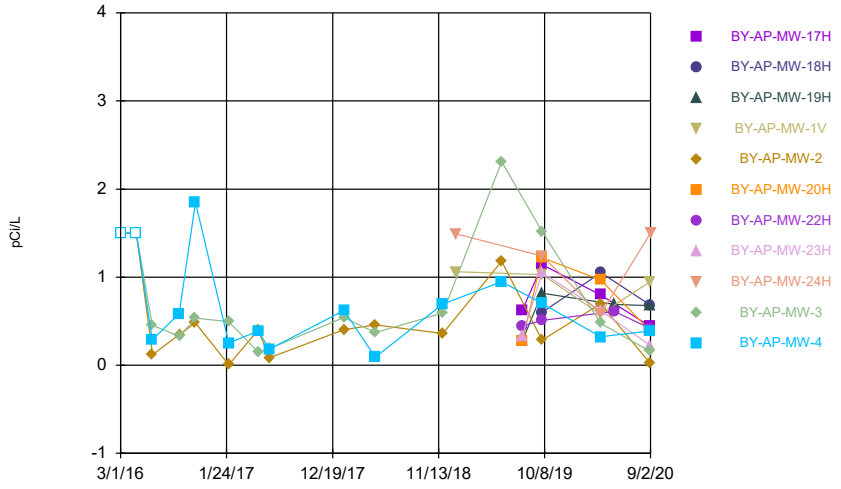
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

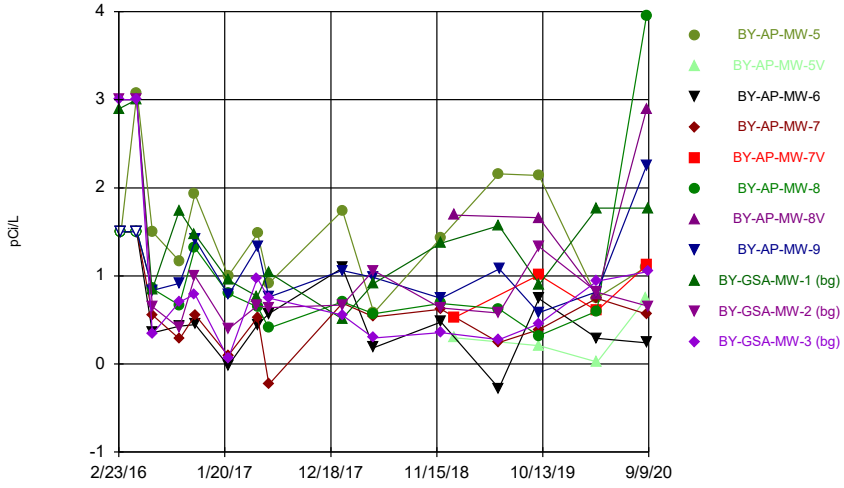
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

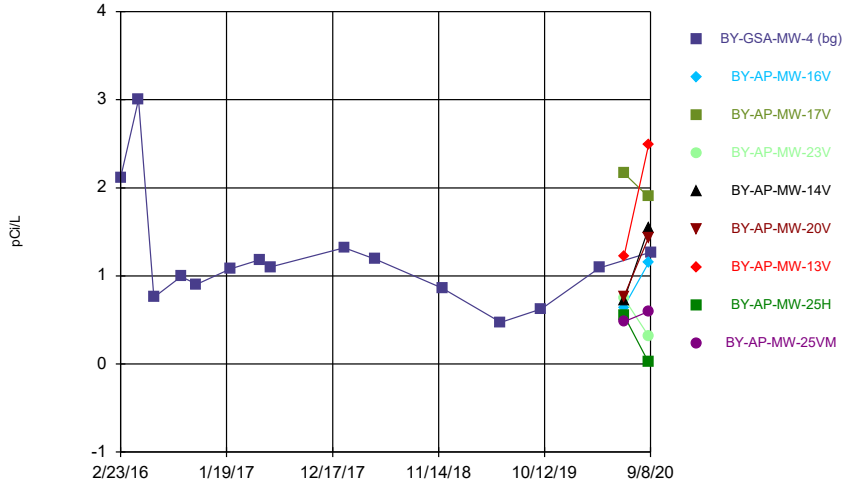
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

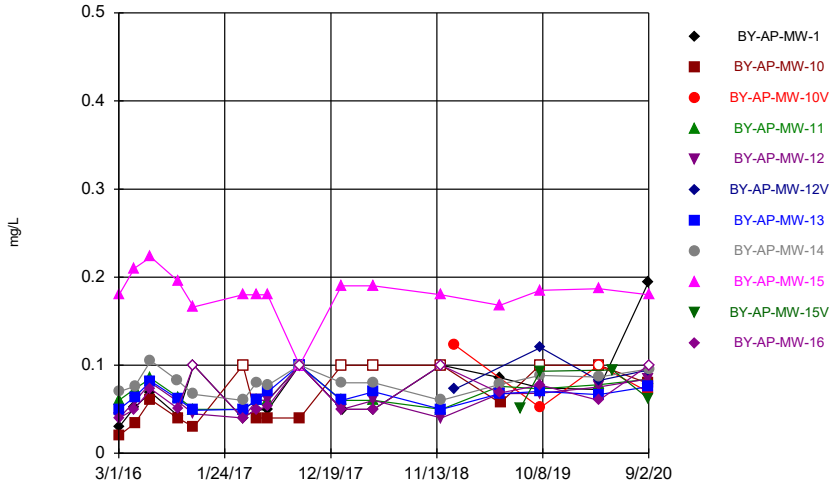
Time Series



Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

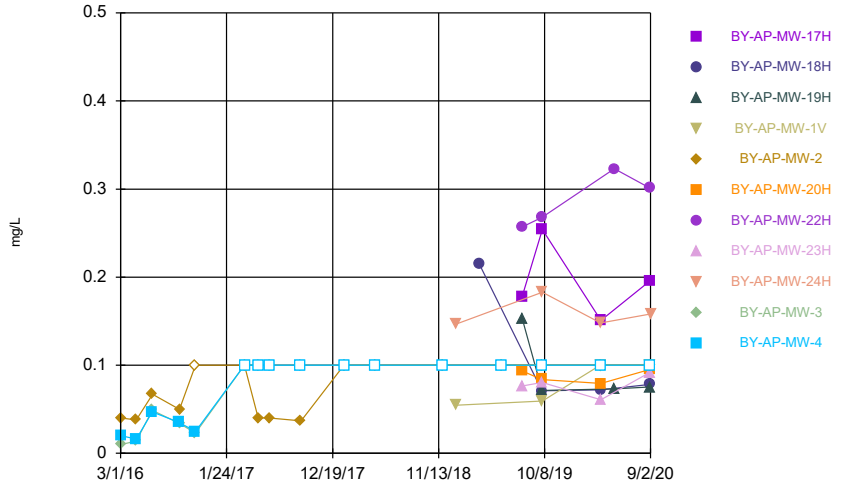
Time Series



Constituent: Fluoride Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

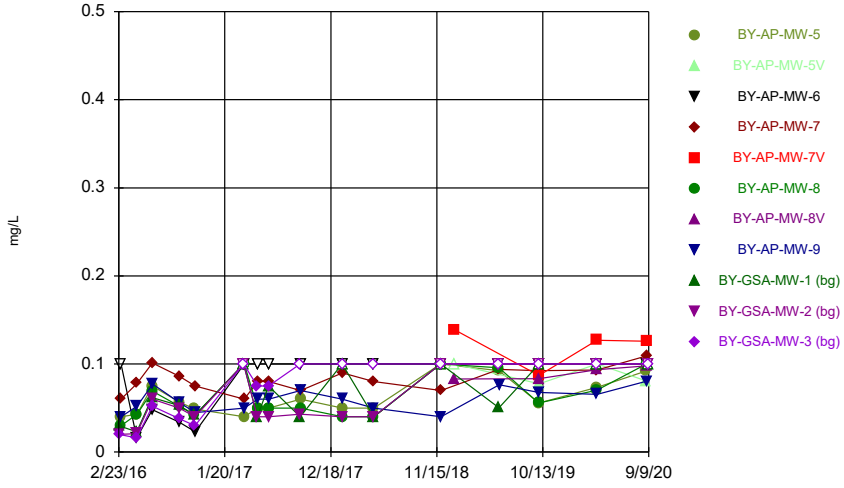
Time Series



Constituent: Fluoride Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

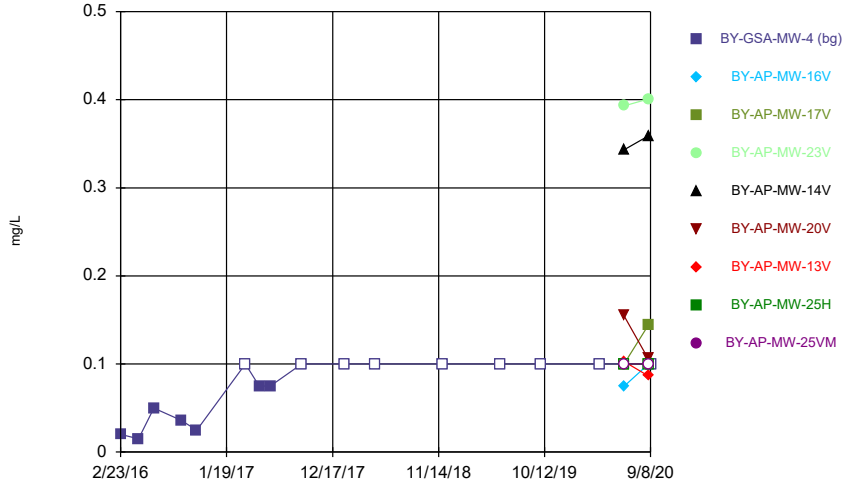
Time Series



Constituent: Fluoride Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

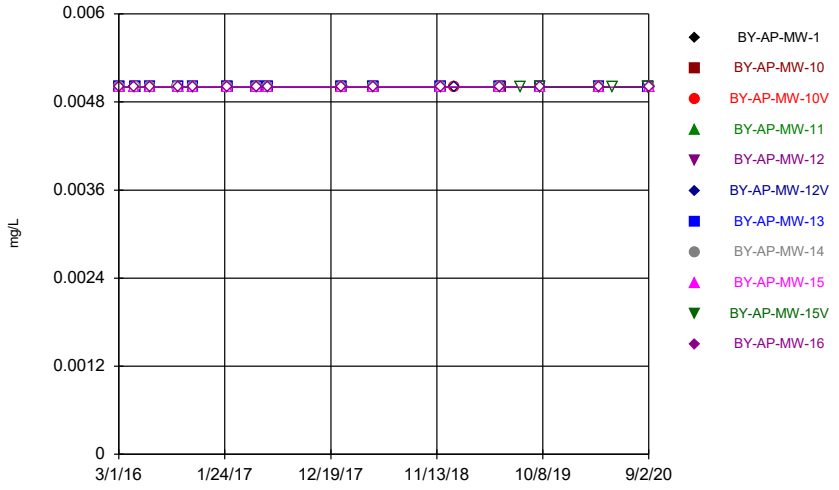
Time Series



Constituent: Fluoride Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

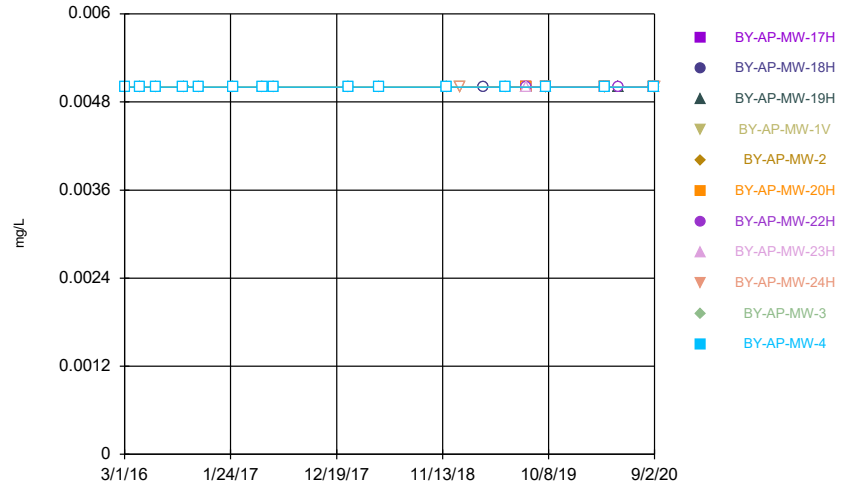
Time Series



Constituent: Lead Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

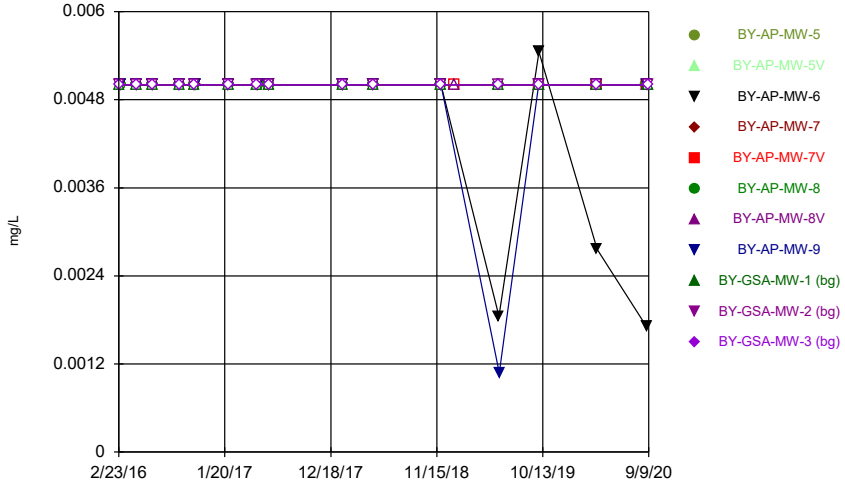
Time Series



Constituent: Lead Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

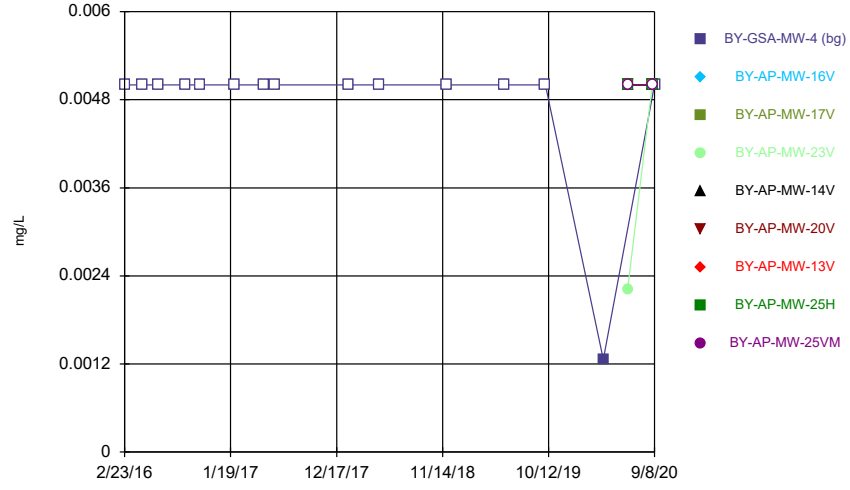
Time Series



Constituent: Lead Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

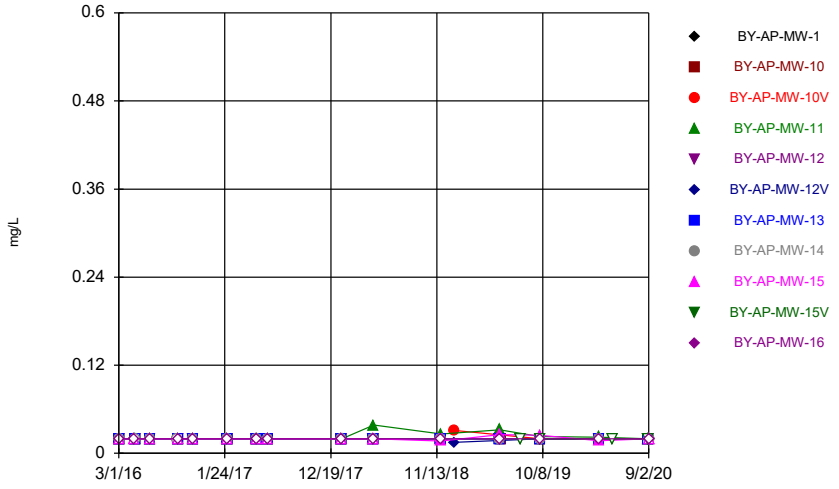
Time Series



Constituent: Lead Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

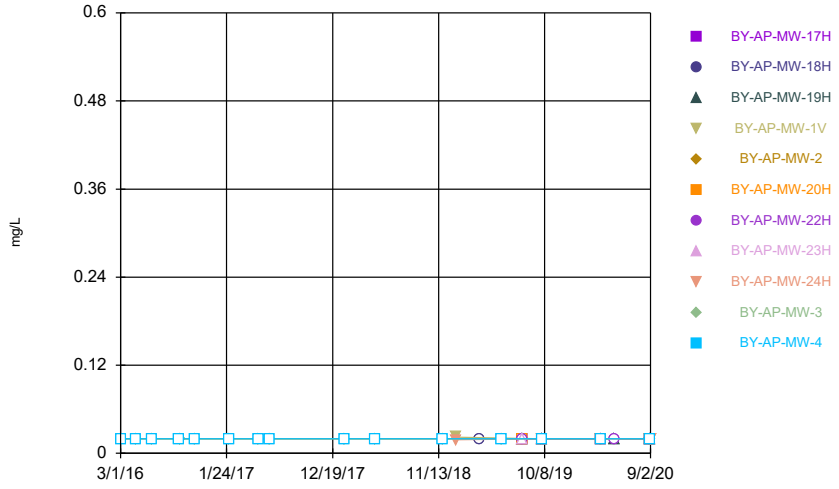
Time Series



Constituent: Lithium Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

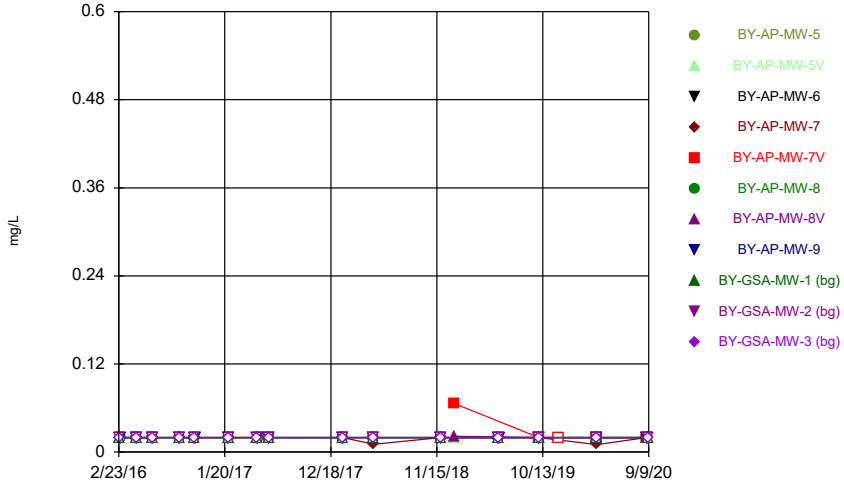
Time Series



Constituent: Lithium Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

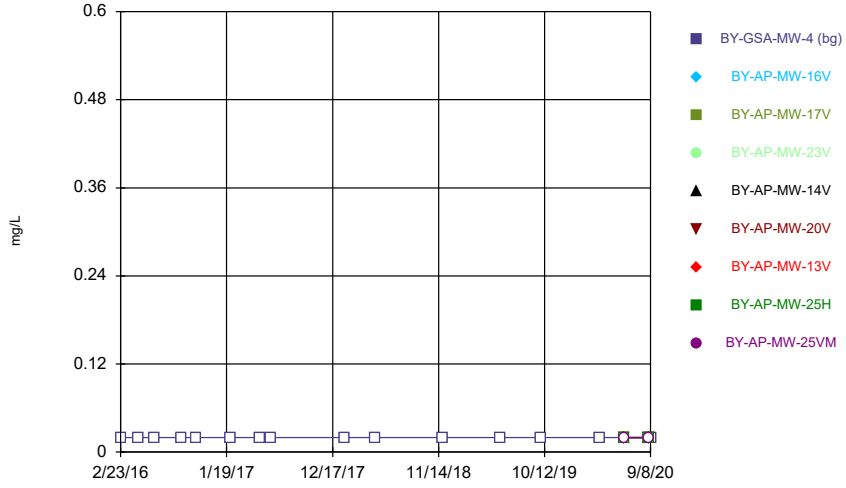
Time Series



Constituent: Lithium Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

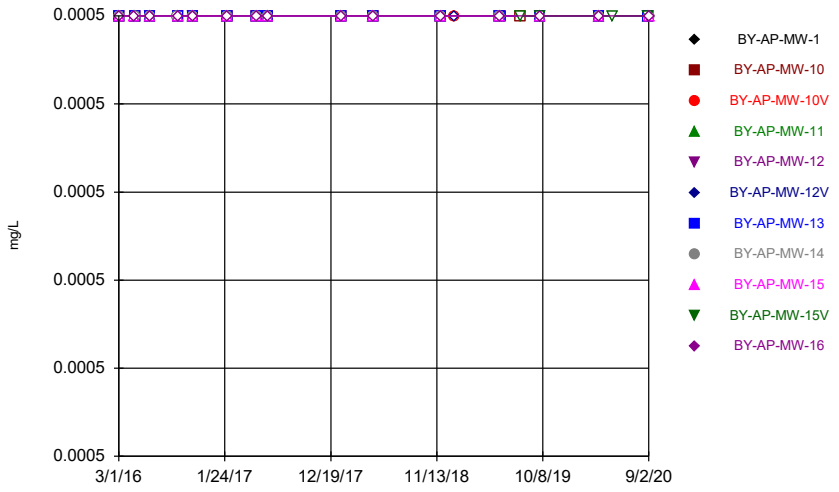
Time Series



Constituent: Lithium Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

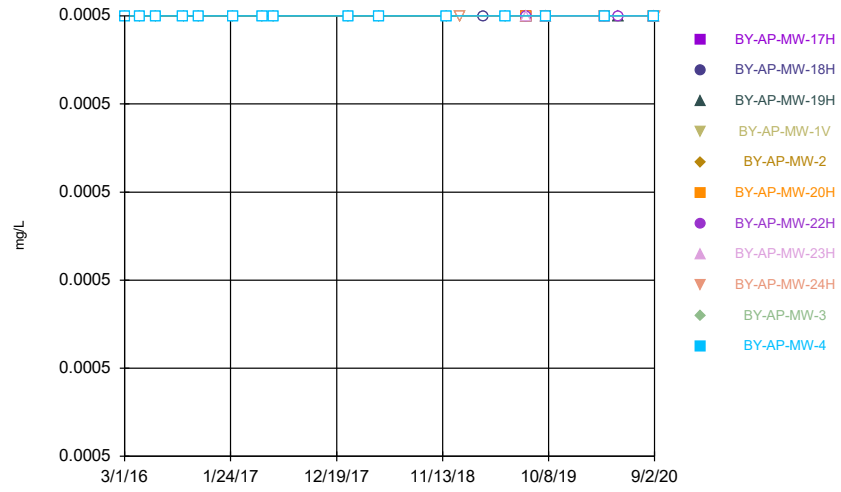
Time Series



Constituent: Mercury Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

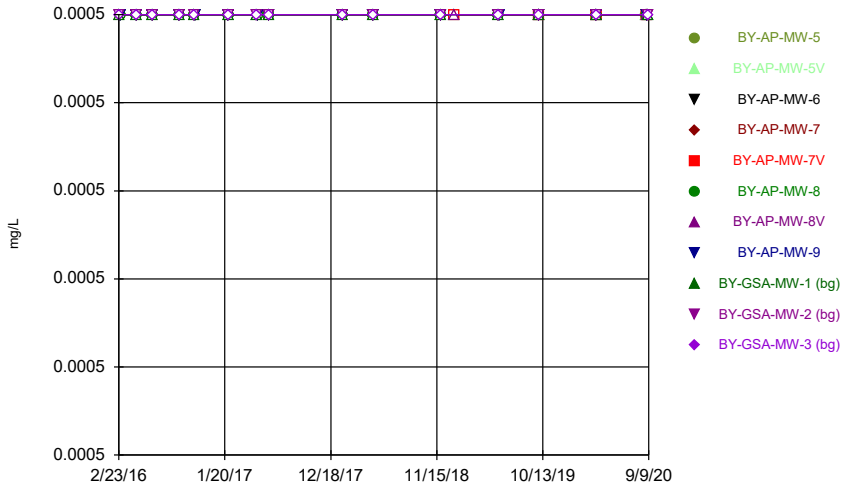
Time Series



Constituent: Mercury Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

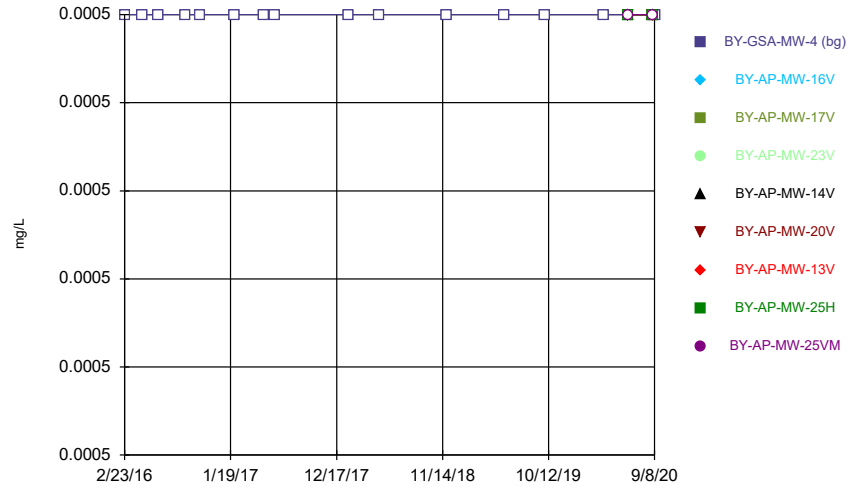
Time Series



Constituent: Mercury Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

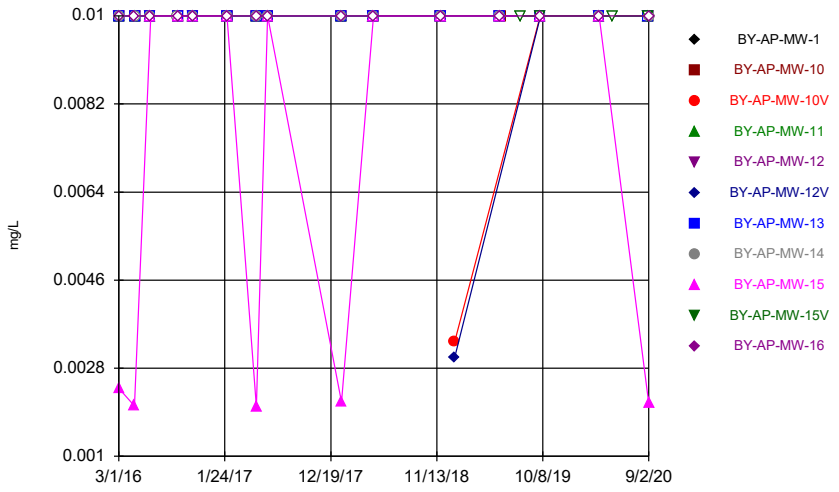
Time Series



Constituent: Mercury Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

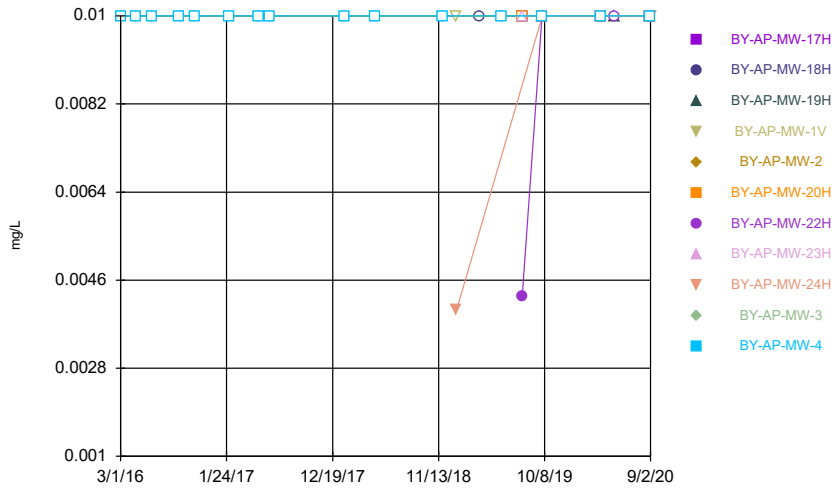
Time Series



Constituent: Molybdenum Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

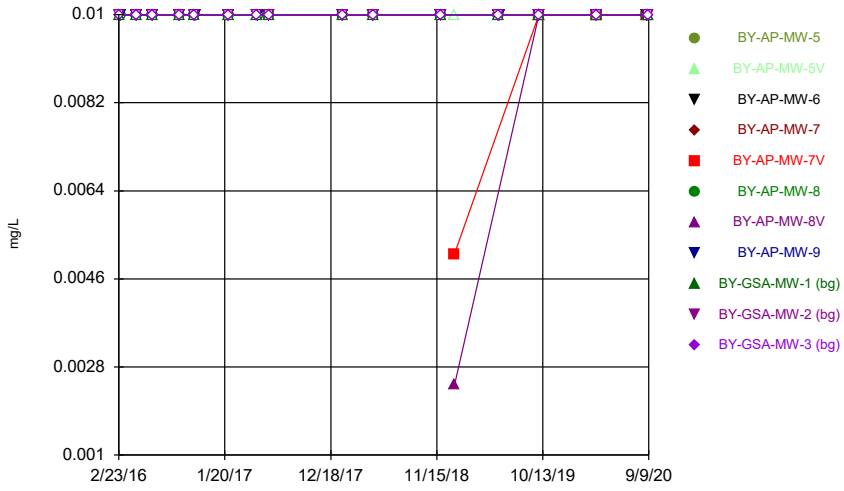
Time Series



Constituent: Molybdenum Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

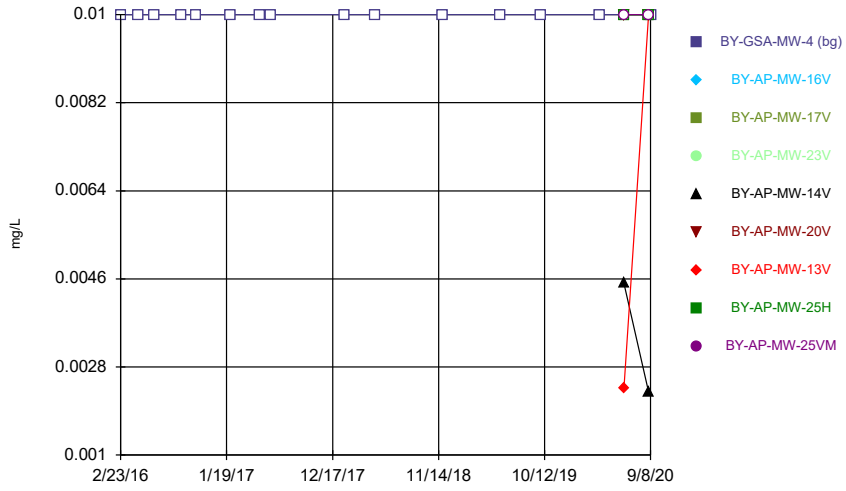
Time Series



Constituent: Molybdenum Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

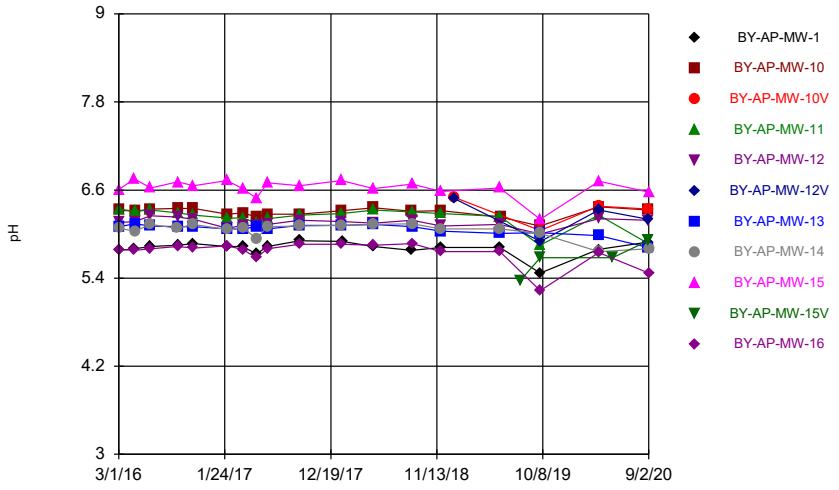
Time Series



Constituent: Molybdenum Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

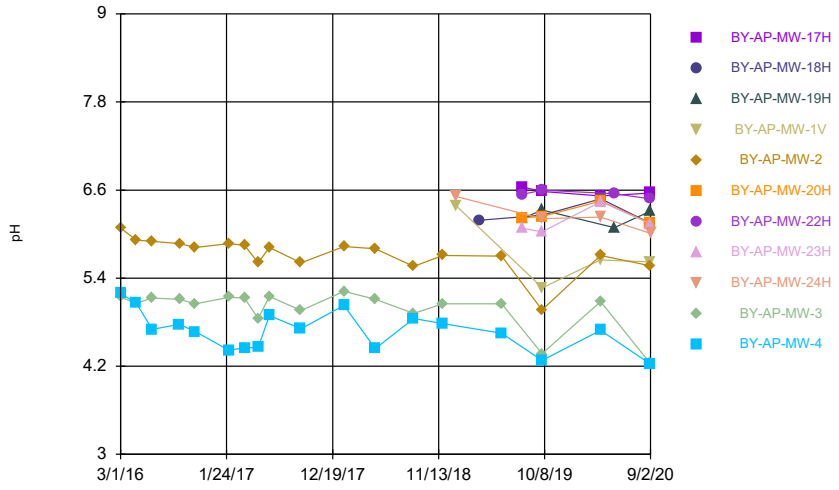


Constituent: pH Analysis Run 12/11/2020 9:14 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

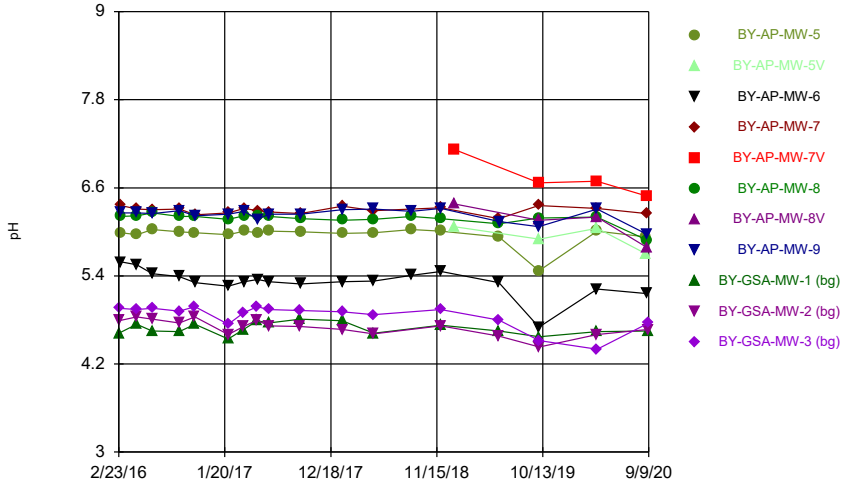


Constituent: pH Analysis Run 12/11/2020 9:14 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

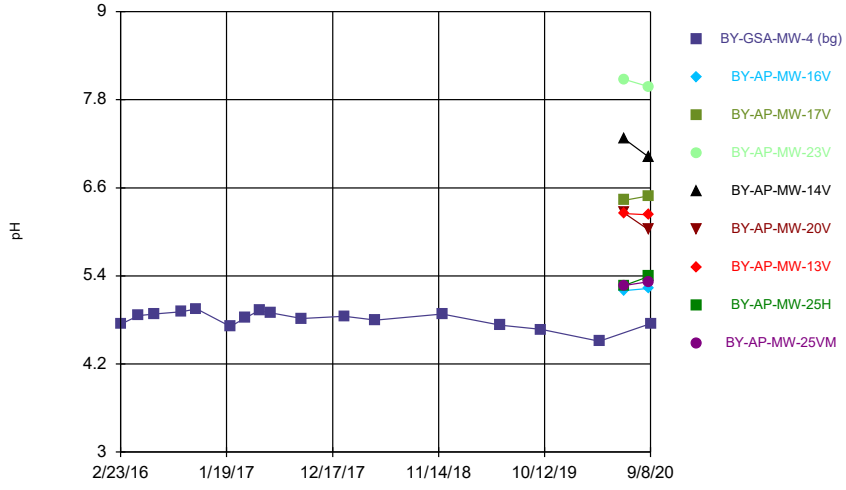


Constituent: pH Analysis Run 12/11/2020 9:14 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

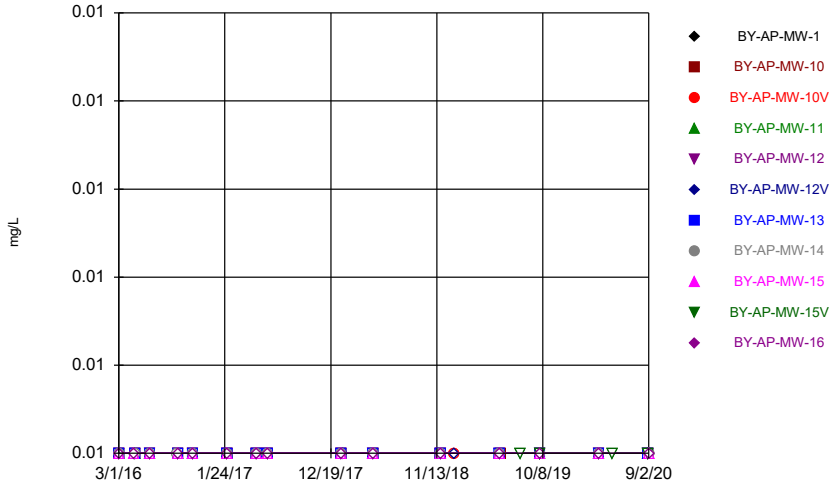


Constituent: pH Analysis Run 12/11/2020 9:14 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

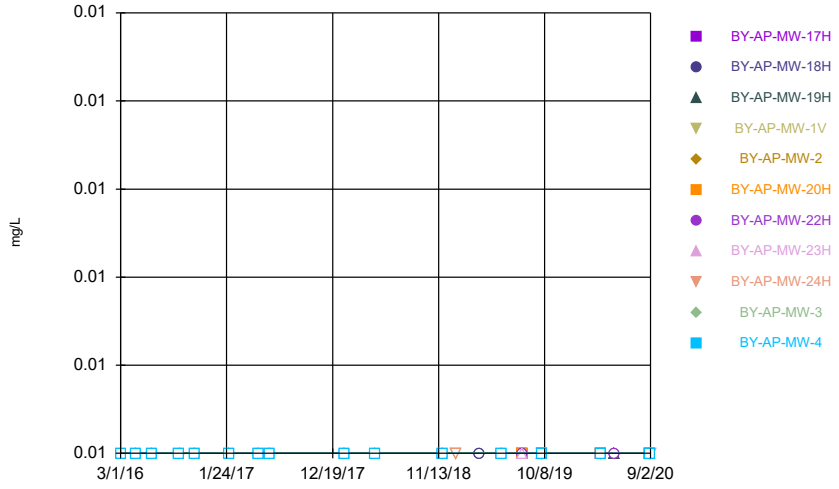
Time Series



Constituent: Selenium Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

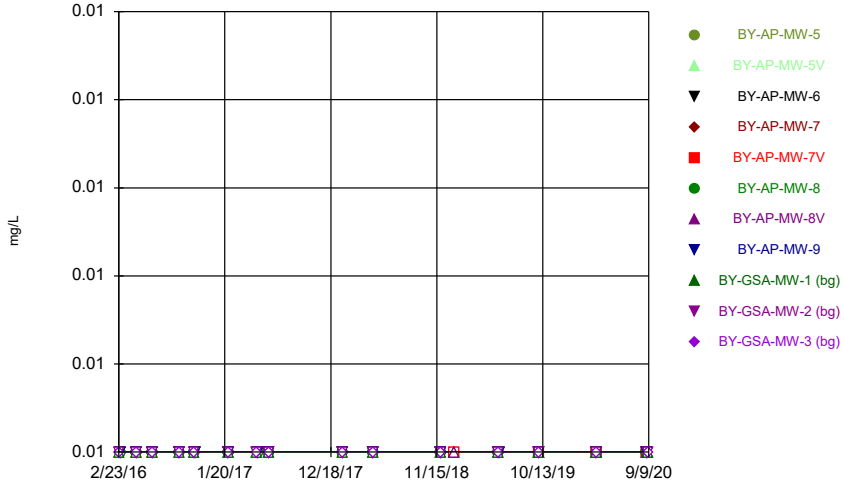
Time Series



Constituent: Selenium Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

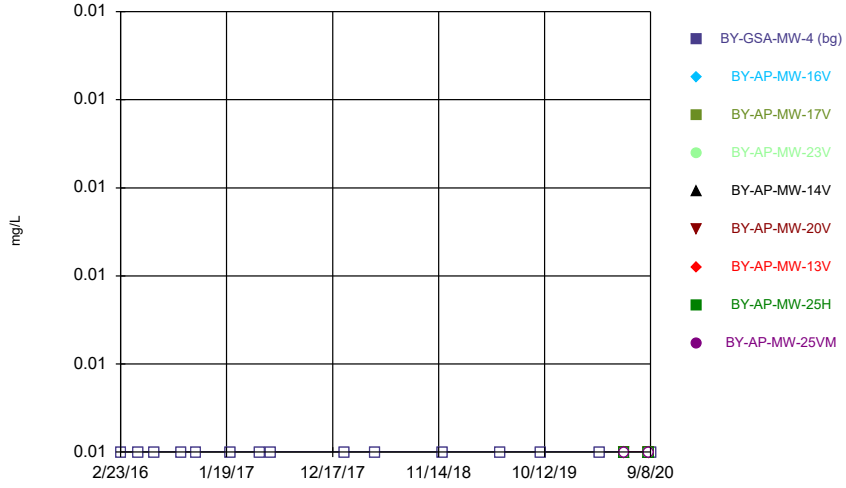
Time Series



Constituent: Selenium Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

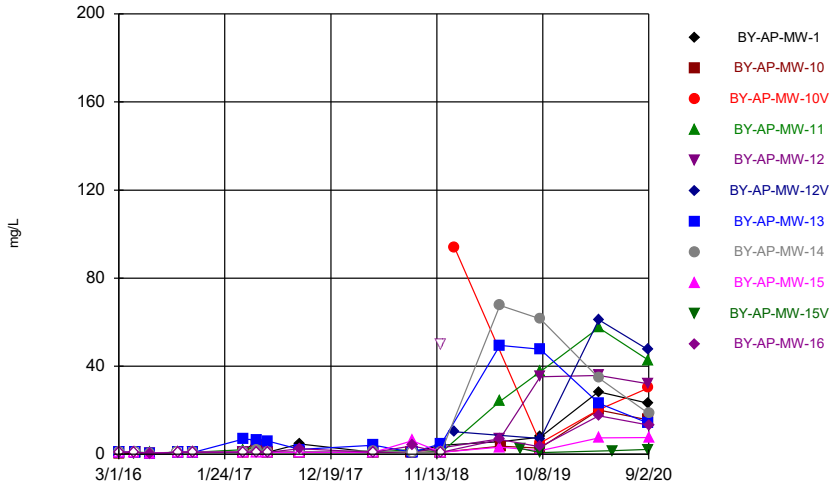
Time Series



Constituent: Selenium Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

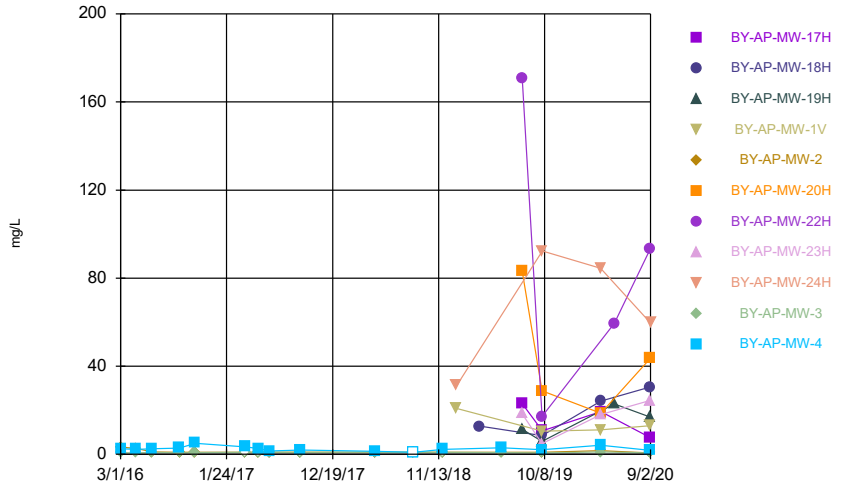
Time Series



Constituent: Sulfate Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

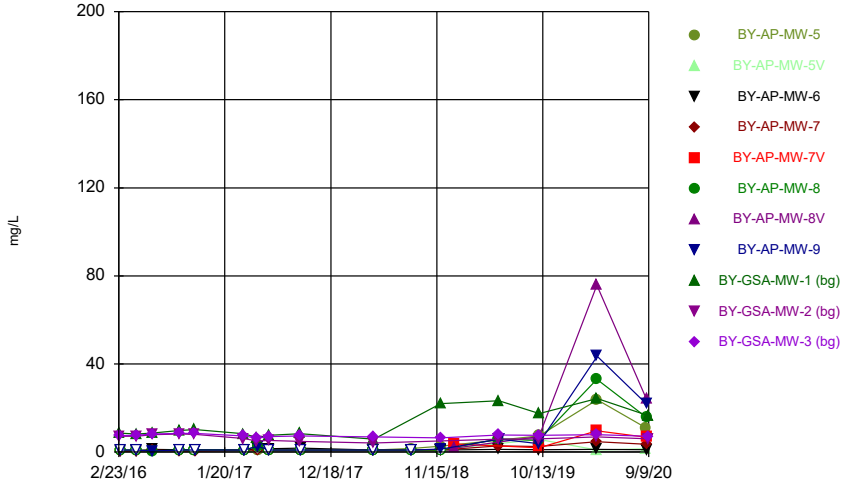
Time Series



Constituent: Sulfate Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

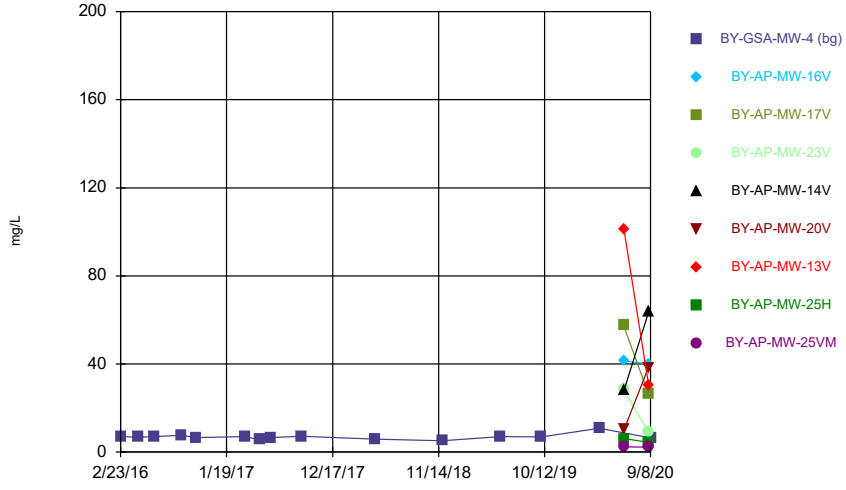
Time Series



Constituent: Sulfate Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

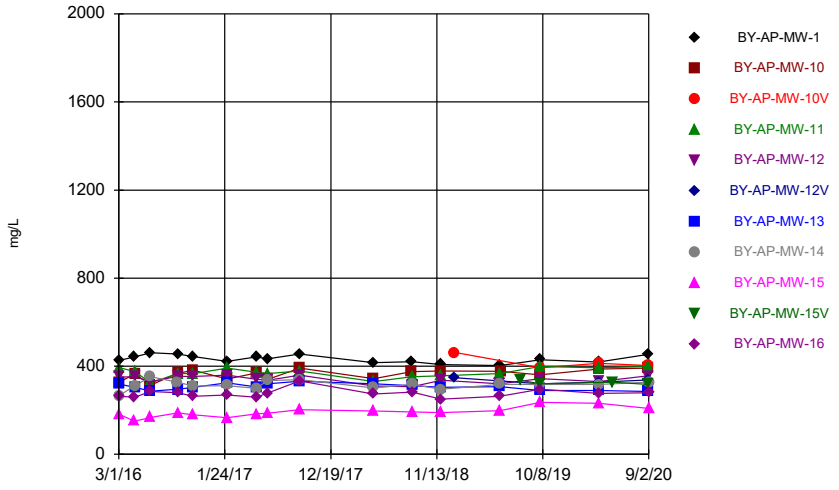
Time Series



Constituent: Sulfate Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

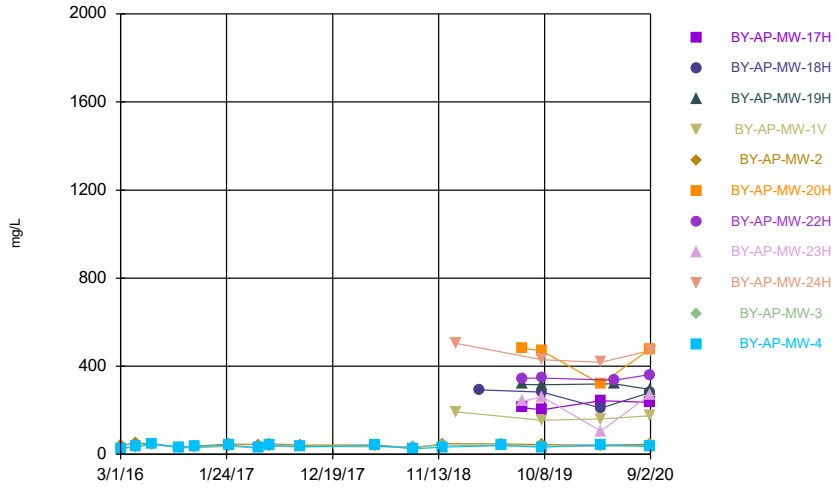


Constituent: TDS Analysis Run 12/11/2020 9:14 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Time Series

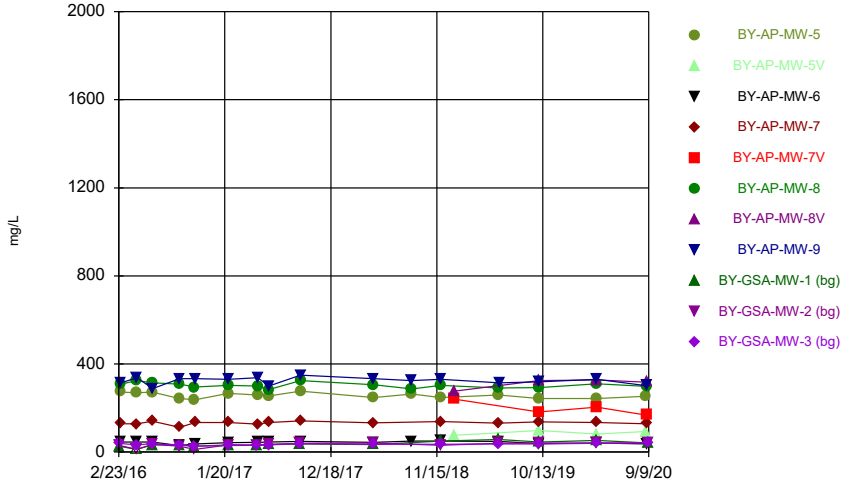


Constituent: TDS Analysis Run 12/11/2020 9:14 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

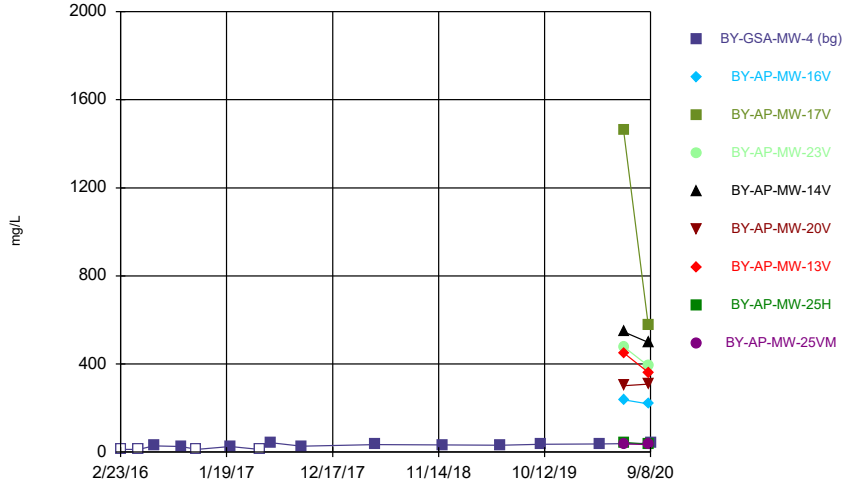


Constituent: TDS Analysis Run 12/11/2020 9:14 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series

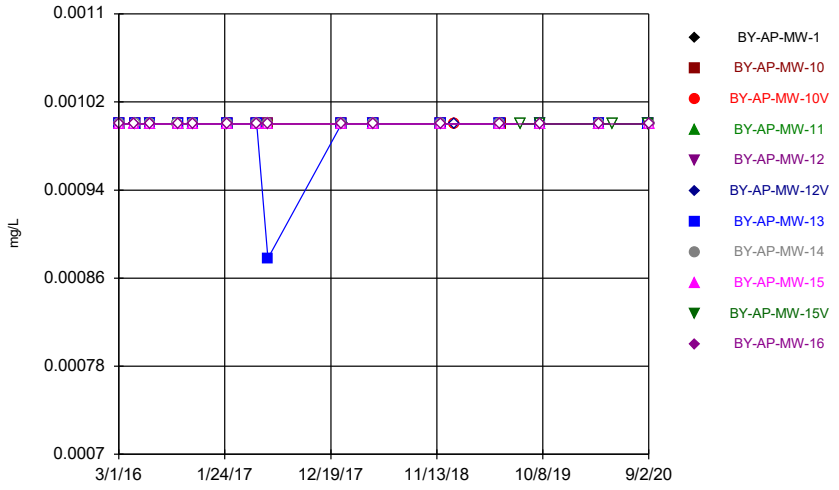


Constituent: TDS Analysis Run 12/11/2020 9:14 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

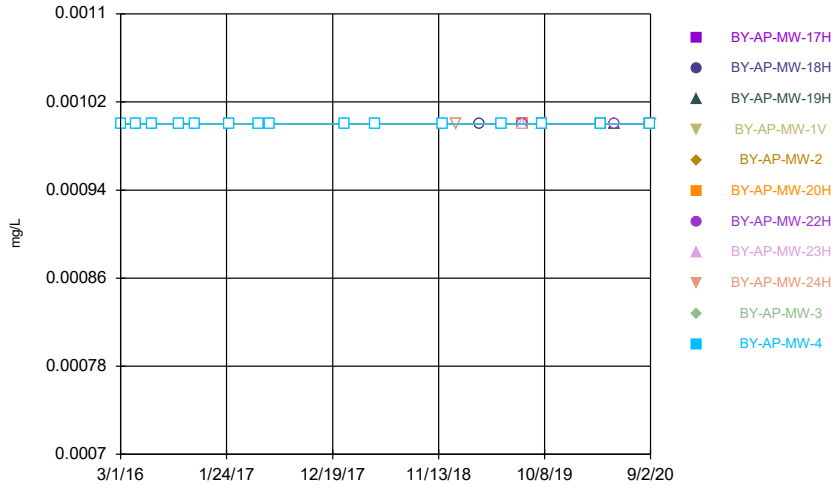
Time Series



Constituent: Thallium Analysis Run 12/11/2020 9:14 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

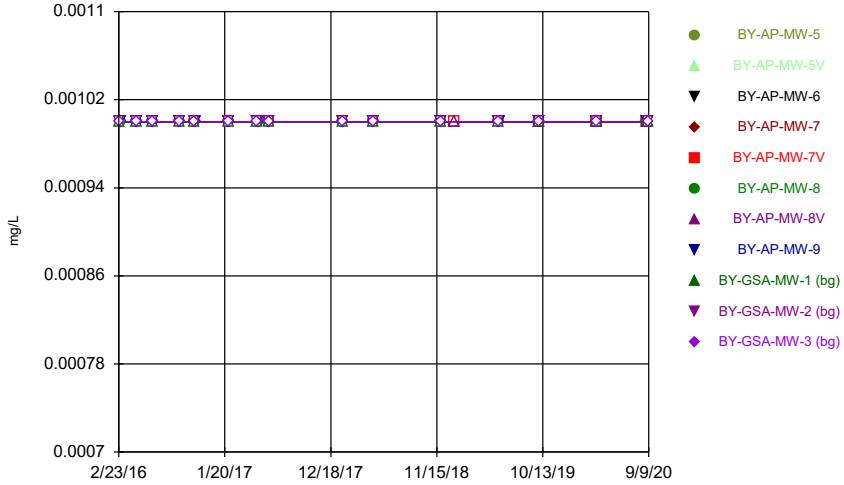
Time Series



Constituent: Thallium Analysis Run 12/11/2020 9:15 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

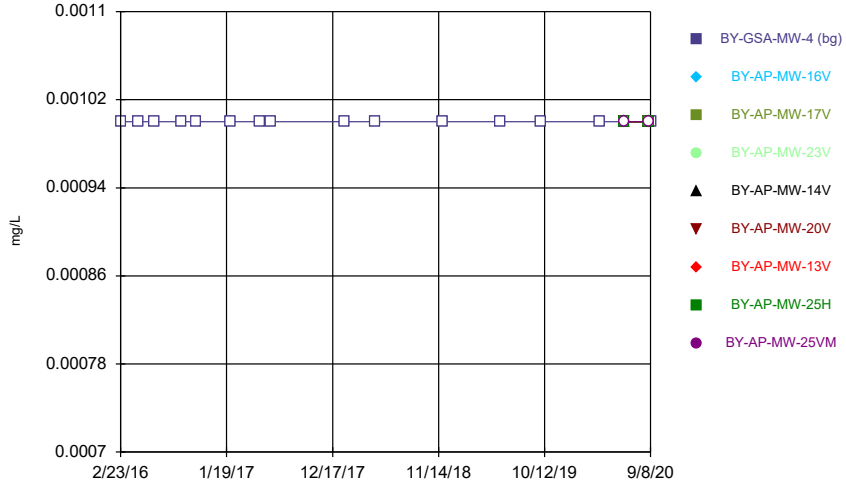
Time Series



Constituent: Thallium Analysis Run 12/11/2020 9:15 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 12/11/2020 9:15 AM
Plant Barry Client: Southern Company Data: Barry Ash Pond

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/11/2020 9:15 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.003		<0.003					
3/2/2016	<0.003				<0.003		<0.003	<0.003	<0.003
4/19/2016	<0.003								<0.003
4/20/2016		<0.003		<0.003	<0.003		<0.003	<0.003	
6/8/2016	<0.003	<0.003		<0.003	<0.003		0.00111 (J)	<0.003	<0.003
8/30/2016								<0.003	
8/31/2016	<0.003	<0.003		<0.003	<0.003		<0.003		<0.003
10/18/2016								<0.003	
10/19/2016	<0.003	<0.003		<0.003	<0.003		<0.003		<0.003
1/31/2017	0.000687 (J)						0.000834 (J)	0.00086 (J)	0.000746 (J)
2/1/2017		0.000743 (J)		0.000812 (J)	0.000838 (J)				
5/2/2017	<0.003							<0.003	<0.003
5/3/2017		<0.003		<0.003	<0.003		<0.003		
6/6/2017	<0.003							<0.003	<0.003
6/7/2017		<0.003		<0.003	<0.003		0.000857 (J)		
1/22/2018							<0.003		<0.003
1/23/2018		<0.003		<0.003	<0.003			<0.003	
1/24/2018	<0.003								
5/1/2018	<0.003								<0.003
5/2/2018		<0.003		<0.003	<0.003		<0.003	<0.003	
11/27/2018								<0.003	<0.003
11/28/2018	<0.003	<0.003		<0.003	<0.003		<0.003		
1/8/2019			0.000965 (J)			0.00117 (J)			
5/29/2019	<0.003			<0.003	<0.003		<0.003	<0.003	<0.003
5/30/2019		<0.003							
7/31/2019									
9/30/2019		<0.003		<0.003					
10/1/2019	<0.003		<0.003		<0.003		<0.003	<0.003	<0.003
10/2/2019						<0.003			
3/30/2020	<0.003								
3/31/2020		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
4/1/2020									<0.003
5/12/2020									
9/1/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		
9/2/2020								<0.003	<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/11/2020 9:15 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<0.003
4/19/2016		<0.003
4/20/2016		
6/8/2016		<0.003
8/30/2016		
8/31/2016		<0.003
10/18/2016		
10/19/2016		<0.003
1/31/2017		0.000769 (J)
2/1/2017		
5/2/2017		<0.003
5/3/2017		
6/6/2017		<0.003
6/7/2017		
1/22/2018		
1/23/2018		<0.003
1/24/2018		
5/1/2018		<0.003
5/2/2018		
11/27/2018		<0.003
11/28/2018		
1/8/2019		
5/29/2019		<0.003
5/30/2019		
7/31/2019	0.00094 (J)	
9/30/2019		
10/1/2019	<0.003	<0.003
10/2/2019		
3/30/2020		
3/31/2020		<0.003
4/1/2020		
5/12/2020	<0.003	
9/1/2020	<0.003	
9/2/2020		<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/11/2020 9:15 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.003				
4/19/2016					<0.003				
6/7/2016									
6/8/2016					<0.003				
8/30/2016									
8/31/2016					<0.003				
10/19/2016					<0.003				
1/31/2017					0.000739 (J)				
5/2/2017					<0.003				
6/6/2017					<0.003				
1/24/2018					<0.003				
5/1/2018					<0.003				
11/27/2018					<0.003				
1/8/2019				0.00125 (J)					0.00116 (J)
3/20/2019		0.00117 (J)							
5/29/2019					<0.003				
7/31/2019	0.000878 (J)		0.00152 (J)			0.00113 (J)	0.00117 (J)	0.000964 (J)	
10/1/2019		<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	
10/2/2019	<0.003			<0.003					<0.003
3/30/2020				<0.003					
3/31/2020					<0.003				<0.003
4/1/2020	<0.003	<0.003				<0.003		<0.003	
5/12/2020			<0.003				<0.003		
8/31/2020					<0.003				
9/1/2020	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	
9/2/2020									<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/11/2020 9:15 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.003
3/2/2016	<0.003	
4/19/2016	<0.003	<0.003
6/7/2016	0.000606 (J)	0.000869 (J)
6/8/2016		
8/30/2016		<0.003
8/31/2016	<0.003	
10/19/2016	<0.003	<0.003
1/31/2017	0.000637 (J)	0.00086 (J)
5/2/2017	<0.003	<0.003
6/6/2017	<0.003	<0.003
1/24/2018	<0.003	<0.003
5/1/2018	<0.003	<0.003
11/27/2018	<0.003	<0.003
1/8/2019		
3/20/2019		
5/29/2019	<0.003	<0.003
7/31/2019		
10/1/2019	<0.003	<0.003
10/2/2019		
3/30/2020		
3/31/2020	<0.003	<0.003
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.003	<0.003
9/2/2020		

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/11/2020 9:15 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.003
3/1/2016	<0.003		<0.003	<0.003		<0.003		<0.003	
4/19/2016			<0.003						<0.003
4/20/2016	<0.003			<0.003		<0.003		<0.003	
6/6/2016									<0.003
6/7/2016	<0.003		<0.003	<0.003		<0.003			
6/8/2016								<0.003	
8/30/2016	<0.003		<0.003			<0.003			<0.003
8/31/2016				<0.003				<0.003	
10/18/2016	<0.003					<0.003			<0.003
10/19/2016			<0.003	<0.003				<0.003	
1/31/2017	0.000765 (J)		0.000852 (J)	0.00107 (J)		0.00074 (J)			0.000925 (J)
2/1/2017								0.000738 (J)	
5/2/2017									<0.003
5/3/2017	<0.003		<0.003	<0.003		<0.003		<0.003	
6/6/2017									<0.003
6/7/2017	<0.003		<0.003	<0.003		<0.003		<0.003	
1/23/2018								<0.003	<0.003
1/24/2018	<0.003		<0.003	<0.003		<0.003			
5/1/2018									
5/2/2018	<0.003		<0.003	<0.003		<0.003		<0.003	<0.003
11/27/2018	<0.003					<0.003			<0.003
11/28/2018			<0.003	<0.003				<0.003	
1/8/2019		0.00207 (J)							
1/9/2019					0.000861 (J)		<0.003		
5/29/2019	<0.003		<0.003	<0.003		<0.003			<0.003
5/30/2019								<0.003	
9/30/2019				<0.003		<0.003		<0.003	
10/1/2019	<0.003		<0.003		<0.003		<0.003		
10/2/2019		<0.003							<0.003
3/30/2020				<0.003	<0.003	<0.003	<0.003		
3/31/2020	<0.003	<0.003	<0.003					<0.003	<0.003
9/1/2020	<0.003	<0.003							
9/2/2020			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
9/9/2020									<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/11/2020 9:15 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.003	<0.003
3/1/2016		
4/19/2016	<0.003	<0.003
4/20/2016		
6/6/2016		
6/7/2016	<0.003	<0.003
6/8/2016		
8/30/2016	<0.003	<0.003
8/31/2016		
10/18/2016	<0.003	<0.003
10/19/2016		
1/31/2017	0.000898 (J)	0.000911 (J)
2/1/2017		
5/2/2017	<0.003	<0.003
5/3/2017		
6/6/2017	<0.003	<0.003
6/7/2017		
1/23/2018	<0.003	<0.003
1/24/2018		
5/1/2018	<0.003	<0.003
5/2/2018		
11/27/2018	<0.003	<0.003
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.003	<0.003
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.003	<0.003
3/30/2020		
3/31/2020	<0.003	<0.003
9/1/2020		
9/2/2020		
9/9/2020	<0.003	<0.003

Time Series

Constituent: Antimony (mg/L) Analysis Run 12/11/2020 9:15 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	0.000606 (J)								
4/19/2016	<0.003								
6/6/2016	<0.003								
8/30/2016	<0.003								
10/18/2016	<0.003								
1/31/2017	0.000928 (J)								
5/2/2017	<0.003								
6/6/2017	<0.003								
1/23/2018	<0.003								
5/1/2018	<0.003								
11/26/2018	<0.003								
5/28/2019	<0.003								
10/2/2019	<0.003								
3/31/2020	<0.003								
6/16/2020		<0.003	<0.003	<0.003					
6/17/2020					<0.003	<0.003	<0.003	<0.003	<0.003
9/1/2020			<0.003	<0.003		<0.003			
9/2/2020		<0.003			<0.003		<0.003	<0.003	<0.003
9/8/2020	<0.003								

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/11/2020 9:15 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		0.0264		0.01					
3/2/2016	0.076				0.0215		0.0115	0.0101	0.0128
4/19/2016	0.0973								0.0157
4/20/2016		0.0303		0.0127	0.0214		0.0123	0.0119	
6/8/2016	0.0605	0.0306		0.0136	0.0221		0.0121	0.0119	0.0168
8/30/2016								0.0127	
8/31/2016	0.0687	0.0304		0.0149	0.0223		0.0127		0.0168
10/18/2016								0.0136	
10/19/2016	0.0701	0.0314		0.0149	0.0227		0.0131		0.0178
1/31/2017	0.0669						0.0131	0.0124	0.0164
2/1/2017		0.0274		0.0151	0.0215				
5/2/2017	0.0672							0.0131	0.0172
5/3/2017		0.03		0.0155	0.0227		0.014		
6/6/2017	0.0527							0.0129	0.0158
6/7/2017		0.0303		0.0145	0.0211		0.0141		
1/22/2018							0.0149		0.0173
1/23/2018		0.0362		0.0154	0.0227			0.0148	
1/24/2018	0.07								
5/1/2018	0.0777								0.0181
5/2/2018		0.0433		0.0158	0.0239		0.0175	0.0156	
11/27/2018								0.0145	0.0158
11/28/2018	0.0677	0.0536		0.014	0.0216		0.0141		
1/8/2019			<0.005			0.0112			
5/29/2019	0.0555			0.0132	0.0215		0.0138	0.014	0.0148
5/30/2019		0.0671							
7/31/2019		0.0649							
9/30/2019		0.0704		0.0145					
10/1/2019	0.0635		<0.005		0.0221		0.0144	0.0152	0.017
10/2/2019						0.022			
3/30/2020	0.0557								
3/31/2020		0.0702	<0.005	0.0158	0.0246	0.025	0.0154	0.0177	
4/1/2020									0.0183
5/12/2020									
9/1/2020	0.0811	0.0763	<0.005	0.0165	0.0246	0.0257	0.0148		
9/2/2020								0.0174	0.0206

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/11/2020 9:15 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		0.0102
4/19/2016		0.0103
4/20/2016		
6/8/2016		0.0105
8/30/2016		
8/31/2016		0.0117
10/18/2016		
10/19/2016		0.0108
1/31/2017		0.0102
2/1/2017		
5/2/2017		0.0102
5/3/2017		
6/6/2017		0.00982
6/7/2017		
1/22/2018		
1/23/2018		0.0151
1/24/2018		
5/1/2018		0.0114
5/2/2018		
11/27/2018		0.0108
11/28/2018		
1/8/2019		
5/29/2019		0.0106
5/30/2019		
7/31/2019	0.0174	
9/30/2019		
10/1/2019	0.0243	0.0138
10/2/2019		
3/30/2020		
3/31/2020		0.012
4/1/2020		
5/12/2020	0.0206	
9/1/2020	0.0401	
9/2/2020		0.0137

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/11/2020 9:15 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					0.00263 (J)				
4/19/2016					0.00247 (J)				
6/7/2016									
6/8/2016					0.0023 (J)				
8/30/2016									
8/31/2016					0.00237 (J)				
10/19/2016					0.00241 (J)				
1/31/2017					0.00185 (J)				
5/2/2017					0.00194 (J)				
6/6/2017					0.00175 (J)				
1/24/2018					0.00158 (J)				
5/1/2018					0.00166 (J)				
11/27/2018					0.00144 (J)				
1/8/2019				0.00109 (J)					0.0306
3/20/2019		0.00831							
5/29/2019					0.00132 (J)				
7/31/2019	0.0221		0.00118 (J)			0.0112	0.0225	0.0132	
10/1/2019		0.0137	<0.005		0.0014 (J)	0.013	0.0225	0.013	
10/2/2019	0.0251			0.00157 (J)					0.0673
3/30/2020				0.00152 (J)					
3/31/2020					0.00149 (J)				0.0729
4/1/2020	0.0208	0.00937				0.00508		0.00689	
5/12/2020			<0.005				0.0199		
8/31/2020					0.00176 (J)				
9/1/2020	0.0371	0.015	0.00101 (J)	0.00179 (J)		0.0172	0.0217	0.0226	
9/2/2020									0.0783

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.005
3/2/2016	<0.005	
4/19/2016	<0.005	<0.005
6/7/2016	<0.005	<0.005
6/8/2016		
8/30/2016		<0.005
8/31/2016	<0.005	
10/19/2016	<0.005	<0.005
1/31/2017	<0.005	<0.005
5/2/2017	<0.005	<0.005
6/6/2017	<0.005	<0.005
1/24/2018	<0.005	<0.005
5/1/2018	<0.005	<0.005
11/27/2018	<0.005	<0.005
1/8/2019		
3/20/2019		
5/29/2019	<0.005	<0.005
7/31/2019		
10/1/2019	<0.005	<0.005
10/2/2019		
3/30/2020		
3/31/2020	<0.005	<0.005
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.005	<0.005
9/2/2020		

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.005
3/1/2016	0.0277		0.00142 (J)	0.0166		0.036		0.0322	
4/19/2016			0.00138 (J)						<0.005
4/20/2016	0.0307			0.02		0.0399		0.0354	
6/6/2016									<0.005
6/7/2016	0.0308		<0.005	0.0223		0.0401			
6/8/2016								0.0385	
8/30/2016	0.033		<0.005			0.0387			<0.005
8/31/2016				0.0231				0.0404	
10/18/2016	0.0296					0.0394			<0.005
10/19/2016			<0.005	0.0244				0.0412	
1/31/2017	0.0264		<0.005	0.0197		0.0408			<0.005
2/1/2017								0.0374	
5/2/2017									<0.005
5/3/2017	0.0309		<0.005	0.0212		0.0416		0.0444	
6/6/2017									<0.005
6/7/2017	0.0283		<0.005	0.0203		0.0395		0.0423	
1/23/2018								0.0435	<0.005
1/24/2018	0.0282		<0.005	0.0214		0.0536			
5/1/2018									
5/2/2018	0.0315		<0.005	0.0218		0.0572		0.0437	<0.005
11/27/2018	0.0283					0.0536			<0.005
11/28/2018			<0.005	0.0209				0.0422	
1/8/2019		<0.005							
1/9/2019					<0.005		0.00121 (J)		
5/29/2019	0.0301		<0.005	0.0178		0.0482			<0.005
5/30/2019								0.0349	
9/30/2019				0.0217		0.0514		0.0391	
10/1/2019	0.0307		<0.005		0.00278 (J)		0.00243 (J)		
10/2/2019		<0.005							<0.005
3/30/2020				0.0215	0.005	0.0589	0.00275 (J)		
3/31/2020	0.0329	<0.005	<0.005					0.0393	<0.005
9/1/2020	0.0372	<0.005							
9/2/2020			<0.005	0.0234	0.0024 (J)	0.0629	0.00346 (J)	0.0432	
9/9/2020									<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.005	<0.005
3/1/2016		
4/19/2016	<0.005	<0.005
4/20/2016		
6/6/2016		
6/7/2016	<0.005	<0.005
6/8/2016		
8/30/2016	<0.005	<0.005
8/31/2016		
10/18/2016	<0.005	<0.005
10/19/2016		
1/31/2017	<0.005	<0.005
2/1/2017		
5/2/2017	<0.005	<0.005
5/3/2017		
6/6/2017	<0.005	<0.005
6/7/2017		
1/23/2018	<0.005	<0.005
1/24/2018		
5/1/2018	<0.005	<0.005
5/2/2018		
11/27/2018	<0.005	<0.005
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.005	<0.005
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.005	<0.005
3/30/2020		
3/31/2020	<0.005	<0.005
9/1/2020		
9/2/2020		
9/9/2020	<0.005	<0.005

Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.005								
4/19/2016	<0.005								
6/6/2016	<0.005								
8/30/2016	<0.005								
10/18/2016	<0.005								
1/31/2017	<0.005								
5/2/2017	<0.005								
6/6/2017	<0.005								
1/23/2018	<0.005								
5/1/2018	<0.005								
11/26/2018	<0.005								
5/28/2019	<0.005								
10/2/2019	<0.005								
3/31/2020	0.0017 (J)								
6/16/2020		0.00135 (J)	0.0117	0.00193 (J)					
6/17/2020					0.00208 (J)	0.00584	0.00321 (J)	<0.005	<0.005
9/1/2020			0.00472 (J)	<0.005		0.00845			
9/2/2020		0.0012 (J)			0.00433 (J)		0.00708	<0.005	<0.005
9/8/2020	<0.005								

Time Series

Constituent: Barium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		0.0634		0.122					
3/2/2016	0.219				0.0815		0.0947	0.0491	0.0468
4/19/2016	0.201								0.043
4/20/2016		0.0622		0.11	0.0692		0.0758	0.049	
6/8/2016	0.274	0.0642		0.105	0.0763		0.071	0.0627	0.0465
8/30/2016								0.0635	
8/31/2016	0.296	0.063		0.102	0.0741		0.0722		0.0464
10/18/2016								0.0603	
10/19/2016	0.281	0.0577		0.0953	0.0727		0.0707		0.0481
1/31/2017	0.211						0.0686	0.0533	0.0427
2/1/2017		0.0607		0.0917	0.0701				
5/2/2017	0.29							0.0616	0.0473
5/3/2017		0.0665		0.0951	0.078		0.0756		
6/6/2017	0.25							0.0585	0.0437
6/7/2017		0.0632		0.0864	0.0682		0.0695		
1/22/2018							0.0688		0.0501
1/23/2018		0.0673		0.0868	0.0744			0.0608	
1/24/2018	0.289								
5/1/2018	0.28								0.0575
5/2/2018		0.0752		0.0816	0.0814		0.0806	0.0614	
11/27/2018								0.0589	0.0557
11/28/2018	0.271	0.066		0.0796	0.0788		0.0697		
1/8/2019			0.149			0.144			
5/29/2019	0.29			0.0653	0.0769		0.0704	0.0617	0.0562
5/30/2019		0.063							
7/31/2019									
9/30/2019		0.0669		0.0759					
10/1/2019	0.293		0.167		0.0795		0.0696	0.0605	0.0628
10/2/2019						0.101			
3/30/2020	0.279								
3/31/2020		0.0727	0.184	0.0842	0.0851	0.0939	0.0728	0.0619	
4/1/2020									0.0697
5/12/2020									
9/1/2020	0.33	0.078	0.203	0.0923	0.0827	0.102	0.0722		
9/2/2020								0.0687	0.0736

Time Series

Constituent: Barium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		0.0921
4/19/2016		0.0775
4/20/2016		
6/8/2016		0.0798
8/30/2016		
8/31/2016		0.0801
10/18/2016		
10/19/2016		0.0766
1/31/2017		0.075
2/1/2017		
5/2/2017		0.0761
5/3/2017		
6/6/2017		0.07
6/7/2017		
1/22/2018		
1/23/2018		0.0779
1/24/2018		
5/1/2018		0.0877
5/2/2018		
11/27/2018		0.0792
11/28/2018		
1/8/2019		
5/29/2019		0.081
5/30/2019		
7/31/2019	0.144	
9/30/2019		
10/1/2019	0.13	0.0803
10/2/2019		
3/30/2020		
3/31/2020		0.091
4/1/2020		
5/12/2020	0.155	
9/1/2020	0.134	
9/2/2020		0.0954

Time Series

Constituent: Barium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					0.0285				
4/19/2016					0.0268				
6/7/2016									
6/8/2016					0.0248				
8/30/2016									
8/31/2016					0.026				
10/19/2016					0.0247				
1/31/2017					0.0228				
5/2/2017					0.0257				
6/6/2017					0.0219				
1/24/2018					0.0229				
5/1/2018					0.0279				
11/27/2018					0.0249				
1/8/2019				0.0826					0.294
3/20/2019		0.152							
5/29/2019					0.0232				
7/31/2019	0.138		0.14			0.0928	0.185	0.162	
10/1/2019		0.126	0.113		0.0241	0.0913	0.213	0.175	
10/2/2019	0.117			0.0611					0.229
3/30/2020				0.062					
3/31/2020					0.0264				0.243
4/1/2020	0.194	0.109				0.119		0.0629	
5/12/2020			0.167				0.222		
8/31/2020					0.0275				
9/1/2020	0.114	0.123	0.159	0.0795		0.11	0.234	0.182	
9/2/2020									0.26

Time Series

Constituent: Barium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		0.018
3/2/2016	0.0306	
4/19/2016	0.0292	0.0166
6/7/2016	0.0318	0.0271
6/8/2016		
8/30/2016		0.0312
8/31/2016	0.0324	
10/19/2016	0.0313	0.0443
1/31/2017	0.0306	0.0231
5/2/2017	0.0332	0.0241
6/6/2017	0.0275	0.0276
1/24/2018	0.0317	0.0293
5/1/2018	0.0356	0.0205
11/27/2018	0.0339	0.0321
1/8/2019		
3/20/2019		
5/29/2019	0.037	0.0203
7/31/2019		
10/1/2019	0.0356	0.0207
10/2/2019		
3/30/2020		
3/31/2020	0.0393	0.0193
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	0.038	0.0131
9/2/2020		

Time Series

Constituent: Barium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									0.117
3/1/2016	0.136		0.0278	0.0519		0.142		0.114	
4/19/2016			0.0242						0.099
4/20/2016	0.132			0.0517		0.143		0.114	
6/6/2016									0.107
6/7/2016	0.141		0.0223	0.0577		0.145			
6/8/2016								0.128	
8/30/2016	0.136		0.0242			0.147			0.106
8/31/2016				0.0614				0.123	
10/18/2016	0.125					0.14			0.102
10/19/2016			0.024	0.0618				0.118	
1/31/2017	0.125		0.0248	0.0576		0.134			0.0944
2/1/2017								0.104	
5/2/2017									0.0868
5/3/2017	0.146		0.0268	0.0601		0.145		0.126	
6/6/2017									0.0799
6/7/2017	0.126		0.0256	0.054		0.128		0.111	
1/23/2018								0.115	0.0884
1/24/2018	0.127		0.0254	0.0568		0.129			
5/1/2018									
5/2/2018	0.154		0.0276	0.063		0.149		0.125	0.137
11/27/2018	0.139					0.143			0.157
11/28/2018			0.0231	0.0654				0.119	
1/8/2019		0.0372							
1/9/2019					0.112		0.337		
5/29/2019	0.146		0.0244	0.059		0.138			0.166
5/30/2019								0.112	
9/30/2019				0.0648		0.138		0.117	
10/1/2019	0.138		0.0257		0.0541		0.264		
10/2/2019		0.0338							0.129
3/30/2020				0.059	0.0519	0.141	0.264		
3/31/2020	0.15	0.0313	0.0244					0.119	0.176
9/1/2020	0.154	0.0399							
9/2/2020			0.0282	0.0745	0.0648	0.151	0.289	0.124	
9/9/2020									0.124

Time Series

Constituent: Barium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	0.111	0.0862
3/1/2016		
4/19/2016	0.0875	0.0718
4/20/2016		
6/6/2016		
6/7/2016	0.0979	0.0754
6/8/2016		
8/30/2016	0.108	0.0768
8/31/2016		
10/18/2016	0.103	0.0727
10/19/2016		
1/31/2017	0.109	0.0698
2/1/2017		
5/2/2017	0.125	0.0723
5/3/2017		
6/6/2017	0.108	0.07
6/7/2017		
1/23/2018	0.153	0.0747
1/24/2018		
5/1/2018	0.167	0.0877
5/2/2018		
11/27/2018	0.158	0.0804
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	0.172	0.0831
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	0.183	0.089
3/30/2020		
3/31/2020	0.171	0.0927
9/1/2020		
9/2/2020		
9/9/2020	0.172	0.0919

Time Series

Constituent: Barium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	0.0973								
4/19/2016	0.0802								
6/6/2016	0.0862								
8/30/2016	0.0841								
10/18/2016	0.0715								
1/31/2017	0.0825								
5/2/2017	0.0777								
6/6/2017	0.078								
1/23/2018	0.0825								
5/1/2018	0.102								
11/26/2018	0.0994								
5/28/2019	0.102								
10/2/2019	0.111								
3/31/2020	0.129								
6/16/2020		0.0658	0.62	0.02					
6/17/2020					0.0809	0.152	0.106	0.0189	0.0132
9/1/2020			0.277	0.00933 (J)		0.115			
9/2/2020		0.0733			0.0766		0.109	0.0204	0.0111
9/8/2020	0.125								

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.003		<0.003					
3/2/2016	<0.003				<0.003		<0.003	<0.003	<0.003
4/19/2016	<0.003								<0.003
4/20/2016		<0.003		<0.003	<0.003		<0.003	<0.003	
6/8/2016	<0.003	<0.003		<0.003	<0.003		<0.003	<0.003	<0.003
8/30/2016								<0.003	
8/31/2016	<0.003	<0.003		<0.003	<0.003		<0.003		<0.003
10/18/2016								<0.003	
10/19/2016	<0.003	<0.003		<0.003	<0.003		<0.003		<0.003
1/31/2017	<0.003						<0.003	<0.003	<0.003
2/1/2017		<0.003		<0.003	<0.003				
5/2/2017	<0.003							<0.003	<0.003
5/3/2017		<0.003		<0.003	<0.003		<0.003		
6/6/2017	<0.003							<0.003	<0.003
6/7/2017		<0.003		<0.003	<0.003		0.00103 (J)		
1/22/2018							<0.003		<0.003
1/23/2018		<0.003		<0.003	<0.003			<0.003	
1/24/2018	<0.003								
5/1/2018	<0.003								<0.003
5/2/2018		<0.003		<0.003	<0.003		<0.003	<0.003	
11/27/2018								<0.003	<0.003
11/28/2018	<0.003	<0.003		<0.003	<0.003		<0.003		
1/8/2019			<0.003			<0.003			
5/29/2019	<0.003			<0.003	<0.003		<0.003	<0.003	<0.003
5/30/2019		<0.003							
7/31/2019									
9/30/2019		<0.003		<0.003					
10/1/2019	<0.003		<0.003		<0.003		<0.003	<0.003	<0.003
10/2/2019						<0.003			
3/30/2020	<0.003								
3/31/2020		<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
4/1/2020									<0.003
5/12/2020									
9/1/2020	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003		
9/2/2020								<0.003	<0.003

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<0.003
4/19/2016		<0.003
4/20/2016		
6/8/2016		<0.003
8/30/2016		
8/31/2016		<0.003
10/18/2016		
10/19/2016		<0.003
1/31/2017		<0.003
2/1/2017		
5/2/2017		<0.003
5/3/2017		
6/6/2017		<0.003
6/7/2017		
1/22/2018		
1/23/2018		<0.003
1/24/2018		
5/1/2018		<0.003
5/2/2018		
11/27/2018		<0.003
11/28/2018		
1/8/2019		
5/29/2019		<0.003
5/30/2019		
7/31/2019	<0.003	
9/30/2019		
10/1/2019	<0.003	<0.003
10/2/2019		
3/30/2020		
3/31/2020		<0.003
4/1/2020		
5/12/2020	<0.003	
9/1/2020	<0.003	
9/2/2020		<0.003

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.003				
4/19/2016					<0.003				
6/7/2016									
6/8/2016					<0.003				
8/30/2016									
8/31/2016					<0.003				
10/19/2016					<0.003				
1/31/2017					<0.003				
5/2/2017					<0.003				
6/6/2017					<0.003				
1/24/2018					<0.003				
5/1/2018					<0.003				
11/27/2018					<0.003				
1/8/2019				<0.003					<0.003
3/20/2019		<0.003							
5/29/2019					<0.003				
7/31/2019	<0.003		<0.003			<0.003	<0.003	<0.003	
10/1/2019		<0.003	<0.003		<0.003	<0.003	<0.003	<0.003	
10/2/2019	<0.003			<0.003					<0.003
3/30/2020				<0.003					
3/31/2020					<0.003				<0.003
4/1/2020	<0.003	<0.003				<0.003		<0.003	
5/12/2020			<0.003				<0.003		
8/31/2020					<0.003				
9/1/2020	<0.003	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003	
9/2/2020									<0.003

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.003
3/2/2016	<0.003	
4/19/2016	<0.003	<0.003
6/7/2016	<0.003	<0.003
6/8/2016		
8/30/2016		<0.003
8/31/2016	<0.003	
10/19/2016	<0.003	<0.003
1/31/2017	<0.003	<0.003
5/2/2017	<0.003	<0.003
6/6/2017	<0.003	<0.003
1/24/2018	<0.003	<0.003
5/1/2018	<0.003	<0.003
11/27/2018	<0.003	0.00071 (J)
1/8/2019		
3/20/2019		
5/29/2019	<0.003	<0.003
7/31/2019		
10/1/2019	<0.003	<0.003
10/2/2019		
3/30/2020		
3/31/2020	<0.003	<0.003
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.003	<0.003
9/2/2020		

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.003
3/1/2016	<0.003		<0.003	<0.003		<0.003		<0.003	
4/19/2016			<0.003						<0.003
4/20/2016	<0.003			<0.003		<0.003		<0.003	
6/6/2016									0.000612 (J)
6/7/2016	<0.003		<0.003	<0.003		<0.003			
6/8/2016								<0.003	
8/30/2016	<0.003		<0.003			<0.003			<0.003
8/31/2016				<0.003				<0.003	
10/18/2016	<0.003					<0.003			<0.003
10/19/2016			<0.003	<0.003				<0.003	
1/31/2017	<0.003		<0.003	<0.003		<0.003			<0.003
2/1/2017								<0.003	
5/2/2017									0.00069 (J)
5/3/2017	<0.003		<0.003	<0.003		<0.003		<0.003	
6/6/2017									<0.003
6/7/2017	<0.003		<0.003	<0.003		<0.003		<0.003	
1/23/2018								<0.003	<0.003
1/24/2018	<0.003		<0.003	<0.003		<0.003			
5/1/2018									
5/2/2018	<0.003		<0.003	<0.003		<0.003		<0.003	<0.003
11/27/2018	<0.003					<0.003			
11/28/2018			<0.003	<0.003				<0.003	
1/8/2019		<0.003							
1/9/2019					<0.003		<0.003		
5/29/2019	<0.003		<0.003	<0.003		<0.003			<0.003
5/30/2019								<0.003	
9/30/2019				<0.003		<0.003		<0.003	
10/1/2019	<0.003		<0.003		<0.003		<0.003		
10/2/2019		<0.003							<0.003
3/30/2020				<0.003	<0.003	<0.003	<0.003		
3/31/2020	<0.003	<0.003	<0.003					<0.003	<0.003
9/1/2020	<0.003	<0.003							
9/2/2020			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	
9/9/2020									<0.003

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.003	<0.003
3/1/2016		
4/19/2016	<0.003	<0.003
4/20/2016		
6/6/2016		
6/7/2016	0.00093 (J)	<0.003
6/8/2016		
8/30/2016	<0.003	<0.003
8/31/2016		
10/18/2016	<0.003	<0.003
10/19/2016		
1/31/2017	<0.003	<0.003
2/1/2017		
5/2/2017	<0.003	<0.003
5/3/2017		
6/6/2017	<0.003	<0.003
6/7/2017		
1/23/2018	<0.003	<0.003
1/24/2018		
5/1/2018	<0.003	<0.003
5/2/2018		
11/27/2018		<0.003
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.003	<0.003
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.003	<0.003
3/30/2020		
3/31/2020	<0.003	<0.003
9/1/2020		
9/2/2020		
9/9/2020	<0.003	<0.003

Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.003								
4/19/2016	<0.003								
6/6/2016	<0.003								
8/30/2016	<0.003								
10/18/2016	<0.003								
1/31/2017	<0.003								
5/2/2017	<0.003								
6/6/2017	<0.003								
1/23/2018	<0.003								
5/1/2018	<0.003								
11/26/2018	<0.003								
5/28/2019	<0.003								
10/2/2019	<0.003								
3/31/2020	<0.003								
6/16/2020		<0.003	<0.003	<0.003					
6/17/2020					<0.003	<0.003	<0.003	<0.003	<0.003
9/1/2020			<0.003	<0.003		<0.003			
9/2/2020		<0.003			<0.003		<0.003	<0.003	<0.003
9/8/2020	<0.003								

Time Series

Constituent: Boron (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		1.39		0.0482 (J)					
3/2/2016	2.03				0.0502 (J)		0.0328 (J)	0.0395 (J)	0.0447 (J)
4/19/2016	2.2								0.0645 (J)
4/20/2016		1.51		0.059 (J)	0.0672 (J)		0.0434 (J)	0.0549 (J)	
6/8/2016	1.61	1.62		0.0568 (J)	0.0659 (J)		0.0391 (J)	0.0593 (J)	0.0592 (J)
8/30/2016								0.0534 (J)	
8/31/2016	1.55	1.73		0.0651 (J)	0.065 (J)		0.0401 (J)		0.0632 (J)
10/18/2016								0.0597 (J)	
10/19/2016	1.59	1.77		0.06 (J)	0.0721 (J)		0.0427 (J)		0.0637 (J)
1/31/2017	1.84						0.034 (J)	0.0479 (J)	0.0536 (J)
2/1/2017		1.42		0.0638 (J)	0.06 (J)				
5/2/2017	1.73							0.0587 (J)	0.0775 (J)
5/3/2017		1.52		0.0655 (J)	0.0768 (J)		0.0416 (J)		
6/6/2017	1.56							0.0428 (J)	0.0535 (J)
6/7/2017		1.52		0.0468 (J)	0.0625 (J)		0.0277 (J)		
9/13/2017	1.87			0.0751 (J)	0.0926 (J)		0.044 (J)	0.0647 (J)	0.0937 (J)
9/14/2017		1.96							
5/1/2018	1.81								0.0683 (J)
5/2/2018		2		0.0545 (J)	0.064 (J)		0.0393 (J)	0.0484 (J)	
11/27/2018								0.0493 (J)	0.0715 (J)
11/28/2018	1.8	2		0.0545 (J)	0.064 (J)		0.0417 (J)		
1/8/2019			0.677			0.0939 (J)			
5/29/2019	1.75			0.082 (J)	0.0952 (J)		0.0528 (J)	0.0682 (J)	0.116
5/30/2019		2.11							
7/31/2019									
9/30/2019		2.02		0.103					
10/1/2019	1.91		1.02		0.0967 (J)		0.0604 (J)	0.0701 (J)	0.116
10/2/2019						0.134			
3/30/2020	1.77								
3/31/2020		2.12	1.04	0.0815 (J)	0.0856 (J)	0.101	0.0505 (J)	0.0655 (J)	
4/1/2020									0.1
5/12/2020									
9/1/2020	2.11	2.02	1.06	0.104	0.115	0.149	0.0642 (J)		
9/2/2020								0.0789 (J)	0.148

Time Series

Constituent: Boron (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		1.47
4/19/2016		1.53
4/20/2016		
6/8/2016		1.7
8/30/2016		
8/31/2016		1.68
10/18/2016		
10/19/2016		1.53
1/31/2017		1.51
2/1/2017		
5/2/2017		1.64
5/3/2017		
6/6/2017		1.57
6/7/2017		
9/13/2017		2.18
9/14/2017		
5/1/2018		1.57
5/2/2018		
11/27/2018		1.58
11/28/2018		
1/8/2019		
5/29/2019		1.7
5/30/2019		
7/31/2019	0.0439 (J)	
9/30/2019		
10/1/2019	0.0824 (J)	2.05
10/2/2019		
3/30/2020		
3/31/2020		1.74
4/1/2020		
5/12/2020	0.0559 (J)	
9/1/2020	0.0907 (J)	
9/2/2020		1.9

Time Series

Constituent: Boron (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.1				
4/19/2016					<0.1				
6/7/2016									
6/8/2016					<0.1				
8/30/2016									
8/31/2016					<0.1				
10/19/2016					<0.1				
1/31/2017					<0.1				
5/2/2017					<0.1				
6/6/2017					<0.1				
9/12/2017					<0.1				
5/1/2018					<0.1				
11/27/2018					<0.1				
1/8/2019				0.0205 (J)					0.213
3/20/2019		0.924							
5/29/2019					<0.1				
7/31/2019	0.0782 (J)		0.835			0.0707 (J)	0.0643 (J)	0.0531 (J)	
10/1/2019		1.05	0.931		<0.1	0.101	0.105	0.0856 (J)	
10/2/2019	0.129			<0.1					0.344
3/30/2020				0.0347 (J)					
3/31/2020					<0.1				0.325
4/1/2020	0.073 (J)	0.435				0.046 (J)		<0.1	
5/12/2020			1.22				0.0807 (J)		
8/31/2020					<0.1				
9/1/2020	0.146	0.855	0.895	0.0368 (J)		0.106	0.115	0.0943 (J)	
9/2/2020									0.382

Time Series

Constituent: Boron (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.1
3/2/2016	<0.1	
4/19/2016	<0.1	<0.1
6/7/2016	<0.1	<0.1
6/8/2016		
8/30/2016		<0.1
8/31/2016	<0.1	
10/19/2016	<0.1	<0.1
1/31/2017	<0.1	<0.1
5/2/2017	<0.1	<0.1
6/6/2017	<0.1	<0.1
9/12/2017	<0.1	<0.1
5/1/2018	<0.1	<0.1
11/27/2018	<0.1	<0.1
1/8/2019		
3/20/2019		
5/29/2019	<0.1	<0.1
7/31/2019		
10/1/2019	<0.1	<0.1
10/2/2019		
3/30/2020		
3/31/2020	<0.1	<0.1
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.1	<0.1
9/2/2020		

Time Series

Constituent: Boron (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									0.0212 (J)
3/1/2016	0.0462 (J)		<0.1	0.0546 (J)		1.72		1.79	
4/19/2016			<0.1						<0.1
4/20/2016	0.0719 (J)			0.0472 (J)		1.7		2.01	
6/6/2016									<0.1
6/7/2016	0.0591 (J)		<0.1	0.0417 (J)		1.57			
6/8/2016								2.23	
8/30/2016	0.0675 (J)		<0.1			1.67			<0.1
8/31/2016				0.036 (J)				2.14	
10/18/2016	0.0699 (J)					1.4			<0.1
10/19/2016			<0.1	0.0386 (J)				2.13	
1/31/2017	0.0518 (J)		<0.1	0.0343 (J)		1.46			<0.1
2/1/2017								2.17	
5/2/2017									<0.1
5/3/2017	0.0737 (J)		<0.1	0.037 (J)		1.45		2.28	
6/6/2017									<0.1
6/7/2017	0.0518 (J)		<0.1	0.0227 (J)		1.41		2.25	
9/13/2017									<0.1
9/14/2017	0.0825 (J)		<0.1	0.0471 (J)		1.16		2.41	
5/1/2018									
5/2/2018	0.0603 (J)		<0.1	0.0313 (J)		1.12		2.34	0.0362 (J)
11/27/2018	0.0613 (J)					1.31			0.11
11/28/2018			<0.1	0.0311 (J)				2.23	
1/8/2019		0.029 (J)							
1/9/2019					0.0615 (J)		0.164		
5/29/2019	0.0946 (J)		<0.1	0.042 (J)		1.44			0.188
5/30/2019								2.45	
9/30/2019				0.0418 (J)		1.38		2.34	
10/1/2019	0.103		<0.1		0.0546 (J)		0.241		
10/2/2019		0.0336 (J)							0.097 (J)
3/30/2020				0.0369 (J)	0.0555 (J)	1.12	0.247		
3/31/2020	0.0782 (J)	0.0339 (J)	<0.1					2.27	0.157
9/1/2020	0.115	0.0414 (J)							
9/2/2020			<0.1	0.042 (J)	0.0565 (J)	1.26	0.26	2.05	
9/9/2020									0.0999 (J)

Time Series

Constituent: Boron (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	0.0252 (J)	<0.1
3/1/2016		
4/19/2016	<0.1	<0.1
4/20/2016		
6/6/2016		
6/7/2016	0.0202 (J)	<0.1
6/8/2016		
8/30/2016	<0.1	<0.1
8/31/2016		
10/18/2016	<0.1	<0.1
10/19/2016		
1/31/2017	<0.1	<0.1
2/1/2017		
5/2/2017	<0.1	<0.1
5/3/2017		
6/6/2017	<0.1	<0.1
6/7/2017		
9/13/2017	<0.1	<0.1
9/14/2017		
5/1/2018	<0.1	<0.1
5/2/2018		
11/27/2018		<0.1
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.1	<0.1
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.1	<0.1
3/30/2020		
3/31/2020	<0.1	<0.1
9/1/2020		
9/2/2020		
9/9/2020	<0.1	<0.1

Time Series

Constituent: Boron (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	0.0257 (J)								
4/19/2016	<0.1								
6/6/2016	<0.1								
8/30/2016	<0.1								
10/18/2016	0.022 (J)								
1/31/2017	<0.1								
5/2/2017	<0.1								
6/6/2017	<0.1								
9/12/2017	<0.1								
5/1/2018	<0.1								
11/26/2018	<0.1								
5/28/2019	<0.1								
10/2/2019	<0.1								
3/31/2020	<0.1								
6/16/2020		<0.1	0.176	0.325					
6/17/2020					0.426	0.118	0.0847 (J)	<0.1	<0.1
9/1/2020			0.124	0.307		0.134			
9/2/2020		<0.1			0.407		0.112	<0.1	<0.1
9/8/2020	<0.1								

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.001		<0.001					
3/2/2016	<0.001				<0.001		<0.001	<0.001	<0.001
4/19/2016	<0.001								<0.001
4/20/2016		<0.001		<0.001	<0.001		<0.001	<0.001	
6/8/2016	<0.001	<0.001		<0.001	<0.001		<0.001	<0.001	<0.001
8/30/2016								<0.001	
8/31/2016	<0.001	<0.001		<0.001	<0.001		<0.001		<0.001
10/18/2016								<0.001	
10/19/2016	<0.001	<0.001		<0.001	<0.001		<0.001		<0.001
1/31/2017	<0.001						<0.001	<0.001	<0.001
2/1/2017		<0.001		<0.001	<0.001				
5/2/2017	<0.001							<0.001	<0.001
5/3/2017		<0.001		<0.001	<0.001		<0.001		
6/6/2017	<0.001							<0.001	<0.001
6/7/2017		<0.001		<0.001	<0.001		0.00077 (J)		
1/22/2018							<0.001		<0.001
1/23/2018		<0.001		<0.001	<0.001			<0.001	
1/24/2018	<0.001								
5/1/2018	<0.001								<0.001
5/2/2018		<0.001		<0.001	<0.001		<0.001	<0.001	
11/27/2018								<0.001	<0.001
11/28/2018	<0.001	<0.001		<0.001	<0.001		<0.001		
1/8/2019			<0.001			<0.001			
5/29/2019	<0.001			<0.001	<0.001		<0.001	<0.001	<0.001
5/30/2019		<0.001							
7/31/2019									
9/30/2019		<0.001		<0.001					
10/1/2019	<0.001		<0.001		<0.001		<0.001	<0.001	<0.001
10/2/2019						<0.001			
3/30/2020	<0.001								
3/31/2020		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
4/1/2020									<0.001
5/12/2020									
9/1/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
9/2/2020								<0.001	<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<0.001
4/19/2016		<0.001
4/20/2016		
6/8/2016		<0.001
8/30/2016		
8/31/2016		<0.001
10/18/2016		
10/19/2016		<0.001
1/31/2017		<0.001
2/1/2017		
5/2/2017		<0.001
5/3/2017		
6/6/2017		<0.001
6/7/2017		
1/22/2018		
1/23/2018		<0.001
1/24/2018		
5/1/2018		<0.001
5/2/2018		
11/27/2018		<0.001
11/28/2018		
1/8/2019		
5/29/2019		<0.001
5/30/2019		
7/31/2019	<0.001	
9/30/2019		
10/1/2019	<0.001	<0.001
10/2/2019		
3/30/2020		
3/31/2020		<0.001
4/1/2020		
5/12/2020	<0.001	
9/1/2020	<0.001	
9/2/2020		<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.001				
4/19/2016					<0.001				
6/7/2016									
6/8/2016					<0.001				
8/30/2016									
8/31/2016					<0.001				
10/19/2016					<0.001				
1/31/2017					<0.001				
5/2/2017					<0.001				
6/6/2017					<0.001				
1/24/2018					<0.001				
5/1/2018					<0.001				
11/27/2018					<0.001				
1/8/2019				<0.001					<0.001
3/20/2019		<0.001							
5/29/2019					<0.001				
7/31/2019	<0.001		<0.001			<0.001	<0.001	<0.001	
10/1/2019		<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	
10/2/2019	<0.001			<0.001					<0.001
3/30/2020				<0.001					
3/31/2020					<0.001				<0.001
4/1/2020	<0.001	<0.001				<0.001		<0.001	
5/12/2020			<0.001				<0.001		
8/31/2020					<0.001				
9/1/2020	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	
9/2/2020									<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.001
3/2/2016	<0.001	
4/19/2016	<0.001	<0.001
6/7/2016	<0.001	<0.001
6/8/2016		
8/30/2016		<0.001
8/31/2016	<0.001	
10/19/2016	<0.001	<0.001
1/31/2017	<0.001	<0.001
5/2/2017	<0.001	<0.001
6/6/2017	<0.001	<0.001
1/24/2018	<0.001	<0.001
5/1/2018	<0.001	<0.001
11/27/2018	<0.001	<0.001
1/8/2019		
3/20/2019		
5/29/2019	<0.001	<0.001
7/31/2019		
10/1/2019	<0.001	<0.001
10/2/2019		
3/30/2020		
3/31/2020	<0.001	<0.001
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.001	<0.001
9/2/2020		

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.001
3/1/2016	<0.001		<0.001	<0.001		<0.001		<0.001	
4/19/2016			<0.001						<0.001
4/20/2016	<0.001			<0.001		<0.001		<0.001	
6/6/2016									<0.001
6/7/2016	<0.001		<0.001	<0.001		<0.001			
6/8/2016								<0.001	
8/30/2016	<0.001		<0.001			<0.001			<0.001
8/31/2016				<0.001				<0.001	
10/18/2016	<0.001					<0.001			<0.001
10/19/2016			<0.001	<0.001				<0.001	
1/31/2017	<0.001		<0.001	<0.001		<0.001			<0.001
2/1/2017								<0.001	
5/2/2017									<0.001
5/3/2017	<0.001		<0.001	<0.001		<0.001		<0.001	
6/6/2017									<0.001
6/7/2017	<0.001		<0.001	<0.001		<0.001		<0.001	
1/23/2018								<0.001	<0.001
1/24/2018	<0.001		<0.001	<0.001		<0.001			
5/1/2018									
5/2/2018	<0.001		<0.001	<0.001		<0.001		<0.001	<0.001
11/27/2018	<0.001					<0.001			<0.001
11/28/2018			<0.001	<0.001				<0.001	
1/8/2019		<0.001							
1/9/2019					<0.001		<0.001		
5/29/2019	<0.001		<0.001	<0.001		<0.001			<0.001
5/30/2019								<0.001	
9/30/2019				<0.001		<0.001		<0.001	
10/1/2019	<0.001		<0.001		<0.001		<0.001		
10/2/2019		<0.001							<0.001
3/30/2020				<0.001	<0.001	<0.001	<0.001		
3/31/2020	<0.001	<0.001	<0.001					<0.001	<0.001
9/1/2020	<0.001	<0.001							
9/2/2020			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
9/9/2020									<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.001	<0.001
3/1/2016		
4/19/2016	<0.001	<0.001
4/20/2016		
6/6/2016		
6/7/2016	<0.001	<0.001
6/8/2016		
8/30/2016	<0.001	<0.001
8/31/2016		
10/18/2016	<0.001	<0.001
10/19/2016		
1/31/2017	<0.001	<0.001
2/1/2017		
5/2/2017	<0.001	<0.001
5/3/2017		
6/6/2017	<0.001	<0.001
6/7/2017		
1/23/2018	<0.001	<0.001
1/24/2018		
5/1/2018	<0.001	<0.001
5/2/2018		
11/27/2018	<0.001	<0.001
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.001	<0.001
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.001	<0.001
3/30/2020		
3/31/2020	<0.001	<0.001
9/1/2020		
9/2/2020		
9/9/2020	<0.001	<0.001

Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.001								
4/19/2016	<0.001								
6/6/2016	<0.001								
8/30/2016	<0.001								
10/18/2016	<0.001								
1/31/2017	<0.001								
5/2/2017	<0.001								
6/6/2017	<0.001								
1/23/2018	<0.001								
5/1/2018	<0.001								
11/26/2018	<0.001								
5/28/2019	<0.001								
10/2/2019	<0.001								
3/31/2020	<0.001								
6/16/2020		<0.001	<0.001	<0.001					
6/17/2020					<0.001	<0.001	<0.001	<0.001	<0.001
9/1/2020			<0.001	<0.001		<0.001			
9/2/2020		<0.001			<0.001		<0.001	<0.001	<0.001
9/8/2020	<0.001								

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		50.6		35.3					
3/2/2016	46.5				21		16.7	9.53	6.61
4/19/2016	49								5.97
4/20/2016		49.1		28.9	20.1		13.1	9.55	
6/8/2016	33.5	48.7		27.6	20.2		11.7	13.1	6.36
8/30/2016								12.1	
8/31/2016	34.2	57.9		25.4	19.9		11.3		6.28
10/18/2016								11.4	
10/19/2016	35.1	52.2		25.7	20.4		11.8		6.57
1/31/2017	38.5						12.5	10.8	6.77
2/1/2017		47.6		25.6	20.9				
5/2/2017	35.1							11.9	6.94
5/3/2017		51.3		24	20.9		12		
6/6/2017	32.4							12.2	6.88
6/7/2017		51.4		25.2	21.2		12.8		
9/13/2017	40.5			25.5	22.1		13.3	13.9	7.43
9/14/2017		54.9							
5/1/2018	39.7								7.42
5/2/2018		53.3		25.2	22.2		13.8	10.6	
8/28/2018	37.2	56.4							
8/29/2018				25.6	22.3		13.3	11.7	7.37
11/27/2018								10.8	7.58
11/28/2018	35.8	54.2		24.6	22.1		15.2		
1/8/2019			57.2			33.8			
5/29/2019	33.4			23.9	21.4		12.8	11.2	7.22
5/30/2019		60.5							
7/31/2019									
9/30/2019		63.1		24.6					
10/1/2019	36.7		61.2		23.1		13.4	11.4	6.9
10/2/2019						22.2			
3/30/2020	33.7								
3/31/2020		63.6	66.6	25.1	22.4	21.3	13.2	9.04	
4/1/2020									7.32
5/12/2020									
9/1/2020	40.5	57.2	57.3	23.9	22.2	21	12.3		
9/2/2020								10.8	7.04

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		14.6
4/19/2016		13.3
4/20/2016		
6/8/2016		13.2
8/30/2016		
8/31/2016		11.8
10/18/2016		
10/19/2016		12.9
1/31/2017		13.5
2/1/2017		
5/2/2017		13.5
5/3/2017		
6/6/2017		13.6
6/7/2017		
9/13/2017		11.8
9/14/2017		
5/1/2018		14
5/2/2018		
8/28/2018		
8/29/2018		12.1
11/27/2018		13.3
11/28/2018		
1/8/2019		
5/29/2019		13.4
5/30/2019		
7/31/2019	9.32	
9/30/2019		
10/1/2019	8.41	11.7
10/2/2019		
3/30/2020		
3/31/2020		14.2
4/1/2020		
5/12/2020	8.01	
9/1/2020	6.9	
9/2/2020		13.1

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					3.86				
4/19/2016					3.22				
6/7/2016									
6/8/2016					3.17				
8/30/2016									
8/31/2016					3.07				
10/19/2016					2.91				
1/31/2017					2.94				
5/2/2017					2.82				
6/6/2017					2.79				
9/12/2017					2.88				
5/1/2018					2.82				
8/28/2018					2.85				
11/27/2018					2.8				
1/8/2019				15.7					38
3/20/2019		28.4							
5/29/2019					2.82				
7/31/2019	19.1		31.4			30.3	15	25.8	
10/1/2019		27.2	31.1		2.94	29.4	15.5	27.2	
10/2/2019	13.2			3.16					18.4
3/30/2020				3.23					
3/31/2020					2.95				18.1
4/1/2020	27	23.1				26		15.8	
5/12/2020			34.2				15		
8/31/2020					3				
9/1/2020	10.8	25.6	31.6	3.43		28.8	14.8	35.8	
9/2/2020									17.6

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		1.07
3/2/2016	1.11	
4/19/2016	1.01	0.969
6/7/2016	1.06	1.08
6/8/2016		
8/30/2016		0.952
8/31/2016	0.978	
10/19/2016	0.906	1.17
1/31/2017	1.04	0.946
5/2/2017	0.969	0.826
6/6/2017	0.902	0.834
9/12/2017	0.988	0.884
5/1/2018	1.07	0.921
8/28/2018	1.02	0.8
11/27/2018	0.999	1.01
1/8/2019		
3/20/2019		
5/29/2019	1.09	0.627
7/31/2019		
10/1/2019	1.08	0.645
10/2/2019		
3/30/2020		
3/31/2020	1.1	0.898
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	1.08	0.566
9/2/2020		

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									1.28
3/1/2016	15		1.87	7.65		36.1		40.3	
4/19/2016			1.69						1.19
4/20/2016	14.3			7.54		34.5		38.2	
6/6/2016									1.19
6/7/2016	14.8		1.75	7.71		34.7			
6/8/2016								39.2	
8/30/2016	13.7		1.77			34.1			1.11
8/31/2016				8.1				38.2	
10/18/2016	13.3					33.2			1.04
10/19/2016			1.8	8.59				38.7	
1/31/2017	13.7		1.98	8.78		32.3			1.19
2/1/2017								39.2	
5/2/2017									1.05
5/3/2017	14.3		1.97	8.85		34.1		39.1	
6/6/2017									0.978
6/7/2017	14.7		1.98	8.99		34.7		40.3	
9/13/2017									1.14
9/14/2017	15.1		2.14	9.64		34.4		40.7	
5/1/2018									
5/2/2018	14.5		2.13	9.14		32.3		40	1.64
8/28/2018								40	
8/29/2018	14.3		1.92			32.6			
11/27/2018	13.7					32.5			2.01
11/28/2018			1.91	9.66				39.7	
1/8/2019		3.7							
1/9/2019					37		27.2		
5/29/2019	14.5		1.72	8.88		31.9			1.85
5/30/2019								38.5	
9/30/2019				9.8		33		39.9	
10/1/2019	13.8		1.92		18.7		24.2		
10/2/2019		2.43							1.55
3/30/2020				10.1	20	32.2	24.5		
3/31/2020	14.4	1.88	1.68					40.1	1.96
9/1/2020	13.6	2.13							
9/2/2020			1.8	10.4	13.9	31.5	23.3	38	
9/9/2020									1.43

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	1.11	1.77
3/1/2016		
4/19/2016	1.09	1.68
4/20/2016		
6/6/2016		
6/7/2016	1.16	1.68
6/8/2016		
8/30/2016	1.08	1.62
8/31/2016		
10/18/2016	1.03	1.53
10/19/2016		
1/31/2017	1.23	1.65
2/1/2017		
5/2/2017	1.28	1.58
5/3/2017		
6/6/2017	1.25	1.55
6/7/2017		
9/13/2017	1.6	1.71
9/14/2017		
5/1/2018	1.58	1.76
5/2/2018		
8/28/2018		
8/29/2018		
11/27/2018	1.49	1.69
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	1.59	1.74
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	1.7	1.86
3/30/2020		
3/31/2020	1.43	1.92
9/1/2020		
9/2/2020		
9/9/2020	1.5	1.97

Time Series

Constituent: Calcium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	1.42								
4/19/2016	1.31								
6/6/2016	1.35								
8/30/2016	1.31								
10/18/2016	1.22								
1/31/2017	1.36								
5/2/2017	1.24								
6/6/2017	1.28								
9/12/2017	1.47								
5/1/2018	1.47								
11/26/2018	1.52								
5/28/2019	1.6								
10/2/2019	1.7								
3/31/2020	1.78								
6/16/2020		2.15	65.3	1.25					
6/17/2020					5.32	17.9	20.2	0.793	0.842
9/1/2020			20.5	1.27		14.7			
9/2/2020		2.02			4.7		12.3	0.875	0.547
9/8/2020	1.94								

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		19.6		21.7					
3/2/2016	2.18 (o)				22.2		47.3	36.6	20.9
4/19/2016	9.01 (o)								19.8
4/20/2016		18.8		20.7	21.7		40.5	35.5	
6/8/2016	21	18.6		20.4	22		37.2	43.8	24
8/30/2016								41.6	
8/31/2016	21	18.5		20.3	22.3		38.2		28
10/18/2016								39.5	
10/19/2016	21.4	18.7		20.3	20.8		39.4		21.3
3/21/2017	25								34
3/22/2017		21		27	23		49	46	
5/2/2017	26							42	33
5/3/2017		22		27	25		48		
6/6/2017	27							44	35
6/7/2017		22		24	23		49		
9/13/2017	24			26	23		42	43	36
9/14/2017		22							
5/1/2018	25								42
5/2/2018		23		23	21		47	39	
8/28/2018	25	25							
8/29/2018				25	23		43	44	38
11/27/2018								43	43
11/28/2018	26	25		25	23		43		
1/8/2019			21.3			23.1			
5/29/2019	27.6			27.8	24.1		44	50.1	47.2
5/30/2019		25.9							
7/31/2019									
9/30/2019		25.7		25					
10/1/2019	24.6		20		26.1		39.6	44.8	56.3
10/2/2019						28			
3/30/2020	24.9								
3/31/2020		26.1	20.7	24.1	23.9	25	44.9	44.7	
4/1/2020									54.7
5/12/2020									
9/1/2020	25.7	25	22.9	23.2	23.4	26.4	39.1		
9/2/2020								47.2	47

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		16.6
4/19/2016		15.7
4/20/2016		
6/8/2016		15.1
8/30/2016		
8/31/2016		15.9
10/18/2016		
10/19/2016		15.3
3/21/2017		19
3/22/2017		
5/2/2017		19
5/3/2017		
6/6/2017		19
6/7/2017		
9/13/2017		21
9/14/2017		
5/1/2018		18
5/2/2018		
8/28/2018		
8/29/2018		20
11/27/2018		20
11/28/2018		
1/8/2019		
5/29/2019		20
5/30/2019		
7/31/2019	157	
9/30/2019		
10/1/2019	195	20.3
10/2/2019		
3/30/2020		
3/31/2020		20.8
4/1/2020		
5/12/2020	190	
9/1/2020	170	
9/2/2020		20.8

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					6.08				
4/19/2016					6.2				
6/7/2016									
6/8/2016					6.2				
8/30/2016									
8/31/2016					6.51				
10/19/2016					6.85				
3/21/2017					7.2				
5/2/2017					8.3				
6/6/2017					8.5				
9/12/2017					8.6				
5/1/2018					7.6				
8/28/2018					8.5				
11/27/2018					8.8				
1/8/2019				42					44.6
3/20/2019		17.6							
5/29/2019					8.31				
7/31/2019	18		16.4			33.4	60.3	8.03	
10/1/2019		20.1	16.8		8.19	44.7	70	6.7	
10/2/2019	17.7			60.7					53
3/30/2020				69.1					
3/31/2020					8.48				47.5
4/1/2020	17.2	12.2				23.1		4.46	
5/12/2020			17.9				58.3		
8/31/2020					8.3				
9/1/2020	18.2	19.8	17.6	69		34.6	59.9	6.96	
9/2/2020									43.7

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		7.74
3/2/2016	8.04	
4/19/2016	7.6	7.66
6/7/2016	7.7	11.3
6/8/2016		
8/30/2016		10.8
8/31/2016	7.7	
10/19/2016	7.73	11.1
3/21/2017	7.2	11
5/2/2017	8.6	12
6/6/2017	8.3	12
9/12/2017	8.5	11
5/1/2018	7.6	9.2
8/28/2018	8.2	10
11/27/2018	8.4	10
1/8/2019		
3/20/2019		
5/29/2019	9.01	8.53
7/31/2019		
10/1/2019	8.05	7.35
10/2/2019		
3/30/2020		
3/31/2020	9.07	9.54
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	8.97	7.82
9/2/2020		

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									3.59
3/1/2016	19.7		5.77	11.2		24.5		20.4	
4/19/2016			5.57						2.89
4/20/2016	18.9			10.8		22.5		22.7	
6/6/2016									3.12
6/7/2016	18.5		5.52	10.8		21.6			
6/8/2016								25.3	
8/30/2016	17.9		5.5			21.6			3.91
8/31/2016				10.8				24.4	
10/18/2016	18.2					20.2			3.9
10/19/2016			5.55	10.8				23	
3/20/2017									3.5
3/22/2017	22		6	13		24		26	
5/2/2017									3.5 (D)
5/3/2017	22		6.4	14		25		26	
6/6/2017									3.1 (D)
6/7/2017	21		5.9	14		24		27	
9/13/2017									4
9/14/2017	21		6.5	13		24		24	
5/1/2018									
5/2/2018	20		5.5	13		23		22	9.9
8/28/2018								21	
8/29/2018	21		5.4			25			
11/27/2018	21					27			4.7
11/28/2018			6.2	13				23	
1/8/2019		20.9							
1/9/2019					16.9		21.9		
5/29/2019	19.7		6.15	13.3		27.4			5.48
5/30/2019								27.7	
9/30/2019				13.1		25.5		21.7	
10/1/2019	19.8		5.99		13.2		22.6		
10/2/2019		25.8							3.65
3/30/2020				13.3	15.5	22.6	22.7		
3/31/2020	19.8	25.8	5.94					20.6	3.17
9/1/2020	19.1	30.6							
9/2/2020			5.94	12.9	14.2	22.2	22.6	18.5	
9/9/2020									2.92

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	3.99	3.68
3/1/2016		
4/19/2016	4.08	3.72
4/20/2016		
6/6/2016		
6/7/2016	4.28	3.66
6/8/2016		
8/30/2016	4.26	3.7
8/31/2016		
10/18/2016	4.26	3.77
10/19/2016		
3/20/2017	4.1	3.7
3/22/2017		
5/2/2017	5 (D)	4.6 (D)
5/3/2017		
6/6/2017	3.9 (D)	3.4 (D)
6/7/2017		
9/13/2017	4.3	3.9
9/14/2017		
5/1/2018	3.7	4.1
5/2/2018		
8/28/2018		
8/29/2018		
11/27/2018	3.2	3.5
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	2.93	3.58
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	2.75	3.64
3/30/2020		
3/31/2020	2.72	3.47
9/1/2020		
9/2/2020		
9/9/2020	2.32	3.47

Time Series

Constituent: Chloride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
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 (D)								
6/6/2017	3.4 (D)								
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								
6/16/2020		77.4	734	120					
6/17/2020					240	29.2	77	4.81	4.04
9/1/2020			273	117		27.1			
9/2/2020		75.6			178		51.7	4.62	3.85
9/8/2020	3.29								

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.01		0.00213 (J)					
3/2/2016	0.00591 (J)				0.0042 (J)		0.00656 (J)	0.00552 (J)	<0.01
4/19/2016	0.0077 (J)								<0.01
4/20/2016		<0.01		0.00214 (J)	0.0034 (J)		0.00661 (J)	0.00572 (J)	
6/8/2016	0.00264 (J)	<0.01		0.00205 (J)	0.00308 (J)		0.0067 (J)	0.00492 (J)	<0.01
8/30/2016								0.00534 (J)	
8/31/2016	0.00246 (J)	<0.01		0.00221 (J)	0.0032 (J)		0.00693 (J)		<0.01
10/18/2016								0.00556 (J)	
10/19/2016	0.00248 (J)	<0.01		0.00213 (J)	0.0035 (J)		0.00732 (J)		<0.01
1/31/2017	0.00556 (J)						0.00699 (J)	0.00514 (J)	<0.01
2/1/2017		<0.01		0.00228 (J)	0.00371 (J)				
5/2/2017	0.00269 (J)							0.00524 (J)	<0.01
5/3/2017		<0.01		0.00229 (J)	0.00369 (J)		0.00712 (J)		
6/6/2017	0.00295 (J)							0.00541 (J)	<0.01
6/7/2017		<0.01		0.00233 (J)	0.00372 (J)		0.00752 (J)		
1/22/2018							0.00729 (J)		<0.01
1/23/2018		<0.01		0.00248 (J)	0.00605 (J)			0.00573 (J)	
1/24/2018	0.00278 (J)								
5/1/2018	0.00435 (J)								<0.01
5/2/2018		<0.01		0.00273 (J)	0.00351 (J)		0.00642 (J)	0.00534 (J)	
11/27/2018								0.00523 (J)	<0.01
11/28/2018	0.0036 (J)	<0.01		0.0023 (J)	0.00353 (J)		0.0068 (J)		
1/8/2019			<0.01			0.0021 (J)			
5/29/2019	0.00223 (J)			0.00211 (J)	0.00333 (J)		0.00727 (J)	0.00455 (J)	<0.01
5/30/2019		<0.01							
7/31/2019									
9/30/2019		<0.01		0.00228 (J)					
10/1/2019	0.00236 (J)		<0.01		0.00325 (J)		0.00764 (J)	0.00508 (J)	<0.01
10/2/2019						<0.01			
3/30/2020	0.00415 (J)								
3/31/2020		<0.01	<0.01	0.00358 (J)	0.0056 (J)	<0.01	0.00955 (J)	0.00463 (J)	
4/1/2020									<0.01
5/12/2020									
9/1/2020	0.00242 (J)	<0.01	<0.01	0.00259 (J)	0.00332 (J)	<0.01	0.00888 (J)		
9/2/2020								0.00482 (J)	<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<0.01
4/19/2016		<0.01
4/20/2016		
6/8/2016		<0.01
8/30/2016		
8/31/2016		0.00215 (J)
10/18/2016		
10/19/2016		<0.01
1/31/2017		<0.01
2/1/2017		
5/2/2017		<0.01
5/3/2017		
6/6/2017		<0.01
6/7/2017		
1/22/2018		
1/23/2018		0.00253 (J)
1/24/2018		
5/1/2018		<0.01
5/2/2018		
11/27/2018		<0.01
11/28/2018		
1/8/2019		
5/29/2019		<0.01
5/30/2019		
7/31/2019	<0.01	
9/30/2019		
10/1/2019	<0.01	<0.01
10/2/2019		
3/30/2020		
3/31/2020		<0.01
4/1/2020		
5/12/2020	<0.01	
9/1/2020	<0.01	
9/2/2020		<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.01				
4/19/2016					<0.01				
6/7/2016									
6/8/2016					<0.01				
8/30/2016									
8/31/2016					<0.01				
10/19/2016					<0.01				
1/31/2017					<0.01				
5/2/2017					<0.01				
6/6/2017					<0.01				
1/24/2018					<0.01				
5/1/2018					<0.01				
11/27/2018					<0.01				
1/8/2019				<0.01					<0.01
3/20/2019		0.00236 (J)							
5/29/2019					<0.01				
7/31/2019	<0.01		<0.01			0.00209 (J)	<0.01	<0.01	
10/1/2019		<0.01	<0.01		<0.01	0.0025 (J)	<0.01	<0.01	
10/2/2019	<0.01			<0.01					<0.01
3/30/2020				<0.01					
3/31/2020					<0.01				<0.01
4/1/2020	<0.01	<0.01				<0.01		<0.01	
5/12/2020			<0.01				<0.01		
8/31/2020					<0.01				
9/1/2020	<0.01	<0.01	<0.01	<0.01		0.00283 (J)	<0.01	<0.01	
9/2/2020									<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.01
3/2/2016	<0.01	
4/19/2016	<0.01	<0.01
6/7/2016	<0.01	<0.01
6/8/2016		
8/30/2016		<0.01
8/31/2016	<0.01	
10/19/2016	<0.01	<0.01
1/31/2017	<0.01	<0.01
5/2/2017	<0.01	<0.01
6/6/2017	<0.01	<0.01
1/24/2018	<0.01	<0.01
5/1/2018	<0.01	<0.01
11/27/2018	<0.01	<0.01
1/8/2019		
3/20/2019		
5/29/2019	<0.01	<0.01
7/31/2019		
10/1/2019	<0.01	<0.01
10/2/2019		
3/30/2020		
3/31/2020	<0.01	<0.01
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.01	<0.01
9/2/2020		

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.01
3/1/2016	<0.01		<0.01	<0.01		<0.01		<0.01	
4/19/2016			<0.01						<0.01
4/20/2016	<0.01			<0.01		<0.01		<0.01	
6/6/2016									<0.01
6/7/2016	<0.01		<0.01	<0.01		<0.01			
6/8/2016								<0.01	
8/30/2016	<0.01		<0.01			<0.01			<0.01
8/31/2016				<0.01				<0.01	
10/18/2016	<0.01					<0.01			<0.01
10/19/2016			<0.01	<0.01				<0.01	
1/31/2017	<0.01		<0.01	<0.01		<0.01			<0.01
2/1/2017								<0.01	
5/2/2017									<0.01
5/3/2017	<0.01		<0.01	<0.01		<0.01		<0.01	
6/6/2017									<0.01
6/7/2017	<0.01		<0.01	<0.01		<0.01		<0.01	
1/23/2018								<0.01	<0.01
1/24/2018	<0.01		<0.01	<0.01		<0.01			
5/1/2018									
5/2/2018	<0.01		<0.01	0.00328 (J)		<0.01		<0.01	<0.01
11/27/2018	<0.01					<0.01			<0.01
11/28/2018			<0.01	<0.01				<0.01	
1/8/2019		<0.01							
1/9/2019					<0.01		<0.01		
5/29/2019	<0.01		<0.01	<0.01		<0.01			<0.01
5/30/2019								<0.01	
9/30/2019				<0.01		<0.01		<0.01	
10/1/2019	<0.01		<0.01		<0.01		<0.01		
10/2/2019		<0.01							<0.01
3/30/2020				<0.01	<0.01	<0.01	<0.01		
3/31/2020	<0.01	<0.01	<0.01					<0.01	<0.01
9/1/2020	<0.01	<0.01							
9/2/2020			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
9/9/2020									<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.01	<0.01
3/1/2016		
4/19/2016	<0.01	<0.01
4/20/2016		
6/6/2016		
6/7/2016	<0.01	<0.01
6/8/2016		
8/30/2016	<0.01	<0.01
8/31/2016		
10/18/2016	<0.01	<0.01
10/19/2016		
1/31/2017	<0.01	<0.01
2/1/2017		
5/2/2017	<0.01	<0.01
5/3/2017		
6/6/2017	<0.01	<0.01
6/7/2017		
1/23/2018	0.00596 (J)	0.00229 (J)
1/24/2018		
5/1/2018	<0.01	<0.01
5/2/2018		
11/27/2018	<0.01	<0.01
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.01	<0.01
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.01	<0.01
3/30/2020		
3/31/2020	<0.01	<0.01
9/1/2020		
9/2/2020		
9/9/2020	<0.01	<0.01

Time Series

Constituent: Chromium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.01								
4/19/2016	<0.01								
6/6/2016	<0.01								
8/30/2016	<0.01								
10/18/2016	<0.01								
1/31/2017	<0.01								
5/2/2017	<0.01								
6/6/2017	<0.01								
1/23/2018	<0.01								
5/1/2018	<0.01								
11/26/2018	<0.01								
5/28/2019	<0.01								
10/2/2019	<0.01								
3/31/2020	0.00604 (J)								
6/16/2020		0.00222 (J)	0.00475 (J)	0.0221					
6/17/2020					<0.01	<0.01	0.00537 (J)	<0.01	<0.01
9/1/2020			<0.01	0.00284 (J)		<0.01			
9/2/2020		<0.01			<0.01		0.00525 (J)	<0.01	<0.01
9/8/2020	<0.01								

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.005		<0.005					
3/2/2016	<0.005				0.00235 (J)		<0.005	<0.005	0.0279
4/19/2016	<0.005								0.0269
4/20/2016		<0.005		<0.005	0.00212 (J)		<0.005	<0.005	
6/8/2016	<0.005	<0.005		<0.005	0.00276 (J)		<0.005	<0.005	0.0293
8/30/2016								<0.005	
8/31/2016	<0.005	<0.005		<0.005	0.00261 (J)		<0.005		0.0272
10/18/2016								<0.005	
10/19/2016	<0.005	<0.005		<0.005	0.00256 (J)		<0.005		0.0285
1/31/2017	<0.005						<0.005	<0.005	0.025
2/1/2017		<0.005		<0.005	0.00231 (J)				
5/2/2017	<0.005							<0.005	0.0274
5/3/2017		<0.005		<0.005	0.00279 (J)		<0.005		
6/6/2017	<0.005							<0.005	0.0285
6/7/2017		<0.005		<0.005	0.00262 (J)		<0.005		
1/22/2018							<0.005		0.0273
1/23/2018		<0.005		<0.005	0.00248 (J)			<0.005	
1/24/2018	<0.005								
5/1/2018	<0.005								0.0298
5/2/2018		<0.005		<0.005	0.00271 (J)		<0.005	<0.005	
11/27/2018								<0.005	0.0311
11/28/2018	<0.005	<0.005		<0.005	0.00274 (J)		<0.005		
1/8/2019			<0.005			<0.005			
5/29/2019	<0.005			<0.005	0.00358 (J)		<0.005	<0.005	0.0343
5/30/2019		<0.005							
7/31/2019									
9/30/2019		<0.005		<0.005					
10/1/2019	<0.005		<0.005		0.00303 (J)		<0.005	<0.005	0.0336
10/2/2019						<0.005			
3/30/2020	<0.005								
3/31/2020		<0.005	<0.005	<0.005	0.00364 (J)	<0.005	<0.005	<0.005	
4/1/2020									0.0344
5/12/2020									
9/1/2020	<0.005	<0.005	<0.005	<0.005	0.0031 (J)	<0.005	<0.005		
9/2/2020								<0.005	0.0385

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		0.0212
4/19/2016		0.018
4/20/2016		
6/8/2016		0.0176
8/30/2016		
8/31/2016		0.0134
10/18/2016		
10/19/2016		0.0193
1/31/2017		0.017
2/1/2017		
5/2/2017		0.0166
5/3/2017		
6/6/2017		0.0172
6/7/2017		
1/22/2018		
1/23/2018		0.00621 (J)
1/24/2018		
5/1/2018		0.0189
5/2/2018		
11/27/2018		0.0182
11/28/2018		
1/8/2019		
5/29/2019		0.0206
5/30/2019		
7/31/2019	0.0632	
9/30/2019		
10/1/2019	0.0629	0.0107
10/2/2019		
3/30/2020		
3/31/2020		0.0199
4/1/2020		
5/12/2020	0.0719	
9/1/2020	0.0665	
9/2/2020		0.0192

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					0.00842 (J)				
4/19/2016					0.008 (J)				
6/7/2016									
6/8/2016					0.00796 (J)				
8/30/2016									
8/31/2016					0.00752 (J)				
10/19/2016					0.00778 (J)				
1/31/2017					0.00647 (J)				
5/2/2017					0.00686 (J)				
6/6/2017					0.00694 (J)				
1/24/2018					0.00592 (J)				
5/1/2018					0.00693 (J)				
11/27/2018					0.0066				
1/8/2019				0.00911					0.00243 (J)
3/20/2019		<0.005							
5/29/2019					0.00745				
7/31/2019	<0.005		<0.005			0.00433 (J)	0.00233 (J)	0.0031 (J)	
10/1/2019		<0.005	<0.005		0.00696	0.00431 (J)	0.00268 (J)	0.00201 (J)	
10/2/2019	0.0033 (J)			0.00289 (J)					0.00513
3/30/2020				<0.005					
3/31/2020					0.00716				0.00528
4/1/2020	<0.005	0.013				0.00541		0.0206	
5/12/2020			<0.005				0.00281 (J)		
8/31/2020					0.00751				
9/1/2020	0.00258 (J)	<0.005	<0.005	0.00407 (J)		0.0046 (J)	0.00294 (J)	0.0273	
9/2/2020									0.0061

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.005
3/2/2016	<0.005	
4/19/2016	<0.005	<0.005
6/7/2016	<0.005	0.00424 (J)
6/8/2016		
8/30/2016		0.00262 (J)
8/31/2016	<0.005	
10/19/2016	<0.005	0.00469 (J)
1/31/2017	<0.005	0.0127
5/2/2017	<0.005	0.00891 (J)
6/6/2017	<0.005	0.00217 (J)
1/24/2018	<0.005	<0.005
5/1/2018	<0.005	0.0126
11/27/2018	<0.005	0.00363 (J)
1/8/2019		
3/20/2019		
5/29/2019	<0.005	0.00549
7/31/2019		
10/1/2019	<0.005	<0.005
10/2/2019		
3/30/2020		
3/31/2020	<0.005	0.0205
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.005	0.00657
9/2/2020		

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									0.0035 (J)
3/1/2016	<0.005		<0.005	0.011		<0.005		<0.005	
4/19/2016			<0.005						0.0038 (J)
4/20/2016	<0.005			0.0148		<0.005		<0.005	
6/6/2016									0.00427 (J)
6/7/2016	<0.005		<0.005	0.0172		<0.005			
6/8/2016								<0.005	
8/30/2016	<0.005		<0.005			<0.005			0.00348 (J)
8/31/2016				0.0175				<0.005	
10/18/2016	<0.005					<0.005			0.00338 (J)
10/19/2016			<0.005	0.0189				<0.005	
1/31/2017	<0.005		<0.005	0.0165		<0.005			0.00308 (J)
2/1/2017								<0.005	
5/2/2017									0.00314 (J)
5/3/2017	<0.005		<0.005	0.0172		<0.005		<0.005	
6/6/2017									0.0036 (J)
6/7/2017	<0.005		<0.005	0.0173		<0.005		<0.005	
1/23/2018								<0.005	0.00586 (J)
1/24/2018	<0.005		<0.005	0.0158		<0.005			
5/1/2018									
5/2/2018	<0.005		<0.005	0.0169		<0.005		<0.005	0.00702 (J)
11/27/2018	<0.005					<0.005			0.0157
11/28/2018			<0.005	0.0178				<0.005	
1/8/2019		<0.005							
1/9/2019					<0.005		<0.005		
5/29/2019	<0.005		<0.005	0.0197		<0.005			0.0109
5/30/2019								<0.005	
9/30/2019				0.0186		<0.005		<0.005	
10/1/2019	<0.005		<0.005		<0.005		<0.005		
10/2/2019		<0.005							0.0129
3/30/2020				0.0172	<0.005	<0.005	<0.005		
3/31/2020	<0.005	<0.005	<0.005					<0.005	0.0123
9/1/2020	<0.005	<0.005							
9/2/2020			<0.005	0.0197	<0.005	<0.005	<0.005	<0.005	
9/9/2020									0.00697

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.005	<0.005
3/1/2016		
4/19/2016	<0.005	<0.005
4/20/2016		
6/6/2016		
6/7/2016	<0.005	<0.005
6/8/2016		
8/30/2016	<0.005	<0.005
8/31/2016		
10/18/2016	<0.005	<0.005
10/19/2016		
1/31/2017	<0.005	<0.005
2/1/2017		
5/2/2017	<0.005	<0.005
5/3/2017		
6/6/2017	<0.005	<0.005
6/7/2017		
1/23/2018	0.0021 (J)	<0.005
1/24/2018		
5/1/2018	<0.005	<0.005
5/2/2018		
11/27/2018		<0.005
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	0.00248 (J)	<0.005
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	0.00244 (J)	<0.005
3/30/2020		
3/31/2020	0.00224 (J)	<0.005
9/1/2020		
9/2/2020		
9/9/2020	0.00219 (J)	<0.005

Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.005								
4/19/2016	<0.005								
6/6/2016	<0.005								
8/30/2016	<0.005								
10/18/2016	<0.005								
1/31/2017	<0.005								
5/2/2017	<0.005								
6/6/2017	<0.005								
1/23/2018	<0.005								
5/1/2018	<0.005								
11/26/2018	<0.005								
5/28/2019	<0.005								
10/2/2019	<0.005								
3/31/2020	<0.005								
6/16/2020		0.0144	0.0858	0.00302 (J)					
6/17/2020					<0.005	0.00593	<0.005	<0.005	0.0026 (J)
9/1/2020			0.022	<0.005		0.012			
9/2/2020		0.0163			0.00444 (J)		<0.005	0.00246 (J)	<0.005
9/8/2020	<0.005								

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<3		<3					
3/2/2016	<3				<3		<3	<3	<3
4/19/2016	3.0268								<3
4/20/2016		<3		0.667	<3		0.398	<3	
6/7/2016					1.08		0.812		
6/8/2016	1.59	1.06		0.704				0.631	0.557
8/30/2016								0.693	
8/31/2016	2.19	0.871		0.726	0.528		0.46 (U)		0.765
10/18/2016								0.626	
10/19/2016		1.575 (D)		0.737	0.81		0.601		0.654
1/31/2017	1.23						1.1	0.0723 (U)	0.402 (U)
2/1/2017		1		0.766	1.11				
5/2/2017	1.62							0.363 (U)	0.578
5/3/2017		1.07		0.515	0.639		0.832		
6/6/2017	1.24							0.198 (U)	0.128 (U)
6/7/2017		0.254 (U)		1.04	0.705		0.752		
1/22/2018							0.898 (U)		0.768 (U)
1/23/2018		0.795 (U)		1.17 (U)	1.1 (U)			0.294 (U)	
1/24/2018	1.96 (U)								
5/1/2018	1.6								0.651
5/2/2018		0.405		0.505	1.11		0.752	0.522	
11/27/2018								0.576	0.764
11/28/2018	1.48	0.609		0.232 (U)	0.846		0.523		
1/8/2019			1.35			1.04			
5/29/2019	2.25			0.726	2.06		1.01	0.437 (U)	0.433
5/30/2019		0.0949 (U)							
7/31/2019									
9/30/2019		0.965		0.489 (U)					
10/1/2019	2.84		1.99		0.984		1.07	1.11	0.988
10/2/2019						0.896			
3/30/2020	2.31								
3/31/2020		1.14	0.957	0.462 (U)	1.26	0.923	0.725	0.941	
4/1/2020									0.527
5/12/2020									
9/1/2020	1.3	1.68	0.625 (U)	0.752	1.2	1.03	0.698		
9/2/2020								2.12	1.87

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<3
4/19/2016		<3
4/20/2016		
6/7/2016		
6/8/2016		0.344 (U)
8/30/2016		
8/31/2016		0.582
10/18/2016		
10/19/2016		0.448
1/31/2017		0.653
2/1/2017		
5/2/2017		0.698
5/3/2017		
6/6/2017		0.548
6/7/2017		
1/22/2018		
1/23/2018		0.98 (U)
1/24/2018		
5/1/2018		0.623
5/2/2018		
11/27/2018		0.744
11/28/2018		
1/8/2019		
5/29/2019		2.51
5/30/2019		
7/31/2019	1.09 (D)	
9/30/2019		
10/1/2019	1.51	0.443 (U)
10/2/2019		
3/30/2020		
3/31/2020		0.341 (U)
4/1/2020		
5/12/2020	1.67	
9/1/2020	1.28	
9/2/2020		2.25

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<3				
4/19/2016					<3				
6/7/2016									
6/8/2016					0.121 (U)				
8/30/2016									
8/31/2016					0.348 (U)				
10/19/2016					0.48				
1/31/2017					0.00333 (U)				
5/2/2017					0.4 (U)				
6/6/2017					0.083 (U)				
1/24/2018					0.404 (U)				
5/1/2018					0.457				
11/27/2018					0.359 (U)				
1/8/2019				1.06					1.49
5/29/2019					1.18				
7/31/2019	0.621 (D)		0.272 (UD)			0.268 (UD)	0.448 (D)	0.331 (UD)	
10/1/2019		0.6	0.817		0.284 (U)	1.22	0.508	1.05	
10/2/2019	1.14			1.03					1.24
3/30/2020				0.579					
3/31/2020					0.699				0.577
4/1/2020	0.797	1.05				0.968		0.618	
5/12/2020			0.691				0.61		
8/31/2020					0.0265 (U)				
9/1/2020	0.44 (U)	0.684	0.675	0.948		0.39 (U)	0.419 (U)	0.224 (U)	
9/2/2020									1.5 (U)

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<3
3/2/2016	<3	
4/19/2016	<3	<3
6/7/2016	0.455	0.287 (U)
6/8/2016		
8/30/2016		0.585
8/31/2016	0.329 (U)	
10/19/2016	0.536	1.85
1/31/2017	0.496	0.25 (U)
5/2/2017	0.149 (U)	0.391 (U)
6/6/2017	0.191 (U)	0.183 (U)
1/24/2018	0.543 (U)	0.622 (U)
5/1/2018	0.372 (U)	0.0917 (U)
11/27/2018	0.591	0.695
1/8/2019		
5/29/2019	2.31	0.947
7/31/2019		
10/1/2019	1.52	0.7
10/2/2019		
3/30/2020		
3/31/2020	0.478 (U)	0.323 (U)
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	0.158 (U)	0.39 (U)
9/2/2020		

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									2.8971 (U)
3/1/2016	<3		<3	<3		<3		<3	
4/19/2016			<3						3 (U)
4/20/2016	3.0801			<3		<3		<3	
6/6/2016									0.841
6/7/2016	1.5		0.353 (U)	0.555 (U)		0.853			
6/8/2016								0.837	
8/30/2016	1.17		0.428 (U)			0.669			1.74
8/31/2016				0.284 (U)				0.917	
10/18/2016	1.93					1.32			1.47
10/19/2016			0.449 (U)	0.557 (U)				1.41	
1/31/2017	1		-0.0173 (U)	0.0949 (U)		0.801			0.952
2/1/2017								0.785	
5/2/2017									0.768
5/3/2017	1.48		0.447	0.53		0.648		1.33	
6/6/2017									1.04
6/7/2017	0.915		0.572	-0.231 (U)		0.408 (U)		0.758	
1/23/2018								1.06 (U)	0.513 (U)
1/24/2018	1.74 (U)		1.09 (U)	0.691 (U)		0.706 (U)			
5/1/2018									
5/2/2018	0.58		0.187 (U)	0.535		0.572		0.983	0.916
11/27/2018	1.43					0.687			1.37
11/28/2018			0.478 (U)	0.62				0.747	
1/8/2019		0.298 (U)							
1/9/2019					0.527		1.69		
5/29/2019	2.16		-0.276 (U)	0.244 (U)		0.627 (U)			1.57
5/30/2019								1.08	
9/30/2019				0.388 (U)		0.321 (U)		0.58	
10/1/2019	2.14		0.742		1.01		1.66		
10/2/2019		0.206 (U)							0.905
3/30/2020				0.744	0.604	0.6	0.787		
3/31/2020	0.754	0.024 (U)	0.291 (U)					0.82	1.77
9/1/2020	1.1	0.741							
9/2/2020			0.241 (U)	0.567	1.12	3.95	2.89	2.25	
9/9/2020									1.77

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	3 (U)	3 (U)
3/1/2016		
4/19/2016	3 (U)	3 (U)
4/20/2016		
6/6/2016		
6/7/2016	0.652	0.342 (U)
6/8/2016		
8/30/2016	0.411 (U)	0.702
8/31/2016		
10/18/2016	1	0.791
10/19/2016		
1/31/2017	0.398 (U)	0.0613 (U)
2/1/2017		
5/2/2017	0.66	0.974
5/3/2017		
6/6/2017	0.639	0.748
6/7/2017		
1/23/2018	0.669 (U)	0.558 (U)
1/24/2018		
5/1/2018	1.06	0.296 (U)
5/2/2018		
11/27/2018	0.636	0.357 (U)
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	0.579 (U)	0.275 (U)
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	1.33	0.458 (U)
3/30/2020		
3/31/2020	0.814	0.941
9/1/2020		
9/2/2020		
9/9/2020	0.653 (U)	1.05

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	2.1138								
4/19/2016	3 (U)								
6/6/2016	0.757								
8/30/2016	0.992								
10/18/2016	0.905								
1/31/2017	1.08								
5/2/2017	1.18								
6/6/2017	1.1								
1/23/2018	1.32 (U)								
5/1/2018	1.19								
11/26/2018	0.863								
5/28/2019	0.474 (U)								
10/2/2019	0.624 (U)								
3/31/2020	1.09								
6/16/2020		0.642	2.17	0.752 (U)					
6/17/2020					0.726	0.767	1.22	0.554	0.479
9/1/2020			1.9	0.323 (U)		1.43			
9/2/2020		1.15			1.54		2.49	0.0187 (U)	0.596
9/8/2020	1.27								

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		0.02 (J)		0.06 (J)					
3/2/2016	0.03 (J)				0.04 (J)		0.05 (J)	0.07 (J)	0.18 (J)
4/19/2016	0.052 (J)								0.21 (J)
4/20/2016		0.034 (J)		0.073 (J)	0.059 (J)		0.064 (J)	0.076 (J)	
6/8/2016	0.069 (J)	0.061 (J)		0.085 (J)	0.08 (J)		0.082 (J)	0.105 (J)	0.223 (J)
8/30/2016								0.083 (J)	
8/31/2016	0.043 (J)	0.04 (J)		0.064 (J)	0.059 (J)		0.062 (J)		0.196 (J)
10/18/2016								0.067 (J)	
10/19/2016	<0.1	0.03 (J)		0.05 (J)	0.045 (J)		0.049 (J)		0.166 (J)
3/21/2017	0.04 (J)								0.18
3/22/2017		<0.1		0.05 (J)	0.04 (J)		0.05 (J)	0.06 (J)	
5/2/2017	0.05 (J)							0.08 (J)	0.18
5/3/2017		0.04 (J)		0.06 (J)	0.06 (J)		0.06 (J)		
6/6/2017	0.049 (J)							0.077 (J)	0.18
6/7/2017		0.04 (J)		0.06 (J)	0.06 (J)		0.07 (J)		
9/13/2017	<0.1 (U*)			<0.1 (U*)	<0.1 (U*)		<0.1 (U*)	<0.1 (U*)	<0.1 (U*)
9/14/2017		0.04 (J)							
1/22/2018							0.06 (J)		0.19
1/23/2018		<0.1		0.06 (J)	0.05 (J)			0.08 (J)	
1/24/2018	0.05 (J)								
5/1/2018	0.05 (J)								0.19
5/2/2018		<0.1		0.06 (J)	0.06 (J)		0.07 (J)	0.08 (J)	
11/27/2018								0.06 (J)	0.18
11/28/2018	<0.1	<0.1		0.05 (J)	0.04 (J)		0.05 (J)		
1/8/2019			0.123			0.0729 (J)			
5/29/2019	0.0858 (J)			0.0759 (J)	0.0677 (J)		0.0679 (J)	0.0781 (J)	0.168
5/30/2019		0.0573 (J)							
7/31/2019									
9/30/2019		<0.1		0.0733 (J)					
10/1/2019	0.0744 (J)		0.0517 (J)		0.0682 (J)		0.0703 (J)	0.0885 (J)	0.185
10/2/2019						0.12			
3/30/2020	0.0726 (J)								
3/31/2020		<0.1	<0.1	0.078 (J)	0.0755 (J)	0.0828 (J)	0.0665 (J)	0.0867 (J)	
4/1/2020									0.187
5/12/2020									
9/1/2020	0.194	0.0794 (J)	0.0695 (J)	0.0841 (J)	0.0845 (J)	0.0947 (J)	0.0757 (J)		
9/2/2020								0.0957 (J)	0.18

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		0.04 (J)
4/19/2016		0.05 (J)
4/20/2016		
6/8/2016		0.073 (J)
8/30/2016		
8/31/2016		0.051 (J)
10/18/2016		
10/19/2016		<0.1
3/21/2017		0.04 (J)
3/22/2017		
5/2/2017		0.05 (J)
5/3/2017		
6/6/2017		0.053 (J)
6/7/2017		
9/13/2017		<0.1 (U*)
9/14/2017		
1/22/2018		
1/23/2018		0.05 (J)
1/24/2018		
5/1/2018		0.05 (J)
5/2/2018		
11/27/2018		<0.1
11/28/2018		
1/8/2019		
5/29/2019		0.0683 (J)
5/30/2019		
7/31/2019	0.0515 (J)	
9/30/2019		
10/1/2019	0.0931 (J)	0.0774 (J)
10/2/2019		
3/30/2020		
3/31/2020		0.0602 (J)
4/1/2020		
5/12/2020	0.0946 (J)	
9/1/2020	0.0624 (J)	
9/2/2020		<0.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					0.04 (J)				
4/19/2016					0.038 (J)				
6/7/2016									
6/8/2016					0.067 (J)				
8/30/2016									
8/31/2016					0.05 (J)				
10/19/2016					<0.1				
3/21/2017					<0.1				
5/2/2017					0.04 (J)				
6/6/2017					0.04 (J)				
9/12/2017					0.037 (J)				
1/24/2018					<0.1				
5/1/2018					<0.1				
11/27/2018					<0.1				
1/8/2019				0.0548 (J)					0.147
3/20/2019		0.215							
5/29/2019					<0.1				
7/31/2019	0.178		0.153			0.0934 (J)	0.257	0.0766 (J)	
10/1/2019		0.071 (J)	0.0712 (J)		<0.1	0.0838 (J)	0.268	0.0804 (J)	
10/2/2019	0.254			0.0595 (J)					0.183
3/30/2020				<0.1					
3/31/2020					<0.1				0.148
4/1/2020	0.151	0.0722 (J)				0.0793 (J)		0.0607 (J)	
5/12/2020			0.0732 (J)				0.323		
8/31/2020					<0.1				
9/1/2020	0.196	0.0784 (J)	0.0752 (J)	<0.1		0.0954 (J)	0.301	0.0919 (J)	
9/2/2020									0.158

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		0.02 (J)
3/2/2016	0.01 (J)	
4/19/2016	0.014 (J)	0.016 (J)
6/7/2016	0.049 (J)	0.047 (J)
6/8/2016		
8/30/2016		0.035 (J)
8/31/2016	0.034 (J)	
10/19/2016	0.023 (J)	0.025 (J)
3/21/2017	<0.1	<0.1
5/2/2017	<0.1	<0.1
6/6/2017	<0.1	<0.1
9/12/2017	<0.1	<0.1
1/24/2018	<0.1	<0.1
5/1/2018	<0.1	<0.1
11/27/2018	<0.1	<0.1
1/8/2019		
3/20/2019		
5/29/2019	<0.1	<0.1
7/31/2019		
10/1/2019	<0.1	<0.1
10/2/2019		
3/30/2020		
3/31/2020	<0.1	<0.1
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.1	<0.1
9/2/2020		

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									0.03 (J)
3/1/2016	0.04 (J)		<0.1	0.06 (J)		0.03 (J)		0.04 (J)	
4/19/2016			0.016 (J)						0.023 (J)
4/20/2016	0.043 (J)			0.078 (J)		0.043 (J)		0.052 (J)	
6/6/2016									0.062 (J)
6/7/2016	0.075 (J)		0.048 (J)	0.101 (J)		0.069 (J)			
6/8/2016								0.077 (J)	
8/30/2016	0.057 (J)		0.034 (J)			0.052 (J)			0.053 (J)
8/31/2016				0.086 (J)				0.056 (J)	
10/18/2016	0.049 (J)					0.042 (J)			0.042 (J)
10/19/2016			0.023 (J)	0.075 (J)				0.045 (J)	
3/20/2017									<0.1
3/22/2017	0.04 (J)		<0.1	0.06 (J)		<0.1		0.05 (J)	
5/2/2017									0.04 (JD)
5/3/2017	0.05 (J)		<0.1	0.08 (J)		0.05 (J)		0.06 (J)	
6/6/2017									0.075 (D)
6/7/2017	0.05 (J)		<0.1	0.08 (J)		0.05 (J)		0.06 (J)	
9/13/2017									0.04 (J)
9/14/2017	0.06 (J)		<0.1	0.07 (J)		0.05 (J)		0.07 (J)	
1/23/2018								0.06 (J)	<0.1
1/24/2018	0.05 (J)		<0.1	0.09 (J)		0.04 (J)			
5/1/2018									
5/2/2018	0.05 (J)		<0.1	0.08 (J)		0.04 (J)		0.05 (J)	0.04 (J)
11/27/2018	<0.1					<0.1			<0.1
11/28/2018			<0.1	0.07 (J)				0.04 (J)	
1/8/2019		<0.1							
1/9/2019					0.139		0.0831 (J)		
5/29/2019	0.0923 (J)		<0.1	0.0937 (J)		0.0958 (J)			0.0502 (J)
5/30/2019								0.0763 (J)	
9/30/2019				0.0925 (J)		0.0559 (J)		0.0679 (J)	
10/1/2019	0.0557 (J)		<0.1		0.0871 (J)		0.0832 (J)		
10/2/2019		0.0777 (J)							<0.1
3/30/2020				0.0933 (J)	0.127	0.0701 (J)	0.0935 (J)		
3/31/2020	0.0735 (J)	<0.1	<0.1					0.0655 (J)	<0.1
9/1/2020	0.0921 (J)	0.0807 (J)							
9/2/2020			<0.1	0.109	0.126	<0.1	0.098 (J)	0.0804 (J)	
9/9/2020									<0.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	0.02 (J)	0.02 (J)
3/1/2016		
4/19/2016	0.021 (J)	0.016 (J)
4/20/2016		
6/6/2016		
6/7/2016	0.06 (J)	0.052 (J)
6/8/2016		
8/30/2016	0.05 (J)	0.038 (J)
8/31/2016		
10/18/2016	0.04 (J)	0.03 (J)
10/19/2016		
3/20/2017	<0.1	<0.1
3/22/2017		
5/2/2017	0.04 (JD)	0.075 (D)
5/3/2017		
6/6/2017	0.04 (JD)	0.075 (D)
6/7/2017		
9/13/2017	0.043 (J)	<0.1
9/14/2017		
1/23/2018	0.04 (J)	<0.1
1/24/2018		
5/1/2018	0.04 (J)	<0.1
5/2/2018		
11/27/2018	<0.1	<0.1
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.1	<0.1
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.1	<0.1
3/30/2020		
3/31/2020	<0.1	<0.1
9/1/2020		
9/2/2020		
9/9/2020	<0.1	<0.1

Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	0.02 (J)								
4/19/2016	0.015 (J)								
6/6/2016	0.05 (J)								
8/30/2016	0.036 (J)								
10/18/2016	0.025 (J)								
3/20/2017	<0.1								
5/2/2017	0.075 (D)								
6/6/2017	0.075 (D)								
9/12/2017	<0.1								
1/23/2018	<0.1								
5/1/2018	<0.1								
11/26/2018	<0.1								
5/28/2019	<0.1								
10/2/2019	<0.1								
3/31/2020	<0.1								
6/16/2020		0.0744 (J)	0.0994 (J)	0.393					
6/17/2020					0.343	0.155	0.103	<0.1	<0.1
9/1/2020			0.144	0.401		0.106			
9/2/2020		<0.1			0.359		0.0864 (J)	<0.1	<0.1
9/8/2020	<0.1								

Time Series

Constituent: Lead (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.005		<0.005					
3/2/2016	<0.005				<0.005		<0.005	<0.005	<0.005
4/19/2016	<0.005								<0.005
4/20/2016		<0.005		<0.005	<0.005		<0.005	<0.005	
6/8/2016	<0.005	<0.005		<0.005	<0.005		<0.005	<0.005	<0.005
8/30/2016								<0.005	
8/31/2016	<0.005	<0.005		<0.005	<0.005		<0.005		<0.005
10/18/2016								<0.005	
10/19/2016	<0.005	<0.005		<0.005	<0.005		<0.005		<0.005
1/31/2017	<0.005						<0.005	<0.005	<0.005
2/1/2017		<0.005		<0.005	<0.005				
5/2/2017	<0.005							<0.005	<0.005
5/3/2017		<0.005		<0.005	<0.005		<0.005		
6/6/2017	<0.005							<0.005	<0.005
6/7/2017		<0.005		<0.005	<0.005		<0.005		
1/22/2018							<0.005		<0.005
1/23/2018		<0.005		<0.005	<0.005			<0.005	
1/24/2018	<0.005								
5/1/2018	<0.005								<0.005
5/2/2018		<0.005		<0.005	<0.005		<0.005	<0.005	
11/27/2018								<0.005	<0.005
11/28/2018	<0.005	<0.005		<0.005	<0.005		<0.005		
1/8/2019			<0.005			<0.005			
5/29/2019	<0.005			<0.005	<0.005		<0.005	<0.005	<0.005
5/30/2019		<0.005							
7/31/2019									
9/30/2019		<0.005		<0.005					
10/1/2019	<0.005		<0.005		<0.005		<0.005	<0.005	<0.005
10/2/2019						<0.005			
3/30/2020	<0.005								
3/31/2020		<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	
4/1/2020									<0.005
5/12/2020									
9/1/2020	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005	<0.005		
9/2/2020								<0.005	<0.005

Time Series

Constituent: Lead (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<0.005
4/19/2016		<0.005
4/20/2016		
6/8/2016		<0.005
8/30/2016		
8/31/2016		<0.005
10/18/2016		
10/19/2016		<0.005
1/31/2017		<0.005
2/1/2017		
5/2/2017		<0.005
5/3/2017		
6/6/2017		<0.005
6/7/2017		
1/22/2018		
1/23/2018		<0.005
1/24/2018		
5/1/2018		<0.005
5/2/2018		
11/27/2018		<0.005
11/28/2018		
1/8/2019		
5/29/2019		<0.005
5/30/2019		
7/31/2019	<0.005	
9/30/2019		
10/1/2019	<0.005	<0.005
10/2/2019		
3/30/2020		
3/31/2020		<0.005
4/1/2020		
5/12/2020	<0.005	
9/1/2020	<0.005	
9/2/2020		<0.005

Time Series

Constituent: Lead (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.005				
4/19/2016					<0.005				
6/7/2016									
6/8/2016					<0.005				
8/30/2016									
8/31/2016					<0.005				
10/19/2016					<0.005				
1/31/2017					<0.005				
5/2/2017					<0.005				
6/6/2017					<0.005				
1/24/2018					<0.005				
5/1/2018					<0.005				
11/27/2018					<0.005				
1/8/2019				<0.005					<0.005
3/20/2019		<0.005							
5/29/2019					<0.005				
7/31/2019	<0.005		<0.005			<0.005	<0.005	<0.005	
10/1/2019		<0.005	<0.005		<0.005	<0.005	<0.005	<0.005	
10/2/2019	<0.005			<0.005					<0.005
3/30/2020				<0.005					
3/31/2020					<0.005				<0.005
4/1/2020	<0.005	<0.005				<0.005		<0.005	
5/12/2020			<0.005				<0.005		
8/31/2020					<0.005				
9/1/2020	<0.005	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005	
9/2/2020									<0.005

Time Series

Constituent: Lead (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.005
3/2/2016	<0.005	
4/19/2016	<0.005	<0.005
6/7/2016	<0.005	<0.005
6/8/2016		
8/30/2016		<0.005
8/31/2016	<0.005	
10/19/2016	<0.005	<0.005
1/31/2017	<0.005	<0.005
5/2/2017	<0.005	<0.005
6/6/2017	<0.005	<0.005
1/24/2018	<0.005	<0.005
5/1/2018	<0.005	<0.005
11/27/2018	<0.005	<0.005
1/8/2019		
3/20/2019		
5/29/2019	<0.005	<0.005
7/31/2019		
10/1/2019	<0.005	<0.005
10/2/2019		
3/30/2020		
3/31/2020	<0.005	<0.005
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.005	<0.005
9/2/2020		

Time Series

Constituent: Lead (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.005
3/1/2016	<0.005		<0.005	<0.005		<0.005		<0.005	
4/19/2016			<0.005						<0.005
4/20/2016	<0.005			<0.005		<0.005		<0.005	
6/6/2016									<0.005
6/7/2016	<0.005		<0.005	<0.005		<0.005			
6/8/2016								<0.005	
8/30/2016	<0.005		<0.005			<0.005			<0.005
8/31/2016				<0.005				<0.005	
10/18/2016	<0.005					<0.005			<0.005
10/19/2016			<0.005	<0.005				<0.005	
1/31/2017	<0.005		<0.005	<0.005		<0.005			<0.005
2/1/2017								<0.005	
5/2/2017									<0.005
5/3/2017	<0.005		<0.005	<0.005		<0.005		<0.005	
6/6/2017									<0.005
6/7/2017	<0.005		<0.005	<0.005		<0.005		<0.005	
1/23/2018								<0.005	<0.005
1/24/2018	<0.005		<0.005	<0.005		<0.005			
5/1/2018									
5/2/2018	<0.005		<0.005	<0.005		<0.005		<0.005	<0.005
11/27/2018	<0.005					<0.005			<0.005
11/28/2018			<0.005	<0.005				<0.005	
1/8/2019		<0.005							
1/9/2019					<0.005		<0.005		
5/29/2019	<0.005		0.00185 (J)	<0.005		<0.005			<0.005
5/30/2019								0.00108 (J)	
9/30/2019				<0.005		<0.005		<0.005	
10/1/2019	<0.005		0.00545		<0.005		<0.005		
10/2/2019		<0.005							<0.005
3/30/2020				<0.005	<0.005	<0.005	<0.005		
3/31/2020	<0.005	<0.005	0.00276 (J)					<0.005	<0.005
9/1/2020	<0.005	<0.005							
9/2/2020			0.00171 (J)	<0.005	<0.005	<0.005	<0.005	<0.005	
9/9/2020									<0.005

Time Series

Constituent: Lead (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.005	<0.005
3/1/2016		
4/19/2016	<0.005	<0.005
4/20/2016		
6/6/2016		
6/7/2016	<0.005	<0.005
6/8/2016		
8/30/2016	<0.005	<0.005
8/31/2016		
10/18/2016	<0.005	<0.005
10/19/2016		
1/31/2017	<0.005	<0.005
2/1/2017		
5/2/2017	<0.005	<0.005
5/3/2017		
6/6/2017	<0.005	<0.005
6/7/2017		
1/23/2018	<0.005	<0.005
1/24/2018		
5/1/2018	<0.005	<0.005
5/2/2018		
11/27/2018	<0.005	<0.005
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.005	<0.005
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.005	<0.005
3/30/2020		
3/31/2020	<0.005	<0.005
9/1/2020		
9/2/2020		
9/9/2020	<0.005	<0.005

Time Series

Constituent: Lead (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.005								
4/19/2016	<0.005								
6/6/2016	<0.005								
8/30/2016	<0.005								
10/18/2016	<0.005								
1/31/2017	<0.005								
5/2/2017	<0.005								
6/6/2017	<0.005								
1/23/2018	<0.005								
5/1/2018	<0.005								
11/26/2018	<0.005								
5/28/2019	<0.005								
10/2/2019	<0.005								
3/31/2020	0.00126 (J)								
6/16/2020		<0.005	<0.005	0.00222 (J)					
6/17/2020					<0.005	<0.005	<0.005	<0.005	<0.005
9/1/2020			<0.005	<0.005		<0.005			
9/2/2020		<0.005			<0.005		<0.005	<0.005	<0.005
9/8/2020	<0.005								

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.02		<0.02					
3/2/2016	<0.02				<0.02		<0.02	<0.02	<0.02
4/19/2016	<0.02								<0.02
4/20/2016		<0.02		<0.02	<0.02		<0.02	<0.02	
6/8/2016	<0.02	<0.02		<0.02	<0.02		<0.02	<0.02	<0.02
8/30/2016								<0.02	
8/31/2016	<0.02	<0.02		<0.02	<0.02		<0.02		<0.02
10/18/2016								<0.02	
10/19/2016	<0.02	<0.02		<0.02	<0.02		<0.02		<0.02
1/31/2017	<0.02						<0.02	<0.02	<0.02
2/1/2017		<0.02		<0.02	<0.02				
5/2/2017	<0.02							<0.02	<0.02
5/3/2017		<0.02		<0.02	<0.02		<0.02		
6/6/2017	<0.02							<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	<0.02			<0.02	
1/24/2018	<0.02								
5/1/2018	<0.02								<0.02
5/2/2018		<0.02		0.0384 (J)	<0.02		<0.02	<0.02	
11/27/2018								<0.02	0.0169 (J)
11/28/2018	<0.02	<0.02		0.0262	<0.02		<0.02		
1/8/2019			0.0313			0.0148 (J)			
5/29/2019	<0.02			0.0321	<0.02		<0.02	<0.02	0.0254
5/30/2019		<0.02							
7/31/2019									
9/30/2019		<0.02		0.0228					
10/1/2019	<0.02		<0.02		<0.02		<0.02	<0.02	0.0248
10/2/2019						<0.02			
3/30/2020	<0.02								
3/31/2020		<0.02	<0.02	0.022	<0.02	<0.02	<0.02	<0.02	
4/1/2020									0.0174 (J)
5/12/2020									
9/1/2020	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02		
9/2/2020								<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<0.02
4/19/2016		<0.02
4/20/2016		
6/8/2016		<0.02
8/30/2016		
8/31/2016		<0.02
10/18/2016		
10/19/2016		<0.02
1/31/2017		<0.02
2/1/2017		
5/2/2017		<0.02
5/3/2017		
6/6/2017		<0.02
6/7/2017		
1/22/2018		
1/23/2018		<0.02
1/24/2018		
5/1/2018		<0.02
5/2/2018		
11/27/2018		<0.02
11/28/2018		
1/8/2019		
5/29/2019		<0.02
5/30/2019		
7/31/2019	<0.02	
9/30/2019		
10/1/2019	<0.02	<0.02
10/2/2019		
3/30/2020		
3/31/2020		<0.02
4/1/2020		
5/12/2020	<0.02	
9/1/2020	<0.02	
9/2/2020		<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.02				
4/19/2016					<0.02				
6/7/2016									
6/8/2016					<0.02				
8/30/2016									
8/31/2016					<0.02				
10/19/2016					<0.02				
1/31/2017					<0.02				
5/2/2017					<0.02				
6/6/2017					<0.02				
1/24/2018					<0.02				
5/1/2018					<0.02				
11/27/2018					<0.02				
1/8/2019				0.0219					0.0183 (J)
3/20/2019		<0.02							
5/29/2019					<0.02				
7/31/2019	<0.02		<0.02			<0.02	<0.02	<0.02	
10/1/2019		<0.02	<0.02		<0.02	<0.02	<0.02	<0.02	
10/2/2019	<0.02			<0.02					<0.02
3/30/2020				<0.02					
3/31/2020					<0.02				<0.02
4/1/2020	<0.02	<0.02				<0.02		<0.02	
5/12/2020			<0.02				<0.02		
8/31/2020					<0.02				
9/1/2020	<0.02	<0.02	<0.02	<0.02		<0.02	<0.02	<0.02	
9/2/2020									<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.02
3/2/2016	<0.02	
4/19/2016	<0.02	<0.02
6/7/2016	<0.02	<0.02
6/8/2016		
8/30/2016		<0.02
8/31/2016	<0.02	
10/19/2016	<0.02	<0.02
1/31/2017	<0.02	<0.02
5/2/2017	<0.02	<0.02
6/6/2017	<0.02	<0.02
1/24/2018	<0.02	<0.02
5/1/2018	<0.02	<0.02
11/27/2018	<0.02	<0.02
1/8/2019		
3/20/2019		
5/29/2019	<0.02	<0.02
7/31/2019		
10/1/2019	<0.02	<0.02
10/2/2019		
3/30/2020		
3/31/2020	<0.02	<0.02
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.02	<0.02
9/2/2020		

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.02
3/1/2016	<0.02		<0.02	<0.02		<0.02		<0.02	
4/19/2016			<0.02						<0.02
4/20/2016	<0.02			<0.02		<0.02		<0.02	
6/6/2016									<0.02
6/7/2016	<0.02		<0.02	<0.02		<0.02			
6/8/2016								<0.02	
8/30/2016	<0.02		<0.02			<0.02			<0.02
8/31/2016				<0.02				<0.02	
10/18/2016	<0.02					<0.02			<0.02
10/19/2016			<0.02	<0.02				<0.02	
1/31/2017	<0.02		<0.02	<0.02		<0.02			<0.02
2/1/2017								<0.02	
5/2/2017									<0.02
5/3/2017	<0.02		<0.02	<0.02		<0.02		<0.02	
6/6/2017									<0.02
6/7/2017	<0.02		<0.02	<0.02		<0.02		<0.02	
1/23/2018								<0.02	<0.02
1/24/2018	<0.02		<0.02	<0.02		<0.02			
5/1/2018									
5/2/2018	<0.02		<0.02	0.0108 (J)		<0.02		<0.02	<0.02
11/27/2018	<0.02					<0.02			<0.02
11/28/2018			<0.02	<0.02				<0.02	
1/8/2019		<0.02							
1/9/2019					0.0662		0.0217		
5/29/2019	<0.02		<0.02	<0.02		<0.02			<0.02
5/30/2019								<0.02	
9/30/2019				<0.02		<0.02		<0.02	
10/1/2019	<0.02		<0.02		<0.02		<0.02		
10/2/2019		<0.02							<0.02
12/2/2019					<0.02				
3/30/2020				0.0102 (J)	<0.02	<0.02	<0.02		
3/31/2020	<0.02	<0.02	<0.02					<0.02	<0.02
9/1/2020	<0.02	<0.02							
9/2/2020			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
9/9/2020									<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.02	<0.02
3/1/2016		
4/19/2016	<0.02	<0.02
4/20/2016		
6/6/2016		
6/7/2016	<0.02	<0.02
6/8/2016		
8/30/2016	<0.02	<0.02
8/31/2016		
10/18/2016	<0.02	<0.02
10/19/2016		
1/31/2017	<0.02	<0.02
2/1/2017		
5/2/2017	<0.02	<0.02
5/3/2017		
6/6/2017	<0.02	<0.02
6/7/2017		
1/23/2018	<0.02	<0.02
1/24/2018		
5/1/2018	<0.02	<0.02
5/2/2018		
11/27/2018	<0.02	<0.02
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.02	<0.02
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.02	<0.02
12/2/2019		
3/30/2020		
3/31/2020	<0.02	<0.02
9/1/2020		
9/2/2020		
9/9/2020	<0.02	<0.02

Time Series

Constituent: Lithium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.02								
4/19/2016	<0.02								
6/6/2016	<0.02								
8/30/2016	<0.02								
10/18/2016	<0.02								
1/31/2017	<0.02								
5/2/2017	<0.02								
6/6/2017	<0.02								
1/23/2018	<0.02								
5/1/2018	<0.02								
11/26/2018	<0.02								
5/28/2019	<0.02								
10/2/2019	<0.02								
3/31/2020	<0.02								
6/16/2020		<0.02	<0.02	<0.02					
6/17/2020					<0.02	<0.02	<0.02	<0.02	<0.02
9/1/2020			<0.02	<0.02		<0.02			
9/2/2020		<0.02			<0.02		<0.02	<0.02	<0.02
9/8/2020	<0.02								

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.0005		<0.0005					
3/2/2016	<0.0005				<0.0005		<0.0005	<0.0005	<0.0005
4/19/2016	<0.0005								<0.0005
4/20/2016		<0.0005		<0.0005	<0.0005		<0.0005	<0.0005	
6/8/2016	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
8/30/2016								<0.0005	
8/31/2016	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		<0.0005
10/18/2016								<0.0005	
10/19/2016	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		<0.0005
1/31/2017	<0.0005						<0.0005	<0.0005	<0.0005
2/1/2017		<0.0005		<0.0005	<0.0005				
5/2/2017	<0.0005							<0.0005	<0.0005
5/3/2017		<0.0005		<0.0005	<0.0005		<0.0005		
6/6/2017	<0.0005							<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	<0.0005			<0.0005	
1/24/2018	<0.0005								
5/1/2018	<0.0005								<0.0005
5/2/2018		<0.0005		<0.0005	<0.0005		<0.0005	<0.0005	
11/27/2018								<0.0005	<0.0005
11/28/2018	<0.0005	<0.0005		<0.0005	<0.0005		<0.0005		
1/8/2019			<0.0005			<0.0005			
5/29/2019	<0.0005			<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
5/30/2019		<0.0005							
7/31/2019		<0.0005							
9/30/2019		<0.0005		<0.0005					
10/1/2019	<0.0005		<0.0005		<0.0005		<0.0005	<0.0005	<0.0005
10/2/2019						<0.0005			
3/30/2020	<0.0005								
3/31/2020		<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
4/1/2020									<0.0005
5/12/2020									
9/1/2020	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
9/2/2020								<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<0.0005
4/19/2016		<0.0005
4/20/2016		
6/8/2016		<0.0005
8/30/2016		
8/31/2016		<0.0005
10/18/2016		
10/19/2016		<0.0005
1/31/2017		<0.0005
2/1/2017		
5/2/2017		<0.0005
5/3/2017		
6/6/2017		<0.0005
6/7/2017		
1/22/2018		
1/23/2018		<0.0005
1/24/2018		
5/1/2018		<0.0005
5/2/2018		
11/27/2018		<0.0005
11/28/2018		
1/8/2019		
5/29/2019		<0.0005
5/30/2019		
7/31/2019	<0.0005	
9/30/2019		
10/1/2019	<0.0005	<0.0005
10/2/2019		
3/30/2020		
3/31/2020		<0.0005
4/1/2020		
5/12/2020	<0.0005	
9/1/2020	<0.0005	
9/2/2020		<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.0005				
4/19/2016					<0.0005				
6/7/2016									
6/8/2016					<0.0005				
8/30/2016									
8/31/2016					<0.0005				
10/19/2016					<0.0005				
1/31/2017					<0.0005				
5/2/2017					<0.0005				
6/6/2017					<0.0005				
1/24/2018					<0.0005				
5/1/2018					<0.0005				
11/27/2018					<0.0005				
1/8/2019				<0.0005					<0.0005
3/20/2019		<0.0005							
5/29/2019					<0.0005				
7/31/2019	<0.0005		<0.0005			<0.0005	<0.0005	<0.0005	
10/1/2019		<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	<0.0005	
10/2/2019	<0.0005			<0.0005					<0.0005
3/30/2020				<0.0005					
3/31/2020					<0.0005				<0.0005
4/1/2020	<0.0005	<0.0005				<0.0005		<0.0005	
5/12/2020			<0.0005				<0.0005		
8/31/2020					<0.0005				
9/1/2020	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	
9/2/2020									<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.0005
3/2/2016	<0.0005	
4/19/2016	<0.0005	<0.0005
6/7/2016	<0.0005	<0.0005
6/8/2016		
8/30/2016		<0.0005
8/31/2016	<0.0005	
10/19/2016	<0.0005	<0.0005
1/31/2017	<0.0005	<0.0005
5/2/2017	<0.0005	<0.0005
6/6/2017	<0.0005	<0.0005
1/24/2018	<0.0005	<0.0005
5/1/2018	<0.0005	<0.0005
11/27/2018	<0.0005	<0.0005
1/8/2019		
3/20/2019		
5/29/2019	<0.0005	<0.0005
7/31/2019		
10/1/2019	<0.0005	<0.0005
10/2/2019		
3/30/2020		
3/31/2020	<0.0005	<0.0005
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.0005	<0.0005
9/2/2020		

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.0005
3/1/2016	<0.0005		<0.0005	<0.0005		<0.0005		<0.0005	
4/19/2016			<0.0005						<0.0005
4/20/2016	<0.0005			<0.0005		<0.0005		<0.0005	
6/6/2016									<0.0005
6/7/2016	<0.0005		<0.0005	<0.0005		<0.0005			
6/8/2016								<0.0005	
8/30/2016	<0.0005		<0.0005			<0.0005			<0.0005
8/31/2016				<0.0005				<0.0005	
10/18/2016	<0.0005					<0.0005			<0.0005
10/19/2016			<0.0005	<0.0005				<0.0005	
1/31/2017	<0.0005		<0.0005	<0.0005		<0.0005			<0.0005
2/1/2017								<0.0005	
5/2/2017									<0.0005
5/3/2017	<0.0005		<0.0005	<0.0005		<0.0005		<0.0005	
6/6/2017									<0.0005
6/7/2017	<0.0005		<0.0005	<0.0005		<0.0005		<0.0005	
1/23/2018								<0.0005	<0.0005
1/24/2018	<0.0005		<0.0005	<0.0005		<0.0005			
5/1/2018									
5/2/2018	<0.0005		<0.0005	<0.0005		<0.0005		<0.0005	<0.0005
11/27/2018	<0.0005					<0.0005			<0.0005
11/28/2018			<0.0005	<0.0005				<0.0005	
1/8/2019		<0.0005							
1/9/2019					<0.0005		<0.0005		
5/29/2019	<0.0005		<0.0005	<0.0005		<0.0005			<0.0005
5/30/2019								<0.0005	
9/30/2019				<0.0005		<0.0005		<0.0005	
10/1/2019	<0.0005		<0.0005		<0.0005		<0.0005		
10/2/2019		<0.0005							<0.0005
3/30/2020				<0.0005	<0.0005	<0.0005	<0.0005		
3/31/2020	<0.0005	<0.0005	<0.0005					<0.0005	<0.0005
9/1/2020	<0.0005	<0.0005							
9/2/2020			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	
9/9/2020									<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.0005	<0.0005
3/1/2016		
4/19/2016	<0.0005	<0.0005
4/20/2016		
6/6/2016		
6/7/2016	<0.0005	<0.0005
6/8/2016		
8/30/2016	<0.0005	<0.0005
8/31/2016		
10/18/2016	<0.0005	<0.0005
10/19/2016		
1/31/2017	<0.0005	<0.0005
2/1/2017		
5/2/2017	<0.0005	<0.0005
5/3/2017		
6/6/2017	<0.0005	<0.0005
6/7/2017		
1/23/2018	<0.0005	<0.0005
1/24/2018		
5/1/2018	<0.0005	<0.0005
5/2/2018		
11/27/2018	<0.0005	<0.0005
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.0005	<0.0005
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.0005	<0.0005
3/30/2020		
3/31/2020	<0.0005	<0.0005
9/1/2020		
9/2/2020		
9/9/2020	<0.0005	<0.0005

Time Series

Constituent: Mercury (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.0005								
4/19/2016	<0.0005								
6/6/2016	<0.0005								
8/30/2016	<0.0005								
10/18/2016	<0.0005								
1/31/2017	<0.0005								
5/2/2017	<0.0005								
6/6/2017	<0.0005								
1/23/2018	<0.0005								
5/1/2018	<0.0005								
11/26/2018	<0.0005								
5/28/2019	<0.0005								
10/2/2019	<0.0005								
3/31/2020	<0.0005								
6/16/2020		<0.0005	<0.0005	<0.0005					
6/17/2020					<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
9/1/2020			<0.0005	<0.0005		<0.0005			
9/2/2020		<0.0005			<0.0005		<0.0005	<0.0005	<0.0005
9/8/2020	<0.0005								

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.01		<0.01					
3/2/2016	<0.01				<0.01		<0.01	<0.01	0.00238 (J)
4/19/2016	<0.01								0.00203 (J)
4/20/2016		<0.01		<0.01	<0.01		<0.01	<0.01	
6/8/2016	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01
8/30/2016								<0.01	
8/31/2016	<0.01	<0.01		<0.01	<0.01		<0.01		<0.01
10/18/2016								<0.01	
10/19/2016	<0.01	<0.01		<0.01	<0.01		<0.01		<0.01
1/31/2017	<0.01						<0.01	<0.01	<0.01
2/1/2017		<0.01		<0.01	<0.01				
5/2/2017	<0.01							<0.01	0.00201 (J)
5/3/2017		<0.01		<0.01	<0.01		<0.01		
6/6/2017	<0.01							<0.01	<0.01
6/7/2017		<0.01		<0.01	<0.01		<0.01		
1/22/2018							<0.01		0.00211 (J)
1/23/2018		<0.01		<0.01	<0.01			<0.01	
1/24/2018	<0.01								
5/1/2018	<0.01								<0.01
5/2/2018		<0.01		<0.01	<0.01		<0.01	<0.01	
11/27/2018								<0.01	<0.01
11/28/2018	<0.01	<0.01		<0.01	<0.01		<0.01		
1/8/2019			0.00335 (J)			0.00303 (J)			
5/29/2019	<0.01			<0.01	<0.01		<0.01	<0.01	<0.01
5/30/2019		<0.01							
7/31/2019									
9/30/2019		<0.01		<0.01					
10/1/2019	<0.01		<0.01		<0.01		<0.01	<0.01	<0.01
10/2/2019						<0.01			
3/30/2020	<0.01								
3/31/2020		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
4/1/2020									<0.01
5/12/2020									
9/1/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
9/2/2020								<0.01	0.00209 (J)

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<0.01
4/19/2016		<0.01
4/20/2016		
6/8/2016		<0.01
8/30/2016		
8/31/2016		<0.01
10/18/2016		
10/19/2016		<0.01
1/31/2017		<0.01
2/1/2017		
5/2/2017		<0.01
5/3/2017		
6/6/2017		<0.01
6/7/2017		
1/22/2018		
1/23/2018		<0.01
1/24/2018		
5/1/2018		<0.01
5/2/2018		
11/27/2018		<0.01
11/28/2018		
1/8/2019		
5/29/2019		<0.01
5/30/2019		
7/31/2019	<0.01	
9/30/2019		
10/1/2019	<0.01	<0.01
10/2/2019		
3/30/2020		
3/31/2020		<0.01
4/1/2020		
5/12/2020	<0.01	
9/1/2020	<0.01	
9/2/2020		<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.01				
4/19/2016					<0.01				
6/7/2016									
6/8/2016					<0.01				
8/30/2016									
8/31/2016					<0.01				
10/19/2016					<0.01				
1/31/2017					<0.01				
5/2/2017					<0.01				
6/6/2017					<0.01				
1/24/2018					<0.01				
5/1/2018					<0.01				
11/27/2018					<0.01				
1/8/2019				<0.01					0.00399 (J)
3/20/2019		<0.01							
5/29/2019					<0.01				
7/31/2019	<0.01		<0.01			<0.01	0.00426 (J)	<0.01	
10/1/2019		<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	
10/2/2019	<0.01			<0.01					<0.01
3/30/2020				<0.01					
3/31/2020					<0.01				<0.01
4/1/2020	<0.01	<0.01				<0.01		<0.01	
5/12/2020			<0.01				<0.01		
8/31/2020					<0.01				
9/1/2020	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	
9/2/2020									<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.01
3/2/2016	<0.01	
4/19/2016	<0.01	<0.01
6/7/2016	<0.01	<0.01
6/8/2016		
8/30/2016		<0.01
8/31/2016	<0.01	
10/19/2016	<0.01	<0.01
1/31/2017	<0.01	<0.01
5/2/2017	<0.01	<0.01
6/6/2017	<0.01	<0.01
1/24/2018	<0.01	<0.01
5/1/2018	<0.01	<0.01
11/27/2018	<0.01	<0.01
1/8/2019		
3/20/2019		
5/29/2019	<0.01	<0.01
7/31/2019		
10/1/2019	<0.01	<0.01
10/2/2019		
3/30/2020		
3/31/2020	<0.01	<0.01
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.01	<0.01
9/2/2020		

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.01
3/1/2016	<0.01		<0.01	<0.01		<0.01		<0.01	
4/19/2016			<0.01						<0.01
4/20/2016	<0.01			<0.01		<0.01		<0.01	
6/6/2016									<0.01
6/7/2016	<0.01		<0.01	<0.01		<0.01			
6/8/2016								<0.01	
8/30/2016	<0.01		<0.01			<0.01			<0.01
8/31/2016				<0.01				<0.01	
10/18/2016	<0.01					<0.01			<0.01
10/19/2016			<0.01	<0.01				<0.01	
1/31/2017	<0.01		<0.01	<0.01		<0.01			<0.01
2/1/2017								<0.01	
5/2/2017									<0.01
5/3/2017	<0.01		<0.01	<0.01		<0.01		<0.01	
6/6/2017									<0.01
6/7/2017	<0.01		<0.01	<0.01		<0.01		<0.01	
1/23/2018								<0.01	<0.01
1/24/2018	<0.01		<0.01	<0.01		<0.01			
5/1/2018									
5/2/2018	<0.01		<0.01	<0.01		<0.01		<0.01	<0.01
11/27/2018	<0.01					<0.01			<0.01
11/28/2018			<0.01	<0.01				<0.01	
1/8/2019		<0.01							
1/9/2019					0.00511 (J)		0.00243 (J)		
5/29/2019	<0.01		<0.01	<0.01		<0.01			<0.01
5/30/2019								<0.01	
9/30/2019				<0.01		<0.01		<0.01	
10/1/2019	<0.01		<0.01		<0.01		<0.01		
10/2/2019		<0.01							<0.01
3/30/2020				<0.01	<0.01	<0.01	<0.01		
3/31/2020	<0.01	<0.01	<0.01					<0.01	<0.01
9/1/2020	<0.01	<0.01							
9/2/2020			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
9/9/2020									<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.01	<0.01
3/1/2016		
4/19/2016	<0.01	<0.01
4/20/2016		
6/6/2016		
6/7/2016	<0.01	<0.01
6/8/2016		
8/30/2016	<0.01	<0.01
8/31/2016		
10/18/2016	<0.01	<0.01
10/19/2016		
1/31/2017	<0.01	<0.01
2/1/2017		
5/2/2017	<0.01	<0.01
5/3/2017		
6/6/2017	<0.01	<0.01
6/7/2017		
1/23/2018	<0.01	<0.01
1/24/2018		
5/1/2018	<0.01	<0.01
5/2/2018		
11/27/2018	<0.01	<0.01
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.01	<0.01
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.01	<0.01
3/30/2020		
3/31/2020	<0.01	<0.01
9/1/2020		
9/2/2020		
9/9/2020	<0.01	<0.01

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.01								
4/19/2016	<0.01								
6/6/2016	<0.01								
8/30/2016	<0.01								
10/18/2016	<0.01								
1/31/2017	<0.01								
5/2/2017	<0.01								
6/6/2017	<0.01								
1/23/2018	<0.01								
5/1/2018	<0.01								
11/26/2018	<0.01								
5/28/2019	<0.01								
10/2/2019	<0.01								
3/31/2020	<0.01								
6/16/2020		<0.01	<0.01	<0.01					
6/17/2020					0.00451 (J)	<0.01	0.00237 (J)	<0.01	<0.01
9/1/2020			<0.01	<0.01		<0.01			
9/2/2020		<0.01			0.00229 (J)		<0.01	<0.01	<0.01
9/8/2020	<0.01								

Time Series

Constituent: pH (pH) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		6.33		6.34					
3/2/2016	5.78				6.16		6.1	6.08	6.61
4/19/2016	5.8								6.75
4/20/2016		6.31		6.31	6.17		6.14	6.04	
6/8/2016	5.83	6.34		6.33	6.25		6.11	6.13	6.63
8/30/2016								6.08	
8/31/2016	5.85	6.35		6.29	6.23		6.1		6.71
10/18/2016								6.13	
10/19/2016	5.87	6.35		6.26	6.2		6.1		6.66
1/31/2017	5.83						6.07	6.06	6.73
2/1/2017		6.27		6.22	6.08				
3/21/2017	5.83								6.62
3/22/2017		6.29		6.22	6.12		6.07	6.09	
5/2/2017	5.73							5.94	6.49
5/3/2017		6.23		6.15	6.12		6.1		
6/6/2017	5.83							6.1	6.7
6/7/2017		6.27		6.21	6.13		6.07		
9/13/2017	5.91			6.26	6.19		6.12	6.11	6.66
9/14/2017		6.27							
1/22/2018							6.12		6.73
1/23/2018		6.32		6.28	6.17			6.12	
1/24/2018	5.9								
5/1/2018	5.83								6.62
5/2/2018		6.36		6.33	6.15		6.13	6.13	
8/28/2018	5.78	6.31							
8/29/2018				6.3	6.19		6.1	6.14	6.68
11/27/2018								6.07	6.58
11/28/2018	5.82	6.32		6.28	6.11		6.04		
1/8/2019			6.5			6.48			
5/29/2019	5.82			6.24	6.13		6.01	6.07	6.63
5/30/2019		6.23							
7/31/2019									
9/30/2019		6.11		5.85					
10/1/2019	5.47		6.05		6		6.02	6.01	6.2
10/2/2019						5.9			
3/30/2020	5.79								
3/31/2020		6.37	6.38	6.26	6.21	6.33	5.98	5.76	
4/1/2020									6.72
5/12/2020									
9/1/2020	5.89	6.33	6.34	5.87	6.19	6.2	5.82		
9/2/2020								5.8	6.57

Time Series

Constituent: pH (pH) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		5.79
4/19/2016		5.78
4/20/2016		
6/8/2016		5.8
8/30/2016		
8/31/2016		5.83
10/18/2016		
10/19/2016		5.81
1/31/2017		5.84
2/1/2017		
3/21/2017		5.79
3/22/2017		
5/2/2017		5.68
5/3/2017		
6/6/2017		5.8
6/7/2017		
9/13/2017		5.86
9/14/2017		
1/22/2018		
1/23/2018		5.86
1/24/2018		
5/1/2018		5.85
5/2/2018		
8/28/2018		
8/29/2018		5.87
11/27/2018		5.76
11/28/2018		
1/8/2019		
5/29/2019		5.76
5/30/2019		
7/31/2019	5.37	
9/30/2019		
10/1/2019	5.68	5.23
10/2/2019		
3/30/2020		
3/31/2020		5.75
4/1/2020		
5/12/2020	5.68	
9/1/2020	5.91	
9/2/2020		5.47

Time Series

Constituent: pH (pH) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					6.08				
4/19/2016					5.92				
6/7/2016									
6/8/2016					5.9				
8/30/2016									
8/31/2016					5.87				
10/19/2016					5.82				
1/31/2017					5.87				
3/21/2017					5.85				
5/2/2017					5.61				
6/6/2017					5.82				
9/12/2017					5.61				
1/24/2018					5.83				
5/1/2018					5.8				
8/28/2018					5.56				
11/27/2018					5.71				
1/8/2019				6.38					6.51
3/20/2019		6.19							
5/29/2019					5.7				
7/31/2019	6.64		6.21			6.22	6.54	6.08	
10/1/2019		6.26	6.33		4.97	6.24	6.6	6.03	
10/2/2019	6.58			5.27					6.21
3/30/2020				5.65					
3/31/2020					5.71				6.23
4/1/2020	6.52	6.48				6.45		6.44	
5/12/2020			6.09				6.55		
8/31/2020					5.57				
9/1/2020	6.56	6.15	6.31	5.62		6.15	6.48	6.14	
9/2/2020									6.01

Time Series

Constituent: pH (pH) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		5.19
3/2/2016	5.14	
4/19/2016	5.06	5.06
6/7/2016	5.13	4.7
6/8/2016		
8/30/2016		4.77
8/31/2016	5.11	
10/19/2016	5.05	4.67
1/31/2017	5.14	4.42
3/21/2017	5.13	4.45
5/2/2017	4.85	4.46
6/6/2017	5.15	4.89
9/12/2017	4.96	4.71
1/24/2018	5.22	5.03
5/1/2018	5.11	4.44
8/28/2018	4.92	4.85
11/27/2018	5.05	4.78
1/8/2019		
3/20/2019		
5/29/2019	5.05	4.65
7/31/2019		
10/1/2019	4.37	4.28
10/2/2019		
3/30/2020		
3/31/2020	5.08	4.69
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	4.24	4.23
9/2/2020		

Time Series

Constituent: pH (pH) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									4.62
3/1/2016	5.99		5.59	6.36		6.21		6.26	
4/19/2016			5.55						4.74
4/20/2016	5.96			6.31		6.22		6.26	
6/6/2016									4.65
6/7/2016	6.03		5.43	6.3		6.26			
6/8/2016								6.25	
8/30/2016	6		5.39			6.21			4.64
8/31/2016				6.31				6.29	
10/18/2016	5.99					6.21			4.74
10/19/2016			5.31	6.23				6.22	
1/31/2017	5.96		5.26	6.26		6.17			4.54
2/1/2017								6.24	
3/20/2017									4.67
3/22/2017	6.01		5.32	6.32		6.22		6.28	
5/2/2017									4.79
5/3/2017	5.99		5.35	6.29		6.22		6.17	
6/6/2017									4.76
6/7/2017	6.01		5.32	6.27		6.21		6.24	
9/13/2017									4.81
9/14/2017	6		5.29	6.25		6.18		6.24	
1/23/2018								6.3	4.79
1/24/2018	5.98		5.32	6.35		6.16			
5/1/2018									
5/2/2018	5.99		5.33	6.29		6.17		6.31	4.62
8/28/2018								6.28	
8/29/2018	6.03		5.41			6.21			
11/27/2018	6.01					6.18			4.73
11/28/2018			5.46	6.33				6.32	
1/8/2019		6.07							
1/9/2019					7.12		6.38		
5/29/2019	5.93		5.31	6.18		6.11			4.65
5/30/2019								6.14	
9/30/2019				6.36		6.19		6.07	
10/1/2019	5.47		4.7		6.67		6.16		
10/2/2019		5.9							4.57
3/30/2020				6.32	6.69	6.2	6.2		
3/31/2020	6.01	6.05	5.22					6.31	4.64
9/1/2020	5.93	5.7							
9/2/2020			5.16	6.25	6.49	5.89	5.79	5.97	
9/9/2020									4.65

Time Series

Constituent: pH (pH) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	4.79	4.96
3/1/2016		
4/19/2016	4.84	4.94
4/20/2016		
6/6/2016		
6/7/2016	4.81	4.96
6/8/2016		
8/30/2016	4.76	4.92
8/31/2016		
10/18/2016	4.84	4.98
10/19/2016		
1/31/2017	4.6	4.74
2/1/2017		
3/20/2017	4.71	4.9
3/22/2017		
5/2/2017	4.8	4.98
5/3/2017		
6/6/2017	4.72	4.94
6/7/2017		
9/13/2017	4.71	4.93
9/14/2017		
1/23/2018	4.67	4.91
1/24/2018		
5/1/2018	4.61	4.87
5/2/2018		
8/28/2018		
8/29/2018		
11/27/2018	4.72	4.94
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	4.58	4.8
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	4.43	4.52
3/30/2020		
3/31/2020	4.6	4.4
9/1/2020		
9/2/2020		
9/9/2020	4.67	4.76

Time Series

Constituent: pH (pH) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	4.74								
4/19/2016	4.86								
6/6/2016	4.88								
8/30/2016	4.91								
10/18/2016	4.95								
1/31/2017	4.71								
3/20/2017	4.83								
5/2/2017	4.93								
6/6/2017	4.9								
9/12/2017	4.82								
1/23/2018	4.85								
5/1/2018	4.8								
11/26/2018	4.88								
5/28/2019	4.73								
10/2/2019	4.67								
3/31/2020	4.51								
6/16/2020		5.2	6.43	8.08					
6/17/2020					7.27	6.26	6.25	5.27	5.27
9/1/2020			6.49	7.98		6.03			
9/2/2020		5.23			7.02		6.23	5.39	5.32
9/8/2020	4.75								

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.01		<0.01					
3/2/2016	<0.01				<0.01		<0.01	<0.01	<0.01
4/19/2016	<0.01								<0.01
4/20/2016		<0.01		<0.01	<0.01		<0.01	<0.01	
6/8/2016	<0.01	<0.01		<0.01	<0.01		<0.01	<0.01	<0.01
8/30/2016								<0.01	
8/31/2016	<0.01	<0.01		<0.01	<0.01		<0.01		<0.01
10/18/2016								<0.01	
10/19/2016	<0.01	<0.01		<0.01	<0.01		<0.01		<0.01
1/31/2017	<0.01						<0.01	<0.01	<0.01
2/1/2017		<0.01		<0.01	<0.01				
5/2/2017	<0.01							<0.01	<0.01
5/3/2017		<0.01		<0.01	<0.01		<0.01		
6/6/2017	<0.01							<0.01	<0.01
6/7/2017		<0.01		<0.01	<0.01		<0.01		
1/22/2018							<0.01		<0.01
1/23/2018		<0.01		<0.01	<0.01			<0.01	
1/24/2018	<0.01								
5/1/2018	<0.01								<0.01
5/2/2018		<0.01		<0.01	<0.01		<0.01	<0.01	
11/27/2018								<0.01	<0.01
11/28/2018	<0.01	<0.01		<0.01	<0.01		<0.01		
1/8/2019			<0.01			<0.01			
5/29/2019	<0.01			<0.01	<0.01		<0.01	<0.01	<0.01
5/30/2019		<0.01							
7/31/2019									
9/30/2019		<0.01		<0.01					
10/1/2019	<0.01		<0.01		<0.01		<0.01	<0.01	<0.01
10/2/2019						<0.01			
3/30/2020	<0.01								
3/31/2020		<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
4/1/2020									<0.01
5/12/2020									
9/1/2020	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01		
9/2/2020								<0.01	<0.01

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<0.01
4/19/2016		<0.01
4/20/2016		
6/8/2016		<0.01
8/30/2016		
8/31/2016		<0.01
10/18/2016		
10/19/2016		<0.01
1/31/2017		<0.01
2/1/2017		
5/2/2017		<0.01
5/3/2017		
6/6/2017		<0.01
6/7/2017		
1/22/2018		
1/23/2018		<0.01
1/24/2018		
5/1/2018		<0.01
5/2/2018		
11/27/2018		<0.01
11/28/2018		
1/8/2019		
5/29/2019		<0.01
5/30/2019		
7/31/2019	<0.01	
9/30/2019		
10/1/2019	<0.01	<0.01
10/2/2019		
3/30/2020		
3/31/2020		<0.01
4/1/2020		
5/12/2020	<0.01	
9/1/2020	<0.01	
9/2/2020		<0.01

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.01				
4/19/2016					<0.01				
6/7/2016									
6/8/2016					<0.01				
8/30/2016									
8/31/2016					<0.01				
10/19/2016					<0.01				
1/31/2017					<0.01				
5/2/2017					<0.01				
6/6/2017					<0.01				
1/24/2018					<0.01				
5/1/2018					<0.01				
11/27/2018					<0.01				
1/8/2019				<0.01					<0.01
3/20/2019		<0.01							
5/29/2019					<0.01				
7/31/2019	<0.01		<0.01			<0.01	<0.01	<0.01	
10/1/2019		<0.01	<0.01		<0.01	<0.01	<0.01	<0.01	
10/2/2019	<0.01			<0.01					<0.01
3/30/2020				<0.01					
3/31/2020					<0.01				<0.01
4/1/2020	<0.01	<0.01				<0.01		<0.01	
5/12/2020			<0.01				<0.01		
8/31/2020					<0.01				
9/1/2020	<0.01	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01	
9/2/2020									<0.01

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.01
3/2/2016	<0.01	
4/19/2016	<0.01	<0.01
6/7/2016	<0.01	<0.01
6/8/2016		
8/30/2016		<0.01
8/31/2016	<0.01	
10/19/2016	<0.01	<0.01
1/31/2017	<0.01	<0.01
5/2/2017	<0.01	<0.01
6/6/2017	<0.01	<0.01
1/24/2018	<0.01	<0.01
5/1/2018	<0.01	<0.01
11/27/2018	<0.01	<0.01
1/8/2019		
3/20/2019		
5/29/2019	<0.01	<0.01
7/31/2019		
10/1/2019	<0.01	<0.01
10/2/2019		
3/30/2020		
3/31/2020	<0.01	<0.01
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.01	<0.01
9/2/2020		

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.01
3/1/2016	<0.01		<0.01	<0.01		<0.01		<0.01	
4/19/2016			<0.01						<0.01
4/20/2016	<0.01			<0.01		<0.01		<0.01	
6/6/2016									<0.01
6/7/2016	<0.01		<0.01	<0.01		<0.01			
6/8/2016								<0.01	
8/30/2016	<0.01		<0.01			<0.01			<0.01
8/31/2016				<0.01				<0.01	
10/18/2016	<0.01					<0.01			<0.01
10/19/2016			<0.01	<0.01				<0.01	
1/31/2017	<0.01		<0.01	<0.01		<0.01			<0.01
2/1/2017								<0.01	
5/2/2017									<0.01
5/3/2017	<0.01		<0.01	<0.01		<0.01		<0.01	
6/6/2017									<0.01
6/7/2017	<0.01		<0.01	<0.01		<0.01		<0.01	
1/23/2018								<0.01	<0.01
1/24/2018	<0.01		<0.01	<0.01		<0.01			
5/1/2018									
5/2/2018	<0.01		<0.01	<0.01		<0.01		<0.01	<0.01
11/27/2018	<0.01					<0.01			<0.01
11/28/2018			<0.01	<0.01				<0.01	
1/8/2019		<0.01							
1/9/2019					<0.01		<0.01		
5/29/2019	<0.01		<0.01	<0.01		<0.01			<0.01
5/30/2019								<0.01	
9/30/2019				<0.01		<0.01		<0.01	
10/1/2019	<0.01		<0.01		<0.01		<0.01		
10/2/2019		<0.01							<0.01
3/30/2020				<0.01	<0.01	<0.01	<0.01		
3/31/2020	<0.01	<0.01	<0.01					<0.01	<0.01
9/1/2020	<0.01	<0.01							
9/2/2020			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
9/9/2020									<0.01

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.01	<0.01
3/1/2016		
4/19/2016	<0.01	<0.01
4/20/2016		
6/6/2016		
6/7/2016	<0.01	<0.01
6/8/2016		
8/30/2016	<0.01	<0.01
8/31/2016		
10/18/2016	<0.01	<0.01
10/19/2016		
1/31/2017	<0.01	<0.01
2/1/2017		
5/2/2017	<0.01	<0.01
5/3/2017		
6/6/2017	<0.01	<0.01
6/7/2017		
1/23/2018	<0.01	<0.01
1/24/2018		
5/1/2018	<0.01	<0.01
5/2/2018		
11/27/2018	<0.01	<0.01
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.01	<0.01
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.01	<0.01
3/30/2020		
3/31/2020	<0.01	<0.01
9/1/2020		
9/2/2020		
9/9/2020	<0.01	<0.01

Time Series

Constituent: Selenium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.01								
4/19/2016	<0.01								
6/6/2016	<0.01								
8/30/2016	<0.01								
10/18/2016	<0.01								
1/31/2017	<0.01								
5/2/2017	<0.01								
6/6/2017	<0.01								
1/23/2018	<0.01								
5/1/2018	<0.01								
11/26/2018	<0.01								
5/28/2019	<0.01								
10/2/2019	<0.01								
3/31/2020	<0.01								
6/16/2020		<0.01	<0.01	<0.01					
6/17/2020					<0.01	<0.01	<0.01	<0.01	<0.01
9/1/2020			<0.01	<0.01		<0.01			
9/2/2020		<0.01			<0.01		<0.01	<0.01	<0.01
9/8/2020	<0.01								

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		0.34 (J)		1.02					
3/2/2016	0.31 (J)				<1		<1	<1	<1
4/19/2016	0.335 (J)								<1
4/20/2016		<1		1.1	<1		<1	<1	
6/8/2016	0.556 (J)	0.538 (J)		0.701 (J)	0.511 (J)		0.496 (J)	0.514 (J)	0.489 (J)
8/30/2016								<1	
8/31/2016	<1	<1		<1	<1		<1		<1
10/18/2016								<1	
10/19/2016	<1	<1		<1	<1		<1		<1
3/21/2017	<1								<1
3/22/2017		<1		2.1 (J)	<1		6.9	<1	
5/2/2017	6							1.8 (J)	<1
5/3/2017		4.1 (J)		3.6 (J)	2.1 (J)		6.6		
6/6/2017	<1							<1	<1
6/7/2017		<1		<1	<1		6		
9/13/2017	4.7 (J)			<1	<1		2.2 (J)	<1	<1
9/14/2017		<1							
5/1/2018	<1								<1
5/2/2018		<1		<1	<1		4.1 (J)	1.6 (J)	
8/28/2018	<1	<1							
8/29/2018				2.3 (J)	<1		<1	<1	6.2
11/27/2018								<1	<1
11/28/2018	4.1 (J)	<1		<1	<50 (o)		4.9 (J)		
1/8/2019			93.7			10.3			
5/29/2019	5.75			24.1	7.04		49.5	67.6	3.27
5/30/2019		3.76							
7/31/2019									
9/30/2019		2.77		37.4					
10/1/2019	7.82		5.19		35.3		47.7	61.6	1.72
10/2/2019						7.18			
3/30/2020	28.4								
3/31/2020		20.1	20.3	57.5	35.8	61.1	23.2	34.7	
4/1/2020									7.5
5/12/2020									
9/1/2020	23.1	15.6	30.1	42.8	32.1	47.5	14.2		
9/2/2020								18.5	7.61

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<1
4/19/2016		<1
4/20/2016		
6/8/2016		0.514 (J)
8/30/2016		
8/31/2016		<1
10/18/2016		
10/19/2016		<1
3/21/2017		<1
3/22/2017		
5/2/2017		<1
5/3/2017		
6/6/2017		<1
6/7/2017		
9/13/2017		2.6 (J)
9/14/2017		
5/1/2018		<1
5/2/2018		
8/28/2018		
8/29/2018		3.9 (J)
11/27/2018		<1
11/28/2018		
1/8/2019		
5/29/2019		6.72
5/30/2019		
7/31/2019	2.65	
9/30/2019		
10/1/2019	0.854 (J)	3.4
10/2/2019		
3/30/2020		
3/31/2020		17.5
4/1/2020		
5/12/2020	1.61	
9/1/2020	2.21	
9/2/2020		13.3

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					3.3				
4/19/2016					2.68				
6/7/2016									
6/8/2016					1.1				
8/30/2016									
8/31/2016					<1				
10/19/2016					<1				
3/21/2017					<1				
5/2/2017					<1				
6/6/2017					<1				
9/12/2017					<1				
5/1/2018					<1				
8/28/2018					<1				
11/27/2018					<1				
1/8/2019				20.9					31.2
3/20/2019		12.8							
5/29/2019					0.885 (J)				
7/31/2019	23		11.4			83.2	171	18.4	
10/1/2019		8.49	5.9		<1	28.9	17.2	4.89	
10/2/2019	10.6			10.5					92.3
3/30/2020				11.1					
3/31/2020					1.69				84.5
4/1/2020	19.4	24.2				18.7		18.1	
5/12/2020			22.9				59.5		
8/31/2020					0.576 (J)				
9/1/2020	7.61	30.6	16.9	13		43.5	93.2	24.5	
9/2/2020									59.7

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		2.58
3/2/2016	0.79 (J)	
4/19/2016	0.674 (J)	2.3
6/7/2016	1	2.58
6/8/2016		
8/30/2016		2.81
8/31/2016	0.702 (J)	
10/19/2016	0.739 (J)	5.06
3/21/2017	<1	3.4 (J)
5/2/2017	<1	2.7 (J)
6/6/2017	<1	1.5 (J)
9/12/2017	<1	1.9 (J)
5/1/2018	<1	1.4 (J)
8/28/2018	<1	<1
11/27/2018	<1	2.3 (J)
1/8/2019		
3/20/2019		
5/29/2019	0.747 (J)	2.92
7/31/2019		
10/1/2019	0.61 (J)	2.09
10/2/2019		
3/30/2020		
3/31/2020	1.02	4.12
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	0.705 (J)	1.83
9/2/2020		

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									8.59
3/1/2016	<1		0.36 (J)	0.3 (J)		<1		<1	
4/19/2016			0.435 (J)						8.27
4/20/2016	<1			0.514 (J)		<1		<1	
6/6/2016									8.66
6/7/2016	0.583 (J)		1.22	0.971 (J)		0.504 (J)			
6/8/2016								0.51 (J)	
8/30/2016	<1		1.08			<1			9.74
8/31/2016				0.445 (J)				<1	
10/18/2016	<1					<1			10.2
10/19/2016			1.01	0.366 (J)				<1	
3/20/2017									8.3
3/22/2017	<1		<1	<1		<1		<1	
5/2/2017									6.6 (D)
5/3/2017	<1		1.4 (J)	<1		2.7 (J)		2.7 (J)	
6/6/2017									7.6 (D)
6/7/2017	<1		1.5 (J)	<1		<1		<1	
9/13/2017									8.4
9/14/2017	<1		1.8 (J)	<1		<1		<1	
5/1/2018									
5/2/2018	<1		<1	<1		<1		<1	5.9
8/28/2018								<1	
8/29/2018	1.6 (J)		<1			<1			
11/27/2018	2.7 (J)					<1			22
11/28/2018			<1	<1				1.4 (J)	
1/8/2019		1.75							
1/9/2019					3.69		1.74		
5/29/2019	5.51		1.17	2.77		6.01			23.3
5/30/2019								5.91	
9/30/2019				2.51		5.29		3.77	
10/1/2019	7.4		1.04		2		7		
10/2/2019		5.8							17.5
3/30/2020				4.78	9.65	33.1	75.8		
3/31/2020	23.7	0.98 (J)	1.21					43.5	24.3
9/1/2020	11	1.47							
9/2/2020			1.02	3.59	6.7	15.8	24	21.9	
9/9/2020									16.5

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	7.2	7.44
3/1/2016		
4/19/2016	7.22	7.66
4/20/2016		
6/6/2016		
6/7/2016	7.92	8.16
6/8/2016		
8/30/2016	8.17	8.43
8/31/2016		
10/18/2016	7.99	8.47
10/19/2016		
3/20/2017	6.1	7.4
3/22/2017		
5/2/2017	5 (D)	6.3 (D)
5/3/2017		
6/6/2017	5.3 (D)	7.1 (D)
6/7/2017		
9/13/2017	4.9 (J)	7.3
9/14/2017		
5/1/2018	4.2 (J)	6.9
5/2/2018		
8/28/2018		
8/29/2018		
11/27/2018		6.5
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	5.94	7.81
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	6.04	7.62
3/30/2020		
3/31/2020	6.83	7.98
9/1/2020		
9/2/2020		
9/9/2020	6.08	7.13

Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
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 (D)								
6/6/2017	6.6 (D)								
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								
6/16/2020		41.5	57.4	28.6					
6/17/2020					28	10.1	101	6.1	2.39
9/1/2020			26.6	9.25		38.3			
9/2/2020		40			63.6		30.6	4.39	2.26
9/8/2020	6.52								

Time Series

Constituent: TDS (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		326		395					
3/2/2016	426				351		319	266	182
4/19/2016	442								151
4/20/2016		366		376	353		305	311	
6/8/2016	461	314		324	330		287	353	168
8/30/2016								328	
8/31/2016	456	368		367	354		295		188
10/18/2016								310	
10/19/2016	444	381		367	354		305		180
1/31/2017	422						325	312	166
2/1/2017		342		391	360				
5/2/2017	442							300	183
5/3/2017		369		373	341		306		
6/6/2017	433							335	187
6/7/2017		340		367	337		320		
9/13/2017	456			378	359		332	339	202
9/14/2017		391							
5/1/2018	416								197
5/2/2018		343		330	310		320	301	
8/28/2018	420	375							
8/29/2018				352	307		312	318	192
11/27/2018								295	190
11/28/2018	408	378		357	336		304		
1/8/2019			462			348			
5/29/2019	403			367	321		307	318	198
5/30/2019		377							
7/31/2019									
9/30/2019		361		399					
10/1/2019	430		393		344		290	317	236
10/2/2019						321			
3/30/2020	419								
3/31/2020		387	413	393	331	328	290	317	
4/1/2020									231
5/12/2020									
9/1/2020	454	392	403	399	356	338	285		
9/2/2020								327	208

Time Series

Constituent: TDS (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		263
4/19/2016		259
4/20/2016		
6/8/2016		285
8/30/2016		
8/31/2016		279
10/18/2016		
10/19/2016		264
1/31/2017		270
2/1/2017		
5/2/2017		259
5/3/2017		
6/6/2017		278
6/7/2017		
9/13/2017		333
9/14/2017		
5/1/2018		274
5/2/2018		
8/28/2018		
8/29/2018		283
11/27/2018		250
11/28/2018		
1/8/2019		
5/29/2019		264
5/30/2019		
7/31/2019	337	
9/30/2019		
10/1/2019	321	295
10/2/2019		
3/30/2020		
3/31/2020		276
4/1/2020		
5/12/2020	327	
9/1/2020	318	
9/2/2020		279

Time Series

Constituent: TDS (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					42				
4/19/2016					51.3				
6/7/2016									
6/8/2016					46.7				
8/30/2016									
8/31/2016					32.7				
10/19/2016					37.3				
1/31/2017					47.3				
5/2/2017					44				
6/6/2017					48				
9/12/2017					40.7				
5/1/2018					42.7				
8/28/2018					28				
11/27/2018					48				
1/8/2019				192					504
3/20/2019		293							
5/29/2019					47.3				
7/31/2019	212		318			481	345	241	
10/1/2019		283	316		44.7	470	346	261	
10/2/2019	203			154					430
3/30/2020				160					
3/31/2020					42				418
4/1/2020	243	210				319		105	
5/12/2020			321				337		
8/31/2020					45.3				
9/1/2020	236	281	294	175		479	362	271	
9/2/2020									471

Time Series

Constituent: TDS (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		27.3
3/2/2016	27.3	
4/19/2016	33.3	38
6/7/2016	44	48.7
6/8/2016		
8/30/2016		32.7
8/31/2016	29.3	
10/19/2016	29.3	36
1/31/2017	36.7	40.7
5/2/2017	28	30.7
6/6/2017	36.7	41.3
9/12/2017	35.3	34.7
5/1/2018	34.7	39.3
8/28/2018	34	26
11/27/2018	41.3	32
1/8/2019		
3/20/2019		
5/29/2019	40	39.3
7/31/2019		
10/1/2019	36.7	32
10/2/2019		
3/30/2020		
3/31/2020	37.3	42.7
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	39.3	36
9/2/2020		

Time Series

Constituent: TDS (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									26.7
3/1/2016	273		45.3	129		309		314	
4/19/2016			46						<25
4/20/2016	269			128		324		338	
6/6/2016									32.7
6/7/2016	272		46	140		314			
6/8/2016								288	
8/30/2016	244		30			308			33.3
8/31/2016				112				334	
10/18/2016	238					295			27.3
10/19/2016			37.3	134				333	
1/31/2017	266		43.3	134		303			32
2/1/2017								330	
5/2/2017									31.3
5/3/2017	259		44.7	127		300		338	
6/6/2017									35.3
6/7/2017	255		45.3	134		284		300	
9/13/2017									36.7
9/14/2017	276		48.7	141		325		350	
5/1/2018									
5/2/2018	247		44	133		306		333	34
8/28/2018								324	
8/29/2018	263		50			287			
11/27/2018	248					303			50.7
11/28/2018			50.7	138				330	
1/8/2019		76.7							
1/9/2019					240		276		
5/29/2019	259		48.7	132		291			58
5/30/2019								315	
9/30/2019				137		293		319	
10/1/2019	243		38		182		324		
10/2/2019		98							46
3/30/2020				135	204	310	328		
3/31/2020	243	81.3	42					330	53.3
9/1/2020	253	94							
9/2/2020			37.3	129	168	298	318	301	
9/9/2020									42

Time Series

Constituent: TDS (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	30.7	40
3/1/2016		
4/19/2016	<25	32
4/20/2016		
6/6/2016		
6/7/2016	35.3	38.7
6/8/2016		
8/30/2016	27.3	31.3
8/31/2016		
10/18/2016	<25	26.7
10/19/2016		
1/31/2017	32.7	30
2/1/2017		
5/2/2017	30.7	30.7
5/3/2017		
6/6/2017	34.7	32.7
6/7/2017		
9/13/2017	39.3	38
9/14/2017		
5/1/2018	42	35.3
5/2/2018		
8/28/2018		
8/29/2018		
11/27/2018	31.3	36
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	40	37.3
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	41.3	36.7
3/30/2020		
3/31/2020	40	39.3
9/1/2020		
9/2/2020		
9/9/2020	40.7	42.7

Time Series

Constituent: TDS (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<25								
4/19/2016	<25								
6/6/2016	28.7								
8/30/2016	25.3								
10/18/2016	<25								
1/31/2017	26								
5/2/2017	<25								
6/6/2017	42.7								
9/12/2017	26.7								
5/1/2018	34.7								
11/26/2018	32.7								
5/28/2019	31.3								
10/2/2019	36								
3/31/2020	36.7								
6/16/2020		238	1460	479					
6/17/2020					546	301	449	44	37.3
9/1/2020			576	391		308			
9/2/2020		219			498		361	36	34
9/8/2020	39.3								

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-10	BY-AP-MW-10V	BY-AP-MW-11	BY-AP-MW-12	BY-AP-MW-12V	BY-AP-MW-13	BY-AP-MW-14	BY-AP-MW-15
3/1/2016		<0.001		<0.001					
3/2/2016	<0.001				<0.001		<0.001	<0.001	<0.001
4/19/2016	<0.001								<0.001
4/20/2016		<0.001		<0.001	<0.001		<0.001	<0.001	
6/8/2016	<0.001	<0.001		<0.001	<0.001		<0.001	<0.001	<0.001
8/30/2016								<0.001	
8/31/2016	<0.001	<0.001		<0.001	<0.001		<0.001		<0.001
10/18/2016								<0.001	
10/19/2016	<0.001	<0.001		<0.001	<0.001		<0.001		<0.001
1/31/2017	<0.001						<0.001	<0.001	<0.001
2/1/2017		<0.001		<0.001	<0.001				
5/2/2017	<0.001							<0.001	<0.001
5/3/2017		<0.001		<0.001	<0.001		<0.001		
6/6/2017	<0.001							<0.001	<0.001
6/7/2017		<0.001		<0.001	<0.001		0.000878 (J)		
1/22/2018							<0.001		<0.001
1/23/2018		<0.001		<0.001	<0.001			<0.001	
1/24/2018	<0.001								
5/1/2018	<0.001								<0.001
5/2/2018		<0.001		<0.001	<0.001		<0.001	<0.001	
11/27/2018								<0.001	<0.001
11/28/2018	<0.001	<0.001		<0.001	<0.001		<0.001		
1/8/2019			<0.001			<0.001			
5/29/2019	<0.001			<0.001	<0.001		<0.001	<0.001	<0.001
5/30/2019		<0.001							
7/31/2019									
9/30/2019		<0.001		<0.001					
10/1/2019	<0.001		<0.001		<0.001		<0.001	<0.001	<0.001
10/2/2019						<0.001			
3/30/2020	<0.001								
3/31/2020		<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
4/1/2020									<0.001
5/12/2020									
9/1/2020	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001		
9/2/2020								<0.001	<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15V	BY-AP-MW-16
3/1/2016		
3/2/2016		<0.001
4/19/2016		<0.001
4/20/2016		
6/8/2016		<0.001
8/30/2016		
8/31/2016		<0.001
10/18/2016		
10/19/2016		<0.001
1/31/2017		<0.001
2/1/2017		
5/2/2017		<0.001
5/3/2017		
6/6/2017		<0.001
6/7/2017		
1/22/2018		
1/23/2018		<0.001
1/24/2018		
5/1/2018		<0.001
5/2/2018		
11/27/2018		<0.001
11/28/2018		
1/8/2019		
5/29/2019		<0.001
5/30/2019		
7/31/2019	<0.001	
9/30/2019		
10/1/2019	<0.001	<0.001
10/2/2019		
3/30/2020		
3/31/2020		<0.001
4/1/2020		
5/12/2020	<0.001	
9/1/2020	<0.001	
9/2/2020		<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-17H	BY-AP-MW-18H	BY-AP-MW-19H	BY-AP-MW-1V	BY-AP-MW-2	BY-AP-MW-20H	BY-AP-MW-22H	BY-AP-MW-23H	BY-AP-MW-24H
3/1/2016									
3/2/2016					<0.001				
4/19/2016					<0.001				
6/7/2016									
6/8/2016					<0.001				
8/30/2016									
8/31/2016					<0.001				
10/19/2016					<0.001				
1/31/2017					<0.001				
5/2/2017					<0.001				
6/6/2017					<0.001				
1/24/2018					<0.001				
5/1/2018					<0.001				
11/27/2018					<0.001				
1/8/2019				<0.001					<0.001
3/20/2019		<0.001							
5/29/2019					<0.001				
7/31/2019	<0.001		<0.001			<0.001	<0.001	<0.001	
10/1/2019		<0.001	<0.001		<0.001	<0.001	<0.001	<0.001	
10/2/2019	<0.001			<0.001					<0.001
3/30/2020				<0.001					
3/31/2020					<0.001				<0.001
4/1/2020	<0.001	<0.001				<0.001		<0.001	
5/12/2020			<0.001				<0.001		
8/31/2020					<0.001				
9/1/2020	<0.001	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001	
9/2/2020									<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-4
3/1/2016		<0.001
3/2/2016	<0.001	
4/19/2016	<0.001	<0.001
6/7/2016	<0.001	<0.001
6/8/2016		
8/30/2016		<0.001
8/31/2016	<0.001	
10/19/2016	<0.001	<0.001
1/31/2017	<0.001	<0.001
5/2/2017	<0.001	<0.001
6/6/2017	<0.001	<0.001
1/24/2018	<0.001	<0.001
5/1/2018	<0.001	<0.001
11/27/2018	<0.001	<0.001
1/8/2019		
3/20/2019		
5/29/2019	<0.001	<0.001
7/31/2019		
10/1/2019	<0.001	<0.001
10/2/2019		
3/30/2020		
3/31/2020	<0.001	<0.001
4/1/2020		
5/12/2020		
8/31/2020		
9/1/2020	<0.001	<0.001
9/2/2020		

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5V	BY-AP-MW-6	BY-AP-MW-7	BY-AP-MW-7V	BY-AP-MW-8	BY-AP-MW-8V	BY-AP-MW-9	BY-GSA-MW-1 (bg)
2/23/2016									<0.001
3/1/2016	<0.001		<0.001	<0.001		<0.001		<0.001	
4/19/2016			<0.001						<0.001
4/20/2016	<0.001			<0.001		<0.001		<0.001	
6/6/2016									<0.001
6/7/2016	<0.001		<0.001	<0.001		<0.001			
6/8/2016								<0.001	
8/30/2016	<0.001		<0.001			<0.001			<0.001
8/31/2016				<0.001				<0.001	
10/18/2016	<0.001					<0.001			<0.001
10/19/2016			<0.001	<0.001				<0.001	
1/31/2017	<0.001		<0.001	<0.001		<0.001			<0.001
2/1/2017								<0.001	
5/2/2017									<0.001
5/3/2017	<0.001		<0.001	<0.001		<0.001		<0.001	
6/6/2017									<0.001
6/7/2017	<0.001		<0.001	<0.001		<0.001		<0.001	
1/23/2018								<0.001	<0.001
1/24/2018	<0.001		<0.001	<0.001		<0.001			
5/1/2018									
5/2/2018	<0.001		<0.001	<0.001		<0.001		<0.001	<0.001
11/27/2018	<0.001					<0.001			<0.001
11/28/2018			<0.001	<0.001				<0.001	
1/8/2019		<0.001							
1/9/2019					<0.001		<0.001		
5/29/2019	<0.001		<0.001	<0.001		<0.001			<0.001
5/30/2019								<0.001	
9/30/2019				<0.001		<0.001		<0.001	
10/1/2019	<0.001		<0.001		<0.001		<0.001		
10/2/2019		<0.001							<0.001
3/30/2020				<0.001	<0.001	<0.001	<0.001		
3/31/2020	<0.001	<0.001	<0.001					<0.001	<0.001
9/1/2020	<0.001	<0.001							
9/2/2020			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	
9/9/2020									<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/11/2020 9:16 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-3 (bg)
2/23/2016	<0.001	<0.001
3/1/2016		
4/19/2016	<0.001	<0.001
4/20/2016		
6/6/2016		
6/7/2016	<0.001	<0.001
6/8/2016		
8/30/2016	<0.001	<0.001
8/31/2016		
10/18/2016	<0.001	<0.001
10/19/2016		
1/31/2017	<0.001	<0.001
2/1/2017		
5/2/2017	<0.001	<0.001
5/3/2017		
6/6/2017	<0.001	<0.001
6/7/2017		
1/23/2018	<0.001	<0.001
1/24/2018		
5/1/2018	<0.001	<0.001
5/2/2018		
11/27/2018	<0.001	<0.001
11/28/2018		
1/8/2019		
1/9/2019		
5/29/2019	<0.001	<0.001
5/30/2019		
9/30/2019		
10/1/2019		
10/2/2019	<0.001	<0.001
3/30/2020		
3/31/2020	<0.001	<0.001
9/1/2020		
9/2/2020		
9/9/2020	<0.001	<0.001

Time Series

Constituent: Thallium (mg/L) Analysis Run 12/11/2020 9:16 AM

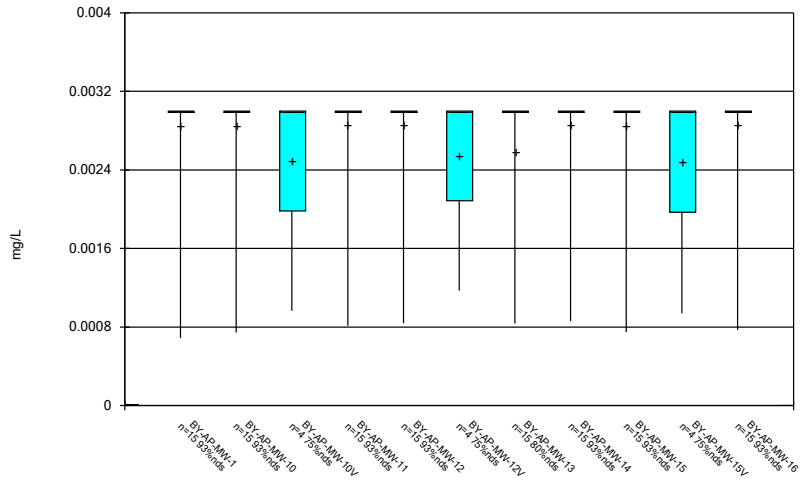
Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-AP-MW-16V	BY-AP-MW-17V	BY-AP-MW-23V	BY-AP-MW-14V	BY-AP-MW-20V	BY-AP-MW-13V	BY-AP-MW-25H	BY-AP-MW-25VM
2/23/2016	<0.001								
4/19/2016	<0.001								
6/6/2016	<0.001								
8/30/2016	<0.001								
10/18/2016	<0.001								
1/31/2017	<0.001								
5/2/2017	<0.001								
6/6/2017	<0.001								
1/23/2018	<0.001								
5/1/2018	<0.001								
11/26/2018	<0.001								
5/28/2019	<0.001								
10/2/2019	<0.001								
3/31/2020	<0.001								
6/16/2020		<0.001	<0.001	<0.001					
6/17/2020					<0.001	<0.001	<0.001	<0.001	<0.001
9/1/2020			<0.001	<0.001		<0.001			
9/2/2020		<0.001			<0.001		<0.001	<0.001	<0.001
9/8/2020	<0.001								

FIGURE B.

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

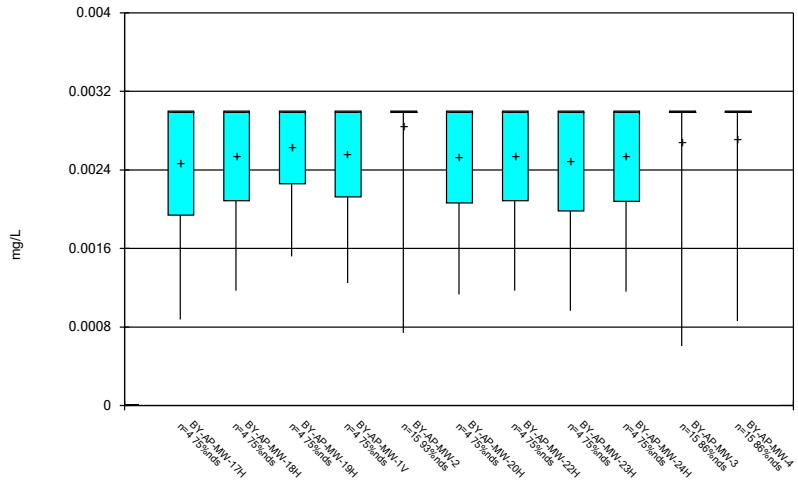


Constituent: Antimony Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

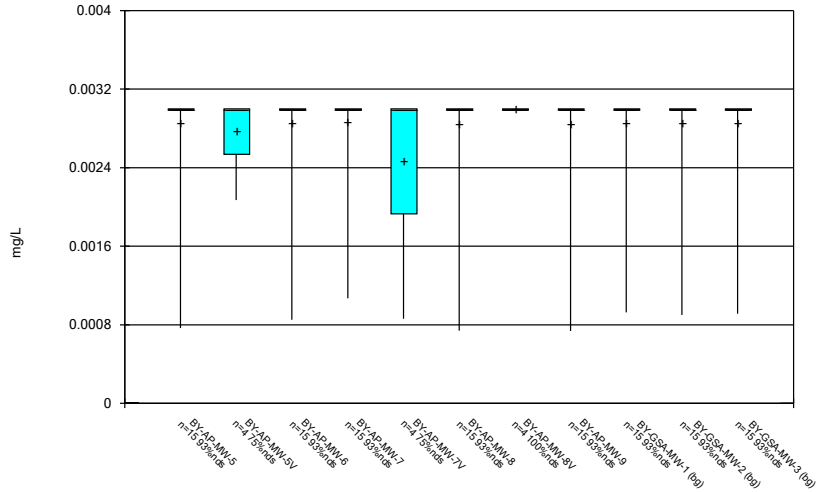


Constituent: Antimony Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

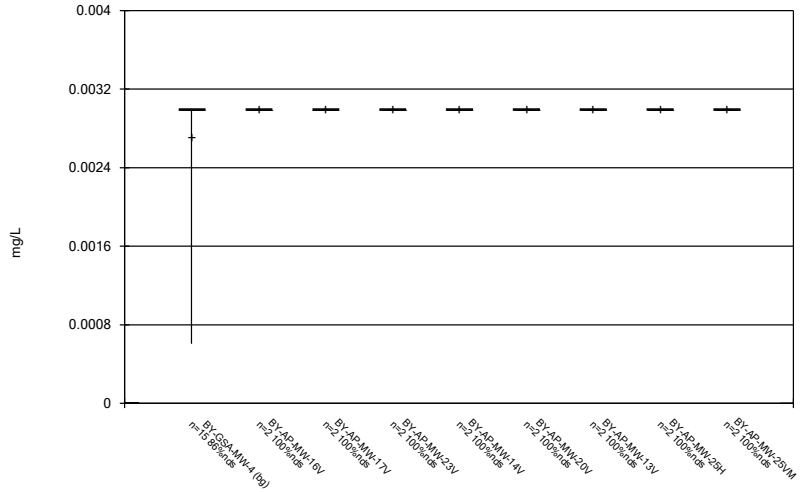


Constituent: Antimony Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

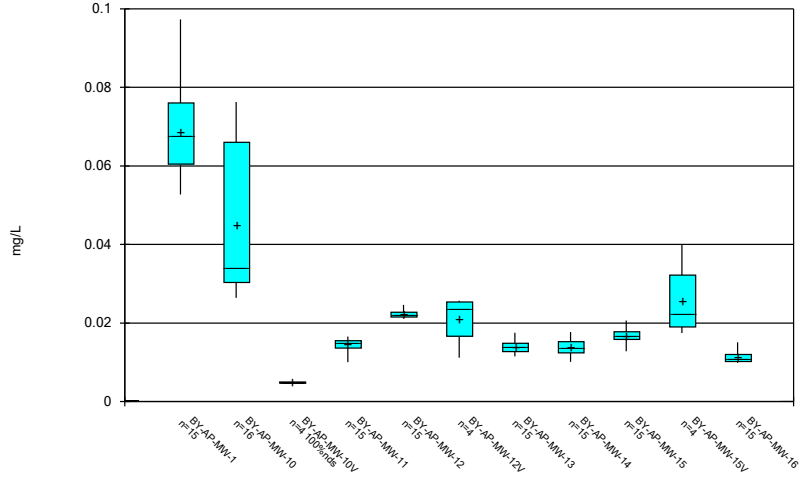


Constituent: Antimony Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

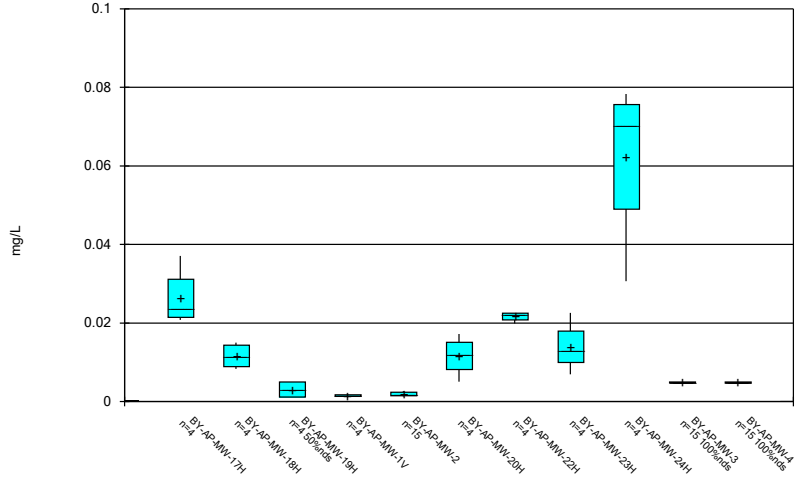


Constituent: Arsenic Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

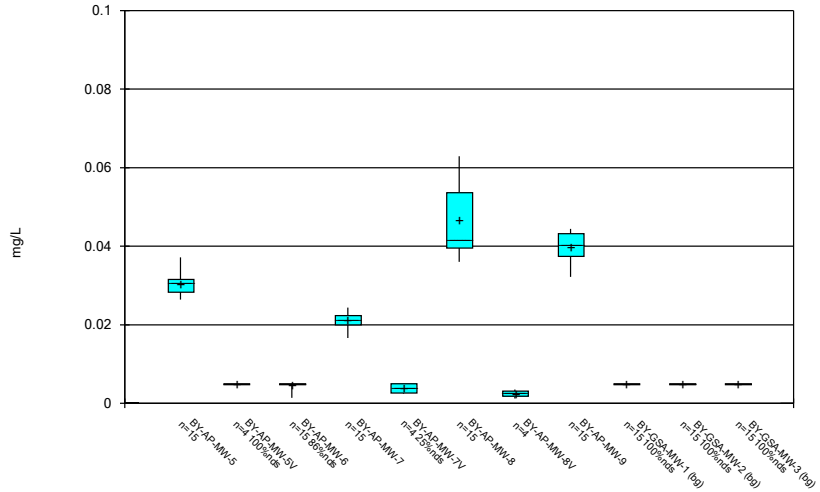


Constituent: Arsenic Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

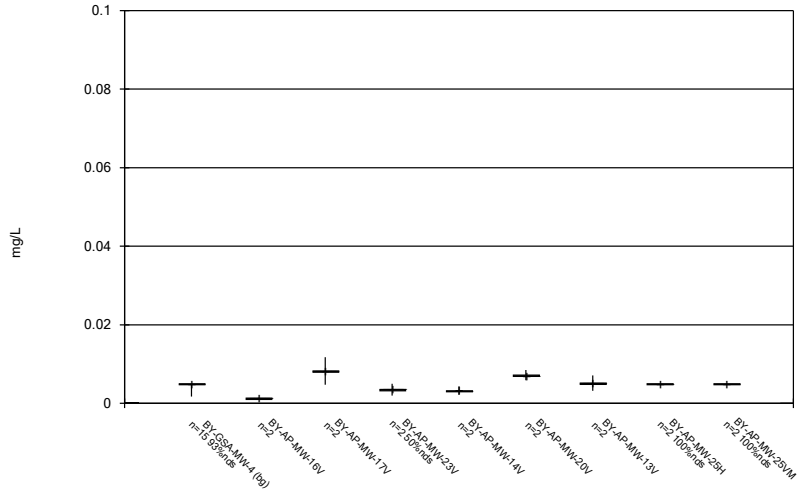


Constituent: Arsenic Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

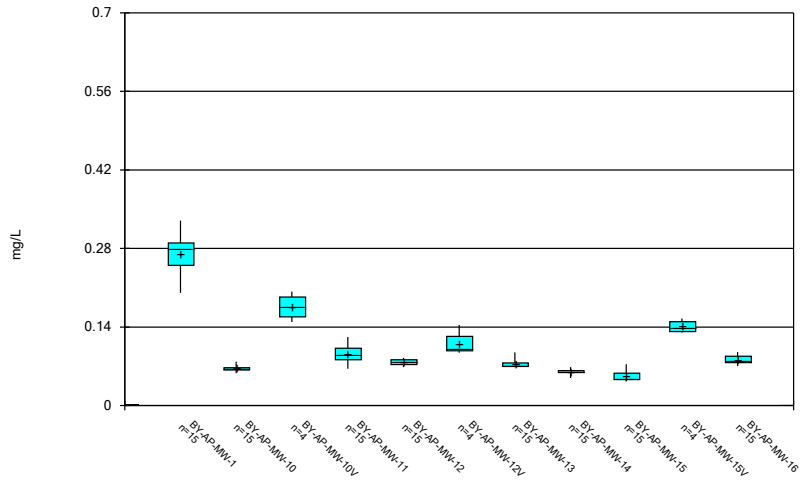


Constituent: Arsenic Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

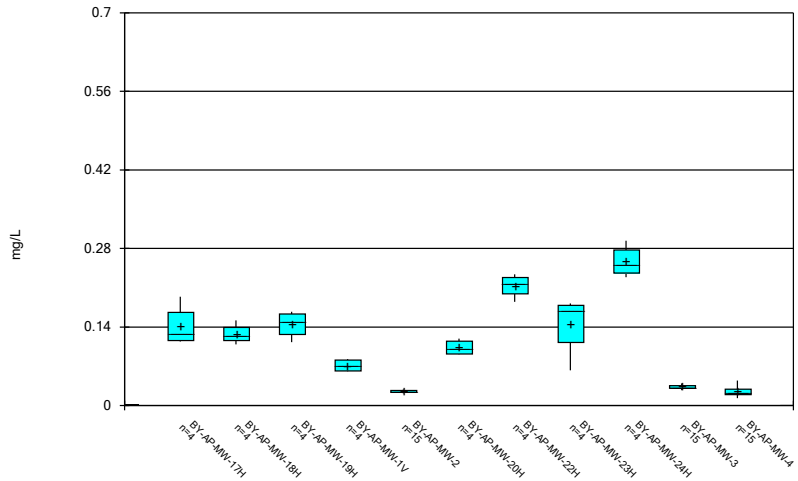


Constituent: Barium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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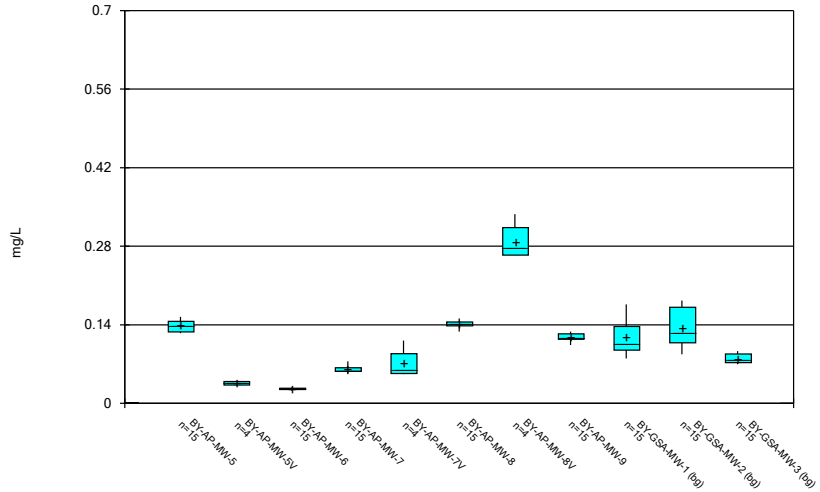
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

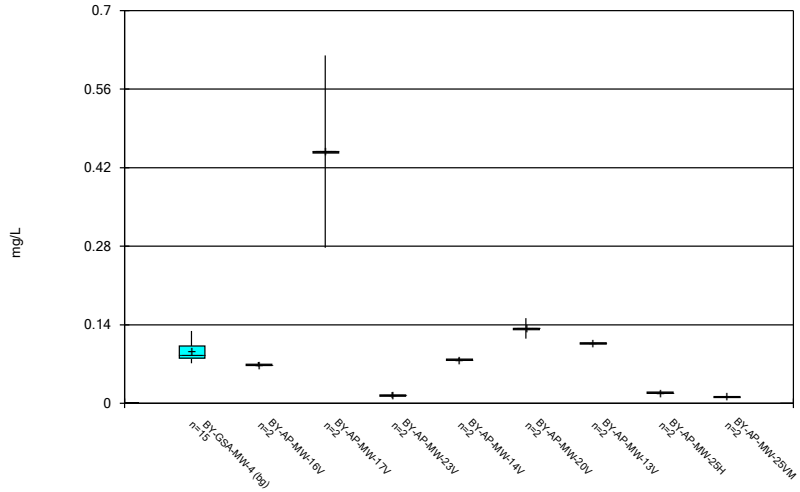


Constituent: Barium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

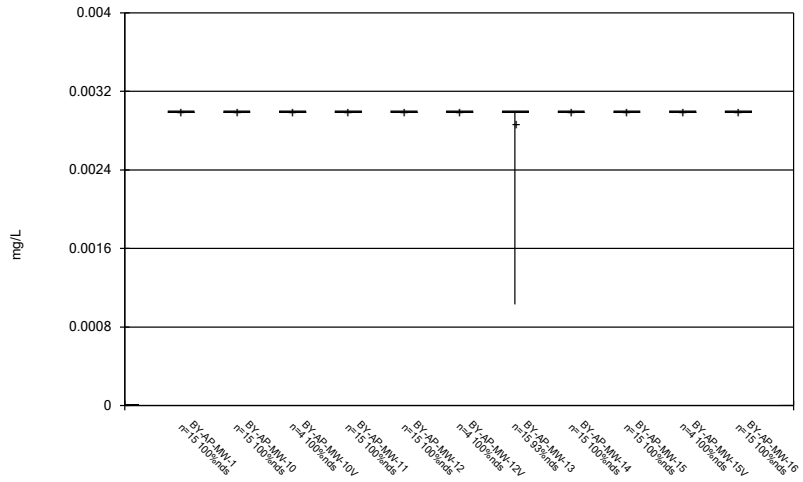


Constituent: Barium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

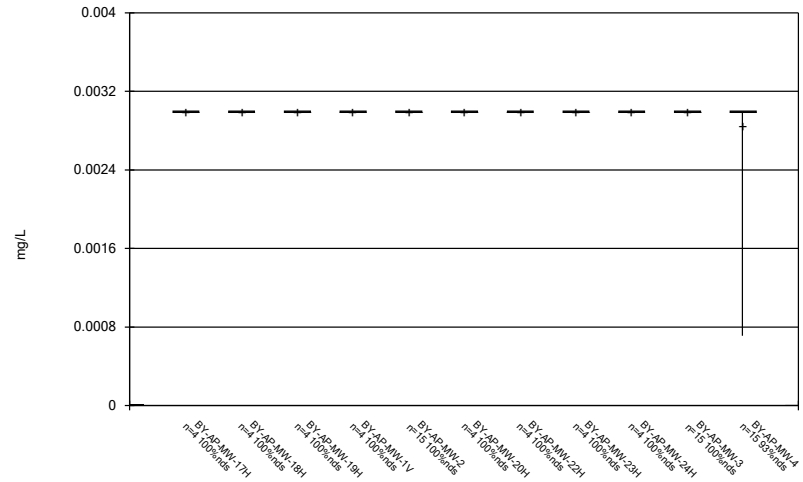


Constituent: Beryllium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

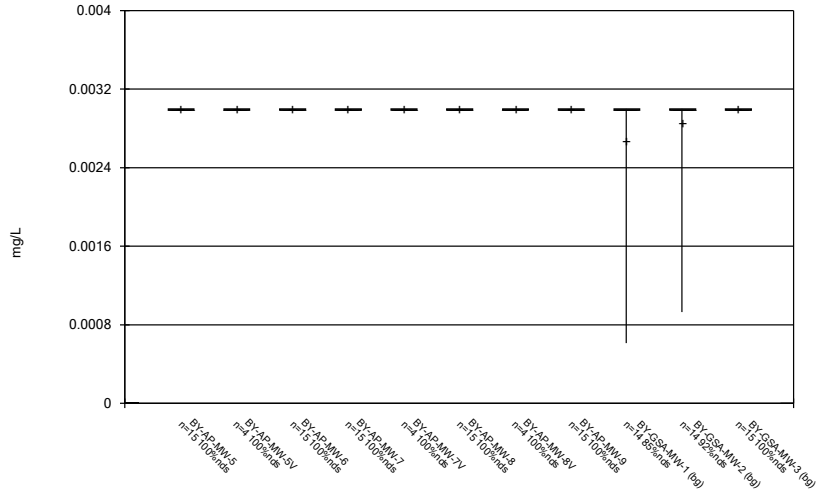


Constituent: Beryllium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

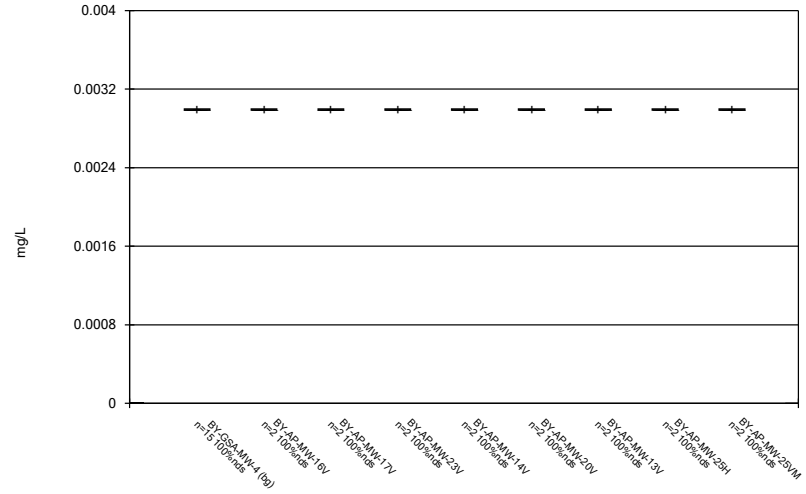


Constituent: Beryllium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

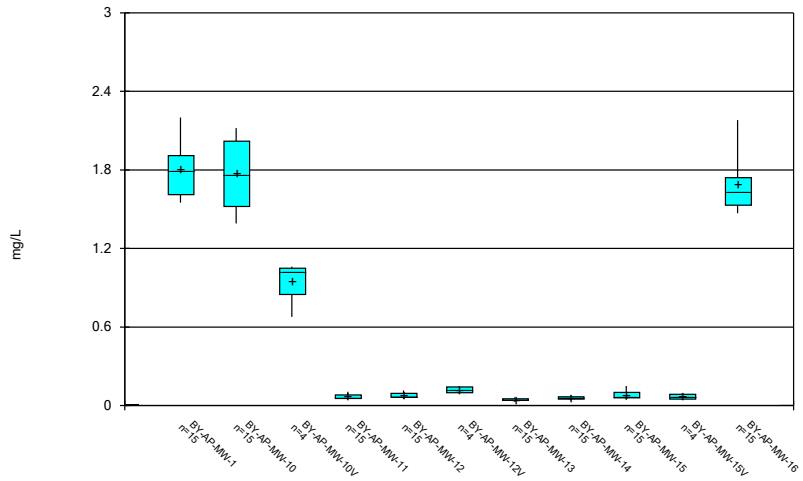


Constituent: Beryllium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

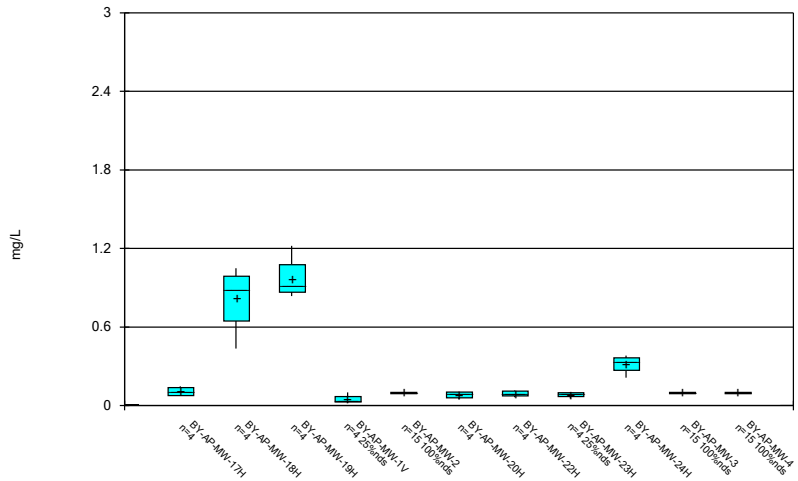


Constituent: Boron Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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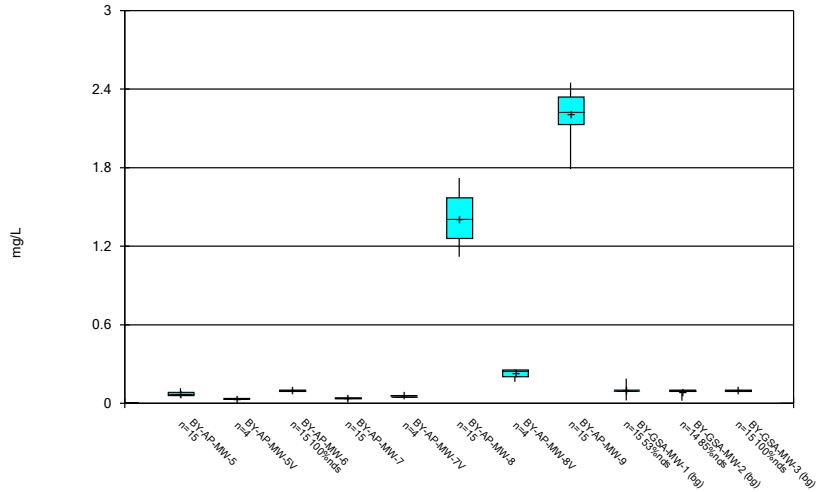
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

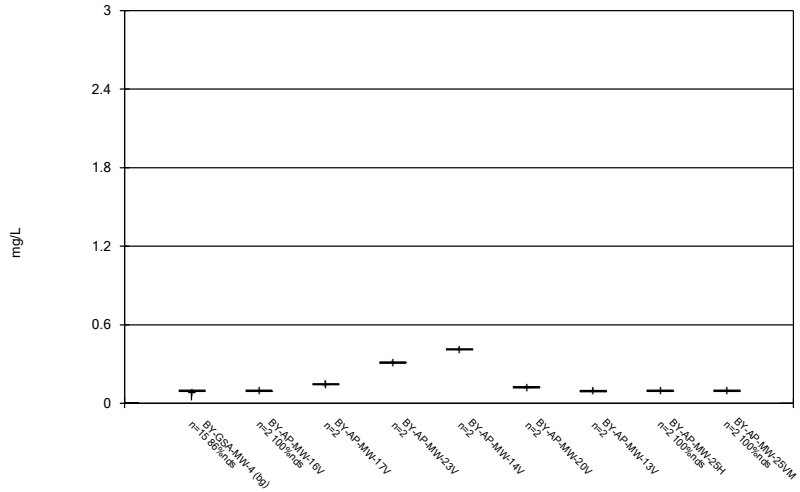


Constituent: Boron Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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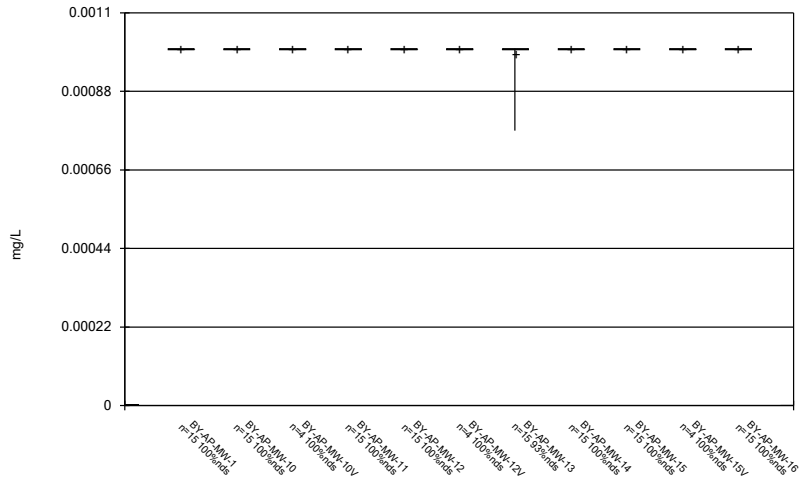
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

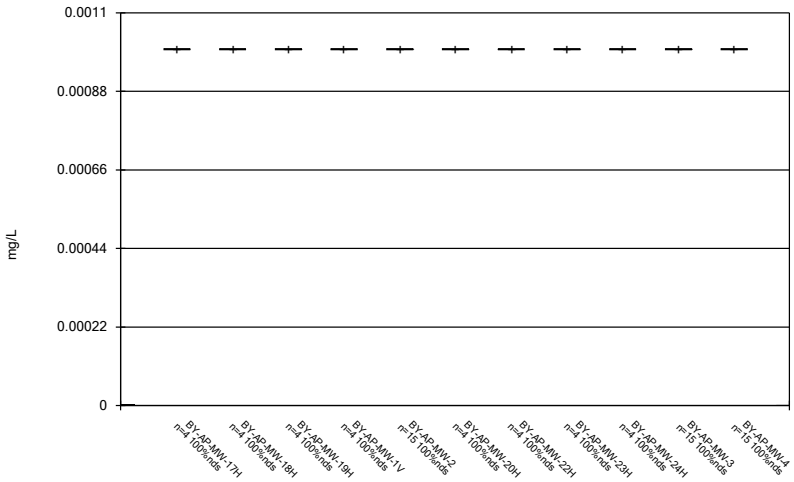


Constituent: Cadmium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

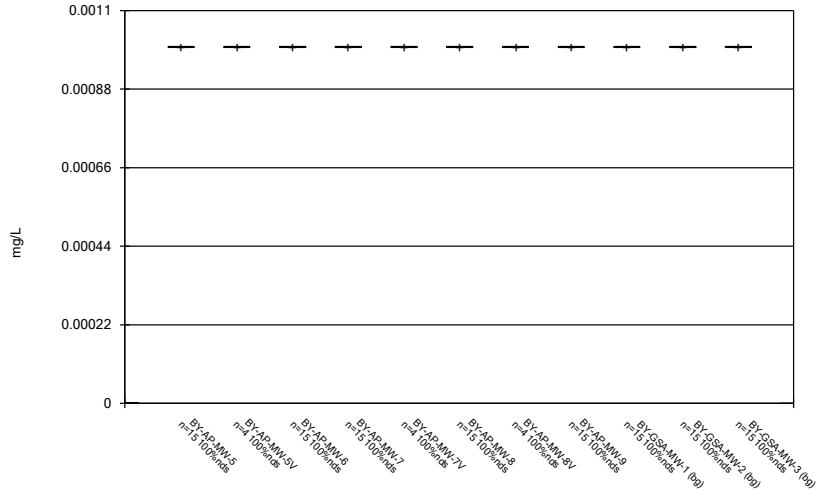


Constituent: Cadmium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

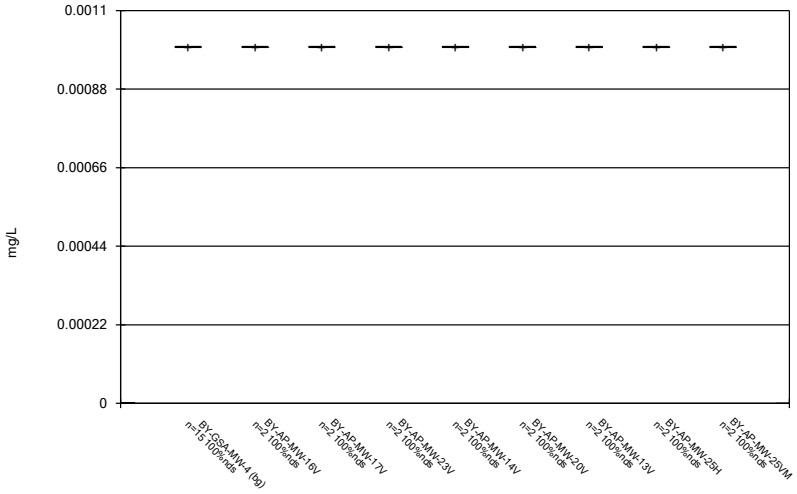


Constituent: Cadmium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

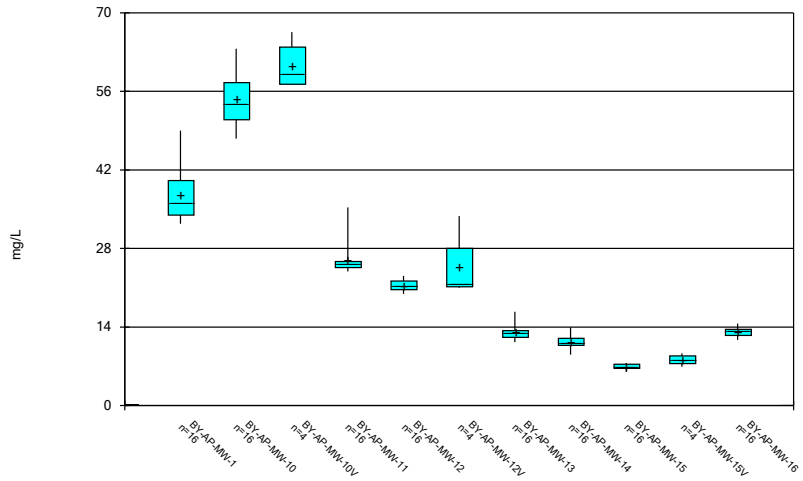


Constituent: Cadmium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

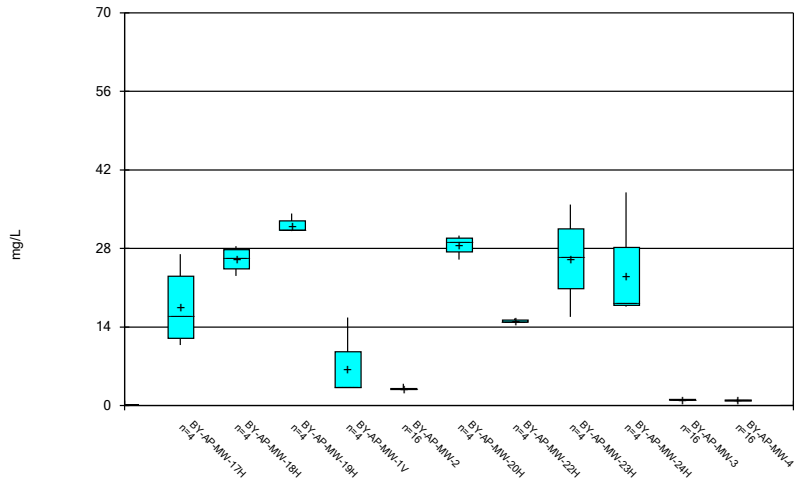


Constituent: Calcium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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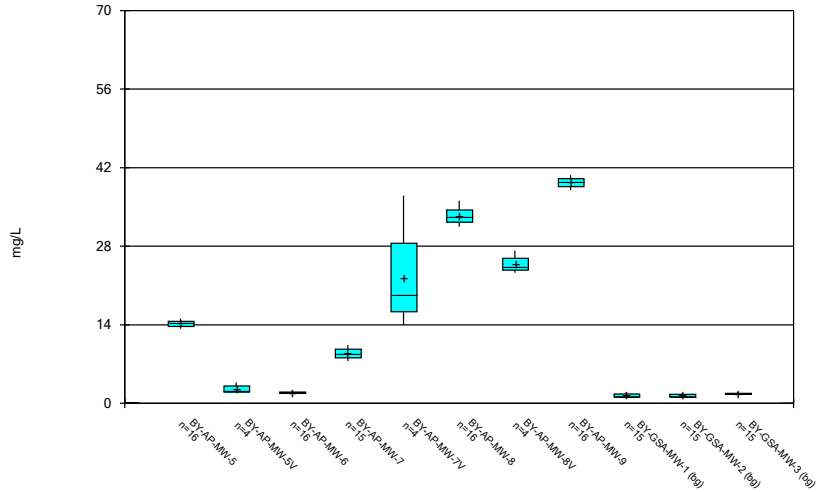
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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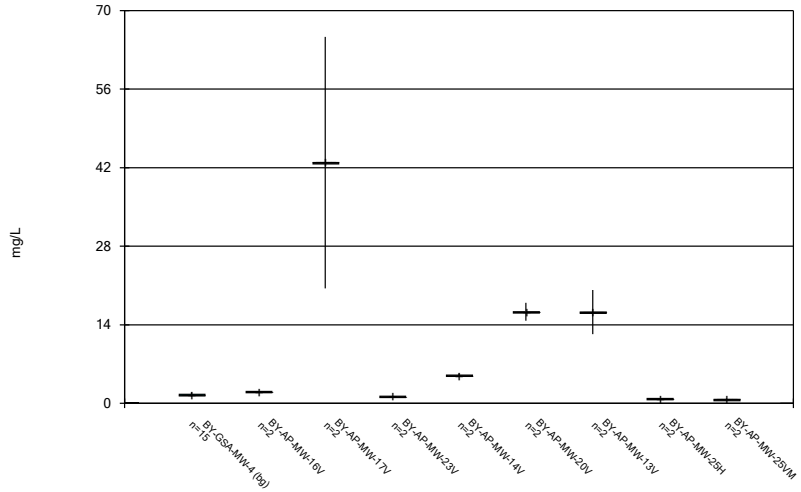
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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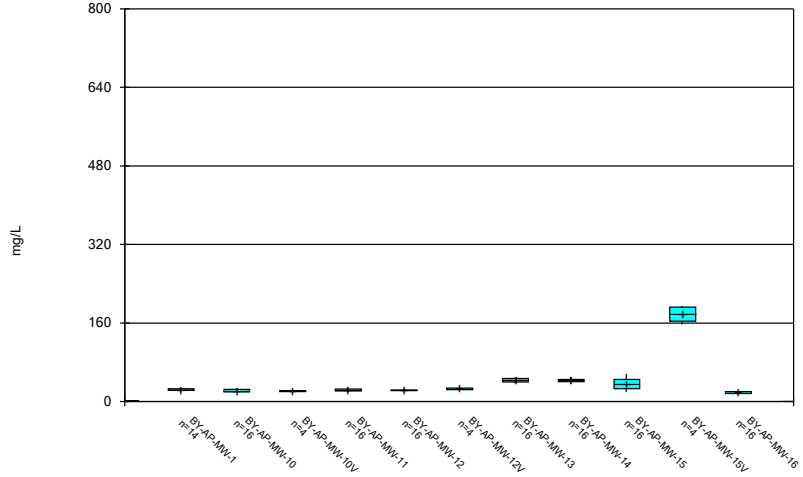
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

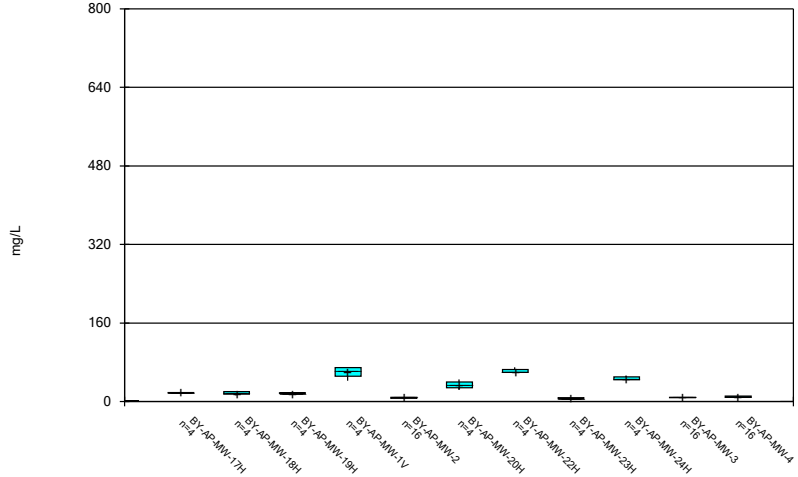


Constituent: Chloride Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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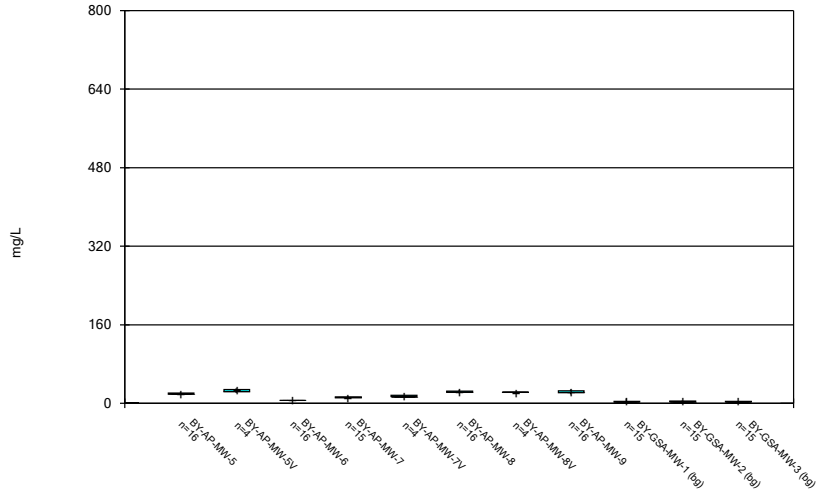
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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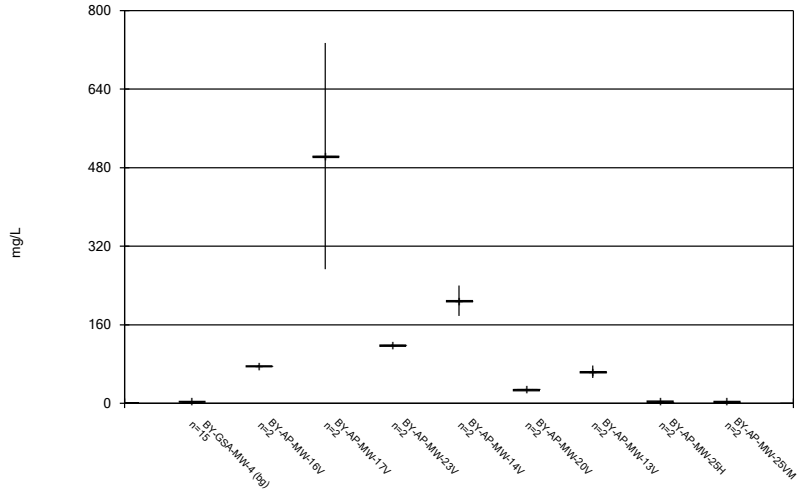
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

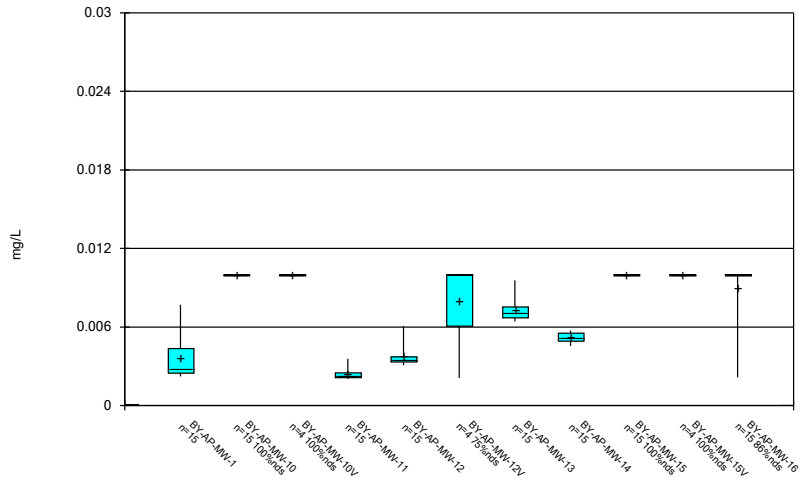


Constituent: Chloride Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

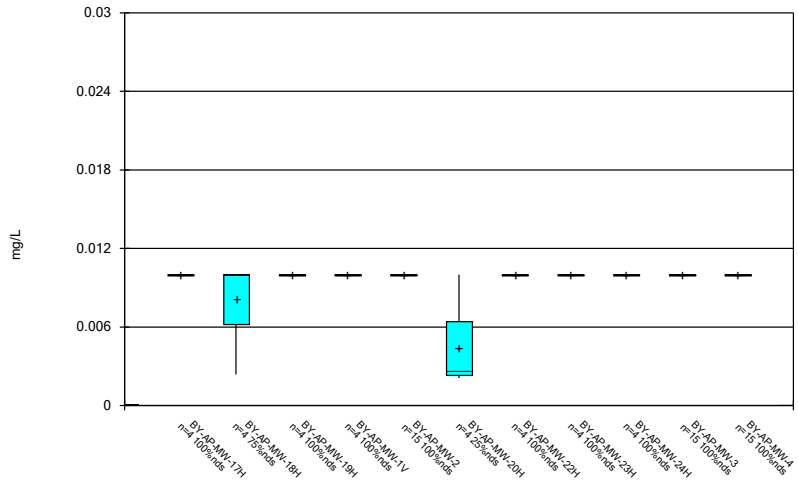


Constituent: Chromium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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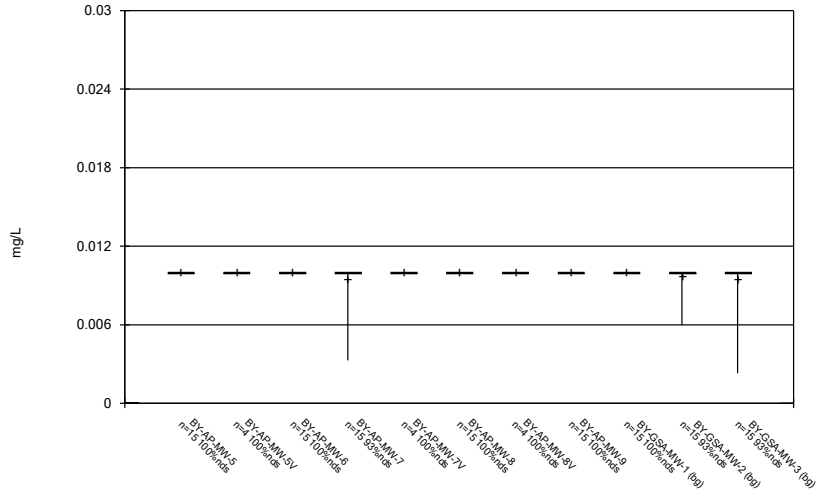
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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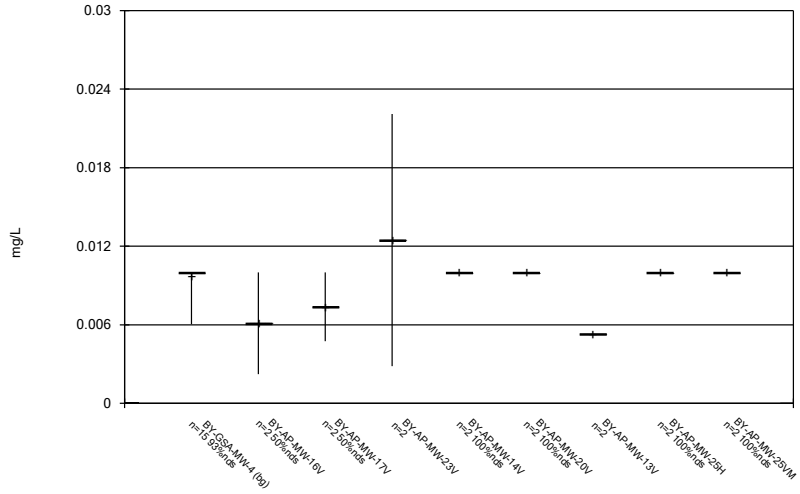
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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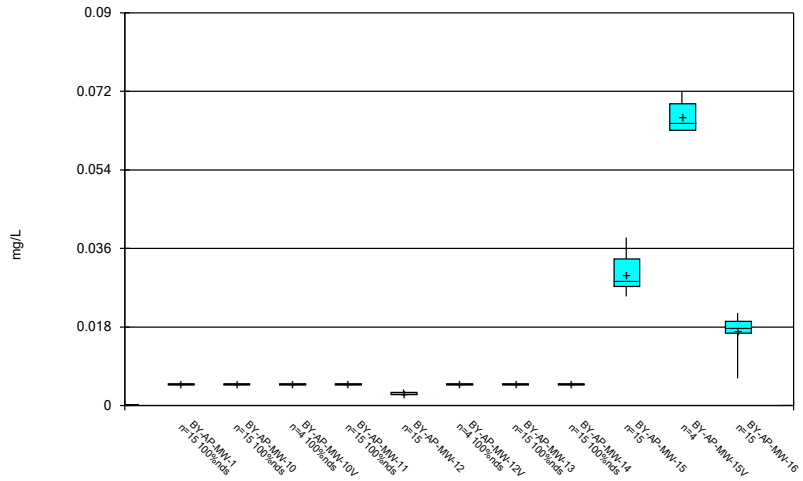
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

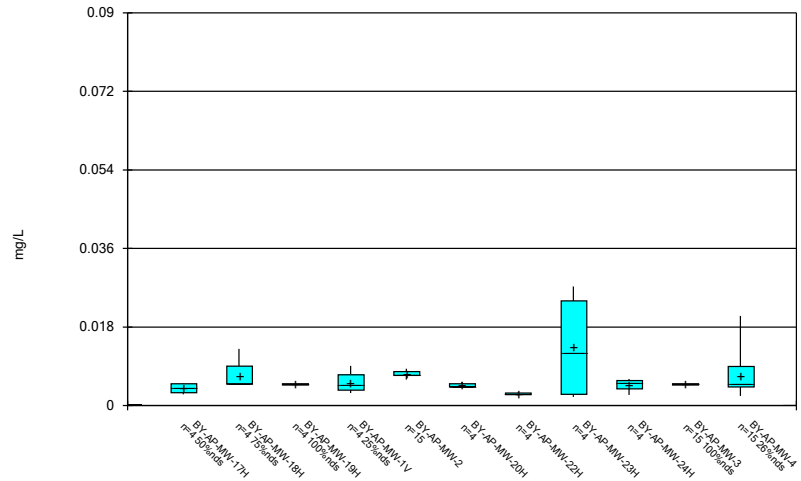


Constituent: Cobalt Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

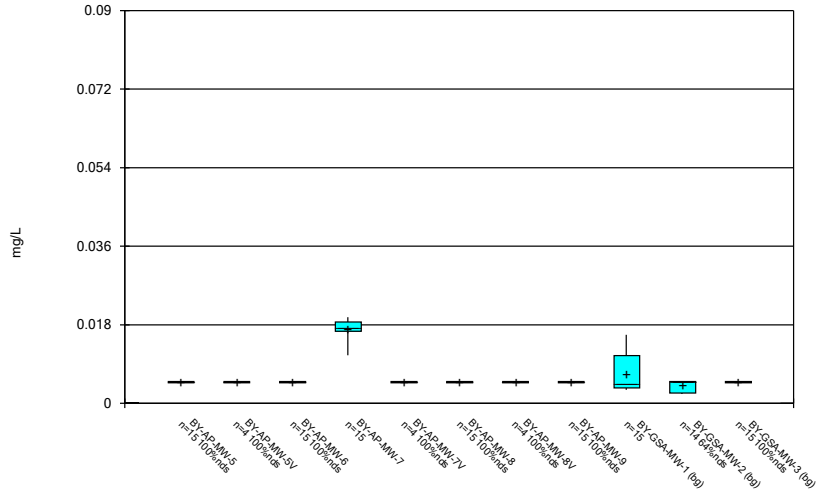


Constituent: Cobalt Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

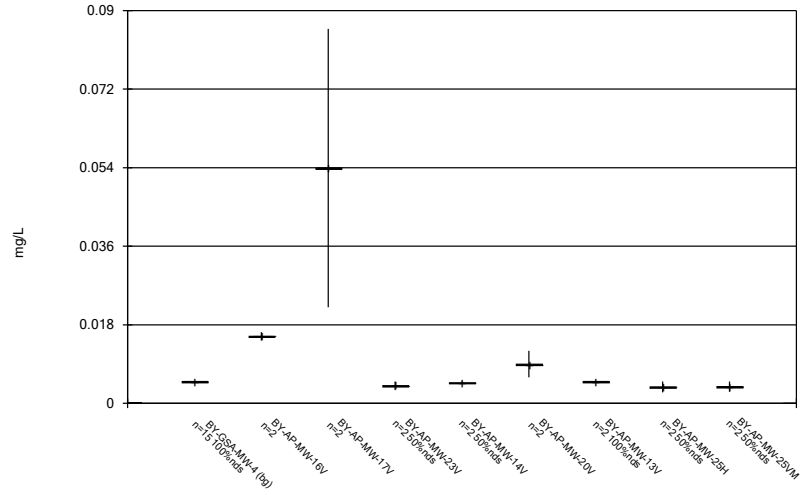


Constituent: Cobalt Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

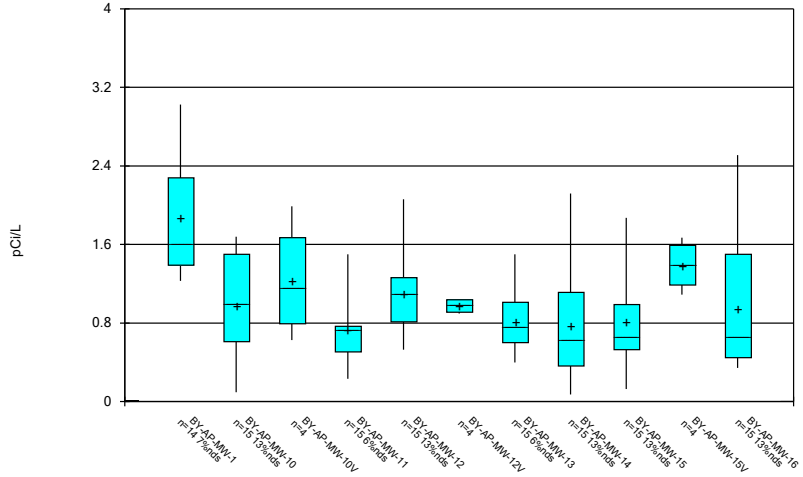


Constituent: Cobalt Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

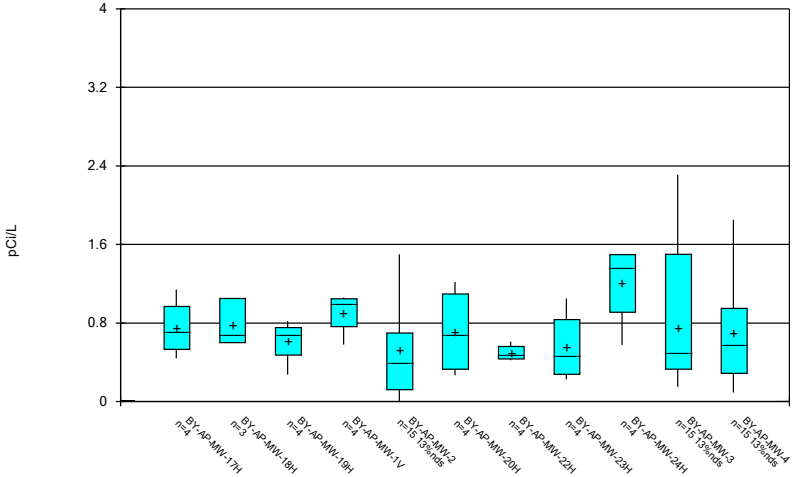


Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

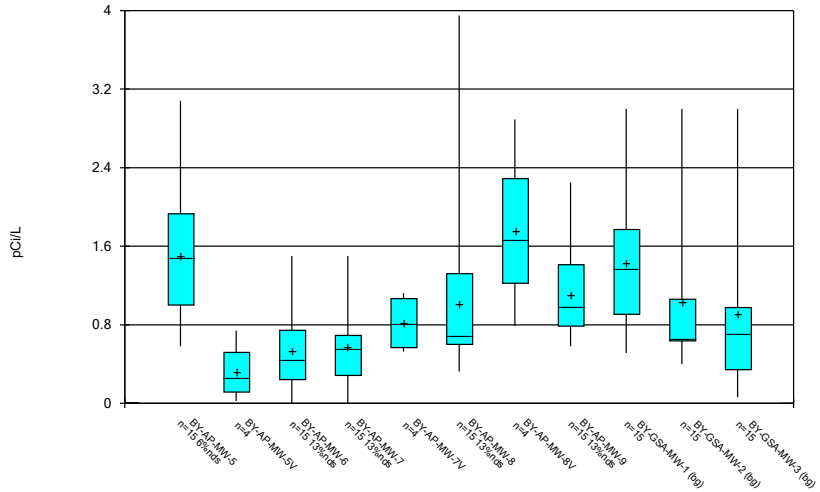


Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

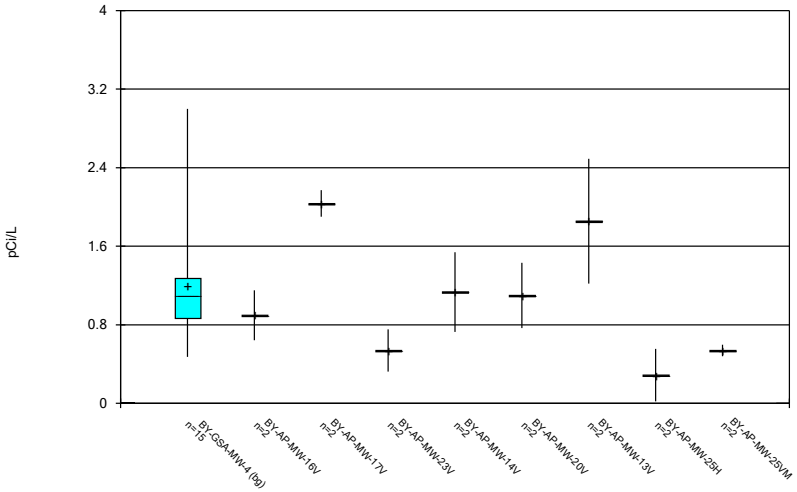


Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

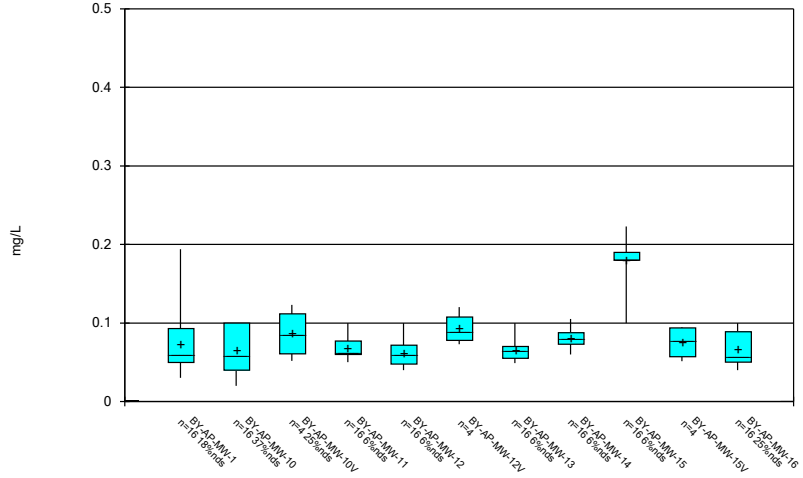


Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

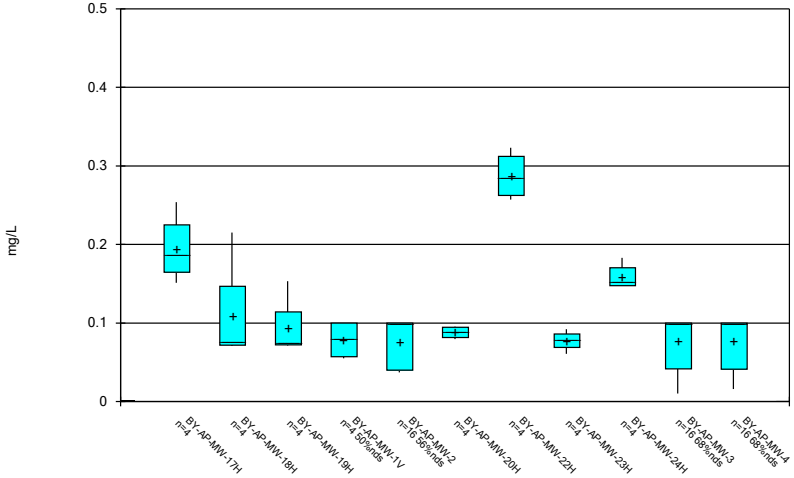


Constituent: Fluoride Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

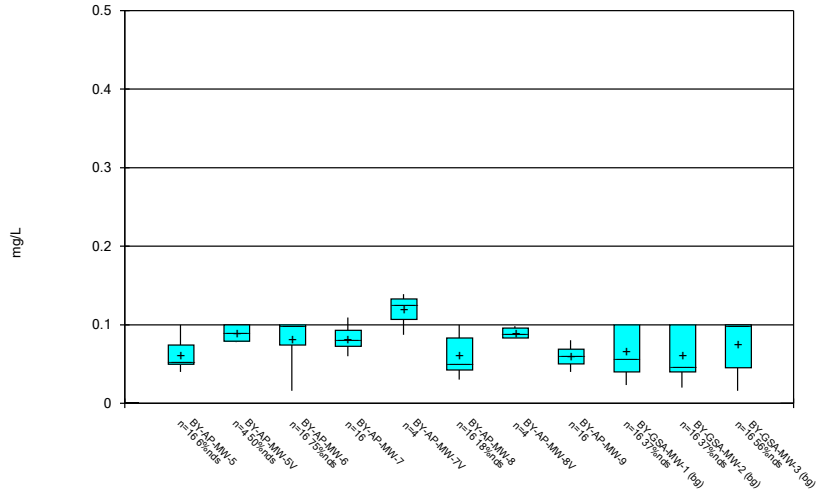


Constituent: Fluoride Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

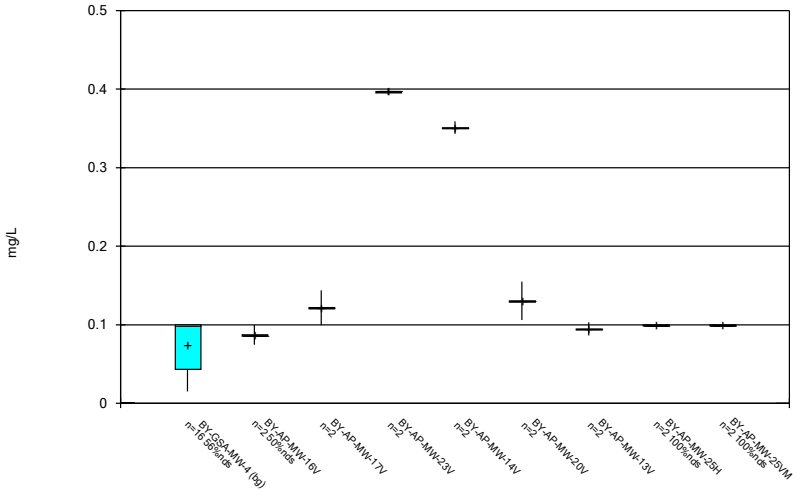


Constituent: Fluoride Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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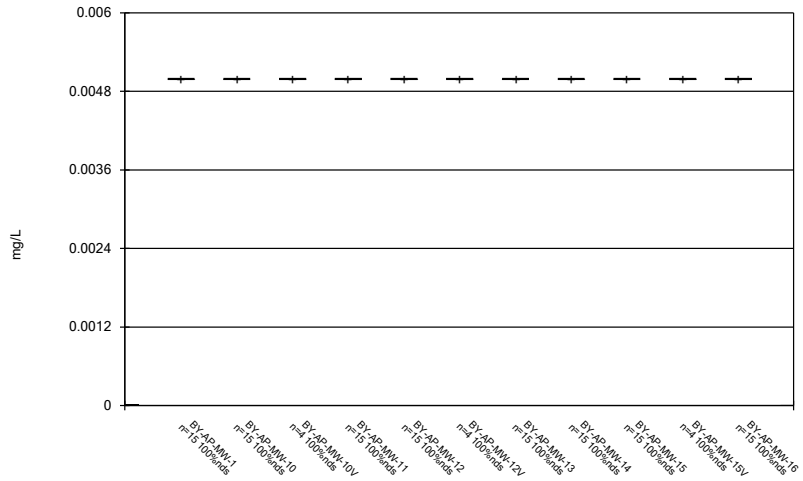
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

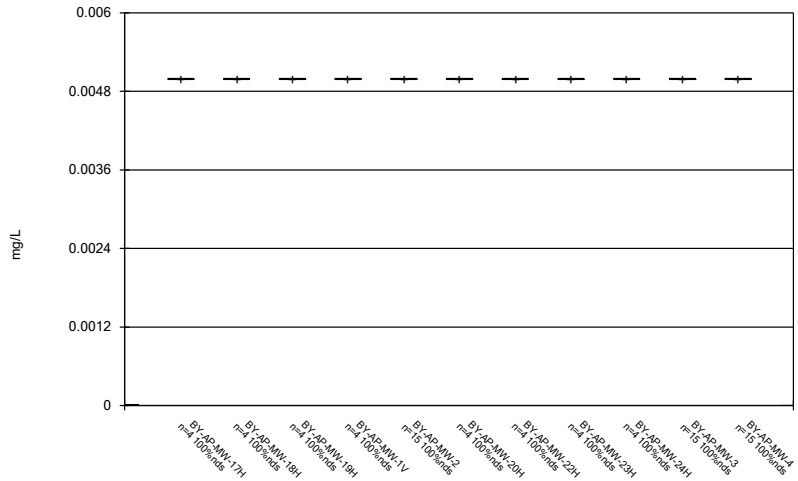


Constituent: Lead Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

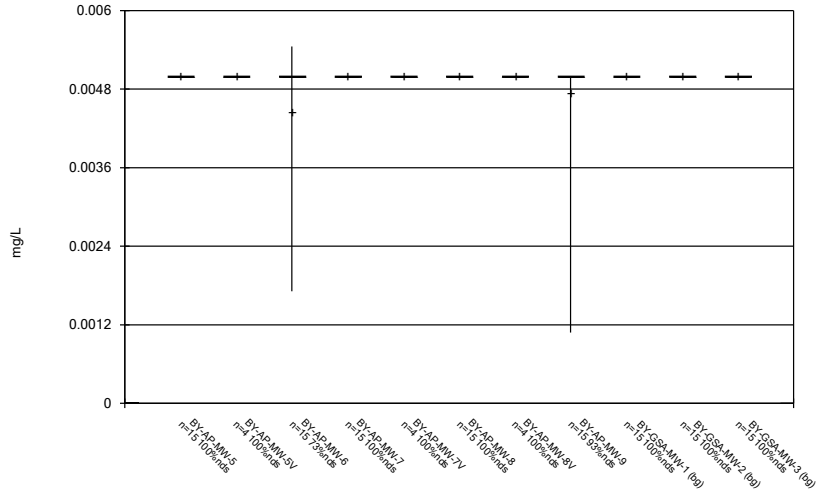


Constituent: Lead Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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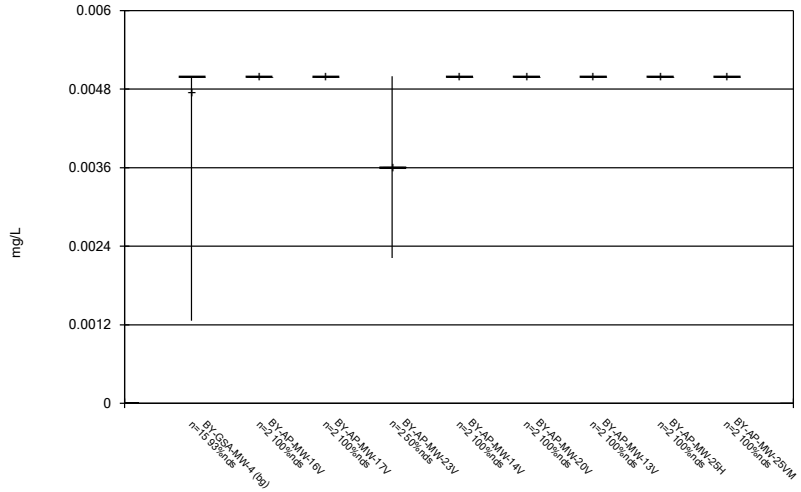
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

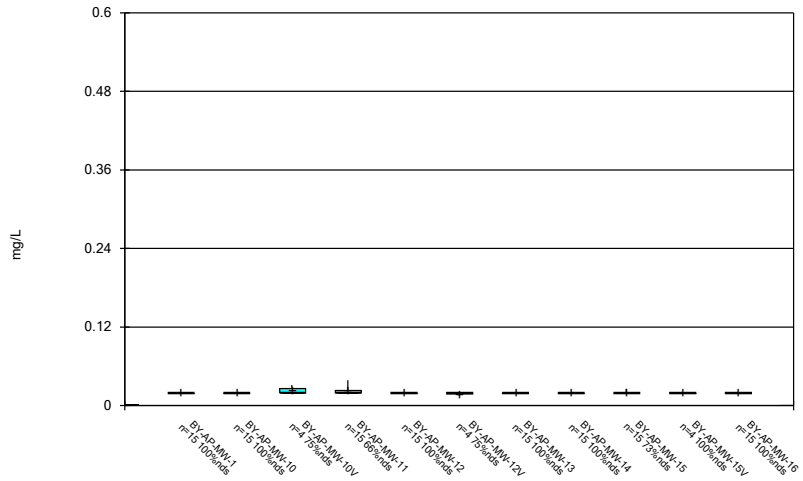


Constituent: Lead Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

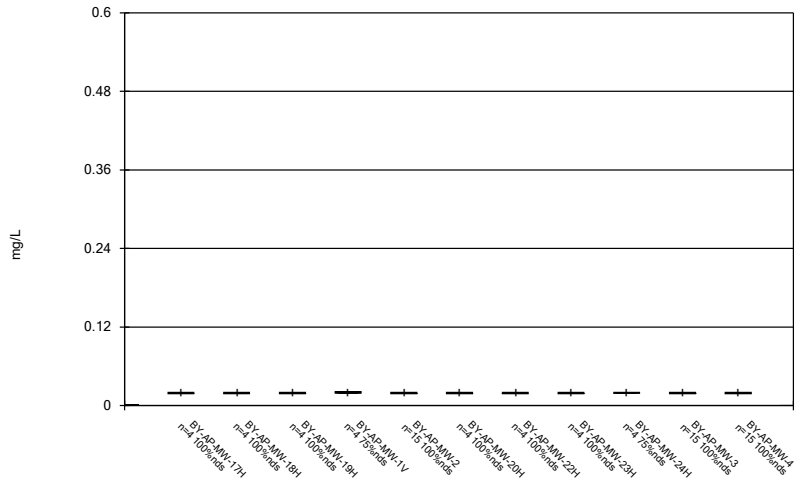


Constituent: Lithium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

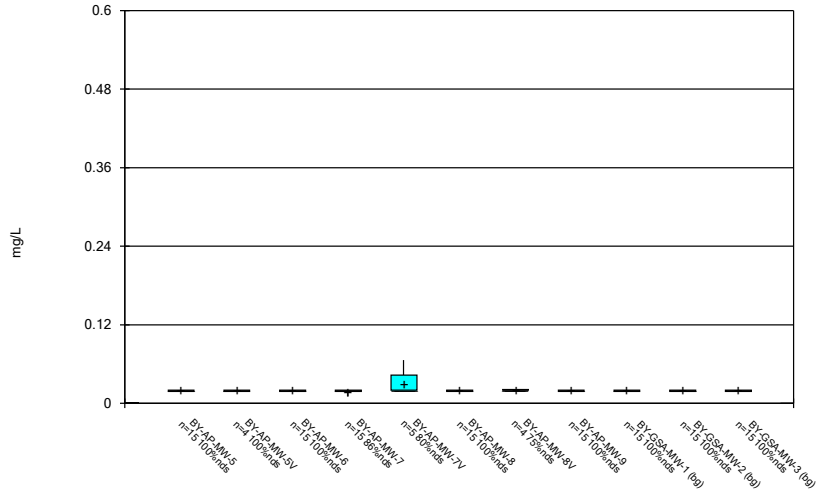


Constituent: Lithium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

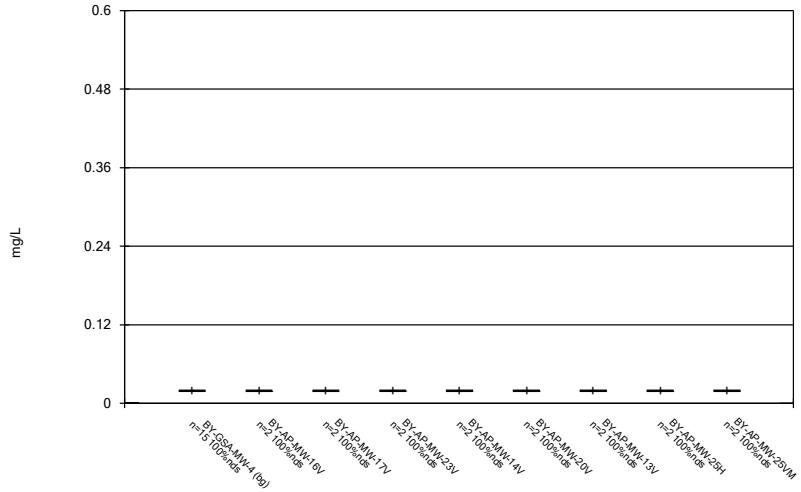


Constituent: Lithium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

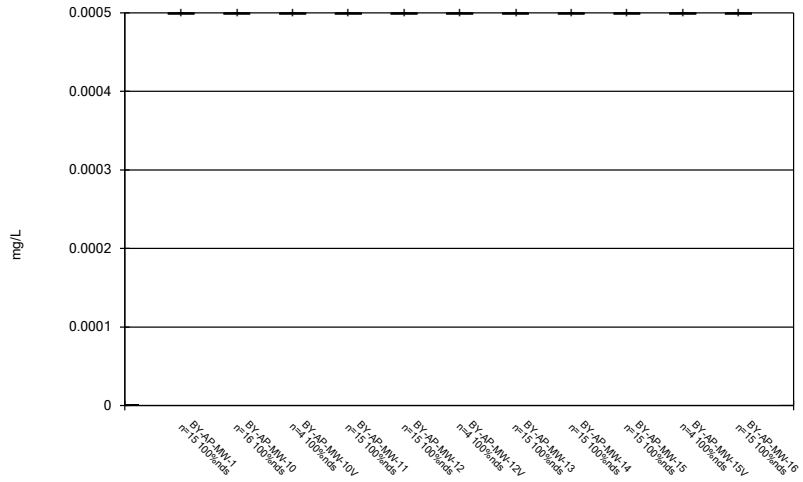


Constituent: Lithium Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

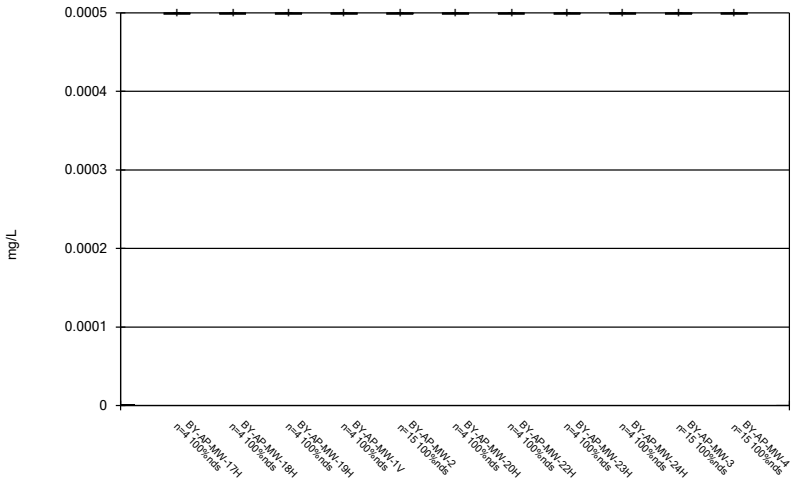


Constituent: Mercury Analysis Run 12/11/2020 9:17 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

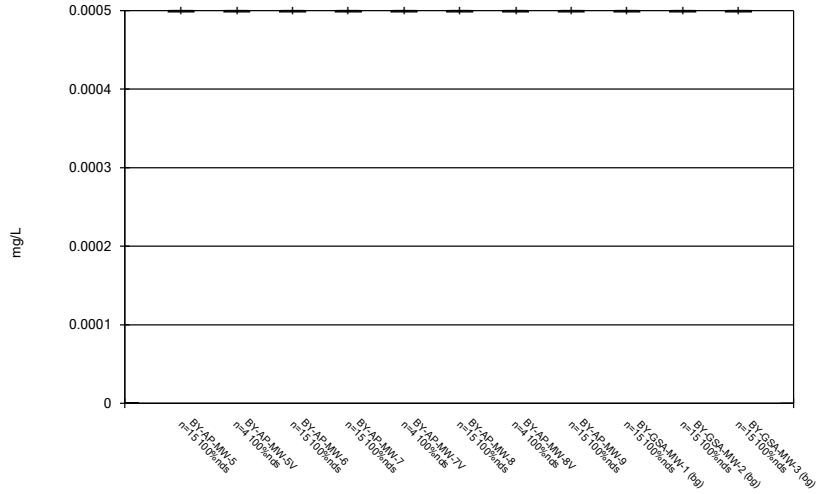


Constituent: Mercury Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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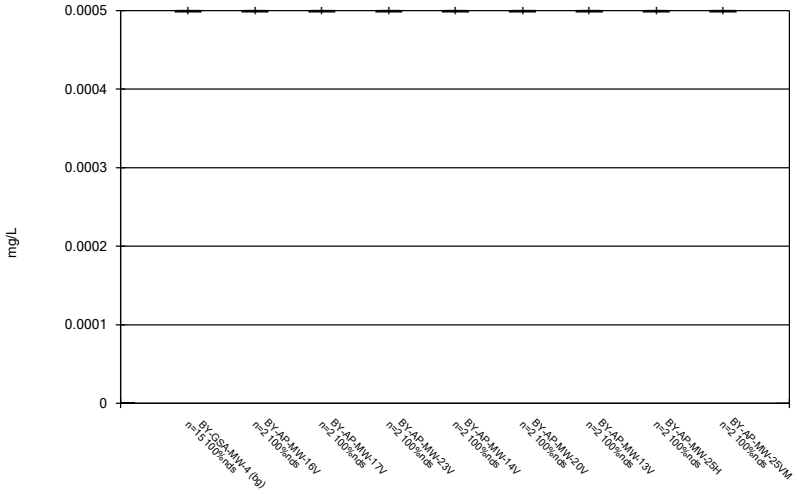
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

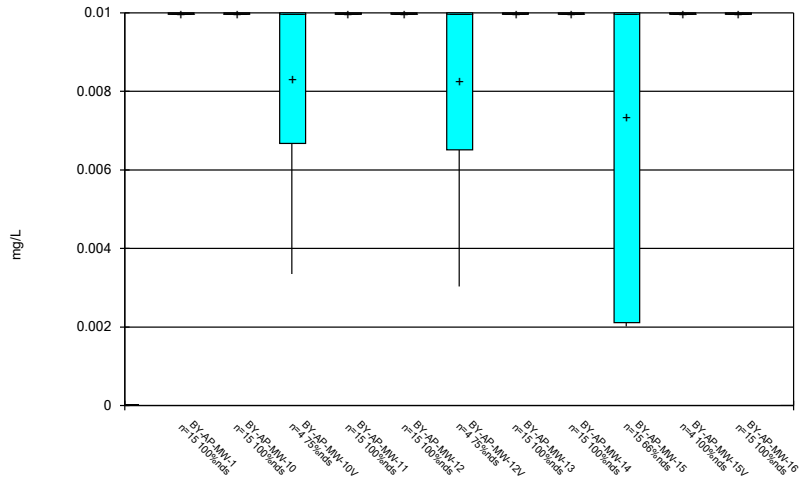


Constituent: Mercury Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

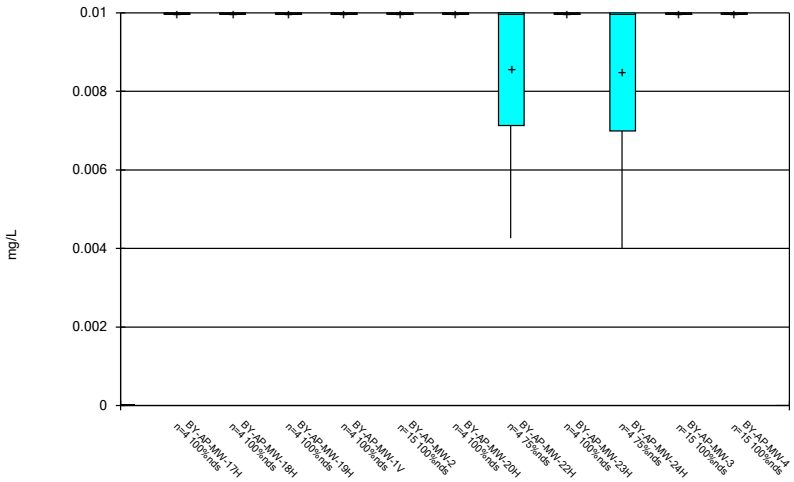


Constituent: Molybdenum Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

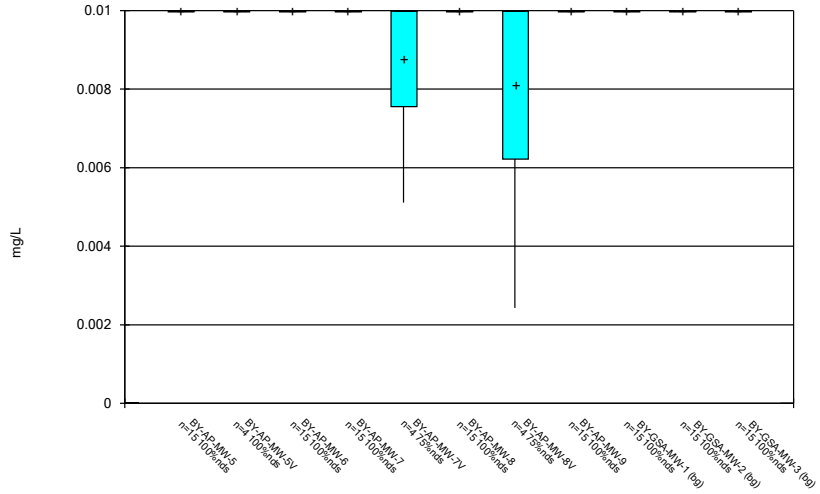


Constituent: Molybdenum Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

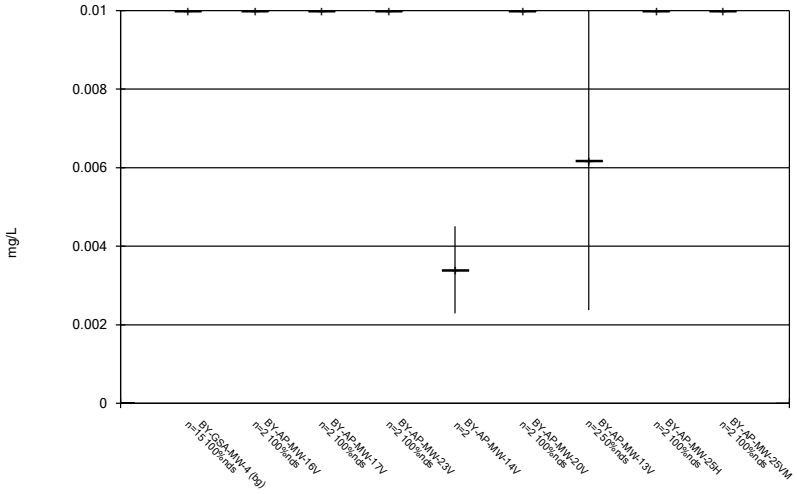


Constituent: Molybdenum Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

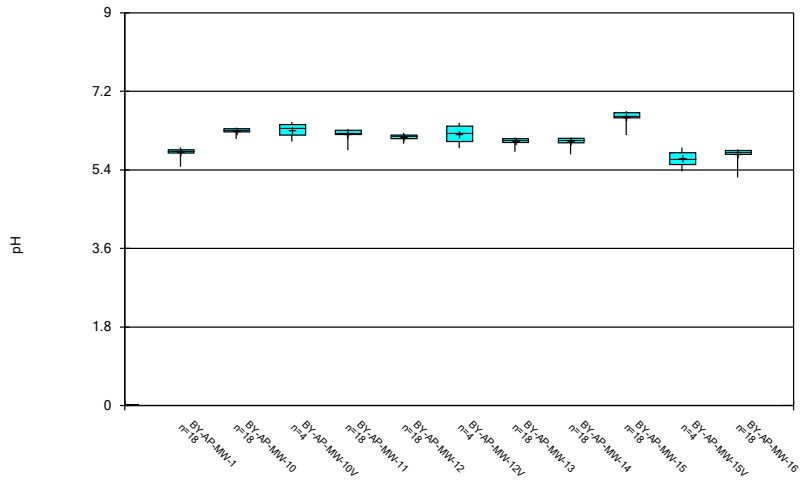


Constituent: Molybdenum Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

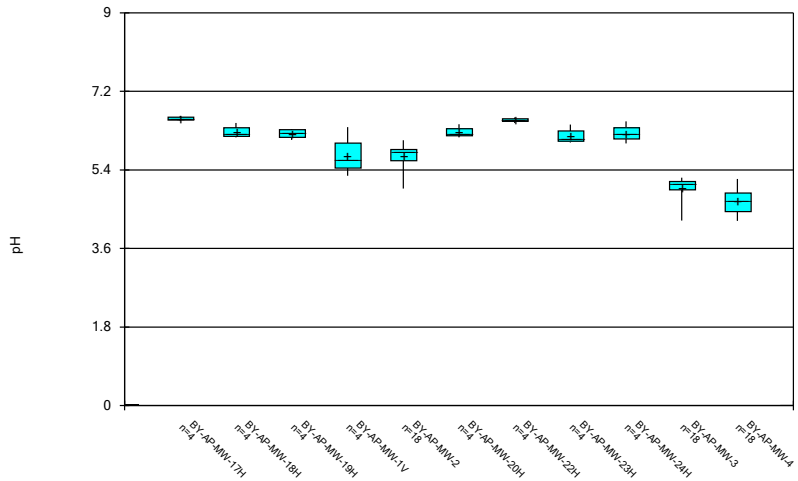


Constituent: pH Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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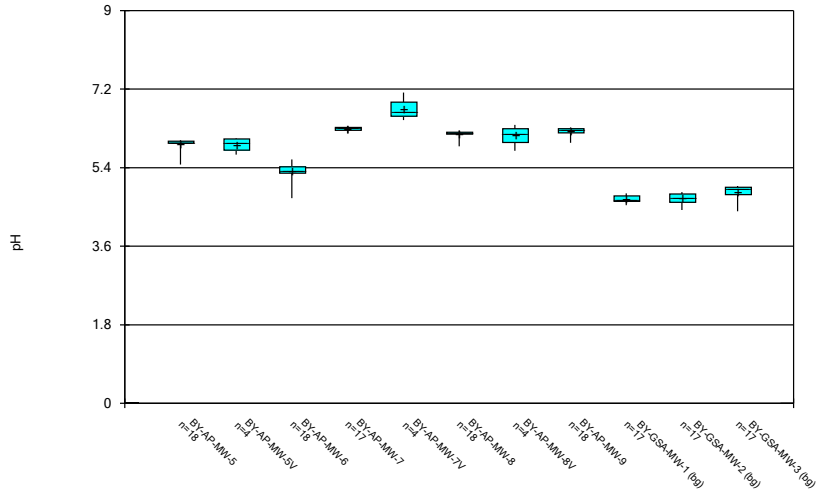
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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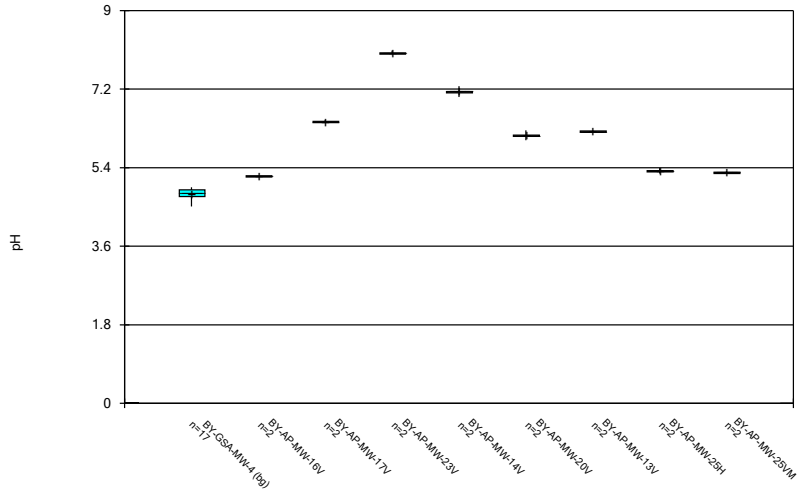
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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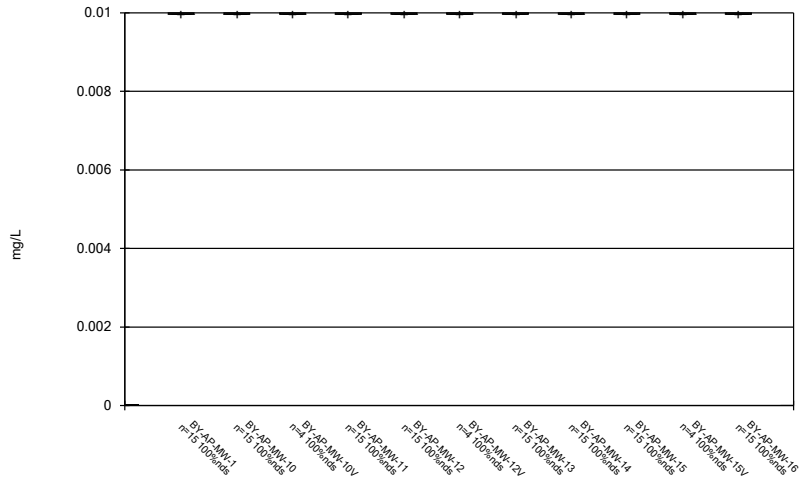
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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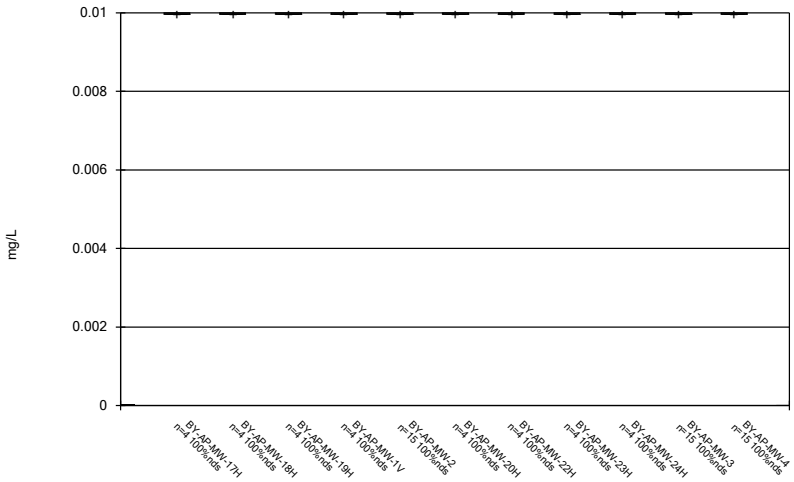
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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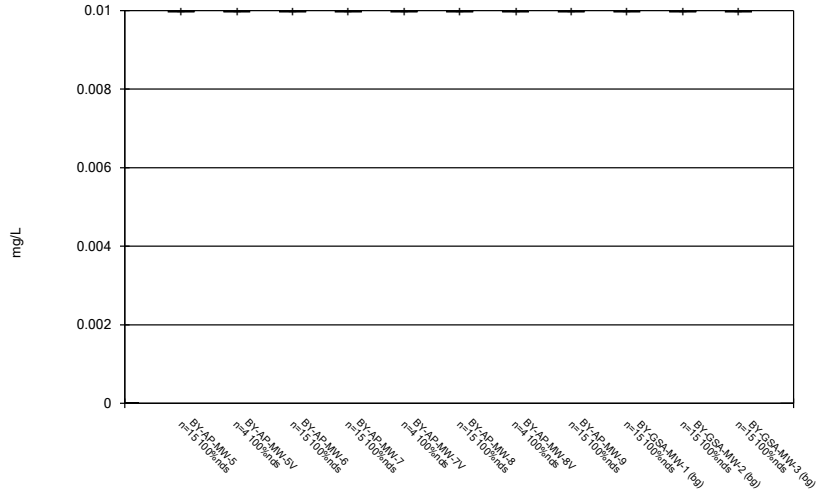
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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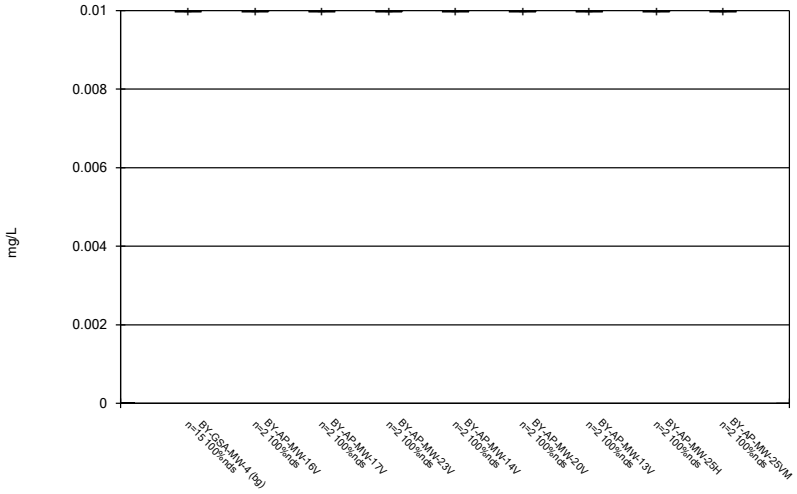
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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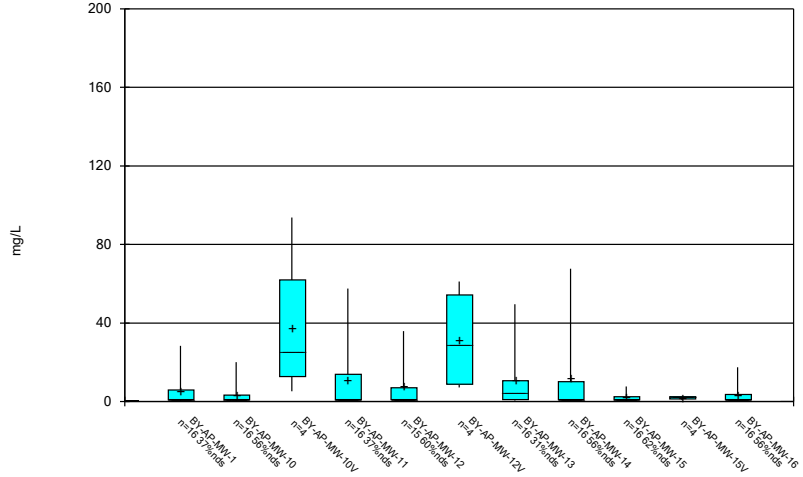
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

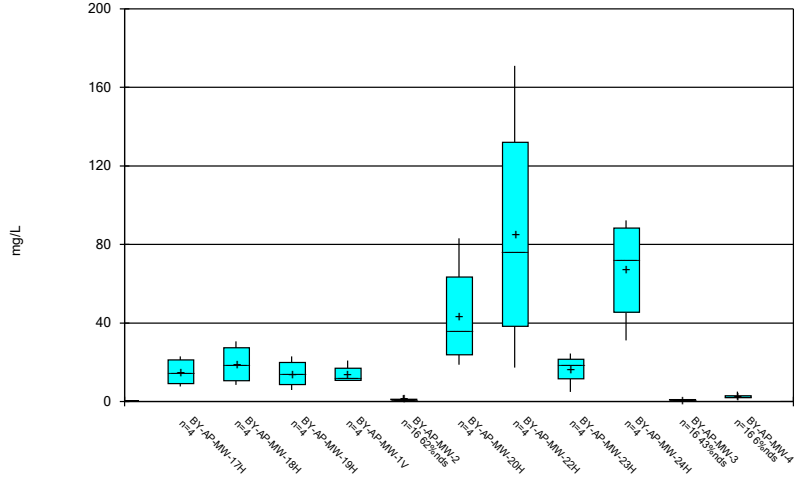


Constituent: Sulfate Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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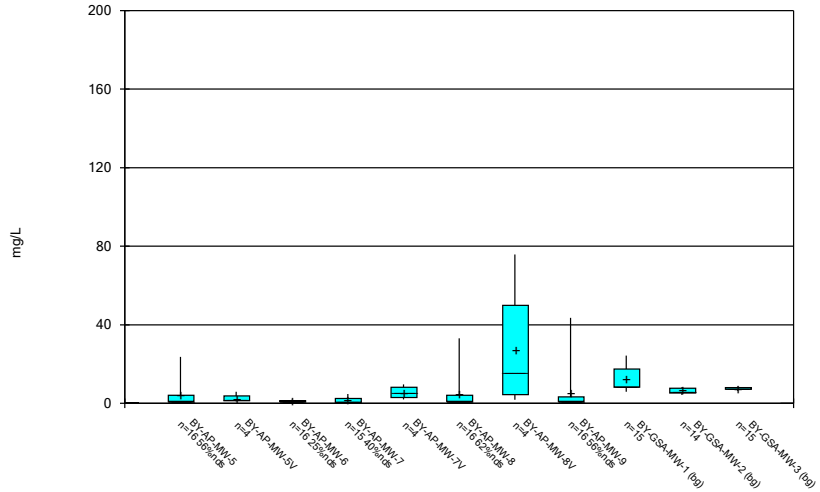

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Plant Barry Client: Southern Company Data: Barry Ash Pond

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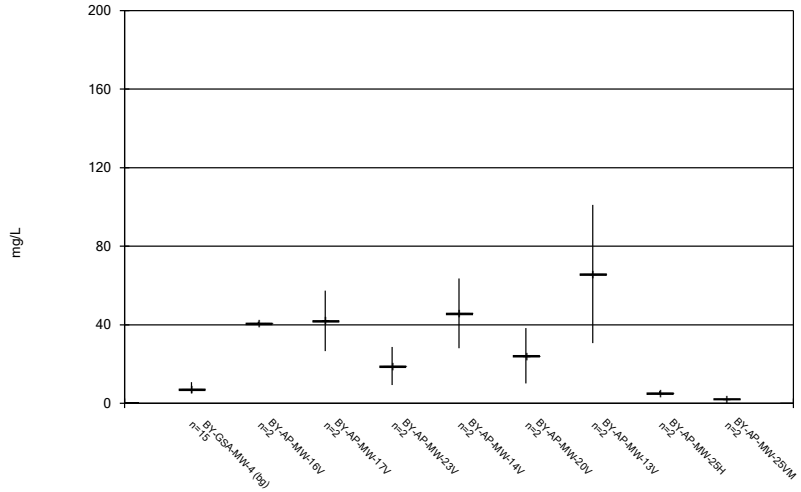
Box & Whiskers Plot



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Plant Barry Client: Southern Company Data: Barry Ash Pond

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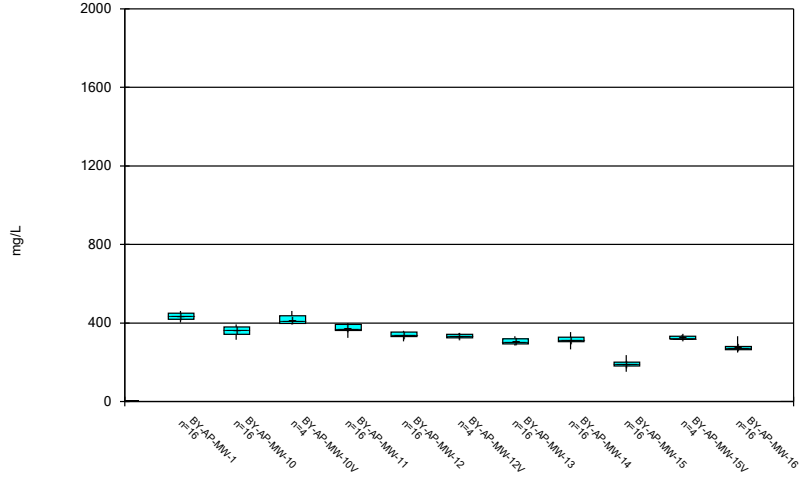

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Plant Barry Client: Southern Company Data: Barry Ash Pond

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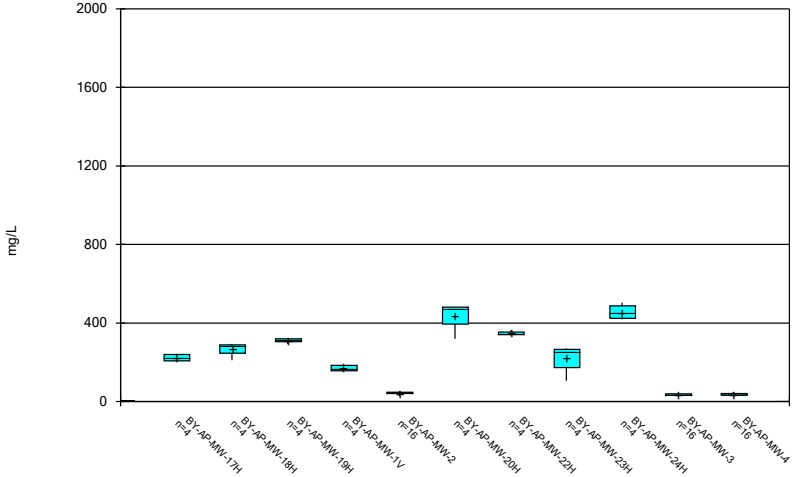
Box & Whiskers Plot



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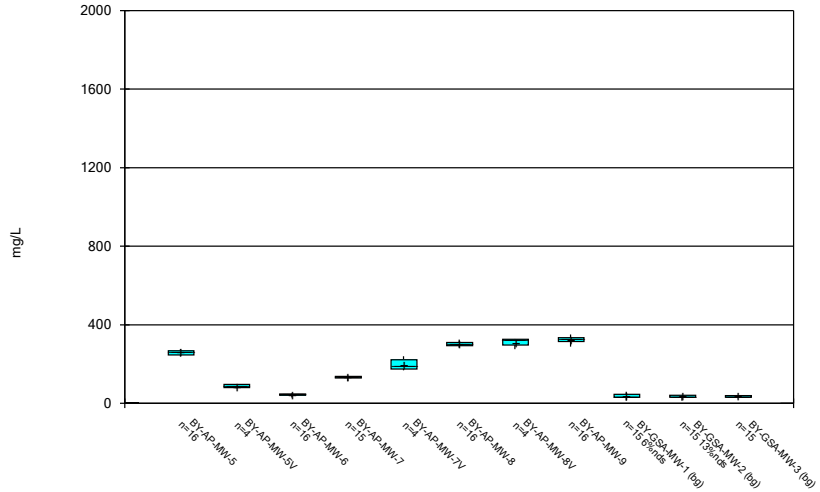
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

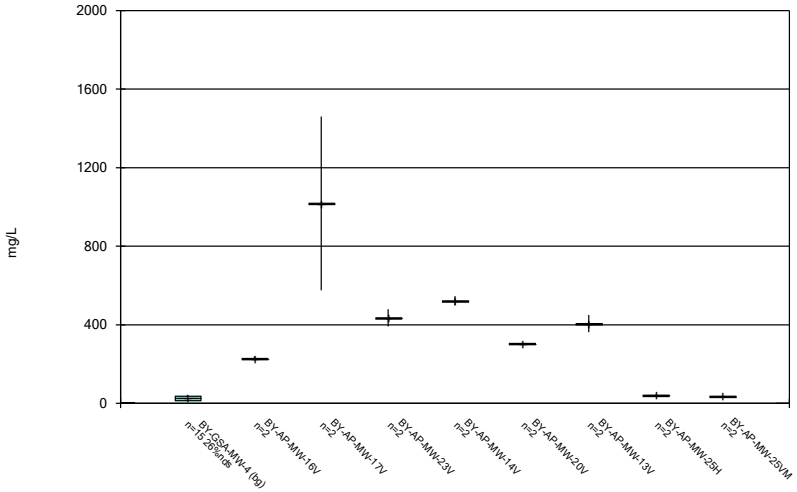


Constituent: TDS Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



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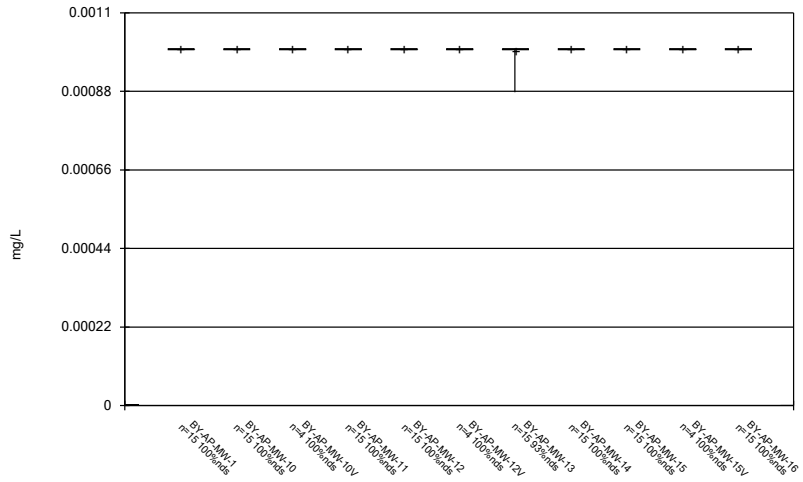
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

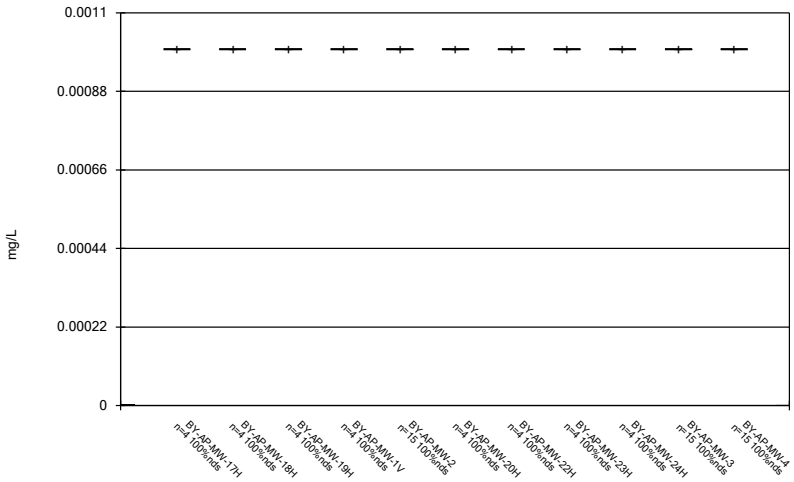


Constituent: Thallium Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

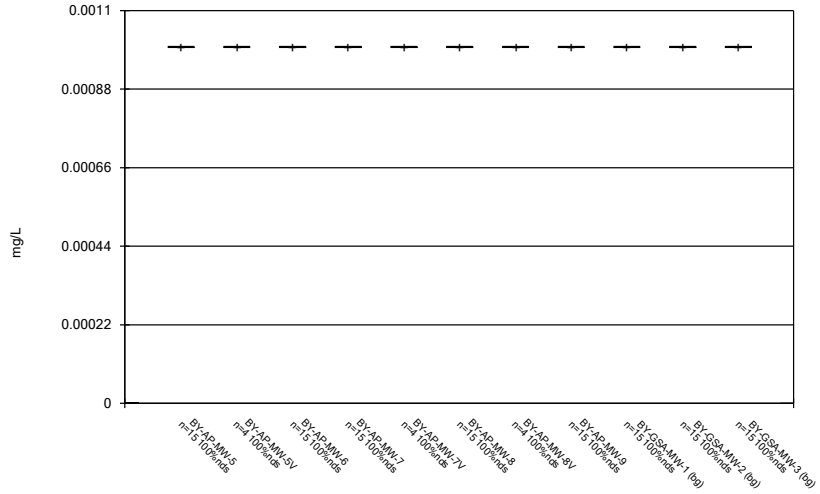


Constituent: Thallium Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot

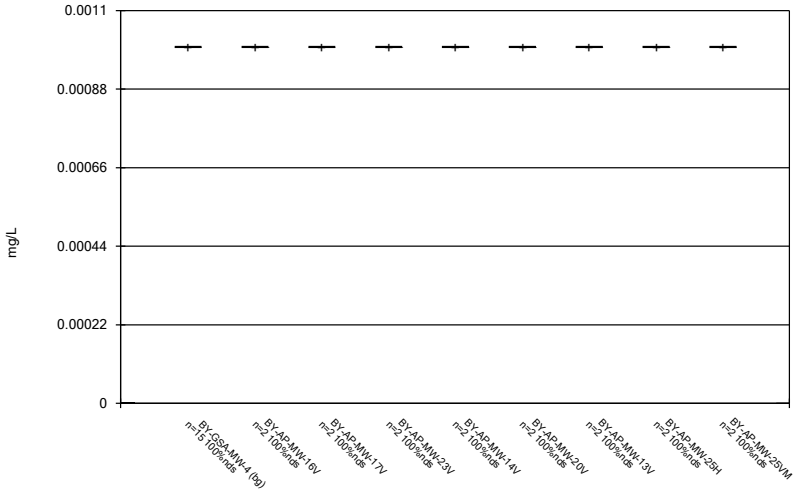


Constituent: Thallium Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Box & Whiskers Plot



Constituent: Thallium Analysis Run 12/11/2020 9:18 AM

Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE C.

Outlier Summary

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/11/2020, 9:21 AM

	BY-AP-MW-1 Chloride (mg/L)	BY-AP-MW-12 Sulfate (mg/L)
3/2/2016	2.18 (o)	
4/19/2016	9.01 (o)	
11/28/2018		<50 (o)

FIGURE D.

Appendix III - Interwell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 4:52 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-AP-MW-1	0.188	n/a	9/1/2020	2.11	Yes	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-10	0.188	n/a	9/1/2020	2.02	Yes	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-16	0.188	n/a	9/2/2020	1.9	Yes	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-8	0.188	n/a	9/2/2020	1.26	Yes	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-9	0.188	n/a	9/2/2020	2.05	Yes	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Calcium (mg/L)	BY-AP-MW-1	2.063	n/a	9/1/2020	40.5	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-10	2.063	n/a	9/1/2020	57.2	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-11	2.063	n/a	9/1/2020	23.9	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-12	2.063	n/a	9/1/2020	22.2	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-13	2.063	n/a	9/1/2020	12.3	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-14	2.063	n/a	9/2/2020	10.8	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-15	2.063	n/a	9/2/2020	7.04	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-16	2.063	n/a	9/2/2020	13.1	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-2	2.063	n/a	8/31/2020	3	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-5	2.063	n/a	9/1/2020	13.6	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-7	2.063	n/a	9/2/2020	10.4	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-8	2.063	n/a	9/2/2020	31.5	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-9	2.063	n/a	9/2/2020	38	Yes	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Chloride (mg/L)	BY-AP-MW-1	9.9	n/a	9/1/2020	25.7	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-10	9.9	n/a	9/1/2020	25	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-11	9.9	n/a	9/1/2020	23.2	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-12	9.9	n/a	9/1/2020	23.4	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-13	9.9	n/a	9/1/2020	39.1	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-14	9.9	n/a	9/2/2020	47.2	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-15	9.9	n/a	9/2/2020	47	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-16	9.9	n/a	9/2/2020	20.8	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-5	9.9	n/a	9/1/2020	19.1	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-7	9.9	n/a	9/2/2020	12.9	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-8	9.9	n/a	9/2/2020	22.2	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-9	9.9	n/a	9/2/2020	18.5	Yes	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-1	0.1	n/a	9/1/2020	0.194	Yes	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-15	0.1	n/a	9/2/2020	0.18	Yes	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-7	0.1	n/a	9/2/2020	0.109	Yes	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-1	58	n/a	9/1/2020	454	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-10	58	n/a	9/1/2020	392	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-11	58	n/a	9/1/2020	399	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-12	58	n/a	9/1/2020	356	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-13	58	n/a	9/1/2020	285	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-14	58	n/a	9/2/2020	327	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-15	58	n/a	9/2/2020	208	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-16	58	n/a	9/2/2020	279	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-5	58	n/a	9/1/2020	253	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-7	58	n/a	9/2/2020	129	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-8	58	n/a	9/2/2020	298	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-9	58	n/a	9/2/2020	301	Yes	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 4:52 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-AP-MW-1**	**0.188**	**n/a**	**9/1/2020**	**2.11**	**Yes**	**59**	**n/a**	**n/a**	**81.36**	**n/a**	**n/a**	**0.0005305**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-AP-MW-10**	**0.188**	**n/a**	**9/1/2020**	**2.02**	**Yes**	**59**	**n/a**	**n/a**	**81.36**	**n/a**	**n/a**	**0.0005305**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	BY-AP-MW-11	0.188	n/a	9/1/2020	0.104	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-12	0.188	n/a	9/1/2020	0.115	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-13	0.188	n/a	9/1/2020	0.0642J	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-14	0.188	n/a	9/2/2020	0.0789J	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-15	0.188	n/a	9/2/2020	0.148	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	**BY-AP-MW-16**	**0.188**	**n/a**	**9/2/2020**	**1.9**	**Yes**	**59**	**n/a**	**n/a**	**81.36**	**n/a**	**n/a**	**0.0005305**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	BY-AP-MW-2	0.188	n/a	8/31/2020	0.1ND	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-3	0.188	n/a	9/1/2020	0.1ND	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-4	0.188	n/a	9/1/2020	0.1ND	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-5	0.188	n/a	9/1/2020	0.115	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-6	0.188	n/a	9/2/2020	0.1ND	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	BY-AP-MW-7	0.188	n/a	9/2/2020	0.042J	No	59	n/a	n/a	81.36	n/a	n/a	0.0005305	NP Inter (NDs) 1 of 2
Boron (mg/L)	**BY-AP-MW-8**	**0.188**	**n/a**	**9/2/2020**	**1.26**	**Yes**	**59**	**n/a**	**n/a**	**81.36**	**n/a**	**n/a**	**0.0005305**	**NP Inter (NDs) 1 of 2**
Boron (mg/L)	**BY-AP-MW-9**	**0.188**	**n/a**	**9/2/2020**	**2.05**	**Yes**	**59**	**n/a**	**n/a**	**81.36**	**n/a**	**n/a**	**0.0005305**	**NP Inter (NDs) 1 of 2**
Calcium (mg/L)	**BY-AP-MW-1**	**2.063**	**n/a**	**9/1/2020**	**40.5**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-10**	**2.063**	**n/a**	**9/1/2020**	**57.2**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-11**	**2.063**	**n/a**	**9/1/2020**	**23.9**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-12**	**2.063**	**n/a**	**9/1/2020**	**22.2**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-13**	**2.063**	**n/a**	**9/1/2020**	**12.3**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-14**	**2.063**	**n/a**	**9/2/2020**	**10.8**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-15**	**2.063**	**n/a**	**9/2/2020**	**7.04**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-16**	**2.063**	**n/a**	**9/2/2020**	**13.1**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-2**	**2.063**	**n/a**	**8/31/2020**	**3**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	BY-AP-MW-3	2.063	n/a	9/1/2020	1.08	No	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	BY-AP-MW-4	2.063	n/a	9/1/2020	0.566	No	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	**BY-AP-MW-5**	**2.063**	**n/a**	**9/1/2020**	**13.6**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	BY-AP-MW-6	2.063	n/a	9/2/2020	1.8	No	60	1.473	0.277	0	None	No	0.0004702	Param Inter 1 of 2
Calcium (mg/L)	**BY-AP-MW-7**	**2.063**	**n/a**	**9/2/2020**	**10.4**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-8**	**2.063**	**n/a**	**9/2/2020**	**31.5**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Calcium (mg/L)	**BY-AP-MW-9**	**2.063**	**n/a**	**9/2/2020**	**38**	**Yes**	**60**	**1.473**	**0.277**	**0**	**None**	**No**	**0.0004702**	**Param Inter 1 of 2**
Chloride (mg/L)	**BY-AP-MW-1**	**9.9**	**n/a**	**9/1/2020**	**25.7**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-10**	**9.9**	**n/a**	**9/1/2020**	**25**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-11**	**9.9**	**n/a**	**9/1/2020**	**23.2**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-12**	**9.9**	**n/a**	**9/1/2020**	**23.4**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-13**	**9.9**	**n/a**	**9/1/2020**	**39.1**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-14**	**9.9**	**n/a**	**9/2/2020**	**47.2**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-15**	**9.9**	**n/a**	**9/2/2020**	**47**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-16**	**9.9**	**n/a**	**9/2/2020**	**20.8**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	BY-AP-MW-2	9.9	n/a	8/31/2020	8.3	No	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-3	9.9	n/a	9/1/2020	8.97	No	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	BY-AP-MW-4	9.9	n/a	9/1/2020	7.82	No	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	**BY-AP-MW-5**	**9.9**	**n/a**	**9/1/2020**	**19.1**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	BY-AP-MW-6	9.9	n/a	9/2/2020	5.94	No	60	n/a	n/a	0	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
Chloride (mg/L)	**BY-AP-MW-7**	**9.9**	**n/a**	**9/2/2020**	**12.9**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-8**	**9.9**	**n/a**	**9/2/2020**	**22.2**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Chloride (mg/L)	**BY-AP-MW-9**	**9.9**	**n/a**	**9/2/2020**	**18.5**	**Yes**	**60**	**n/a**	**n/a**	**0**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	**BY-AP-MW-1**	**0.1**	**n/a**	**9/1/2020**	**0.194**	**Yes**	**64**	**n/a**	**n/a**	**46.88**	**n/a**	**n/a**	**0.0004581**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	BY-AP-MW-10	0.1	n/a	9/1/2020	0.0794J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-11	0.1	n/a	9/1/2020	0.0841J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-12	0.1	n/a	9/1/2020	0.0845J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-13	0.1	n/a	9/1/2020	0.0757J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-14	0.1	n/a	9/2/2020	0.0957J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	**BY-AP-MW-15**	**0.1**	**n/a**	**9/2/2020**	**0.18**	**Yes**	**64**	**n/a**	**n/a**	**46.88**	**n/a**	**n/a**	**0.0004581**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	BY-AP-MW-16	0.1	n/a	9/2/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2

Appendix III - Interwell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 4:52 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	BY-AP-MW-2	0.1	n/a	8/31/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-3	0.1	n/a	9/1/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-4	0.1	n/a	9/1/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-5	0.1	n/a	9/1/2020	0.0921J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-6	0.1	n/a	9/2/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	**BY-AP-MW-7**	**0.1**	**n/a**	**9/2/2020**	**0.109**	**Yes**	**64**	**n/a**	**n/a**	**46.88**	**n/a**	**n/a**	**0.0004581**	**NP Inter (normality) 1 of 2**
Fluoride (mg/L)	BY-AP-MW-8	0.1	n/a	9/2/2020	0.1ND	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
Fluoride (mg/L)	BY-AP-MW-9	0.1	n/a	9/2/2020	0.0804J	No	64	n/a	n/a	46.88	n/a	n/a	0.0004581	NP Inter (normality) 1 of 2
TDS (mg/L)	**BY-AP-MW-1**	**58**	**n/a**	**9/1/2020**	**454**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-10**	**58**	**n/a**	**9/1/2020**	**392**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-11**	**58**	**n/a**	**9/1/2020**	**399**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-12**	**58**	**n/a**	**9/1/2020**	**356**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-13**	**58**	**n/a**	**9/1/2020**	**285**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-14**	**58**	**n/a**	**9/2/2020**	**327**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-15**	**58**	**n/a**	**9/2/2020**	**208**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-16**	**58**	**n/a**	**9/2/2020**	**279**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	BY-AP-MW-2	58	n/a	8/31/2020	45.3	No	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-3	58	n/a	9/1/2020	39.3	No	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	BY-AP-MW-4	58	n/a	9/1/2020	36	No	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	**BY-AP-MW-5**	**58**	**n/a**	**9/1/2020**	**253**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	BY-AP-MW-6	58	n/a	9/2/2020	37.3	No	60	n/a	n/a	11.67	n/a	n/a	0.0005099	NP Inter (normality) 1 of 2
TDS (mg/L)	**BY-AP-MW-7**	**58**	**n/a**	**9/2/2020**	**129**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-8**	**58**	**n/a**	**9/2/2020**	**298**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**
TDS (mg/L)	**BY-AP-MW-9**	**58**	**n/a**	**9/2/2020**	**301**	**Yes**	**60**	**n/a**	**n/a**	**11.67**	**n/a**	**n/a**	**0.0005099**	**NP Inter (normality) 1 of 2**

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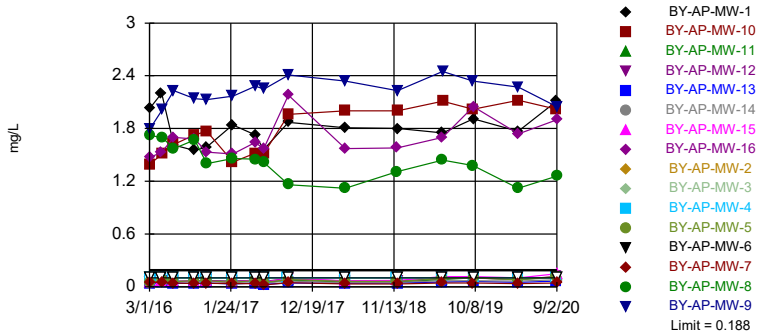
Hollow symbols indicate censored values.

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-16, BY-AP-MW-8, BY-AP-MW-9

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 59 background values. 81.36% NDs. Annual per-constituent alpha = 0.01684. Individual comparison alpha = 0.0005305 (1 of 2). Comparing 16 points to limit.

Constituent: Boron Analysis Run 12/8/2020 4:51 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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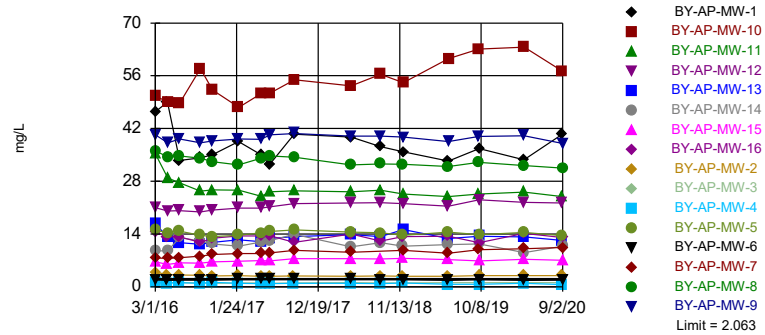
Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15,..

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=1.473, Std. Dev.=0.277, n=60. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.981, critical = 0.945. Kappa = 2.128 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0004702. Comparing 16 points to limit.

Constituent: Calcium Analysis Run 12/8/2020 4:51 PM View: Appendix III - Interwell

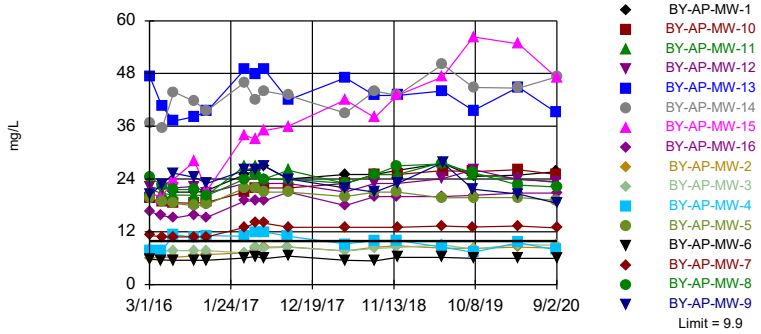
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15,..

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. Annual per-constituent alpha = 0.01619. Individual comparison alpha = 0.0005099 (1 of 2). Comparing 16 points to limit.

Constituent: Chloride Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

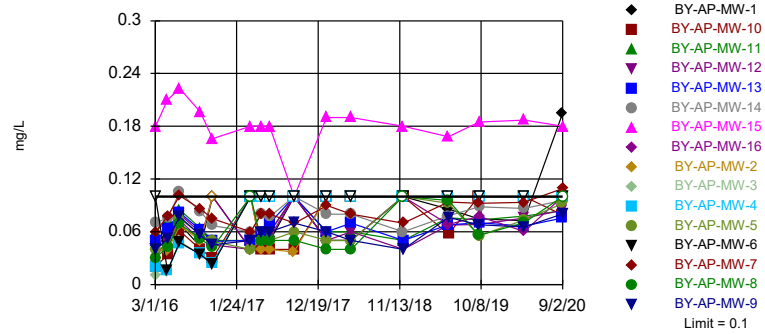
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-15, BY-AP-MW-7

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 64 background values. 46.88% NDs. Annual per-constituent alpha = 0.01456. Individual comparison alpha = 0.0004581 (1 of 2). Comparing 16 points to limit.

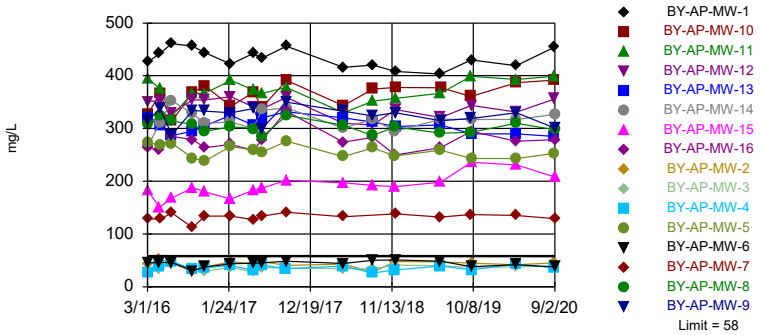
Constituent: Fluoride Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

Exceeds Limit: BY-AP-MW-1, BY-AP-MW-10, BY-AP-MW-11, BY-AP-MW-12, BY-AP-MW-13, BY-AP-MW-14, BY-AP-MW-15,..

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 60 background values. 11.67% NDs. Annual per-constituent alpha = 0.01619. Individual comparison alpha = 0.0005099 (1 of 2). Comparing 16 points to limit.

Constituent: TDS Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-1 (bg)	BY-GSA-MW-2 (bg)	BY-AP-MW-4	BY-AP-MW-7	BY-AP-MW-11	BY-AP-MW-9	BY-AP-MW-6
2/23/2016	0.0257 (J)	<0.1	0.0212 (J)	0.0252 (J)					
3/1/2016					<0.1	0.0546 (J)	0.0482 (J)	1.79	<0.1
3/2/2016									
4/19/2016	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1
4/20/2016						0.0472 (J)	0.059 (J)	2.01	
6/6/2016	<0.1		<0.1						
6/7/2016		<0.1		0.0202 (J)	<0.1	0.0417 (J)			<0.1
6/8/2016							0.0568 (J)	2.23	
8/30/2016	<0.1	<0.1	<0.1	<0.1	<0.1				<0.1
8/31/2016						0.036 (J)	0.0651 (J)	2.14	
10/18/2016	0.022 (J)	<0.1	<0.1	<0.1					
10/19/2016					<0.1	0.0386 (J)	0.06 (J)	2.13	<0.1
1/31/2017	<0.1	<0.1	<0.1	<0.1	<0.1	0.0343 (J)			<0.1
2/1/2017							0.0638 (J)	2.17	
5/2/2017	<0.1	<0.1	<0.1	<0.1	<0.1				
5/3/2017						0.037 (J)	0.0655 (J)	2.28	<0.1
6/6/2017	<0.1	<0.1	<0.1	<0.1	<0.1				
6/7/2017						0.0227 (J)	0.0468 (J)	2.25	<0.1
9/12/2017	<0.1				<0.1				
9/13/2017		<0.1	<0.1	<0.1			0.0751 (J)		
9/14/2017						0.0471 (J)		2.41	<0.1
5/1/2018	<0.1	<0.1		<0.1	<0.1				
5/2/2018			0.0362 (J)			0.0313 (J)	0.0545 (J)	2.34	<0.1
11/26/2018	<0.1								
11/27/2018		<0.1	0.11		<0.1				
11/28/2018						0.0311 (J)	0.0545 (J)	2.23	<0.1
5/28/2019	<0.1								
5/29/2019		<0.1	0.188	<0.1	<0.1	0.042 (J)	0.082 (J)		<0.1
5/30/2019								2.45	
9/30/2019						0.0418 (J)	0.103	2.34	
10/1/2019					<0.1				<0.1
10/2/2019	<0.1	<0.1	0.097 (J)	<0.1					
3/30/2020						0.0369 (J)			
3/31/2020	<0.1	<0.1	0.157	<0.1	<0.1		0.0815 (J)	2.27	<0.1
4/1/2020									
8/31/2020									
9/1/2020					<0.1		0.104		
9/2/2020						0.042 (J)		2.05	<0.1
9/8/2020	<0.1								
9/9/2020		<0.1	0.0999 (J)	<0.1					

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-8	BY-AP-MW-10	BY-AP-MW-12	BY-AP-MW-13	BY-AP-MW-1	BY-AP-MW-2	BY-AP-MW-14	BY-AP-MW-15
2/23/2016									
3/1/2016	0.0462 (J)	1.72	1.39						
3/2/2016				0.0502 (J)	0.0328 (J)	2.03	<0.1	0.0395 (J)	0.0447 (J)
4/19/2016						2.2	<0.1		0.0645 (J)
4/20/2016	0.0719 (J)	1.7	1.51	0.0672 (J)	0.0434 (J)			0.0549 (J)	
6/6/2016									
6/7/2016	0.0591 (J)	1.57							
6/8/2016			1.62	0.0659 (J)	0.0391 (J)	1.61	<0.1	0.0593 (J)	0.0592 (J)
8/30/2016	0.0675 (J)	1.67						0.0534 (J)	
8/31/2016			1.73	0.065 (J)	0.0401 (J)	1.55	<0.1		0.0632 (J)
10/18/2016	0.0699 (J)	1.4						0.0597 (J)	
10/19/2016			1.77	0.0721 (J)	0.0427 (J)	1.59	<0.1		0.0637 (J)
1/31/2017	0.0518 (J)	1.46			0.034 (J)	1.84	<0.1	0.0479 (J)	0.0536 (J)
2/1/2017			1.42	0.06 (J)					
5/2/2017						1.73	<0.1	0.0587 (J)	0.0775 (J)
5/3/2017	0.0737 (J)	1.45	1.52	0.0768 (J)	0.0416 (J)				
6/6/2017						1.56	<0.1	0.0428 (J)	0.0535 (J)
6/7/2017	0.0518 (J)	1.41	1.52	0.0625 (J)	0.0277 (J)				
9/12/2017							<0.1		
9/13/2017				0.0926 (J)	0.044 (J)	1.87		0.0647 (J)	0.0937 (J)
9/14/2017	0.0825 (J)	1.16	1.96						
5/1/2018						1.81	<0.1		0.0683 (J)
5/2/2018	0.0603 (J)	1.12	2	0.064 (J)	0.0393 (J)			0.0484 (J)	
11/26/2018									
11/27/2018	0.0613 (J)	1.31					<0.1	0.0493 (J)	0.0715 (J)
11/28/2018			2	0.064 (J)	0.0417 (J)	1.8			
5/28/2019									
5/29/2019	0.0946 (J)	1.44		0.0952 (J)	0.0528 (J)	1.75	<0.1	0.0682 (J)	0.116
5/30/2019			2.11						
9/30/2019		1.38	2.02						
10/1/2019	0.103			0.0967 (J)	0.0604 (J)	1.91	<0.1	0.0701 (J)	0.116
10/2/2019									
3/30/2020		1.12				1.77			
3/31/2020	0.0782 (J)		2.12	0.0856 (J)	0.0505 (J)		<0.1	0.0655 (J)	
4/1/2020									0.1
8/31/2020							<0.1		
9/1/2020	0.115		2.02	0.115	0.0642 (J)	2.11			
9/2/2020		1.26						0.0789 (J)	0.148
9/8/2020									
9/9/2020									

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-3
2/23/2016		
3/1/2016		
3/2/2016	1.47	<0.1
4/19/2016	1.53	<0.1
4/20/2016		
6/6/2016		
6/7/2016		<0.1
6/8/2016	1.7	
8/30/2016		
8/31/2016	1.68	<0.1
10/18/2016		
10/19/2016	1.53	<0.1
1/31/2017	1.51	<0.1
2/1/2017		
5/2/2017	1.64	<0.1
5/3/2017		
6/6/2017	1.57	<0.1
6/7/2017		
9/12/2017		<0.1
9/13/2017	2.18	
9/14/2017		
5/1/2018	1.57	<0.1
5/2/2018		
11/26/2018		
11/27/2018	1.58	<0.1
11/28/2018		
5/28/2019		
5/29/2019	1.7	<0.1
5/30/2019		
9/30/2019		
10/1/2019	2.05	<0.1
10/2/2019		
3/30/2020		
3/31/2020	1.74	<0.1
4/1/2020		
8/31/2020		
9/1/2020		<0.1
9/2/2020	1.9	
9/8/2020		
9/9/2020		

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-4 (bg)	BY-AP-MW-11	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-10
2/23/2016	1.28	1.77	1.11	1.42					
3/1/2016					35.3	1.07	15	1.87	50.6
3/2/2016									
4/19/2016	1.19	1.68	1.09	1.31		0.969		1.69	
4/20/2016					28.9		14.3		49.1
6/6/2016	1.19			1.35					
6/7/2016		1.68	1.16			1.08	14.8	1.75	
6/8/2016					27.6				48.7
8/30/2016	1.11	1.62	1.08	1.31		0.952	13.7	1.77	
8/31/2016					25.4				57.9
10/18/2016	1.04	1.53	1.03	1.22			13.3		
10/19/2016					25.7	1.17		1.8	52.2
1/31/2017	1.19	1.65	1.23	1.36		0.946	13.7	1.98	
2/1/2017					25.6				47.6
5/2/2017	1.05	1.58	1.28	1.24		0.826			
5/3/2017					24		14.3	1.97	51.3
6/6/2017	0.978	1.55	1.25	1.28		0.834			
6/7/2017					25.2		14.7	1.98	51.4
9/12/2017				1.47		0.884			
9/13/2017	1.14	1.71	1.6		25.5				
9/14/2017							15.1	2.14	54.9
5/1/2018		1.76	1.58	1.47		0.921			
5/2/2018	1.64				25.2		14.5	2.13	53.3
8/28/2018						0.8			56.4
8/29/2018					25.6		14.3	1.92	
11/26/2018				1.52					
11/27/2018	2.01	1.69	1.49			1.01	13.7		
11/28/2018					24.6			1.91	54.2
5/28/2019				1.6					
5/29/2019	1.85	1.74	1.59		23.9	0.627	14.5	1.72	
5/30/2019									60.5
9/30/2019					24.6				63.1
10/1/2019						0.645	13.8	1.92	
10/2/2019	1.55	1.86	1.7	1.7					
3/30/2020									
3/31/2020	1.96	1.92	1.43	1.78	25.1	0.898	14.4	1.68	63.6
4/1/2020									
8/31/2020									
9/1/2020					23.9	0.566	13.6		57.2
9/2/2020								1.8	
9/8/2020				1.94					
9/9/2020	1.43	1.97	1.5						

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-9	BY-AP-MW-7	BY-AP-MW-15	BY-AP-MW-13	BY-AP-MW-16	BY-AP-MW-2	BY-AP-MW-14	BY-AP-MW-3
2/23/2016									
3/1/2016	36.1	40.3	7.65						
3/2/2016				6.61	16.7	14.6	3.86	9.53	1.11
4/19/2016				5.97		13.3	3.22		1.01
4/20/2016	34.5	38.2	7.54		13.1			9.55	
6/6/2016									
6/7/2016	34.7		7.71						1.06
6/8/2016		39.2		6.36	11.7	13.2	3.17	13.1	
8/30/2016	34.1							12.1	
8/31/2016		38.2	8.1	6.28	11.3	11.8	3.07		0.978
10/18/2016	33.2							11.4	
10/19/2016		38.7	8.59	6.57	11.8	12.9	2.91		0.906
1/31/2017	32.3		8.78	6.77	12.5	13.5	2.94	10.8	1.04
2/1/2017		39.2							
5/2/2017				6.94		13.5	2.82	11.9	0.969
5/3/2017	34.1	39.1	8.85		12				
6/6/2017				6.88		13.6	2.79	12.2	0.902
6/7/2017	34.7	40.3	8.99		12.8				
9/12/2017							2.88		0.988
9/13/2017				7.43	13.3	11.8		13.9	
9/14/2017	34.4	40.7	9.64						
5/1/2018				7.42		14	2.82		1.07
5/2/2018	32.3	40	9.14		13.8			10.6	
8/28/2018		40					2.85		1.02
8/29/2018	32.6			7.37	13.3	12.1		11.7	
11/26/2018									
11/27/2018	32.5			7.58		13.3	2.8	10.8	0.999
11/28/2018		39.7	9.66		15.2				
5/28/2019									
5/29/2019	31.9		8.88	7.22	12.8	13.4	2.82	11.2	1.09
5/30/2019		38.5							
9/30/2019	33	39.9	9.8						
10/1/2019				6.9	13.4	11.7	2.94	11.4	1.08
10/2/2019									
3/30/2020	32.2		10.1						
3/31/2020		40.1			13.2	14.2	2.95	9.04	1.1
4/1/2020				7.32					
8/31/2020							3		
9/1/2020					12.3				1.08
9/2/2020	31.5	38	10.4	7.04		13.1		10.8	
9/8/2020									
9/9/2020									

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	21	46.5
4/19/2016		49
4/20/2016	20.1	
6/6/2016		
6/7/2016		
6/8/2016	20.2	33.5
8/30/2016		
8/31/2016	19.9	34.2
10/18/2016		
10/19/2016	20.4	35.1
1/31/2017		38.5
2/1/2017	20.9	
5/2/2017		35.1
5/3/2017	20.9	
6/6/2017		32.4
6/7/2017	21.2	
9/12/2017		
9/13/2017	22.1	40.5
9/14/2017		
5/1/2018		39.7
5/2/2018	22.2	
8/28/2018		37.2
8/29/2018	22.3	
11/26/2018		
11/27/2018		
11/28/2018	22.1	35.8
5/28/2019		
5/29/2019	21.4	33.4
5/30/2019		
9/30/2019		
10/1/2019	23.1	36.7
10/2/2019		
3/30/2020		33.7
3/31/2020	22.4	
4/1/2020		
8/31/2020		
9/1/2020	22.2	40.5
9/2/2020		
9/8/2020		
9/9/2020		

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-1 (bg)	BY-GSA-MW-4 (bg)	BY-AP-MW-9	BY-AP-MW-5	BY-AP-MW-11	BY-AP-MW-4	BY-AP-MW-6
2/23/2016	3.68	3.99	3.59	3.5					
3/1/2016					20.4	19.7	21.7	7.74	5.77
3/2/2016									
4/19/2016	3.72	4.08	2.89	3.63				7.66	5.57
4/20/2016					22.7	18.9	20.7		
6/6/2016			3.12	3.6					
6/7/2016	3.66	4.28				18.5		11.3	5.52
6/8/2016					25.3		20.4		
8/30/2016	3.7	4.26	3.91	3.54		17.9		10.8	5.5
8/31/2016					24.4		20.3		
10/18/2016	3.77	4.26	3.9	3.68		18.2			
10/19/2016					23		20.3	11.1	5.55
3/20/2017	3.7	4.1	3.5	4.6					
3/21/2017								11	
3/22/2017					26	22	27		6
5/2/2017	4.6 (D)	5 (D)	3.5 (D)	3.9 (D)				12	
5/3/2017					26	22	27		6.4
6/6/2017	3.4 (D)	3.9 (D)	3.1 (D)	3.4 (D)				12	
6/7/2017					27	21	24		5.9
9/12/2017				4.3				11	
9/13/2017	3.9	4.3	4				26		
9/14/2017					24	21			6.5
5/1/2018	4.1	3.7		3.8				9.2	
5/2/2018			9.9		22	20	23		5.5
8/28/2018					21			10	
8/29/2018						21	25		5.4
11/26/2018				3.6					
11/27/2018	3.5	3.2	4.7			21		10	
11/28/2018					23		25		6.2
5/28/2019				3.6					
5/29/2019	3.58	2.93	5.48			19.7	27.8	8.53	6.15
5/30/2019					27.7				
9/30/2019					21.7		25		
10/1/2019						19.8		7.35	5.99
10/2/2019	3.64	2.75	3.65	3.5					
3/30/2020									
3/31/2020	3.47	2.72	3.17	3.34	20.6	19.8	24.1	9.54	5.94
4/1/2020									
8/31/2020									
9/1/2020						19.1	23.2	7.82	
9/2/2020					18.5				5.94
9/8/2020				3.29					
9/9/2020	3.47	2.32	2.92						

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-7	BY-AP-MW-10	BY-AP-MW-15	BY-AP-MW-13	BY-AP-MW-2	BY-AP-MW-3	BY-AP-MW-16	BY-AP-MW-14
2/23/2016									
3/1/2016	24.5	11.2	19.6						
3/2/2016				20.9	47.3	6.08	8.04	16.6	36.6
4/19/2016				19.8		6.2	7.6	15.7	
4/20/2016	22.5	10.8	18.8		40.5				35.5
6/6/2016									
6/7/2016	21.6	10.8					7.7		
6/8/2016			18.6	24	37.2	6.2		15.1	43.8
8/30/2016	21.6								41.6
8/31/2016		10.8	18.5	28	38.2	6.51	7.7	15.9	
10/18/2016	20.2								39.5
10/19/2016		10.8	18.7	21.3	39.4	6.85	7.73	15.3	
3/20/2017									
3/21/2017				34		7.2	7.2	19	
3/22/2017	24	13	21		49				46
5/2/2017				33		8.3	8.6	19	42
5/3/2017	25	14	22		48				
6/6/2017				35		8.5	8.3	19	44
6/7/2017	24	14	22		49				
9/12/2017						8.6	8.5		
9/13/2017				36	42			21	43
9/14/2017	24	13	22						
5/1/2018				42		7.6	7.6	18	
5/2/2018	23	13	23		47				39
8/28/2018			25			8.5	8.2		
8/29/2018	25			38	43			20	44
11/26/2018									
11/27/2018	27			43		8.8	8.4	20	43
11/28/2018		13	25		43				
5/28/2019									
5/29/2019	27.4	13.3		47.2	44	8.31	9.01	20	50.1
5/30/2019			25.9						
9/30/2019	25.5	13.1	25.7						
10/1/2019				56.3	39.6	8.19	8.05	20.3	44.8
10/2/2019									
3/30/2020	22.6	13.3							
3/31/2020			26.1		44.9	8.48	9.07	20.8	44.7
4/1/2020				54.7					
8/31/2020						8.3			
9/1/2020			25		39.1		8.97		
9/2/2020	22.2	12.9		47				20.8	47.2
9/8/2020									
9/9/2020									

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	22.2	2.18 (o)
4/19/2016		9.01 (o)
4/20/2016	21.7	
6/6/2016		
6/7/2016		
6/8/2016	22	21
8/30/2016		
8/31/2016	22.3	21
10/18/2016		
10/19/2016	20.8	21.4
3/20/2017		
3/21/2017		25
3/22/2017	23	
5/2/2017		26
5/3/2017	25	
6/6/2017		27
6/7/2017	23	
9/12/2017		
9/13/2017	23	24
9/14/2017		
5/1/2018		25
5/2/2018	21	
8/28/2018		25
8/29/2018	23	
11/26/2018		
11/27/2018		
11/28/2018	23	26
5/28/2019		
5/29/2019	24.1	27.6
5/30/2019		
9/30/2019		
10/1/2019	26.1	24.6
10/2/2019		
3/30/2020		24.9
3/31/2020	23.9	
4/1/2020		
8/31/2020		
9/1/2020	23.4	25.7
9/2/2020		
9/8/2020		
9/9/2020		

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2 (bg)	BY-GSA-MW-4 (bg)	BY-GSA-MW-1 (bg)	BY-GSA-MW-3 (bg)	BY-AP-MW-9	BY-AP-MW-5	BY-AP-MW-7	BY-AP-MW-8	BY-AP-MW-11
2/23/2016	0.02 (J)	0.02 (J)	0.03 (J)	0.02 (J)					
3/1/2016					0.04 (J)	0.04 (J)	0.06 (J)	0.03 (J)	0.06 (J)
3/2/2016									
4/19/2016	0.021 (J)	0.015 (J)	0.023 (J)	0.016 (J)					
4/20/2016					0.052 (J)	0.043 (J)	0.078 (J)	0.043 (J)	0.073 (J)
6/6/2016		0.05 (J)	0.062 (J)						
6/7/2016	0.06 (J)			0.052 (J)		0.075 (J)	0.101 (J)	0.069 (J)	
6/8/2016					0.077 (J)				0.085 (J)
8/30/2016	0.05 (J)	0.036 (J)	0.053 (J)	0.038 (J)		0.057 (J)		0.052 (J)	
8/31/2016					0.056 (J)		0.086 (J)		0.064 (J)
10/18/2016	0.04 (J)	0.025 (J)	0.042 (J)	0.03 (J)		0.049 (J)		0.042 (J)	
10/19/2016					0.045 (J)		0.075 (J)		0.05 (J)
3/20/2017	<0.1	<0.1	<0.1	<0.1					
3/21/2017									
3/22/2017					0.05 (J)	0.04 (J)	0.06 (J)	<0.1	0.05 (J)
5/2/2017	0.04 (JD)	0.1 (D)	0.04 (JD)	0.1 (D)					
5/3/2017					0.06 (J)	0.05 (J)	0.08 (J)	0.05 (J)	0.06 (J)
6/6/2017	0.04 (JD)	0.1 (D)	0.1 (D)	0.1 (D)					
6/7/2017					0.06 (J)	0.05 (J)	0.08 (J)	0.05 (J)	0.06 (J)
9/12/2017		<0.1							
9/13/2017	0.043 (J)		0.04 (J)	<0.1					<0.1 (U*)
9/14/2017					0.07 (J)	0.06 (J)	0.07 (J)	0.05 (J)	
1/22/2018									
1/23/2018	0.04 (J)	<0.1	<0.1	<0.1	0.06 (J)				0.06 (J)
1/24/2018						0.05 (J)	0.09 (J)	0.04 (J)	
5/1/2018	0.04 (J)	<0.1		<0.1					
5/2/2018			0.04 (J)		0.05 (J)	0.05 (J)	0.08 (J)	0.04 (J)	0.06 (J)
11/26/2018		<0.1							
11/27/2018	<0.1		<0.1	<0.1		<0.1		<0.1	
11/28/2018					0.04 (J)		0.07 (J)		0.05 (J)
5/28/2019		<0.1							
5/29/2019	<0.1		0.0502 (J)	<0.1		0.0923 (J)	0.0937 (J)	0.0958 (J)	0.0759 (J)
5/30/2019					0.0763 (J)				
9/30/2019					0.0679 (J)		0.0925 (J)	0.0559 (J)	0.0733 (J)
10/1/2019						0.0557 (J)			
10/2/2019	<0.1	<0.1	<0.1	<0.1					
3/30/2020							0.0933 (J)	0.0701 (J)	
3/31/2020	<0.1	<0.1	<0.1	<0.1	0.0655 (J)	0.0735 (J)			0.078 (J)
4/1/2020									
8/31/2020									
9/1/2020						0.0921 (J)			0.0841 (J)
9/2/2020					0.0804 (J)		0.109	<0.1	
9/8/2020		<0.1							
9/9/2020	<0.1		<0.1	<0.1					

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-4	BY-AP-MW-10	BY-AP-MW-12	BY-AP-MW-15	BY-AP-MW-14	BY-AP-MW-2	BY-AP-MW-1	BY-AP-MW-13
2/23/2016									
3/1/2016	<0.1	0.02 (J)	0.02 (J)						
3/2/2016				0.04 (J)	0.18 (J)	0.07 (J)	0.04 (J)	0.03 (J)	0.05 (J)
4/19/2016	0.016 (J)	0.016 (J)			0.21 (J)		0.038 (J)	0.052 (J)	
4/20/2016			0.034 (J)	0.059 (J)		0.076 (J)			0.064 (J)
6/6/2016									
6/7/2016	0.048 (J)	0.047 (J)							
6/8/2016			0.061 (J)	0.08 (J)	0.223 (J)	0.105 (J)	0.067 (J)	0.069 (J)	0.082 (J)
8/30/2016	0.034 (J)	0.035 (J)				0.083 (J)			
8/31/2016			0.04 (J)	0.059 (J)	0.196 (J)		0.05 (J)	0.043 (J)	0.062 (J)
10/18/2016						0.067 (J)			
10/19/2016	0.023 (J)	0.025 (J)	0.03 (J)	0.045 (J)	0.166 (J)		<0.1	<0.1	0.049 (J)
3/20/2017									
3/21/2017		<0.1			0.18		<0.1	0.04 (J)	
3/22/2017	<0.1		<0.1	0.04 (J)		0.06 (J)			0.05 (J)
5/2/2017		<0.1			0.18	0.08 (J)	0.04 (J)	0.05 (J)	
5/3/2017	<0.1		0.04 (J)	0.06 (J)					0.06 (J)
6/6/2017		<0.1			0.18	0.077 (J)	0.04 (J)	0.049 (J)	
6/7/2017	<0.1		0.04 (J)	0.06 (J)					0.07 (J)
9/12/2017		<0.1					0.037 (J)		
9/13/2017				<0.1 (U*)	<0.1 (U*)	<0.1 (U*)		<0.1 (U*)	<0.1 (U*)
9/14/2017	<0.1		0.04 (J)						
1/22/2018					0.19				0.06 (J)
1/23/2018			<0.1	0.05 (J)		0.08 (J)			
1/24/2018	<0.1	<0.1					<0.1	0.05 (J)	
5/1/2018		<0.1			0.19		<0.1	0.05 (J)	
5/2/2018	<0.1		<0.1	0.06 (J)		0.08 (J)			0.07 (J)
11/26/2018									
11/27/2018		<0.1			0.18	0.06 (J)	<0.1		
11/28/2018	<0.1		<0.1	0.04 (J)				<0.1	0.05 (J)
5/28/2019									
5/29/2019	<0.1	<0.1		0.0677 (J)	0.168	0.0781 (J)	<0.1	0.0858 (J)	0.0679 (J)
5/30/2019			0.0573 (J)						
9/30/2019			<0.1						
10/1/2019	<0.1	<0.1		0.0682 (J)	0.185	0.0885 (J)	<0.1	0.0744 (J)	0.0703 (J)
10/2/2019									
3/30/2020								0.0726 (J)	
3/31/2020	<0.1	<0.1	<0.1	0.0755 (J)		0.0867 (J)	<0.1		0.0665 (J)
4/1/2020					0.187				
8/31/2020							<0.1		
9/1/2020		<0.1	0.0794 (J)	0.0845 (J)				0.194	0.0757 (J)
9/2/2020	<0.1				0.18	0.0957 (J)			
9/8/2020									
9/9/2020									

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-16
2/23/2016		
3/1/2016		
3/2/2016	0.01 (J)	0.04 (J)
4/19/2016	0.014 (J)	0.05 (J)
4/20/2016		
6/6/2016		
6/7/2016	0.049 (J)	
6/8/2016		0.073 (J)
8/30/2016		
8/31/2016	0.034 (J)	0.051 (J)
10/18/2016		
10/19/2016	0.023 (J)	<0.1
3/20/2017		
3/21/2017	<0.1	0.04 (J)
3/22/2017		
5/2/2017	<0.1	0.05 (J)
5/3/2017		
6/6/2017	<0.1	0.053 (J)
6/7/2017		
9/12/2017	<0.1	
9/13/2017		<0.1 (U*)
9/14/2017		
1/22/2018		
1/23/2018		0.05 (J)
1/24/2018	<0.1	
5/1/2018	<0.1	0.05 (J)
5/2/2018		
11/26/2018		
11/27/2018	<0.1	<0.1
11/28/2018		
5/28/2019		
5/29/2019	<0.1	0.0683 (J)
5/30/2019		
9/30/2019		
10/1/2019	<0.1	0.0774 (J)
10/2/2019		
3/30/2020		
3/31/2020	<0.1	0.0602 (J)
4/1/2020		
8/31/2020		
9/1/2020	<0.1	
9/2/2020		<0.1
9/8/2020		
9/9/2020		

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1 (bg)	BY-GSA-MW-3 (bg)	BY-GSA-MW-2 (bg)	BY-GSA-MW-4 (bg)	BY-AP-MW-11	BY-AP-MW-4	BY-AP-MW-5	BY-AP-MW-6	BY-AP-MW-10
2/23/2016	26.7	40	30.7	<25					
3/1/2016					395	27.3	273	45.3	326
3/2/2016									
4/19/2016	<25	32	<25	<25		38		46	
4/20/2016					376		269		366
6/6/2016	32.7			28.7					
6/7/2016		38.7	35.3			48.7	272	46	
6/8/2016					324				314
8/30/2016	33.3	31.3	27.3	25.3		32.7	244	30	
8/31/2016					367				368
10/18/2016	27.3	26.7	<25	<25			238		
10/19/2016					367	36		37.3	381
1/31/2017	32	30	32.7	26		40.7	266	43.3	
2/1/2017					391				342
5/2/2017	31.3	30.7	30.7	<25		30.7			
5/3/2017					373		259	44.7	369
6/6/2017	35.3	32.7	34.7	42.7		41.3			
6/7/2017					367		255	45.3	340
9/12/2017				26.7		34.7			
9/13/2017	36.7	38	39.3		378				
9/14/2017							276	48.7	391
5/1/2018		35.3	42	34.7		39.3			
5/2/2018	34				330		247	44	343
8/28/2018						26			375
8/29/2018					352		263	50	
11/26/2018				32.7					
11/27/2018	50.7	36	31.3			32	248		
11/28/2018					357			50.7	378
5/28/2019				31.3					
5/29/2019	58	37.3	40		367	39.3	259	48.7	
5/30/2019									377
9/30/2019					399				361
10/1/2019						32	243	38	
10/2/2019	46	36.7	41.3	36					
3/30/2020									
3/31/2020	53.3	39.3	40	36.7	393	42.7	243	42	387
4/1/2020									
8/31/2020									
9/1/2020					399	36	253		392
9/2/2020								37.3	
9/8/2020				39.3					
9/9/2020	42	42.7	40.7						

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-9	BY-AP-MW-7	BY-AP-MW-15	BY-AP-MW-13	BY-AP-MW-16	BY-AP-MW-2	BY-AP-MW-14	BY-AP-MW-3
2/23/2016									
3/1/2016	309	314	129						
3/2/2016				182	319	263	42	266	27.3
4/19/2016				151		259	51.3		33.3
4/20/2016	324	338	128		305			311	
6/6/2016									
6/7/2016	314		140						44
6/8/2016		288		168	287	285	46.7	353	
8/30/2016	308							328	
8/31/2016		334	112	188	295	279	32.7		29.3
10/18/2016	295							310	
10/19/2016		333	134	180	305	264	37.3		29.3
1/31/2017	303		134	166	325	270	47.3	312	36.7
2/1/2017		330							
5/2/2017				183		259	44	300	28
5/3/2017	300	338	127		306				
6/6/2017				187		278	48	335	36.7
6/7/2017	284	300	134		320				
9/12/2017							40.7		35.3
9/13/2017				202	332	333		339	
9/14/2017	325	350	141						
5/1/2018				197		274	42.7		34.7
5/2/2018	306	333	133		320			301	
8/28/2018		324					28		34
8/29/2018	287			192	312	283		318	
11/26/2018									
11/27/2018	303			190		250	48	295	41.3
11/28/2018		330	138		304				
5/28/2019									
5/29/2019	291		132	198	307	264	47.3	318	40
5/30/2019		315							
9/30/2019	293	319	137						
10/1/2019				236	290	295	44.7	317	36.7
10/2/2019									
3/30/2020	310		135						
3/31/2020		330			290	276	42	317	37.3
4/1/2020				231					
8/31/2020							45.3		
9/1/2020					285				39.3
9/2/2020	298	301	129	208		279		327	
9/8/2020									
9/9/2020									

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 12/8/2020 4:52 PM View: Appendix III - Interwell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-1
2/23/2016		
3/1/2016		
3/2/2016	351	426
4/19/2016		442
4/20/2016	353	
6/6/2016		
6/7/2016		
6/8/2016	330	461
8/30/2016		
8/31/2016	354	456
10/18/2016		
10/19/2016	354	444
1/31/2017		422
2/1/2017	360	
5/2/2017		442
5/3/2017	341	
6/6/2017		433
6/7/2017	337	
9/12/2017		
9/13/2017	359	456
9/14/2017		
5/1/2018		416
5/2/2018	310	
8/28/2018		420
8/29/2018	307	
11/26/2018		
11/27/2018		
11/28/2018	336	408
5/28/2019		
5/29/2019	321	403
5/30/2019		
9/30/2019		
10/1/2019	344	430
10/2/2019		
3/30/2020		419
3/31/2020	331	
4/1/2020		
8/31/2020		
9/1/2020	356	454
9/2/2020		
9/8/2020		
9/9/2020		

FIGURE E.

Appendix III - Intrawell Prediction Limits - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 5:00 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	BY-AP-MW-11	6.407	6.129	9/1/2020	5.87	Yes	15	6.268	0.05294	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-13	6.183	6.001	9/1/2020	5.82	Yes	15	6.092	0.03468	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-14	6.215	5.954	9/2/2020	5.8	Yes	15	37.04	0.6078	0	None	x^2	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-16	5.936	5.675	9/2/2020	5.47	Yes	15	5.805	0.04998	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-3	5.327	4.816	9/1/2020	4.24	Yes	15	5.071	0.0976	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-8	6.288	6.104	9/2/2020	5.89	Yes	15	6.196	0.03521	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-9	6.383	6.124	9/2/2020	5.97	Yes	15	6.253	0.04938	0	None	No	0.0002351	Param Intra 1 of 2
Sulfate (mg/L)	BY-AP-MW-1	6.348	n/a	9/1/2020	23.1	Yes	13	52.17	74.33	46.15	Kaplan-Meier	x^3	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	BY-AP-MW-10	5	n/a	9/1/2020	15.6	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-11	19.37	n/a	9/1/2020	42.8	Yes	13	1.308	0.5028	46.15	Kaplan-Meier	x^(1/3)	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	BY-AP-MW-12	7.04	n/a	9/1/2020	32.1	Yes	12	n/a	n/a	75	n/a	n/a	0.01077	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-15	6.2	n/a	9/2/2020	7.61	Yes	13	n/a	n/a	76.92	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-16	6.72	n/a	9/2/2020	13.3	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-5	5.51	n/a	9/1/2020	11	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-8	6.01	n/a	9/2/2020	15.8	Yes	13	n/a	n/a	76.92	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-9	5.91	n/a	9/2/2020	21.9	Yes	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2

Appendix III - Intrawell Prediction Limits - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 4:57 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
pH (pH)	BY-AP-MW-1	5.947	5.708	9/1/2020	5.89	No	15	5.827	0.04574	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-10	6.413	6.194	9/1/2020	6.33	No	15	6.303	0.04186	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-11**	**6.407**	**6.129**	**9/1/2020**	**5.87**	**Yes**	**15**	**6.268**	**0.05294**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	BY-AP-MW-12	6.282	6.038	9/1/2020	6.19	No	15	6.16	0.04675	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-13**	**6.183**	**6.001**	**9/1/2020**	**5.82**	**Yes**	**15**	**6.092**	**0.03468**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	**BY-AP-MW-14**	**6.215**	**5.954**	**9/2/2020**	**5.8**	**Yes**	**15**	**37.04**	**0.6078**	**0**	**None**	**x^2**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	BY-AP-MW-15	6.831	6.476	9/2/2020	6.57	No	15	6.653	0.06789	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-16**	**5.936**	**5.675**	**9/2/2020**	**5.47**	**Yes**	**15**	**5.805**	**0.04998**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	BY-AP-MW-2	6.156	5.437	8/31/2020	5.57	No	15	5.797	0.1375	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-3**	**5.327**	**4.816**	**9/1/2020**	**4.24**	**Yes**	**15**	**5.071**	**0.0976**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	BY-AP-MW-4	5.362	4.114	9/1/2020	4.23	No	15	4.738	0.2385	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-5	6.062	5.922	9/1/2020	5.93	No	15	5.992	0.02678	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-6	5.627	5.125	9/2/2020	5.16	No	15	5.376	0.09605	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-AP-MW-7	6.419	6.16	9/2/2020	6.25	No	14	6.289	0.04843	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	**BY-AP-MW-8**	**6.288**	**6.104**	**9/2/2020**	**5.89**	**Yes**	**15**	**6.196**	**0.03521**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	**BY-AP-MW-9**	**6.383**	**6.124**	**9/2/2020**	**5.97**	**Yes**	**15**	**6.253**	**0.04938**	**0**	**None**	**No**	**0.0002351**	**Param Intra 1 of 2**
pH (pH)	BY-GSA-MW-1	4.911	4.482	9/9/2020	4.65	No	14	4.696	0.08025	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-2	4.958	4.493	9/9/2020	4.67	No	14	4.726	0.08689	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-3	5.095	4.729	9/9/2020	4.76	No	14	4.912	0.0683	0	None	No	0.0002351	Param Intra 1 of 2
pH (pH)	BY-GSA-MW-4	5.043	4.641	9/8/2020	4.75	No	14	4.842	0.07516	0	None	No	0.0002351	Param Intra 1 of 2
Sulfate (mg/L)	**BY-AP-MW-1**	**6.348**	**n/a**	**9/1/2020**	**23.1**	**Yes**	**13**	**52.17**	**74.33**	**46.15**	**Kaplan-Meier**	**x^3**	**0.0004702**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-10**	**5**	**n/a**	**9/1/2020**	**15.6**	**Yes**	**13**	**n/a**	**n/a**	**69.23**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-11**	**19.37**	**n/a**	**9/1/2020**	**42.8**	**Yes**	**13**	**1.308**	**0.5028**	**46.15**	**Kaplan-Meier**	**x^(1/3)**	**0.0004702**	**Param Intra 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-12**	**7.04**	**n/a**	**9/1/2020**	**32.1**	**Yes**	**12**	**n/a**	**n/a**	**75**	**n/a**	**n/a**	**0.01077**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	BY-AP-MW-13	49.5	n/a	9/1/2020	14.2	No	13	n/a	n/a	38.46	n/a	n/a	0.009692	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-AP-MW-14	67.6	n/a	9/2/2020	18.5	No	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	**BY-AP-MW-15**	**6.2**	**n/a**	**9/2/2020**	**7.61**	**Yes**	**13**	**n/a**	**n/a**	**76.92**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-16**	**6.72**	**n/a**	**9/2/2020**	**13.3**	**Yes**	**13**	**n/a**	**n/a**	**69.23**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	BY-AP-MW-2	3.3	n/a	8/31/2020	0.576J	No	13	n/a	n/a	69.23	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-3	5	n/a	9/1/2020	0.705J	No	13	n/a	n/a	53.85	n/a	n/a	0.009692	NP Intra (NDs) 1 of 2
Sulfate (mg/L)	BY-AP-MW-4	5.906	n/a	9/1/2020	1.83	No	13	2.804	1.132	7.692	None	No	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	**BY-AP-MW-5**	**5.51**	**n/a**	**9/1/2020**	**11**	**Yes**	**13**	**n/a**	**n/a**	**69.23**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	BY-AP-MW-6	2.774	n/a	9/2/2020	1.02	No	13	1.027	0.2332	30.77	Kaplan-Meier	sqrt(x)	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	BY-AP-MW-7	5	n/a	9/2/2020	3.59	No	12	n/a	n/a	50	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	**BY-AP-MW-8**	**6.01**	**n/a**	**9/2/2020**	**15.8**	**Yes**	**13**	**n/a**	**n/a**	**76.92**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	**BY-AP-MW-9**	**5.91**	**n/a**	**9/2/2020**	**21.9**	**Yes**	**13**	**n/a**	**n/a**	**69.23**	**n/a**	**n/a**	**0.009692**	**NP Intra (NDs) 1 of 2**
Sulfate (mg/L)	BY-GSA-MW-1	23.3	n/a	9/9/2020	16.5	No	12	n/a	n/a	0	n/a	n/a	0.01077	NP Intra (normality) 1 of 2
Sulfate (mg/L)	BY-GSA-MW-2	10.46	n/a	9/9/2020	6.08	No	11	6.358	1.408	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-3	9.409	n/a	9/9/2020	7.13	No	12	7.456	0.6976	0	None	No	0.0004702	Param Intra 1 of 2
Sulfate (mg/L)	BY-GSA-MW-4	8.668	n/a	9/8/2020	6.52	No	12	6.626	0.7293	0	None	No	0.0004702	Param Intra 1 of 2

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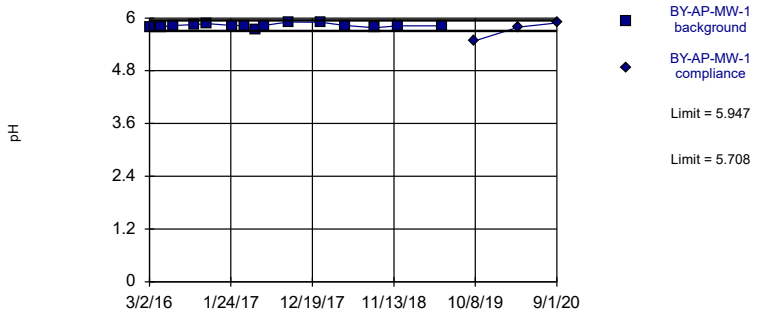
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.827, Std. Dev.=0.04574, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9458, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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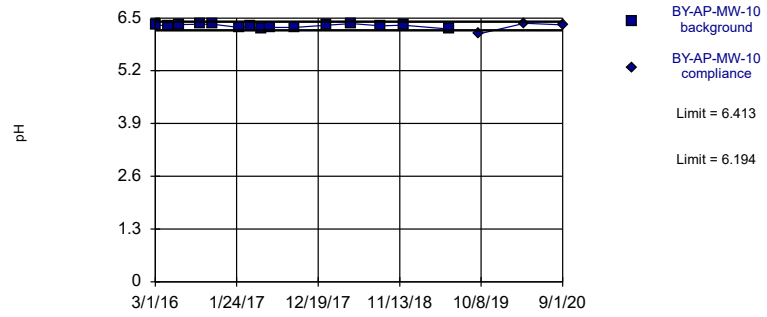
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.303, Std. Dev.=0.04186, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9284, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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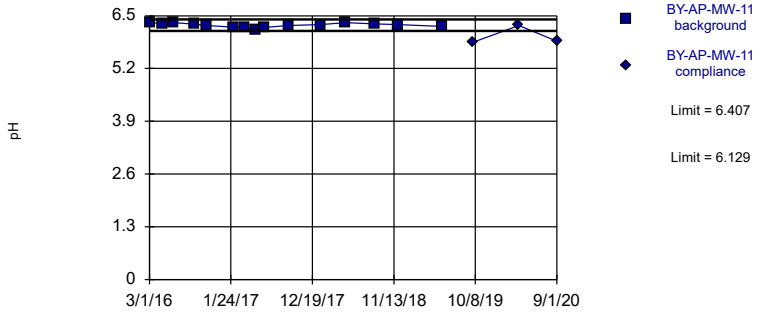
Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.268, Std. Dev.=0.05294, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9541, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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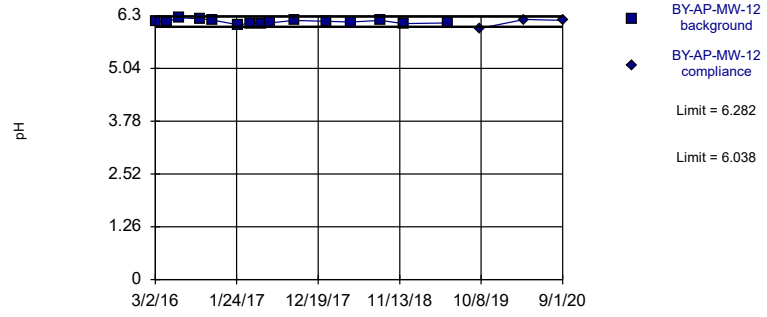
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.16, Std. Dev.=0.04675, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9762, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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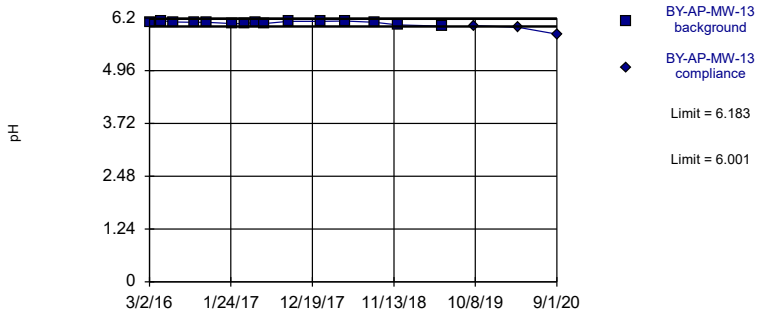
Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.092, Std. Dev.=0.03468, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9128, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

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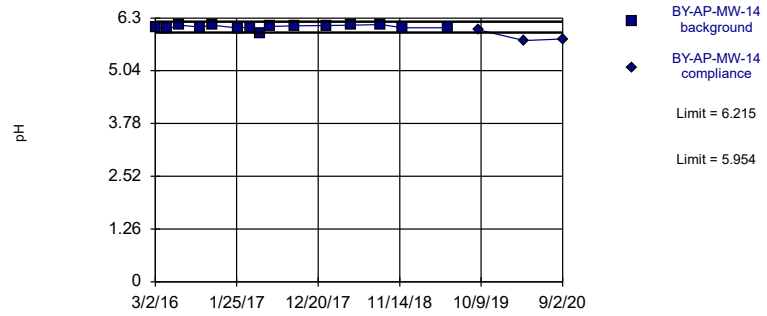
Prediction Limit

Intrawell Parametric



Background Data Summary (based on square transformation): Mean=37.04, Std. Dev.=0.6078, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8381, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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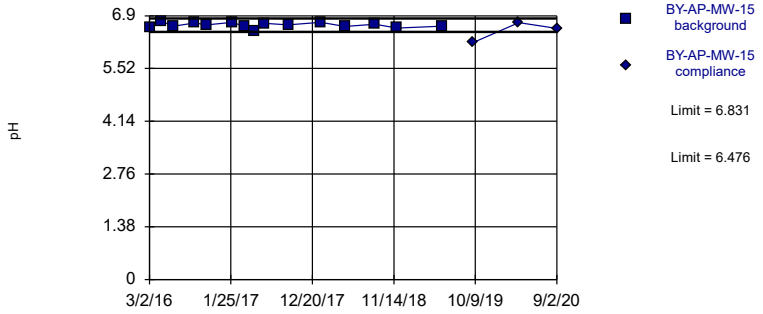
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.653, Std. Dev.=0.06789, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9443, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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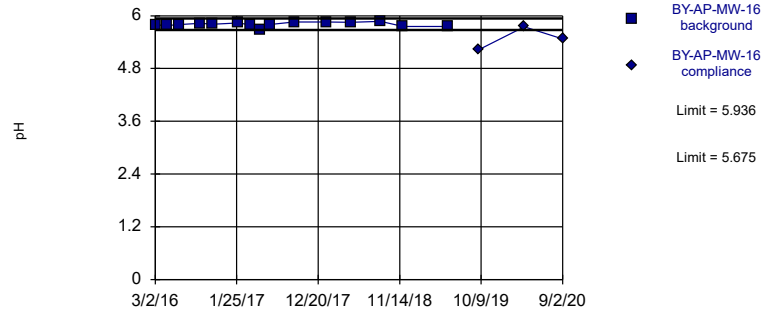
Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.805, Std. Dev.=0.04998, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9236, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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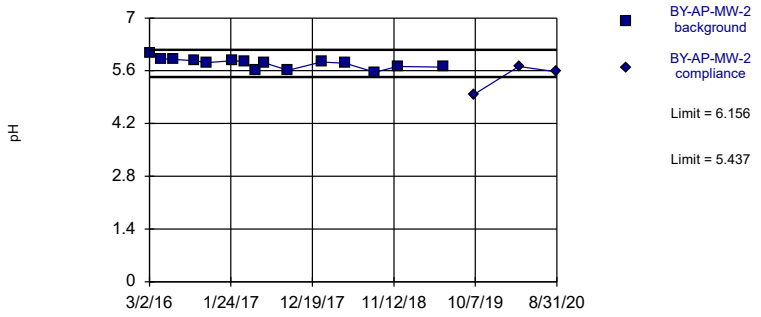
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.797, Std. Dev.=0.1375, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.949, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

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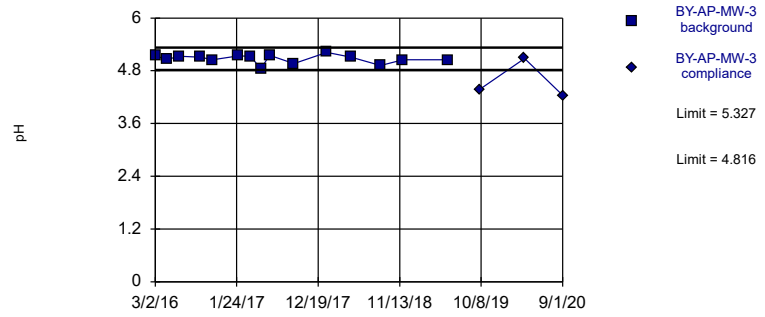
Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.071, Std. Dev.=0.0976, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9102, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

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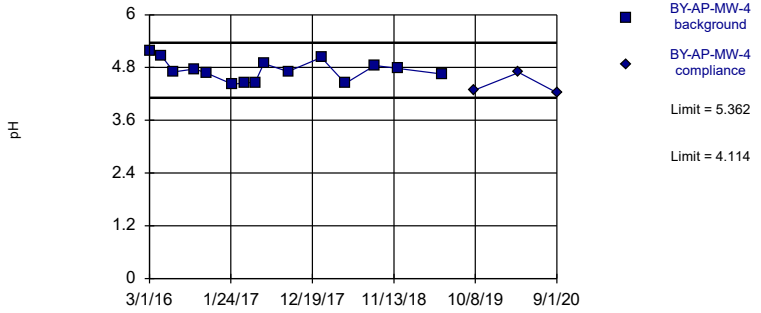
Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.738, Std. Dev.=0.2385, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9433, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

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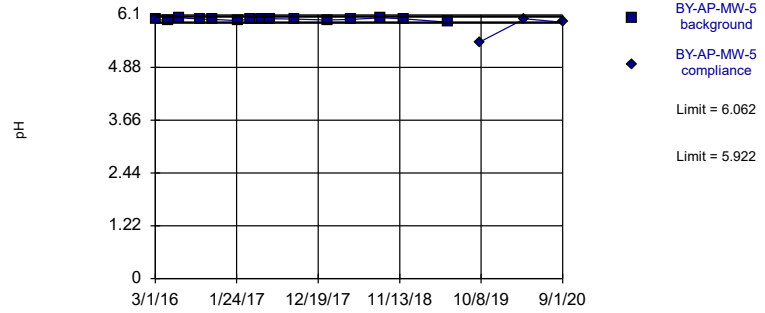
Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.992, Std. Dev.=0.02678, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9327, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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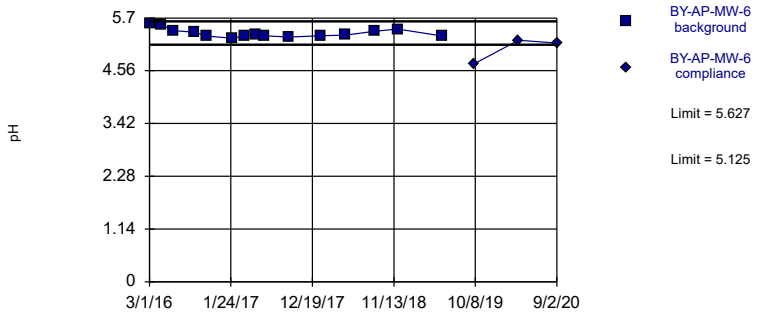
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=5.376, Std. Dev.=0.09605, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8715, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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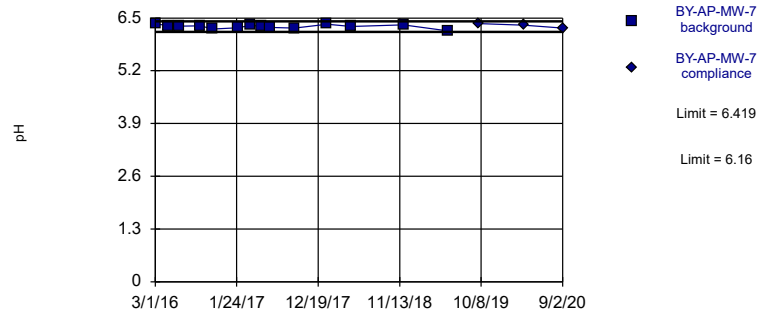
Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.289, Std. Dev.=0.04843, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9643, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

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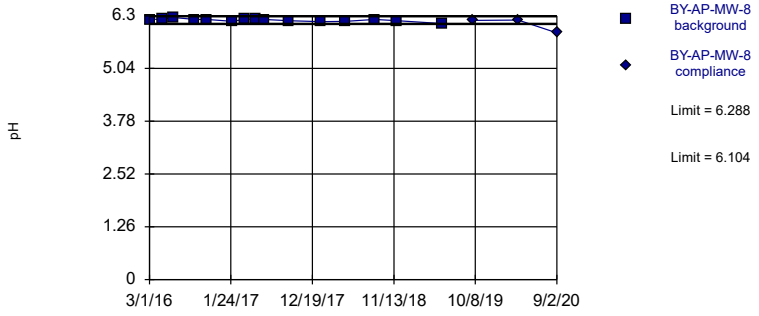
Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.196, Std. Dev.=0.03521, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9094, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

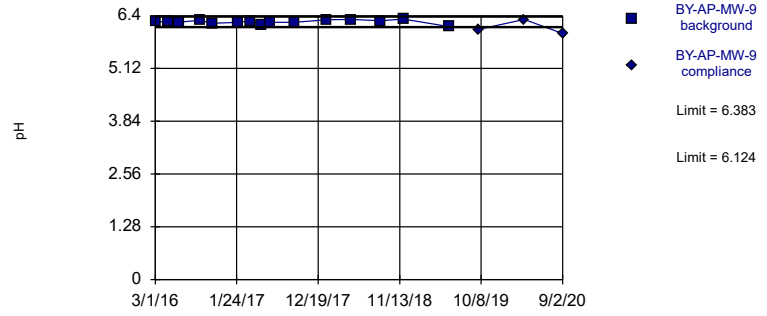
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Exceeds Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.253, Std. Dev.=0.04938, n=15. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9251, critical = 0.835. Kappa = 2.617 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:54 PM View: Appendix III - Intrawell

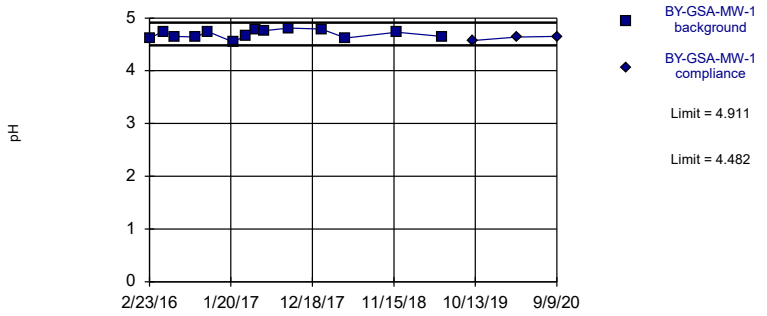
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.696, Std. Dev.=0.08025, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9416, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell

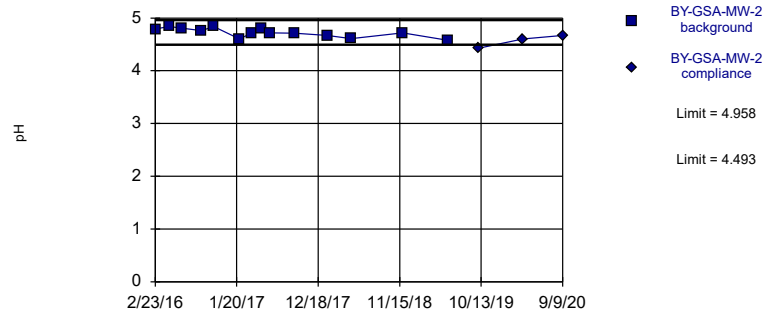
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.726, Std. Dev.=0.08689, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9314, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell

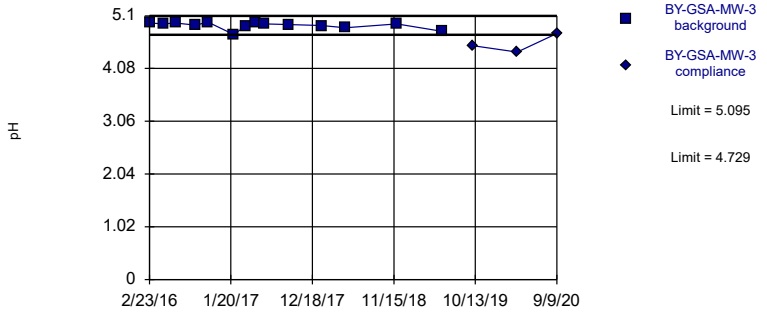
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.912, Std. Dev.=0.0683, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8283, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: pH Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell

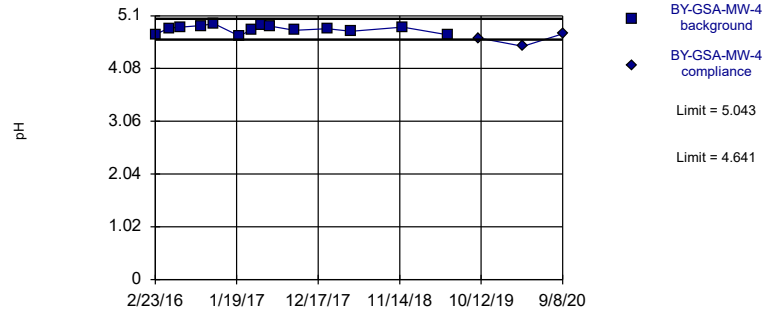
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limits

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=4.842, Std. Dev.=0.07516, n=14. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9458, critical = 0.825. Kappa = 2.678 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

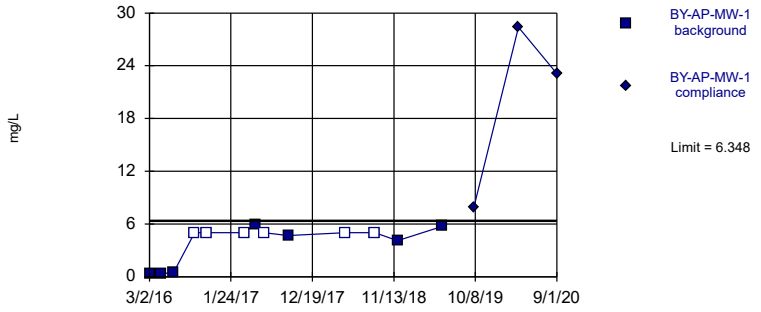
Constituent: pH Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Parametric



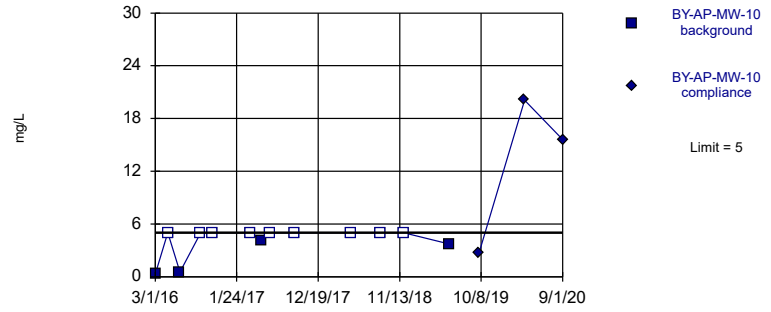
Background Data Summary (based on cube transformation) (after Kaplan-Meier Adjustment): Mean=52.17, Std. Dev.=74.33, n=13, 46.15% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8687, critical = 0.814. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



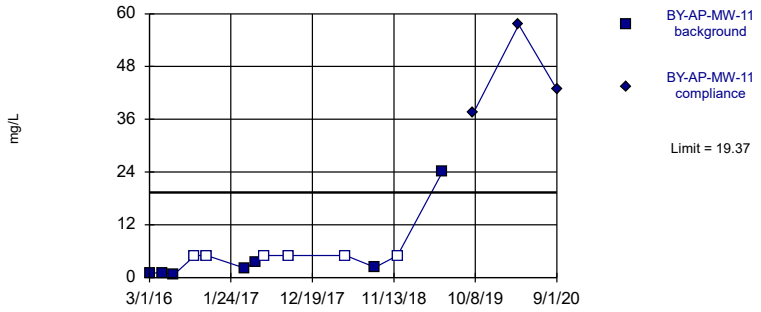
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Parametric



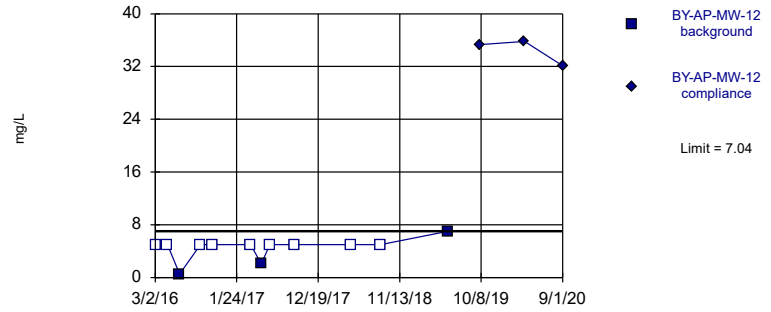
Background Data Summary (based on cube root transformation) (after Kaplan-Meier Adjustment): Mean=1.308, Std. Dev.=0.5028, n=13, 46.15% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8281, critical = 0.814. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



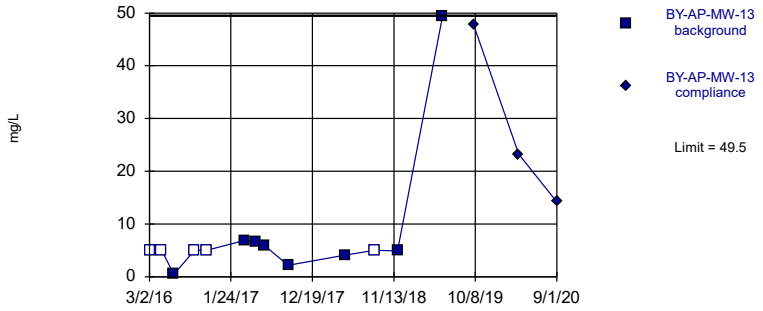
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 12 background values. 75% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



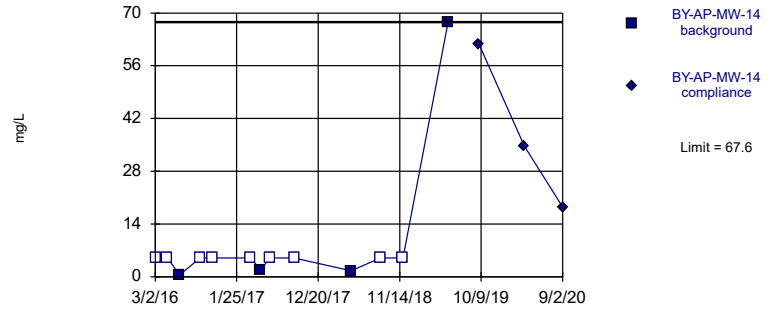
Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 13 background values. 38.46% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



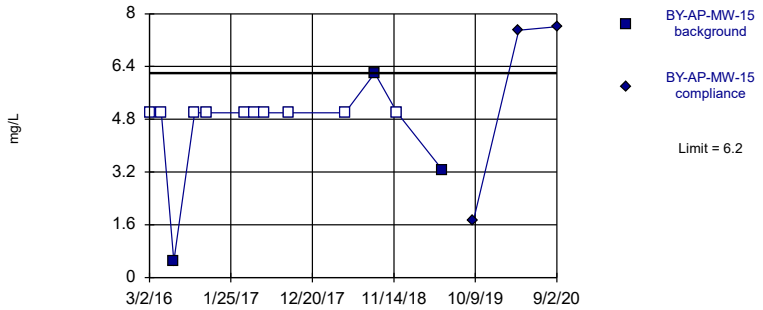
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



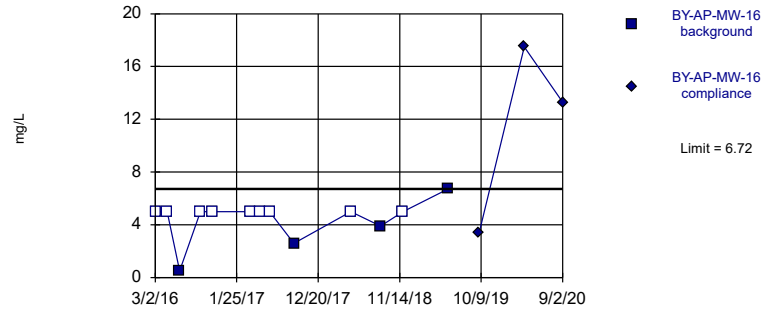
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 76.92% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



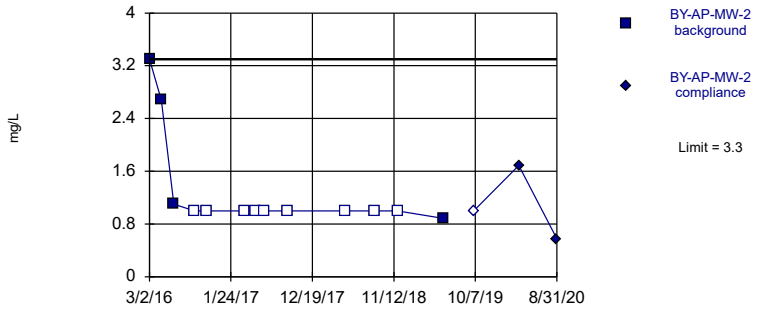
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



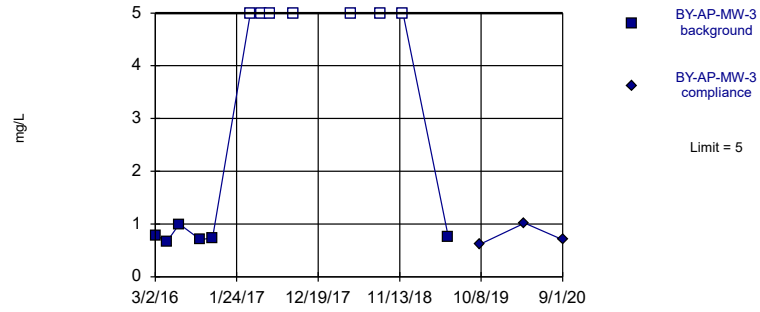
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Non-parametric



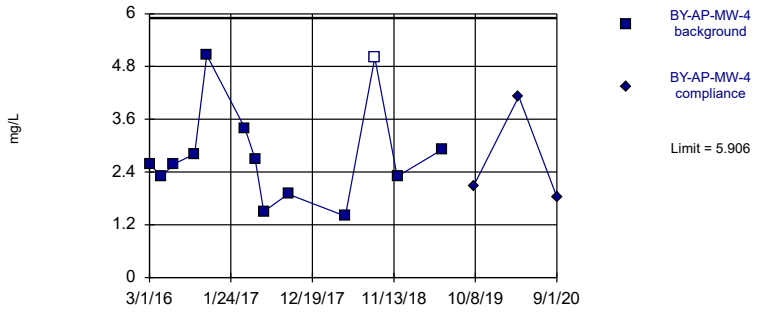
Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 53.85% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Within Limit

Prediction Limit

Intrawell Parametric



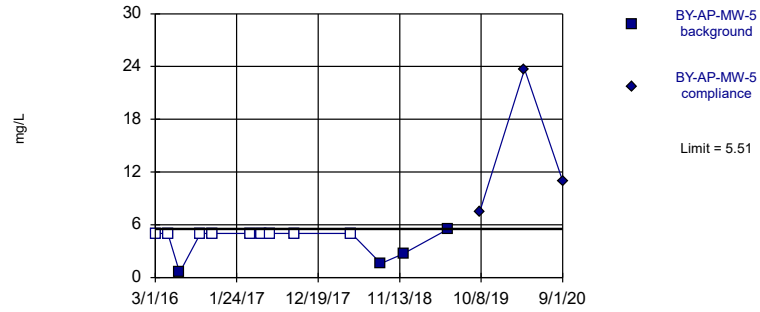
Background Data Summary: Mean=2.804, Std. Dev.=1.132, n=13, 7.692% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8682, critical = 0.814. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.
Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

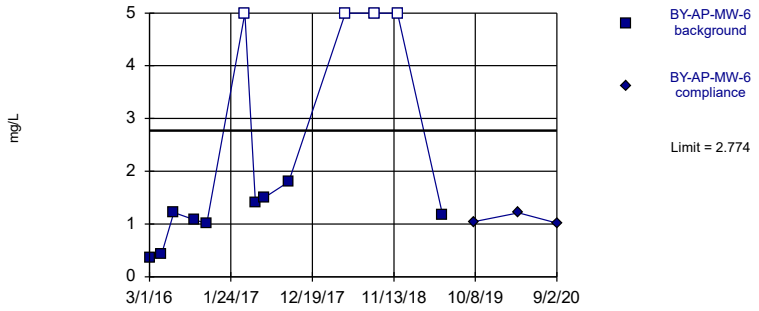
Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary (based on square root transformation) (after Kaplan-Meier Adjustment): Mean=1.027, Std. Dev.=0.2332, n=13, 30.77% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8266, critical = 0.814. Kappa = 2.739 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

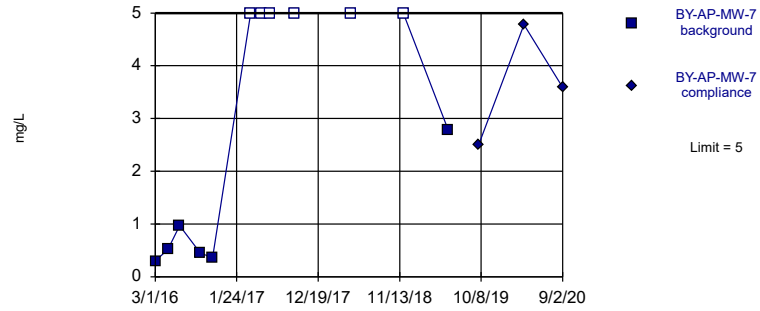
Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. 50% NDs. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

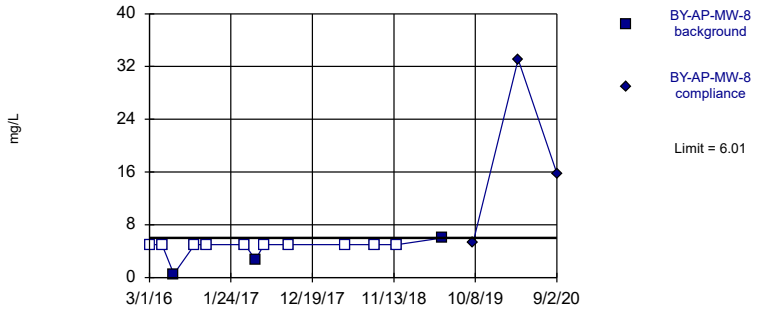
Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 76.92% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

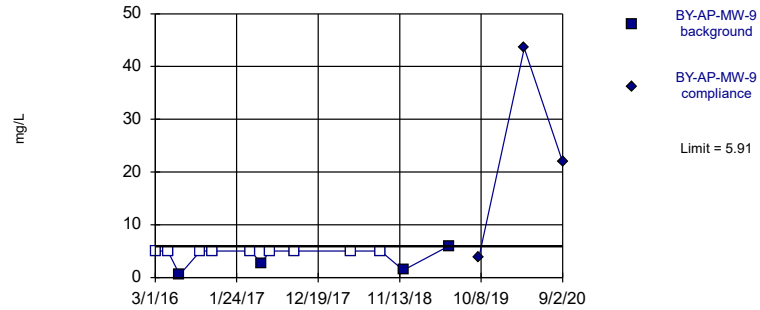
Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Exceeds Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 13 background values. 69.23% NDs. Well-constituent pair annual alpha = 0.01929. Individual comparison alpha = 0.009692 (1 of 2).

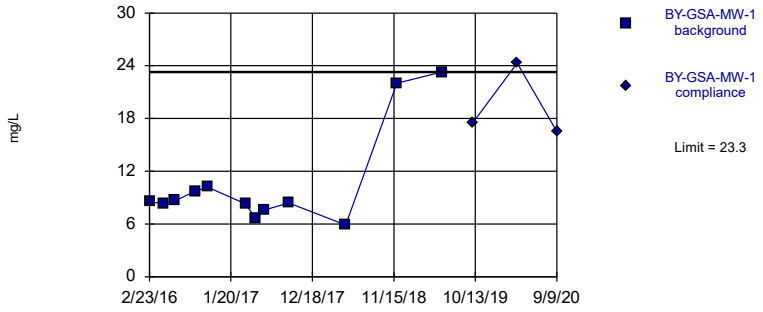
Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 12 background values. Well-constituent pair annual alpha = 0.02143. Individual comparison alpha = 0.01077 (1 of 2).

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell

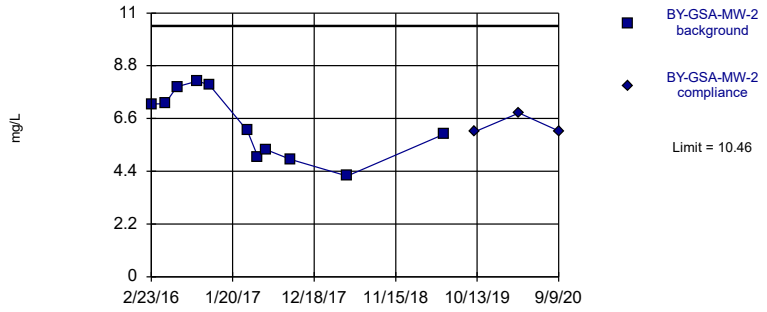
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.358, Std. Dev.=1.408, n=11. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9195, critical = 0.792. Kappa = 2.915 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell

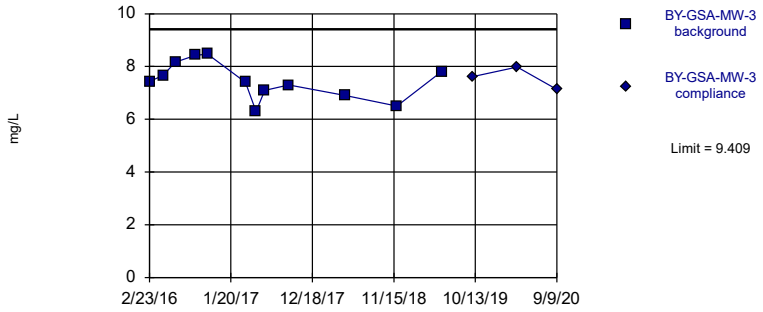
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=7.456, Std. Dev.=0.6976, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9647, critical = 0.805. Kappa = 2.8 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell

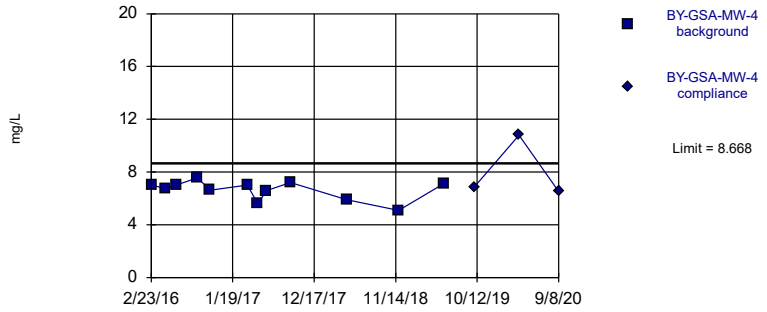
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Within Limit

Prediction Limit

Intrawell Parametric



Background Data Summary: Mean=6.626, Std. Dev.=0.7293, n=12. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8904, critical = 0.805. Kappa = 2.8 (c=7, w=16, 1 of 2, event alpha = 0.05132). Report alpha = 0.0004702.

Constituent: Sulfate Analysis Run 12/8/2020 4:55 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-1
3/2/2016	5.78	
4/19/2016	5.8	
6/8/2016	5.83	
8/31/2016	5.85	
10/19/2016	5.87	
1/31/2017	5.83	
3/21/2017	5.83	
5/2/2017	5.73	
6/6/2017	5.83	
9/13/2017	5.91	
1/24/2018	5.9	
5/1/2018	5.83	
8/28/2018	5.78	
11/28/2018	5.82	
5/29/2019	5.82	
10/1/2019		5.47
3/30/2020		5.79
9/1/2020		5.89

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-10
3/1/2016	6.33	
4/20/2016	6.31	
6/8/2016	6.34	
8/31/2016	6.35	
10/19/2016	6.35	
2/1/2017	6.27	
3/22/2017	6.29	
5/3/2017	6.23	
6/7/2017	6.27	
9/14/2017	6.27	
1/23/2018	6.32	
5/2/2018	6.36	
8/28/2018	6.31	
11/28/2018	6.32	
5/30/2019	6.23	
9/30/2019		6.11
3/31/2020		6.37
9/1/2020		6.33

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-11
3/1/2016	6.34	
4/20/2016	6.31	
6/8/2016	6.33	
8/31/2016	6.29	
10/19/2016	6.26	
2/1/2017	6.22	
3/22/2017	6.22	
5/3/2017	6.15	
6/7/2017	6.21	
9/13/2017	6.26	
1/23/2018	6.28	
5/2/2018	6.33	
8/29/2018	6.3	
11/28/2018	6.28	
5/29/2019	6.24	
9/30/2019		5.85
3/31/2020		6.26
9/1/2020		5.87

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-12
3/2/2016	6.16	
4/20/2016	6.17	
6/8/2016	6.25	
8/31/2016	6.23	
10/19/2016	6.2	
2/1/2017	6.08	
3/22/2017	6.12	
5/3/2017	6.12	
6/7/2017	6.13	
9/13/2017	6.19	
1/23/2018	6.17	
5/2/2018	6.15	
8/29/2018	6.19	
11/28/2018	6.11	
5/29/2019	6.13	
10/1/2019		6
3/31/2020		6.21
9/1/2020		6.19

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-13
3/2/2016	6.1	
4/20/2016	6.14	
6/8/2016	6.11	
8/31/2016	6.1	
10/19/2016	6.1	
1/31/2017	6.07	
3/22/2017	6.07	
5/3/2017	6.1	
6/7/2017	6.07	
9/13/2017	6.12	
1/22/2018	6.12	
5/2/2018	6.13	
8/29/2018	6.1	
11/28/2018	6.04	
5/29/2019	6.01	
10/1/2019		6.02
3/31/2020		5.98
9/1/2020		5.82

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-14
3/2/2016	6.08	
4/20/2016	6.04	
6/8/2016	6.13	
8/30/2016	6.08	
10/18/2016	6.13	
1/31/2017	6.06	
3/22/2017	6.09	
5/2/2017	5.94	
6/6/2017	6.1	
9/13/2017	6.11	
1/23/2018	6.12	
5/2/2018	6.13	
8/29/2018	6.14	
11/27/2018	6.07	
5/29/2019	6.07	
10/1/2019		6.01
3/31/2020		5.76
9/2/2020		5.8

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-15
3/2/2016	6.61	
4/19/2016	6.75	
6/8/2016	6.63	
8/31/2016	6.71	
10/19/2016	6.66	
1/31/2017	6.73	
3/21/2017	6.62	
5/2/2017	6.49	
6/6/2017	6.7	
9/13/2017	6.66	
1/22/2018	6.73	
5/1/2018	6.62	
8/29/2018	6.68	
11/27/2018	6.58	
5/29/2019	6.63	
10/1/2019		6.2
4/1/2020		6.72
9/2/2020		6.57

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-16
3/2/2016	5.79	
4/19/2016	5.78	
6/8/2016	5.8	
8/31/2016	5.83	
10/19/2016	5.81	
1/31/2017	5.84	
3/21/2017	5.79	
5/2/2017	5.68	
6/6/2017	5.8	
9/13/2017	5.86	
1/23/2018	5.86	
5/1/2018	5.85	
8/29/2018	5.87	
11/27/2018	5.76	
5/29/2019	5.76	
10/1/2019		5.23
3/31/2020		5.75
9/2/2020		5.47

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-2
3/2/2016	6.08	
4/19/2016	5.92	
6/8/2016	5.9	
8/31/2016	5.87	
10/19/2016	5.82	
1/31/2017	5.87	
3/21/2017	5.85	
5/2/2017	5.61	
6/6/2017	5.82	
9/12/2017	5.61	
1/24/2018	5.83	
5/1/2018	5.8	
8/28/2018	5.56	
11/27/2018	5.71	
5/29/2019	5.7	
10/1/2019		4.97
3/31/2020		5.71
8/31/2020		5.57

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-3
3/2/2016	5.14	
4/19/2016	5.06	
6/7/2016	5.13	
8/31/2016	5.11	
10/19/2016	5.05	
1/31/2017	5.14	
3/21/2017	5.13	
5/2/2017	4.85	
6/6/2017	5.15	
9/12/2017	4.96	
1/24/2018	5.22	
5/1/2018	5.11	
8/28/2018	4.92	
11/27/2018	5.05	
5/29/2019	5.05	
10/1/2019		4.37
3/31/2020		5.08
9/1/2020		4.24

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-4
3/1/2016	5.19	
4/19/2016	5.06	
6/7/2016	4.7	
8/30/2016	4.77	
10/19/2016	4.67	
1/31/2017	4.42	
3/21/2017	4.45	
5/2/2017	4.46	
6/6/2017	4.89	
9/12/2017	4.71	
1/24/2018	5.03	
5/1/2018	4.44	
8/28/2018	4.85	
11/27/2018	4.78	
5/29/2019	4.65	
10/1/2019		4.28
3/31/2020		4.69
9/1/2020		4.23

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5
3/1/2016	5.99	
4/20/2016	5.96	
6/7/2016	6.03	
8/30/2016	6	
10/18/2016	5.99	
1/31/2017	5.96	
3/22/2017	6.01	
5/3/2017	5.99	
6/7/2017	6.01	
9/14/2017	6	
1/24/2018	5.98	
5/2/2018	5.99	
8/29/2018	6.03	
11/27/2018	6.01	
5/29/2019	5.93	
10/1/2019		5.47
3/31/2020		6.01
9/1/2020		5.93

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-6
3/1/2016	5.59	
4/19/2016	5.55	
6/7/2016	5.43	
8/30/2016	5.39	
10/19/2016	5.31	
1/31/2017	5.26	
3/22/2017	5.32	
5/3/2017	5.35	
6/7/2017	5.32	
9/14/2017	5.29	
1/24/2018	5.32	
5/2/2018	5.33	
8/29/2018	5.41	
11/28/2018	5.46	
5/29/2019	5.31	
10/1/2019		4.7
3/31/2020		5.22
9/2/2020		5.16

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7
3/1/2016	6.36	
4/20/2016	6.31	
6/7/2016	6.3	
8/31/2016	6.31	
10/19/2016	6.23	
1/31/2017	6.26	
3/22/2017	6.32	
5/3/2017	6.29	
6/7/2017	6.27	
9/14/2017	6.25	
1/24/2018	6.35	
5/2/2018	6.29	
11/28/2018	6.33	
5/29/2019	6.18	
9/30/2019		6.36
3/30/2020		6.32
9/2/2020		6.25

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-8
3/1/2016	6.21	
4/20/2016	6.22	
6/7/2016	6.26	
8/30/2016	6.21	
10/18/2016	6.21	
1/31/2017	6.17	
3/22/2017	6.22	
5/3/2017	6.22	
6/7/2017	6.21	
9/14/2017	6.18	
1/24/2018	6.16	
5/2/2018	6.17	
8/29/2018	6.21	
11/27/2018	6.18	
5/29/2019	6.11	
9/30/2019		6.19
3/30/2020		6.2
9/2/2020		5.89

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-9
3/1/2016	6.26	
4/20/2016	6.26	
6/8/2016	6.25	
8/31/2016	6.29	
10/19/2016	6.22	
2/1/2017	6.24	
3/22/2017	6.28	
5/3/2017	6.17	
6/7/2017	6.24	
9/14/2017	6.24	
1/23/2018	6.3	
5/2/2018	6.31	
8/28/2018	6.28	
11/28/2018	6.32	
5/30/2019	6.14	
9/30/2019		6.07
3/31/2020		6.31
9/2/2020		5.97

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1	BY-GSA-MW-1
2/23/2016	4.62	
4/19/2016	4.74	
6/6/2016	4.65	
8/30/2016	4.64	
10/18/2016	4.74	
1/31/2017	4.54	
3/20/2017	4.67	
5/2/2017	4.79	
6/6/2017	4.76	
9/13/2017	4.81	
1/23/2018	4.79	
5/2/2018	4.62	
11/27/2018	4.73	
5/29/2019	4.65	
10/2/2019		4.57
3/31/2020		4.64
9/9/2020		4.65

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2	BY-GSA-MW-2
2/23/2016	4.79	
4/19/2016	4.84	
6/7/2016	4.81	
8/30/2016	4.76	
10/18/2016	4.84	
1/31/2017	4.6	
3/20/2017	4.71	
5/2/2017	4.8	
6/6/2017	4.72	
9/13/2017	4.71	
1/23/2018	4.67	
5/1/2018	4.61	
11/27/2018	4.72	
5/29/2019	4.58	
10/2/2019		4.43
3/31/2020		4.6
9/9/2020		4.67

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-3	BY-GSA-MW-3
2/23/2016	4.96	
4/19/2016	4.94	
6/7/2016	4.96	
8/30/2016	4.92	
10/18/2016	4.98	
1/31/2017	4.74	
3/20/2017	4.9	
5/2/2017	4.98	
6/6/2017	4.94	
9/13/2017	4.93	
1/23/2018	4.91	
5/1/2018	4.87	
11/27/2018	4.94	
5/29/2019	4.8	
10/2/2019		4.52
3/31/2020		4.4
9/9/2020		4.76

Prediction Limit

Constituent: pH (pH) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4	BY-GSA-MW-4
2/23/2016	4.74	
4/19/2016	4.86	
6/6/2016	4.88	
8/30/2016	4.91	
10/18/2016	4.95	
1/31/2017	4.71	
3/20/2017	4.83	
5/2/2017	4.93	
6/6/2017	4.9	
9/12/2017	4.82	
1/23/2018	4.85	
5/1/2018	4.8	
11/26/2018	4.88	
5/28/2019	4.73	
10/2/2019		4.67
3/31/2020		4.51
9/8/2020		4.75

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-1	BY-AP-MW-1
3/2/2016	0.31 (J)	
4/19/2016	0.335 (J)	
6/8/2016	0.556 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	6	
6/6/2017	<5	
9/13/2017	4.7 (J)	
5/1/2018	<5	
8/28/2018	<5	
11/28/2018	4.1 (J)	
5/29/2019	5.75	
10/1/2019		7.82
3/30/2020		28.4
9/1/2020		23.1

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-10	BY-AP-MW-10
3/1/2016	0.34 (J)	
4/20/2016	<5	
6/8/2016	0.538 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	4.1 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/28/2018	<5	
11/28/2018	<5	
5/30/2019	3.76	
9/30/2019		2.77
3/31/2020		20.1
9/1/2020		15.6

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-11	BY-AP-MW-11
3/1/2016	1.02	
4/20/2016	1.1	
6/8/2016	0.701 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	2.1 (J)	
5/3/2017	3.6 (J)	
6/7/2017	<5	
9/13/2017	<5	
5/2/2018	<5	
8/29/2018	2.3 (J)	
11/28/2018	<5	
5/29/2019	24.1	
9/30/2019		37.4
3/31/2020		57.5
9/1/2020		42.8

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-12	BY-AP-MW-12
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.511 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	2.1 (J)	
6/7/2017	<5	
9/13/2017	<5	
5/2/2018	<5	
8/29/2018	<5	
11/28/2018	<50 (o)	
5/29/2019	7.04	
10/1/2019		35.3
3/31/2020		35.8
9/1/2020		32.1

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-13	BY-AP-MW-13
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.496 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	6.9	
5/3/2017	6.6	
6/7/2017	6	
9/13/2017	2.2 (J)	
5/2/2018	4.1 (J)	
8/29/2018	<5	
11/28/2018	4.9 (J)	
5/29/2019	49.5	
10/1/2019		47.7
3/31/2020		23.2
9/1/2020		14.2

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-14	BY-AP-MW-14
3/2/2016	<5	
4/20/2016	<5	
6/8/2016	0.514 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/2/2017	1.8 (J)	
6/6/2017	<5	
9/13/2017	<5	
5/2/2018	1.6 (J)	
8/29/2018	<5	
11/27/2018	<5	
5/29/2019	67.6	
10/1/2019		61.6
3/31/2020		34.7
9/2/2020		18.5

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-15	BY-AP-MW-15
3/2/2016	<5	
4/19/2016	<5	
6/8/2016	0.489 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/13/2017	<5	
5/1/2018	<5	
8/29/2018	6.2	
11/27/2018	<5	
5/29/2019	3.27	
10/1/2019		1.72
4/1/2020		7.5
9/2/2020		7.61

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-16	BY-AP-MW-16
3/2/2016	<5	
4/19/2016	<5	
6/8/2016	0.514 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/13/2017	2.6 (J)	
5/1/2018	<5	
8/29/2018	3.9 (J)	
11/27/2018	<5	
5/29/2019	6.72	
10/1/2019		3.4
3/31/2020		17.5
9/2/2020		13.3

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-2	BY-AP-MW-2
3/2/2016	3.3	
4/19/2016	2.68	
6/8/2016	1.1	
8/31/2016	<1	
10/19/2016	<1	
3/21/2017	<1	
5/2/2017	<1	
6/6/2017	<1	
9/12/2017	<1	
5/1/2018	<1	
8/28/2018	<1	
11/27/2018	<1	
5/29/2019	0.885 (J)	
10/1/2019		<1
3/31/2020		1.69
8/31/2020		0.576 (J)

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-3	BY-AP-MW-3
3/2/2016	0.79 (J)	
4/19/2016	0.674 (J)	
6/7/2016	1	
8/31/2016	0.702 (J)	
10/19/2016	0.739 (J)	
3/21/2017	<5	
5/2/2017	<5	
6/6/2017	<5	
9/12/2017	<5	
5/1/2018	<5	
8/28/2018	<5	
11/27/2018	<5	
5/29/2019	0.747 (J)	
10/1/2019		0.61 (J)
3/31/2020		1.02
9/1/2020		0.705 (J)

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-4	BY-AP-MW-4
3/1/2016	2.58	
4/19/2016	2.3	
6/7/2016	2.58	
8/30/2016	2.81	
10/19/2016	5.06	
3/21/2017	3.4 (J)	
5/2/2017	2.7 (J)	
6/6/2017	1.5 (J)	
9/12/2017	1.9 (J)	
5/1/2018	1.4 (J)	
8/28/2018	<5	
11/27/2018	2.3 (J)	
5/29/2019	2.92	
10/1/2019		2.09
3/31/2020		4.12
9/1/2020		1.83

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-5	BY-AP-MW-5
3/1/2016	<5	
4/20/2016	<5	
6/7/2016	0.583 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/3/2017	<5	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/29/2018	1.6 (J)	
11/27/2018	2.7 (J)	
5/29/2019	5.51	
10/1/2019		7.4
3/31/2020		23.7
9/1/2020		11

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-6	BY-AP-MW-6
3/1/2016	0.36 (J)	
4/19/2016	0.435 (J)	
6/7/2016	1.22	
8/30/2016	1.08	
10/19/2016	1.01	
3/22/2017	<5	
5/3/2017	1.4 (J)	
6/7/2017	1.5 (J)	
9/14/2017	1.8 (J)	
5/2/2018	<5	
8/29/2018	<5	
11/28/2018	<5	
5/29/2019	1.17	
10/1/2019		1.04
3/31/2020		1.21
9/2/2020		1.02

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-7	BY-AP-MW-7
3/1/2016	0.3 (J)	
4/20/2016	0.514 (J)	
6/7/2016	0.971 (J)	
8/31/2016	0.445 (J)	
10/19/2016	0.366 (J)	
3/22/2017	<5	
5/3/2017	<5	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
11/28/2018	<5	
5/29/2019	2.77	
9/30/2019		2.51
3/30/2020		4.78
9/2/2020		3.59

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-8	BY-AP-MW-8
3/1/2016	<5	
4/20/2016	<5	
6/7/2016	0.504 (J)	
8/30/2016	<5	
10/18/2016	<5	
3/22/2017	<5	
5/3/2017	2.7 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/29/2018	<5	
11/27/2018	<5	
5/29/2019	6.01	
9/30/2019		5.29
3/30/2020		33.1
9/2/2020		15.8

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-AP-MW-9	BY-AP-MW-9
3/1/2016	<5	
4/20/2016	<5	
6/8/2016	0.51 (J)	
8/31/2016	<5	
10/19/2016	<5	
3/22/2017	<5	
5/3/2017	2.7 (J)	
6/7/2017	<5	
9/14/2017	<5	
5/2/2018	<5	
8/28/2018	<5	
11/28/2018	1.4 (J)	
5/30/2019	5.91	
9/30/2019		3.77
3/31/2020		43.5
9/2/2020		21.9

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-1	BY-GSA-MW-1
2/23/2016	8.59	
4/19/2016	8.27	
6/6/2016	8.66	
8/30/2016	9.74	
10/18/2016	10.2	
3/20/2017	8.3	
5/2/2017	6.6 (D)	
6/6/2017	7.6 (D)	
9/13/2017	8.4	
5/2/2018	5.9	
11/27/2018	22	
5/29/2019	23.3	
10/2/2019		17.5
3/31/2020		24.3
9/9/2020		16.5

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-2	BY-GSA-MW-2
2/23/2016	7.2	
4/19/2016	7.22	
6/7/2016	7.92	
8/30/2016	8.17	
10/18/2016	7.99	
3/20/2017	6.1	
5/2/2017	5 (D)	
6/6/2017	5.3 (D)	
9/13/2017	4.9 (J)	
5/1/2018	4.2 (J)	
5/29/2019	5.94	
10/2/2019		6.04
3/31/2020		6.83
9/9/2020		6.08

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-3	BY-GSA-MW-3
2/23/2016	7.44	
4/19/2016	7.66	
6/7/2016	8.16	
8/30/2016	8.43	
10/18/2016	8.47	
3/20/2017	7.4	
5/2/2017	6.3 (D)	
6/6/2017	7.1 (D)	
9/13/2017	7.3	
5/1/2018	6.9	
11/27/2018	6.5	
5/29/2019	7.81	
10/2/2019		7.62
3/31/2020		7.98
9/9/2020		7.13

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 12/8/2020 4:57 PM View: Appendix III - Intrawell

Plant Barry Client: Southern Company Data: Barry Ash Pond

	BY-GSA-MW-4	BY-GSA-MW-4
2/23/2016	7.04	
4/19/2016	6.74	
6/6/2016	7.04	
8/30/2016	7.57	
10/18/2016	6.62	
3/20/2017	7	
5/2/2017	5.6 (D)	
6/6/2017	6.6 (D)	
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

FIGURE F.

Trend Tests - Prediction Limit Exceedances - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 5:07 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-AP-MW-10	0.15	76	53	Yes	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-AP-MW-8	-0.1051	-70	-53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-10	2.598	72	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-11	-0.6568	-78	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-12	0.5938	81	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-15	0.2738	62	58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-7	0.6035	93	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-8	-0.7237	-73	-58	Yes	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-2 (bg)	0.1427	61	53	Yes	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-4 (bg)	0.1144	65	53	Yes	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-10	1.909	90	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-14	1.573	62	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-15	8.091	102	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-16	1.09	79	58	Yes	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-2 (bg)	-0.4186	-60	-53	Yes	15	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-13	-0.02844	-71	-68	Yes	18	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-8	-0.01843	-70	-68	Yes	18	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-2 (bg)	-0.06003	-77	-63	Yes	17	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-3 (bg)	-0.04822	-69	-63	Yes	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-1	1.93	69	58	Yes	16	37.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-11	7.04	79	58	Yes	16	37.5	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-15	11.54	80	58	Yes	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-1 (bg)	6.385	71	53	Yes	15	6.667	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-2 (bg)	3.19	60	53	Yes	15	13.33	n/a	n/a	0.01	NP
TDS (mg/L)	BY-GSA-MW-4 (bg)	3.921	63	53	Yes	15	26.67	n/a	n/a	0.01	NP

Trend Tests - Prediction Limit Exceedances - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 5:07 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	BY-AP-MW-1	0.02626	13	53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	**BY-AP-MW-10**	**0.15**	**76**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	BY-AP-MW-16	0.06088	50	53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	**BY-AP-MW-8**	**-0.1051**	**-70**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Boron (mg/L)	BY-AP-MW-9	0.06586	45	53	No	15	0	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-1 (bg)	0	17	53	No	15	53.33	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-2 (bg)	0	21	48	No	14	85.71	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-3 (bg)	0	0	53	No	15	100	n/a	n/a	0.01	NP
Boron (mg/L)	BY-GSA-MW-4 (bg)	0	19	53	No	15	86.67	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-1	-0.4318	-10	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-AP-MW-10**	**2.598**	**72**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-AP-MW-11**	**-0.6568**	**-78**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-AP-MW-12**	**0.5938**	**81**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-AP-MW-13	0.2354	26	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-14	-0.1528	-12	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-AP-MW-15**	**0.2738**	**62**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-AP-MW-16	-0.03773	-7	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-2	-0.05823	-38	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-AP-MW-5	-0.101	-19	-58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-AP-MW-7**	**0.6035**	**93**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	**BY-AP-MW-8**	**-0.7237**	**-73**	**-58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-AP-MW-9	0.07965	8	58	No	16	0	n/a	n/a	0.01	NP
Calcium (mg/L)	BY-GSA-MW-1 (bg)	0.1131	30	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-GSA-MW-2 (bg)**	**0.1427**	**61**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Calcium (mg/L)	BY-GSA-MW-3 (bg)	0.06599	44	53	No	15	0	n/a	n/a	0.01	NP
Calcium (mg/L)	**BY-GSA-MW-4 (bg)**	**0.1144**	**65**	**53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-AP-MW-1	1.086	34	48	No	14	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**BY-AP-MW-10**	**1.909**	**90**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-AP-MW-11	0.7006	29	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-12	0.4983	58	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-13	0	0	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**BY-AP-MW-14**	**1.573**	**62**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**BY-AP-MW-15**	**8.091**	**102**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	**BY-AP-MW-16**	**1.09**	**79**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-AP-MW-5	0	5	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-7	0.4011	39	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-8	0.5549	29	58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-AP-MW-9	-0.6738	-22	-58	No	16	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-1 (bg)	0.062	12	53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	**BY-GSA-MW-2 (bg)**	**-0.4186**	**-60**	**-53**	**Yes**	**15**	**0**	**n/a**	**n/a**	**0.01**	**NP**
Chloride (mg/L)	BY-GSA-MW-3 (bg)	-0.0446	-27	-53	No	15	0	n/a	n/a	0.01	NP
Chloride (mg/L)	BY-GSA-MW-4 (bg)	-0.05577	-27	-53	No	15	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-AP-MW-1	0.0105	48	58	No	16	18.75	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-AP-MW-15	-0.001465	-18	-58	No	16	6.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-AP-MW-7	0.005247	45	58	No	16	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-1 (bg)	0.009724	46	58	No	16	37.5	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-2 (bg)	0.01509	55	58	No	16	37.5	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-3 (bg)	0.01192	57	58	No	16	56.25	n/a	n/a	0.01	NP
Fluoride (mg/L)	BY-GSA-MW-4 (bg)	0.009702	57	58	No	16	56.25	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-11	-0.03028	-55	-68	No	18	0	n/a	n/a	0.01	NP
pH (pH)	**BY-AP-MW-13**	**-0.02844**	**-71**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	BY-AP-MW-14	-0.0158	-26	-68	No	18	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-16	-0.0132	-25	-68	No	18	0	n/a	n/a	0.01	NP
pH (pH)	BY-AP-MW-3	-0.03874	-53	-68	No	18	0	n/a	n/a	0.01	NP
pH (pH)	**BY-AP-MW-8**	**-0.01843**	**-70**	**-68**	**Yes**	**18**	**0**	**n/a**	**n/a**	**0.01**	**NP**

Trend Tests - Prediction Limit Exceedances - All Results

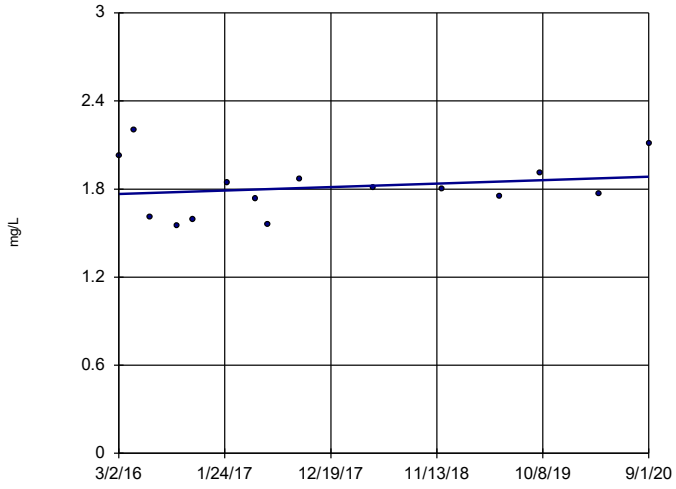
Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/8/2020, 5:07 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH (pH)	BY-AP-MW-9	-0.007464	-9	-68	No	18	0	n/a	n/a	0.01	NP
pH (pH)	BY-GSA-MW-1 (bg)	0	-3	-63	No	17	0	n/a	n/a	0.01	NP
pH (pH)	**BY-GSA-MW-2 (bg)**	**-0.06003**	**-77**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	**BY-GSA-MW-3 (bg)**	**-0.04822**	**-69**	**-63**	**Yes**	**17**	**0**	**n/a**	**n/a**	**0.01**	**NP**
pH (pH)	BY-GSA-MW-4 (bg)	-0.03765	-47	-63	No	17	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	**BY-AP-MW-1**	**1.93**	**69**	**58**	**Yes**	**16**	**37.5**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	BY-AP-MW-10	0	30	58	No	16	56.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	**BY-AP-MW-11**	**7.04**	**79**	**58**	**Yes**	**16**	**37.5**	**n/a**	**n/a**	**0.01**	**NP**
Sulfate (mg/L)	BY-AP-MW-12	1.195	51	53	No	15	60	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-15	0	23	58	No	16	62.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-16	0	26	58	No	16	56.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-5	0.1906	42	58	No	16	56.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-8	0.1336	57	58	No	16	62.5	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-AP-MW-9	0	28	58	No	16	56.25	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-1 (bg)	2.511	33	53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-2 (bg)	-0.3861	-27	-48	No	14	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-3 (bg)	-0.1206	-17	-53	No	15	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	BY-GSA-MW-4 (bg)	-0.0473	-12	-53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-1	-6.195	-40	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-10	7.891	56	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-11	2.62	17	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-12	-3.211	-19	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-13	-3.901	-23	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-14	1.66	10	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-AP-MW-15**	**11.54**	**80**	**58**	**Yes**	**16**	**0**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-AP-MW-16	2.459	21	58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-5	-4.403	-42	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-7	0.7866	15	53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-8	-3.764	-35	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	BY-AP-MW-9	-2.603	-21	-58	No	16	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-GSA-MW-1 (bg)**	**6.385**	**71**	**53**	**Yes**	**15**	**6.667**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	**BY-GSA-MW-2 (bg)**	**3.19**	**60**	**53**	**Yes**	**15**	**13.33**	**n/a**	**n/a**	**0.01**	**NP**
TDS (mg/L)	BY-GSA-MW-3 (bg)	1.858	35	53	No	15	0	n/a	n/a	0.01	NP
TDS (mg/L)	**BY-GSA-MW-4 (bg)**	**3.921**	**63**	**53**	**Yes**	**15**	**26.67**	**n/a**	**n/a**	**0.01**	**NP**

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-1



n = 15

Slope = 0.02626 units per year.

Mann-Kendall statistic = 13 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

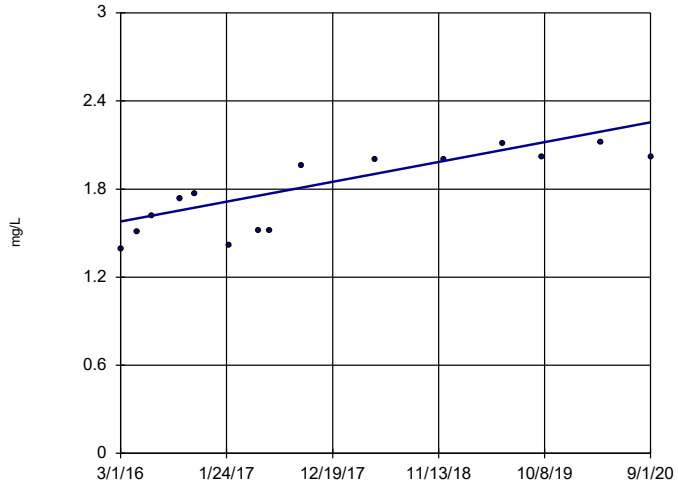
Constituent: Boron Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-10



n = 15

Slope = 0.15 units per year.

Mann-Kendall statistic = 76 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

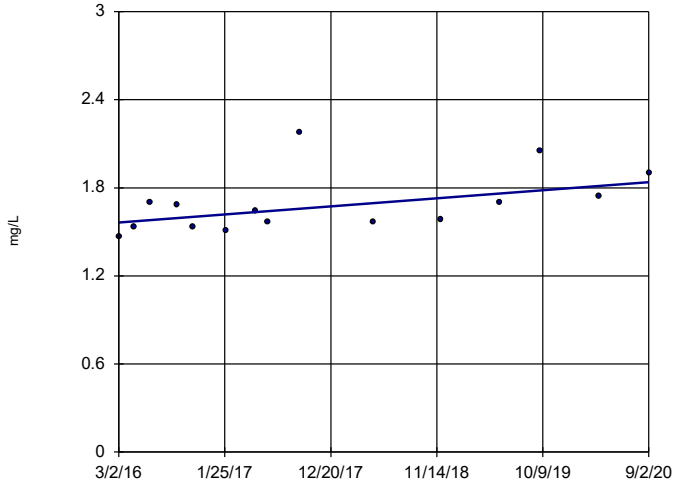
Constituent: Boron Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-16



n = 15

Slope = 0.06088 units per year.

Mann-Kendall statistic = 50 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

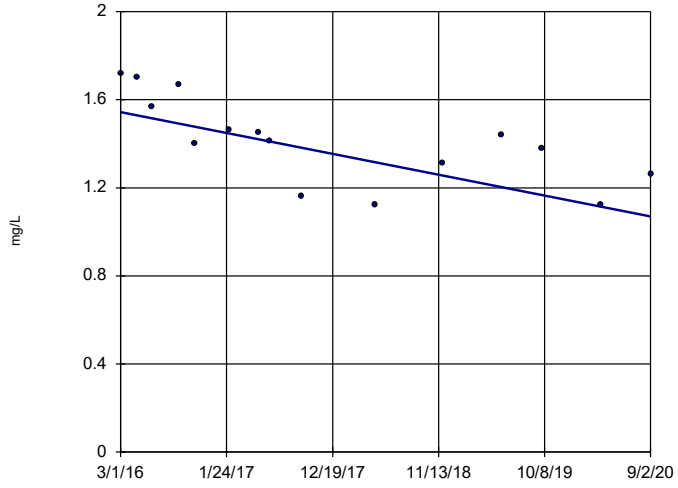
Constituent: Boron Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-8



n = 15

Slope = -0.1051 units per year.

Mann-Kendall statistic = -70 critical = -53

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

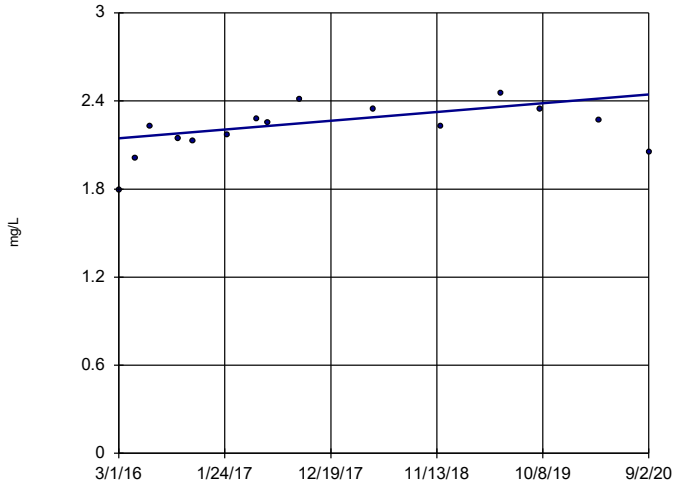
Constituent: Boron Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-9



n = 15

Slope = 0.06586 units per year.

Mann-Kendall statistic = 45 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

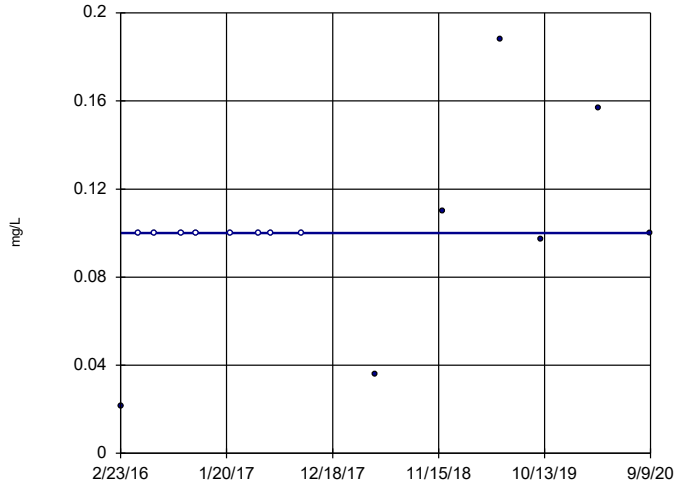
Constituent: Boron Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = 17 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

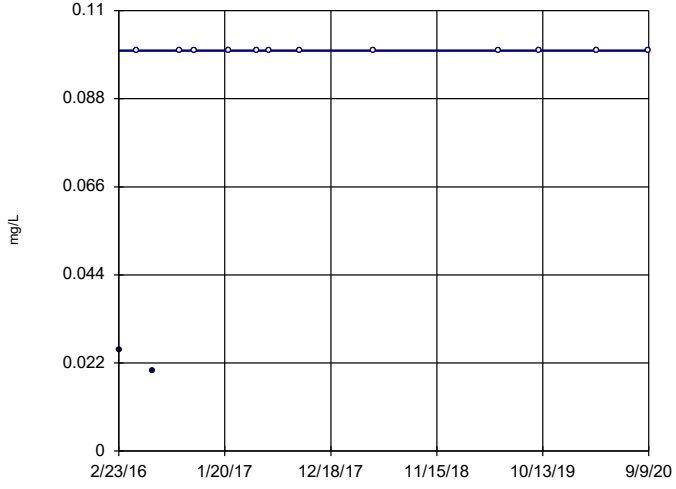
Constituent: Boron Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 14

Slope = 0 units per year.

Mann-Kendall statistic = 21 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

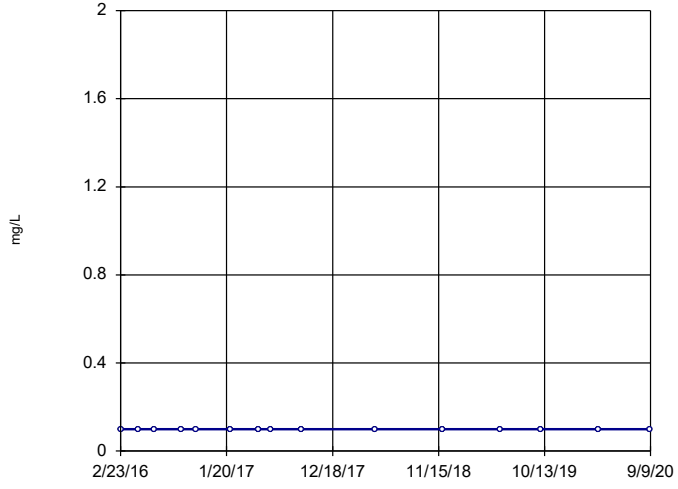
Constituent: Boron Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 15

Slope = 0 units per year.

Mann-Kendall statistic = 0 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

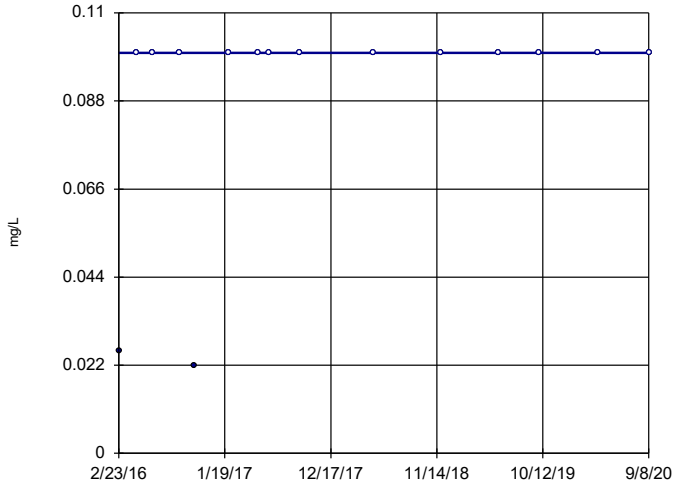
Constituent: Boron Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 15

Slope = 0
units per year.

Mann-Kendall
statistic = 19
critical = 53

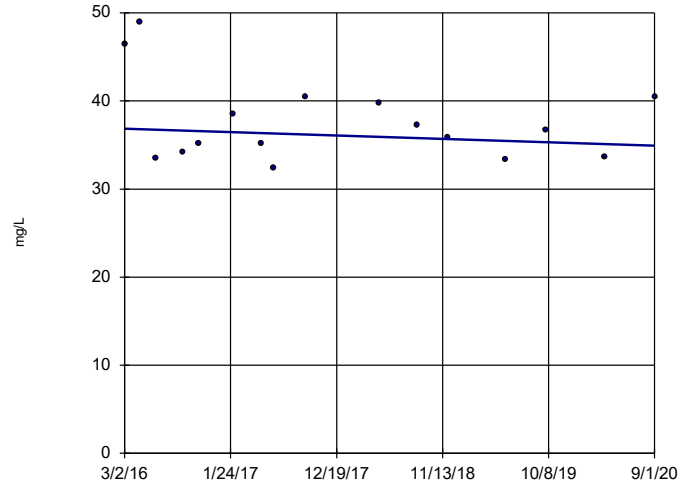
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Boron Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-1



n = 16

Slope = -0.4318
units per year.

Mann-Kendall
statistic = -10
critical = -58

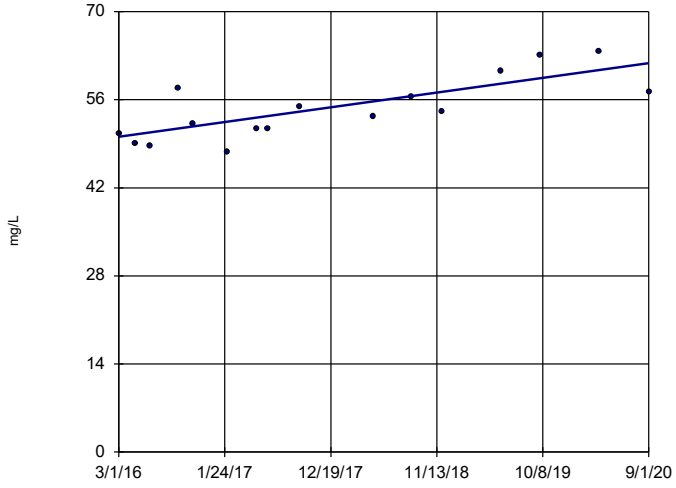
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-10



n = 16

Slope = 2.598
units per year.

Mann-Kendall
statistic = 72
critical = 58

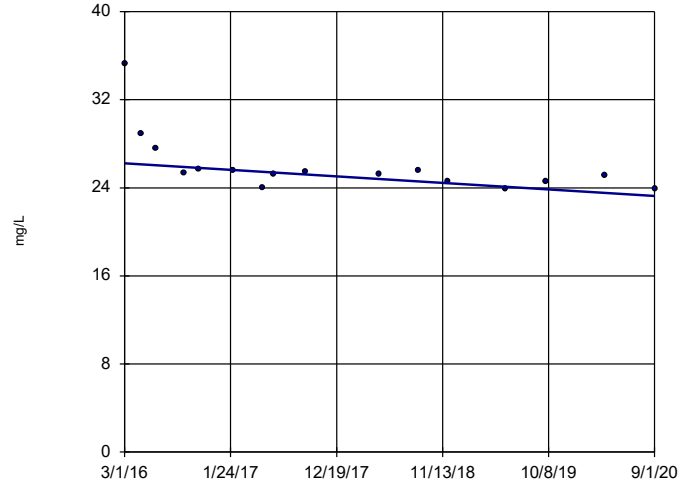
Increasing trend
significant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-11



n = 16

Slope = -0.6568
units per year.

Mann-Kendall
statistic = -78
critical = -58

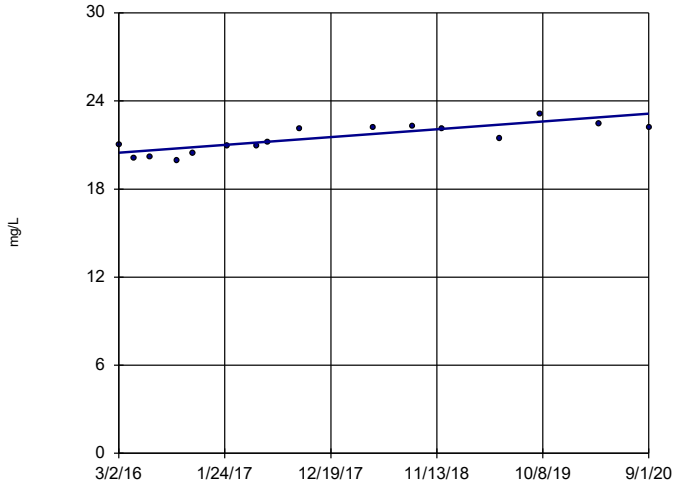
Decreasing trend
significant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-12



n = 16

Slope = 0.5938 units per year.

Mann-Kendall statistic = 81 critical = 58

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

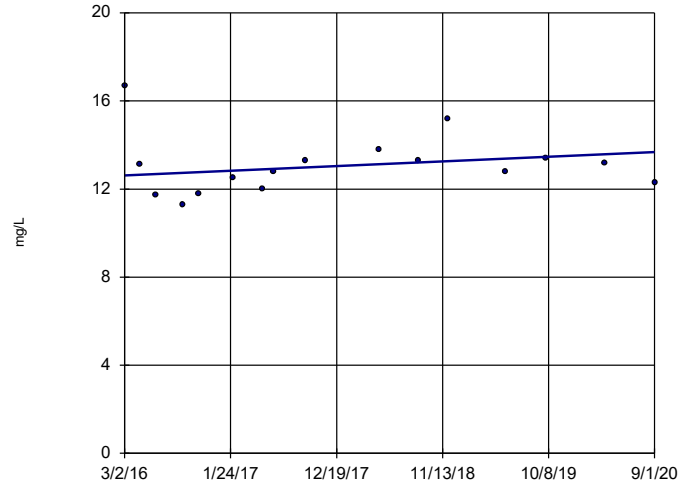
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-13



n = 16

Slope = 0.2354 units per year.

Mann-Kendall statistic = 26 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

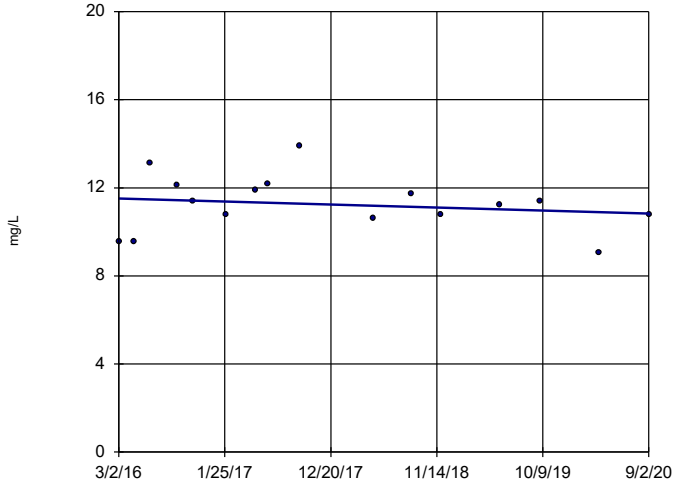
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-14



n = 16

Slope = -0.1528 units per year.

Mann-Kendall statistic = -12 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

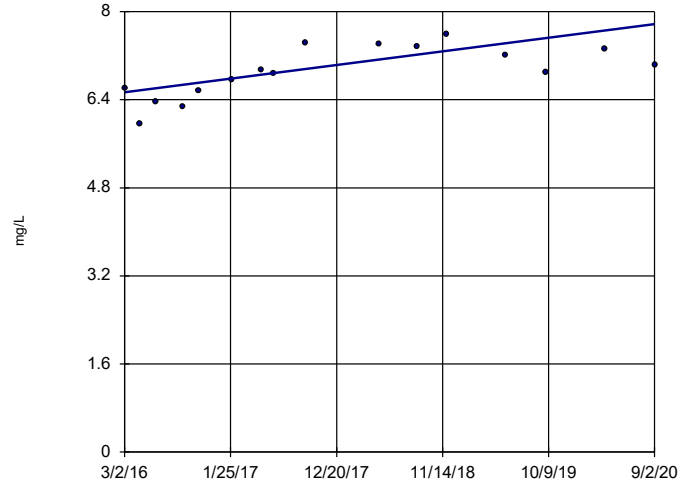
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-15



n = 16

Slope = 0.2738 units per year.

Mann-Kendall statistic = 62 critical = 58

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

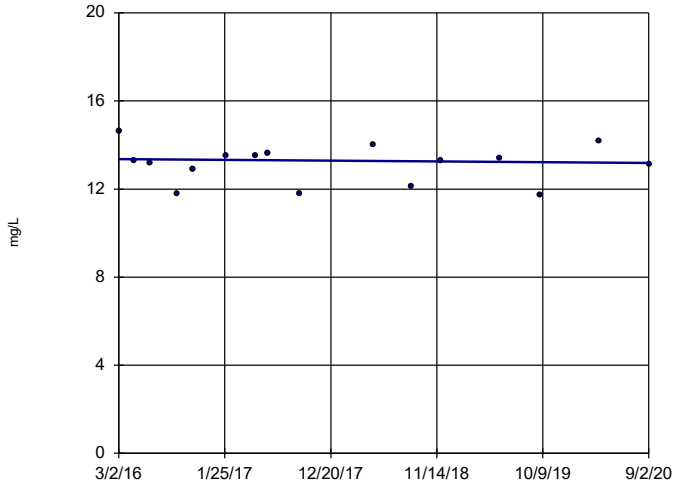
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-16



n = 16

Slope = -0.03773 units per year.

Mann-Kendall statistic = -7 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

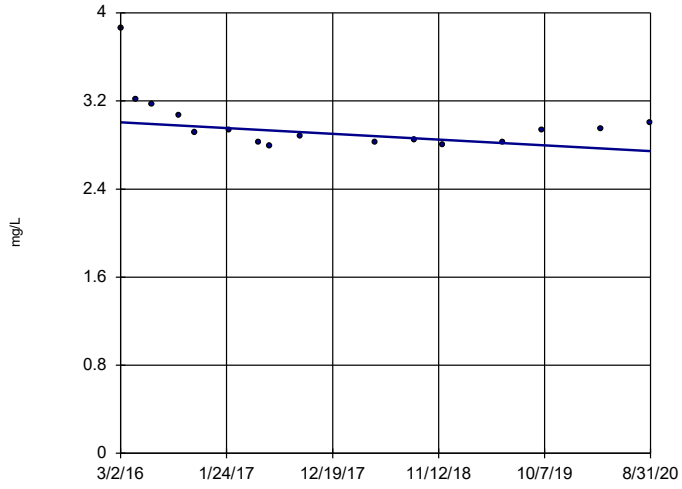
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-2



n = 16

Slope = -0.05823 units per year.

Mann-Kendall statistic = -38 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

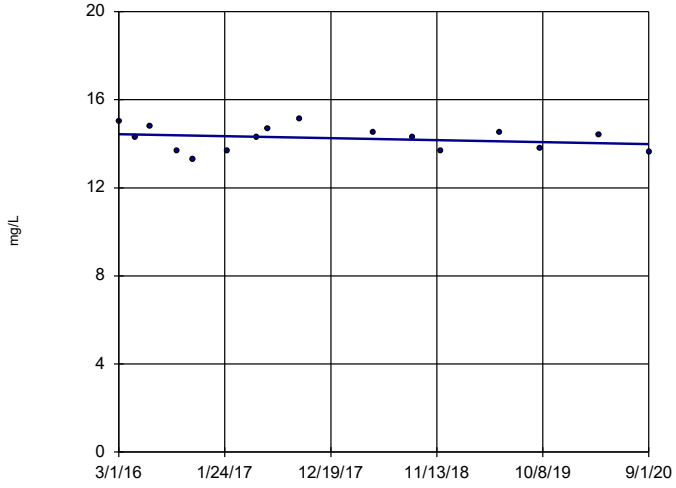
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-5



n = 16

Slope = -0.101 units per year.

Mann-Kendall statistic = -19 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

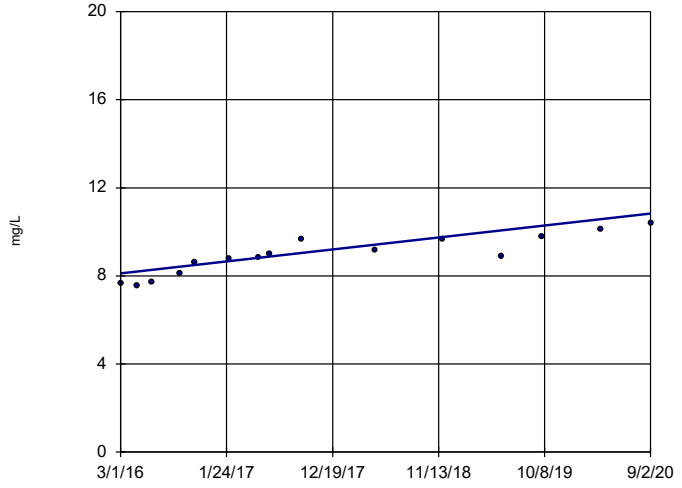
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-7



n = 15

Slope = 0.6035 units per year.

Mann-Kendall statistic = 93 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

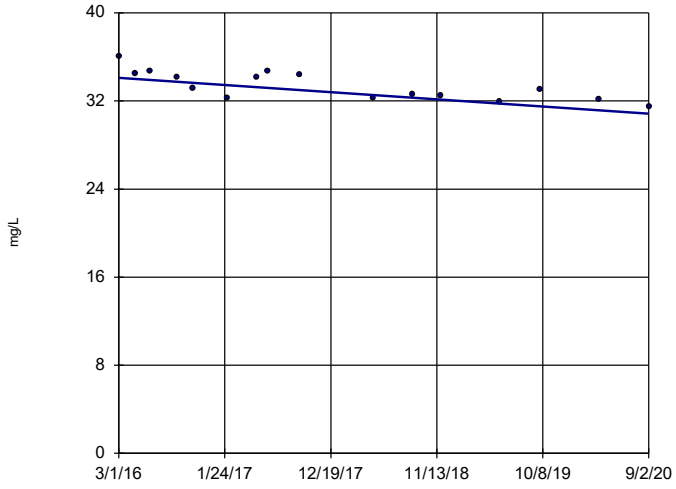
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-8



n = 16

Slope = -0.7237 units per year.

Mann-Kendall statistic = -73 critical = -58

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

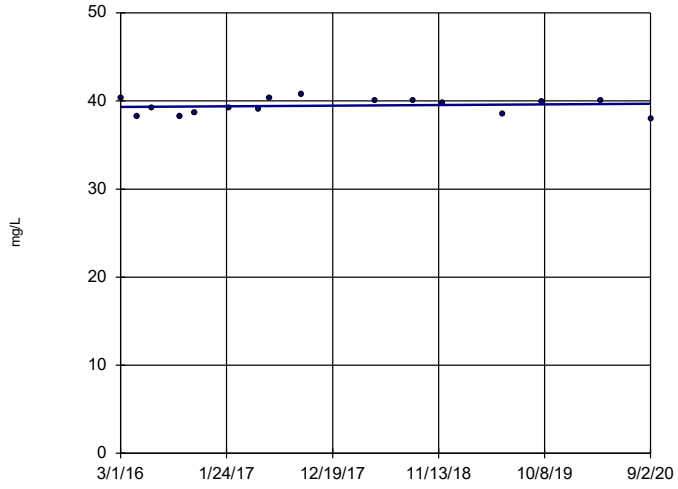
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-9



n = 16

Slope = 0.07965 units per year.

Mann-Kendall statistic = 8 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

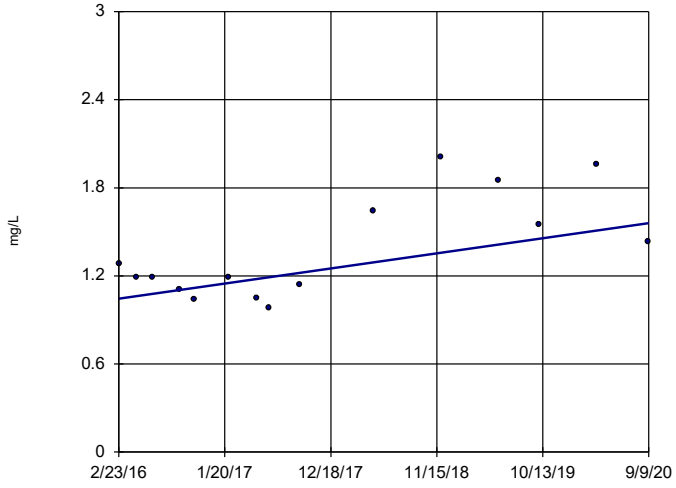
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 15

Slope = 0.1131 units per year.

Mann-Kendall statistic = 30 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

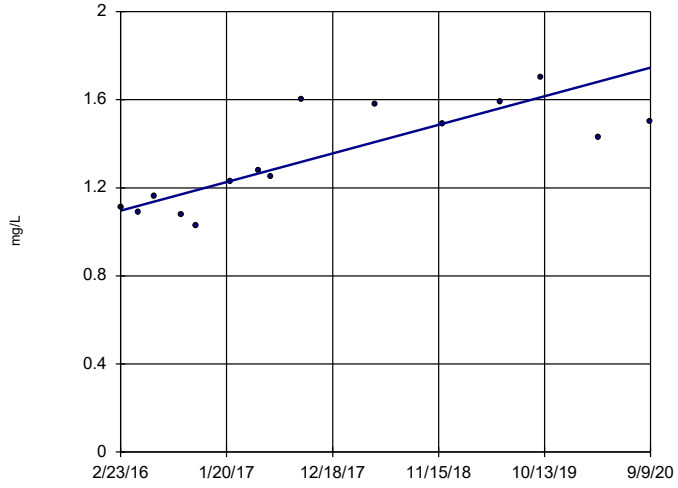
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 15

Slope = 0.1427 units per year.

Mann-Kendall statistic = 61 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

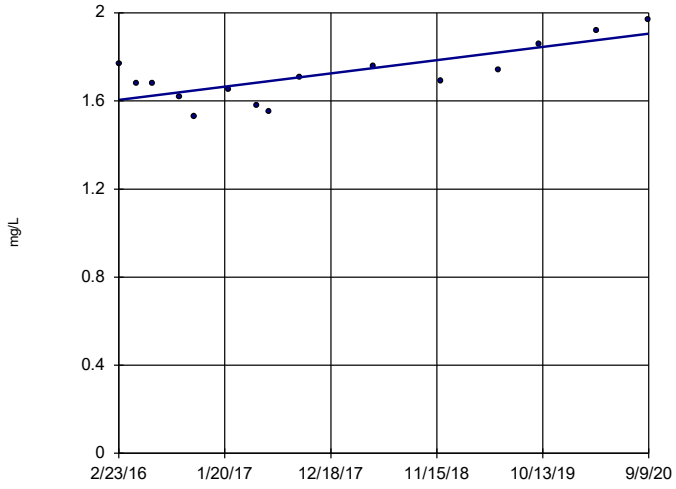
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 15

Slope = 0.06599 units per year.

Mann-Kendall statistic = 44 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

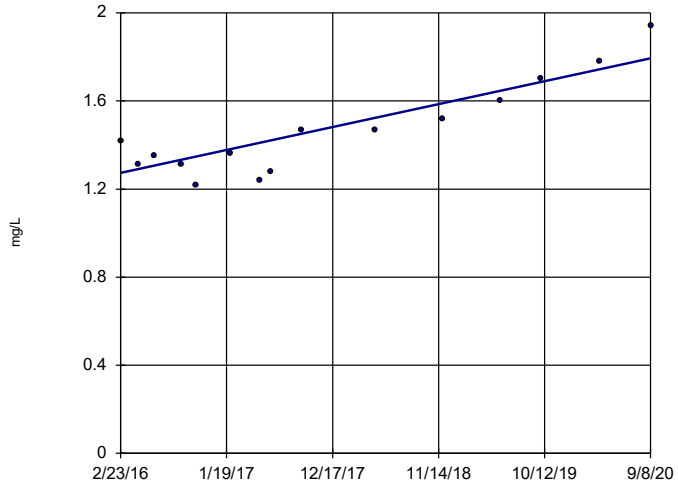
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 15

Slope = 0.1144 units per year.

Mann-Kendall statistic = 65 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

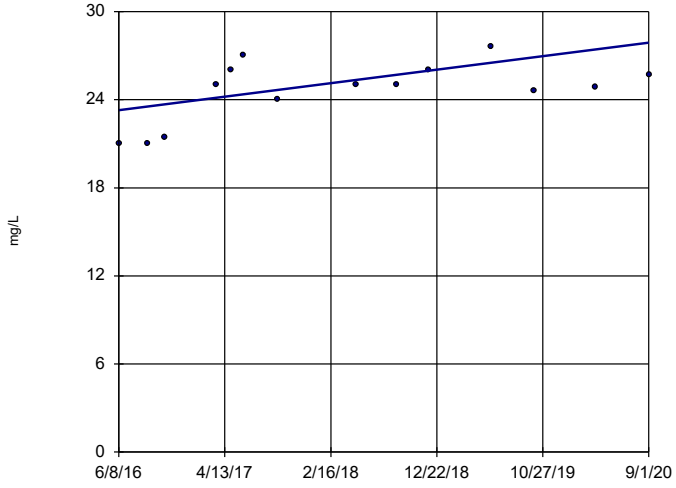
Constituent: Calcium Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-1



n = 14

Slope = 1.086 units per year.

Mann-Kendall statistic = 34 critical = 48

Trend not significant at 99% confidence level (α = 0.005 per tail).

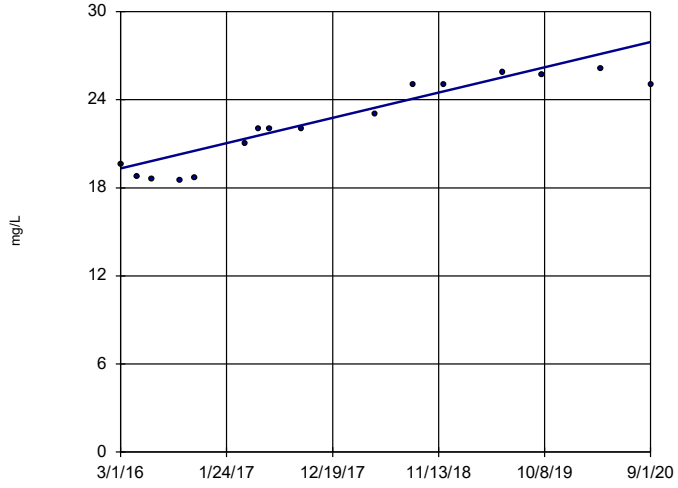
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-10



n = 16

Slope = 1.909 units per year.

Mann-Kendall statistic = 90 critical = 58

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

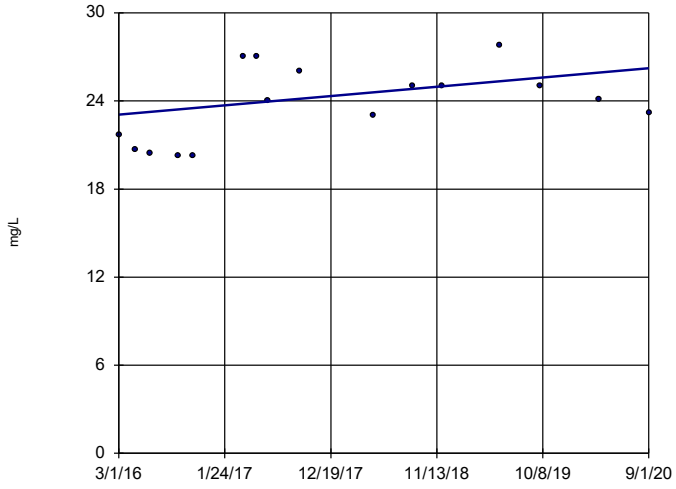
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-11



n = 16

Slope = 0.7006 units per year.

Mann-Kendall statistic = 29 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

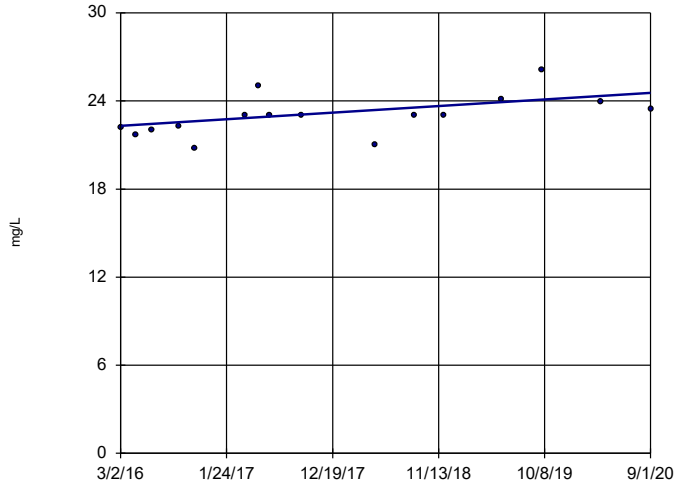
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-12



n = 16

Slope = 0.4983 units per year.

Mann-Kendall statistic = 58 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

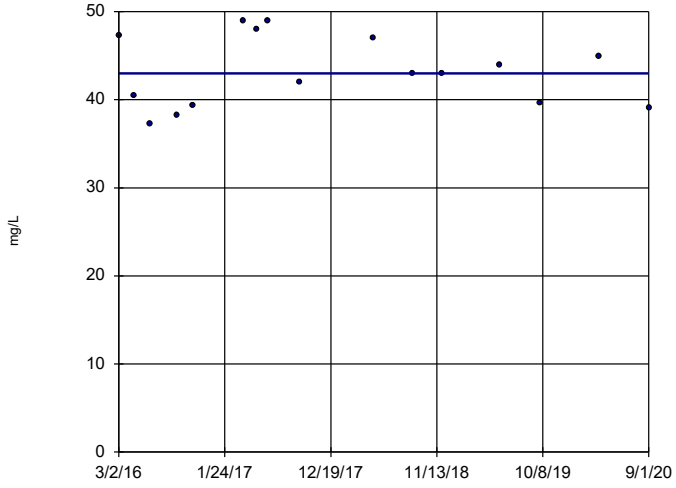
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-13



n = 16

Slope = 0 units per year.

Mann-Kendall statistic = 0 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

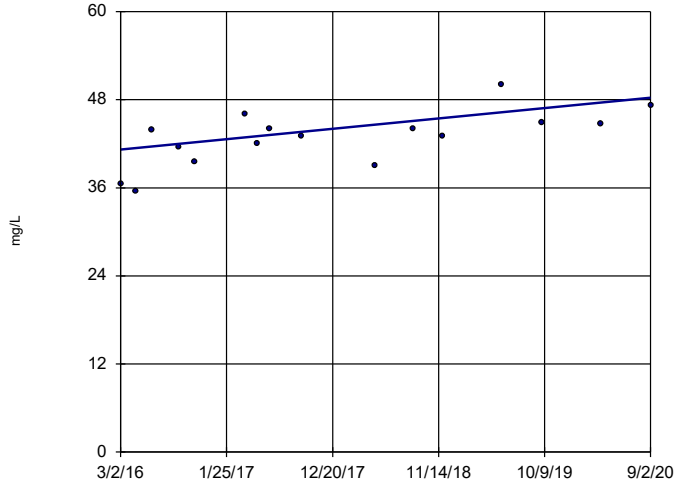
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-14



n = 16

Slope = 1.573 units per year.

Mann-Kendall statistic = 62 critical = 58

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

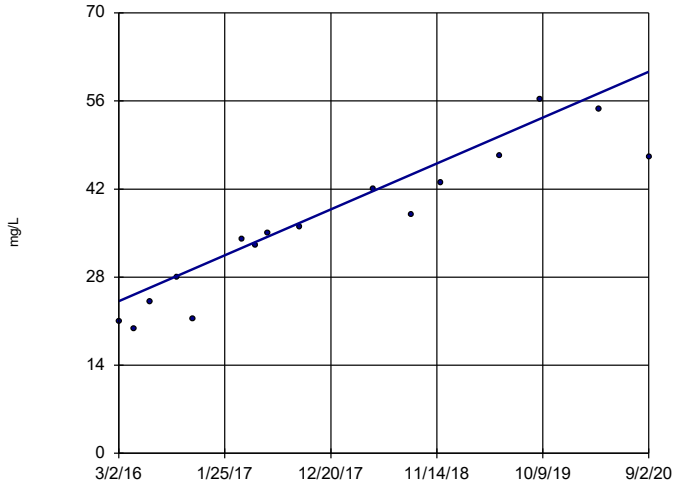
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-15



n = 16

Slope = 8.091 units per year.

Mann-Kendall statistic = 102 critical = 58

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

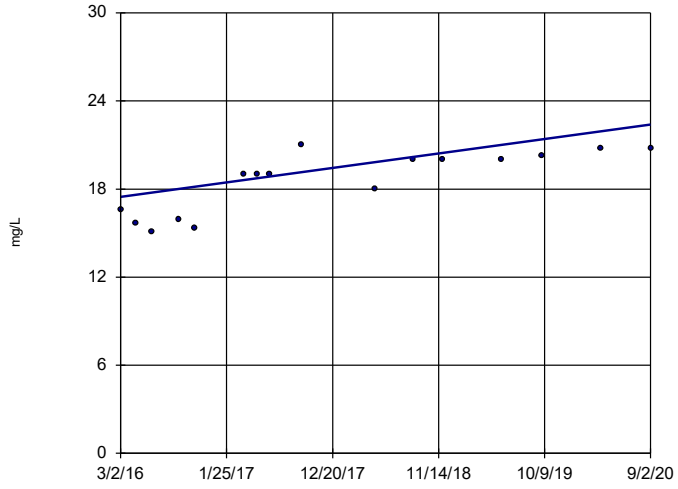
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-16



n = 16

Slope = 1.09 units per year.

Mann-Kendall statistic = 79 critical = 58

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

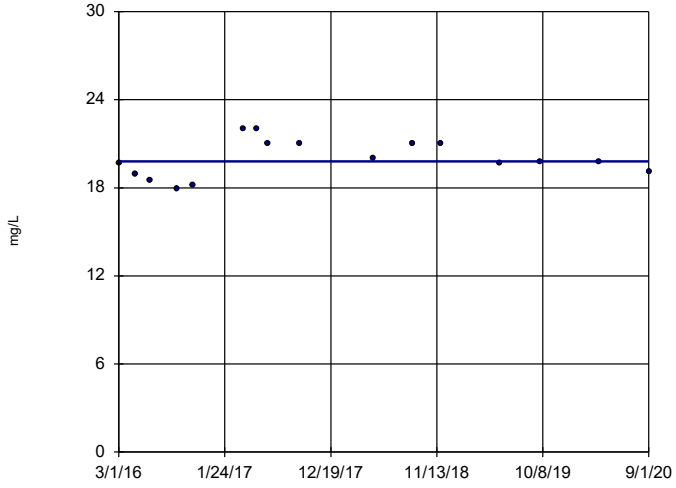
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-5



n = 16

Slope = 0 units per year.

Mann-Kendall statistic = 5 critical = 58

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

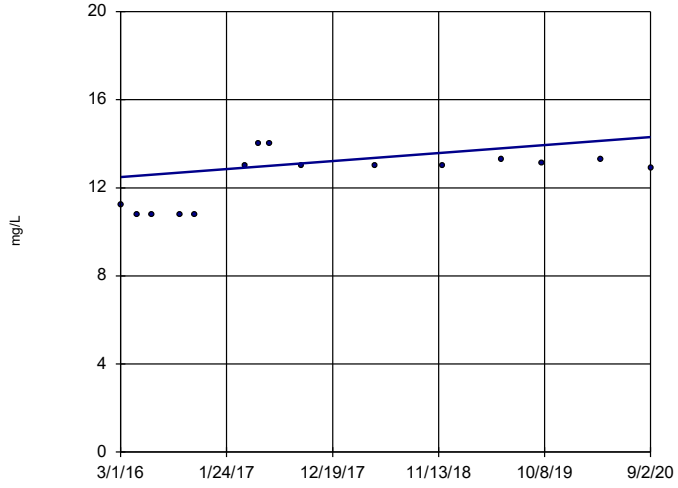
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-7



n = 15

Slope = 0.4011 units per year.

Mann-Kendall statistic = 39 critical = 53

Trend not sig-nificant at 99% confidence level (α = 0.005 per tail).

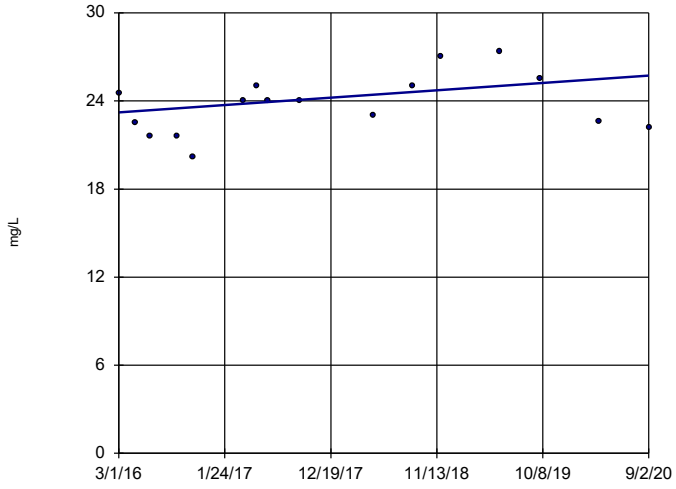
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-8



n = 16

Slope = 0.5549 units per year.

Mann-Kendall statistic = 29 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

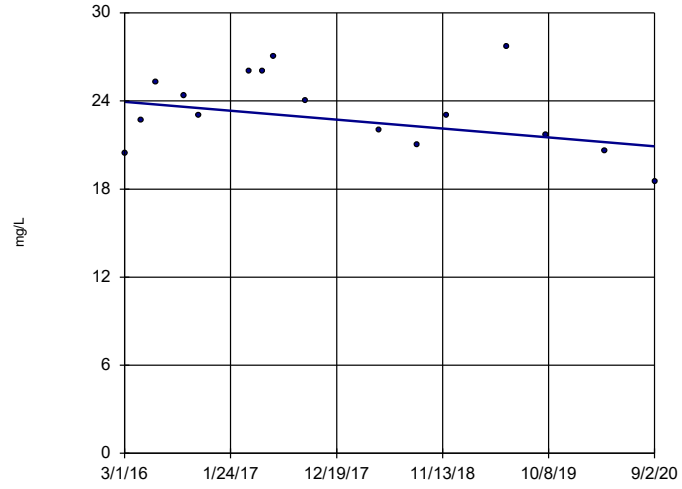
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-9



n = 16

Slope = -0.6738 units per year.

Mann-Kendall statistic = -22 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

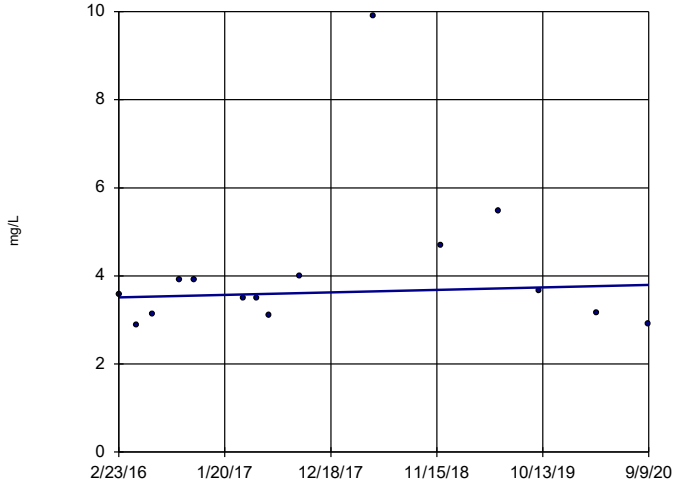
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 15

Slope = 0.062 units per year.

Mann-Kendall statistic = 12 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

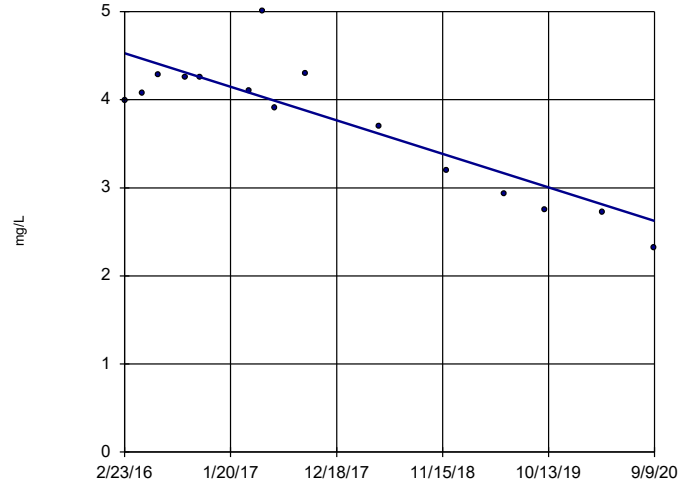
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 15

Slope = -0.4186 units per year.

Mann-Kendall statistic = -60 critical = -53

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

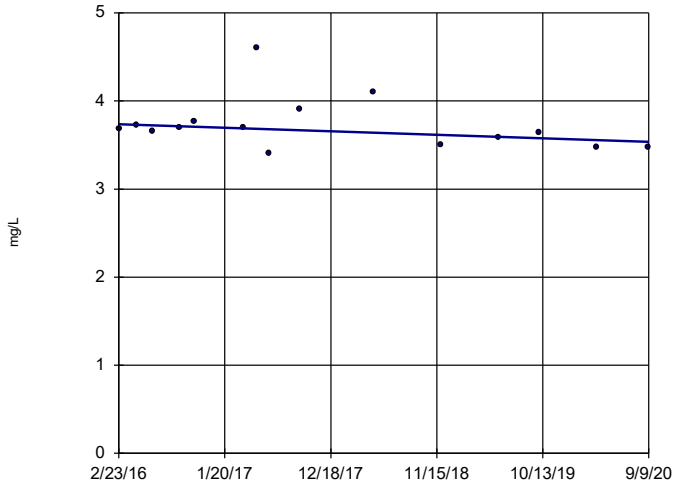
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 15

Slope = -0.0446 units per year.

Mann-Kendall statistic = -27 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

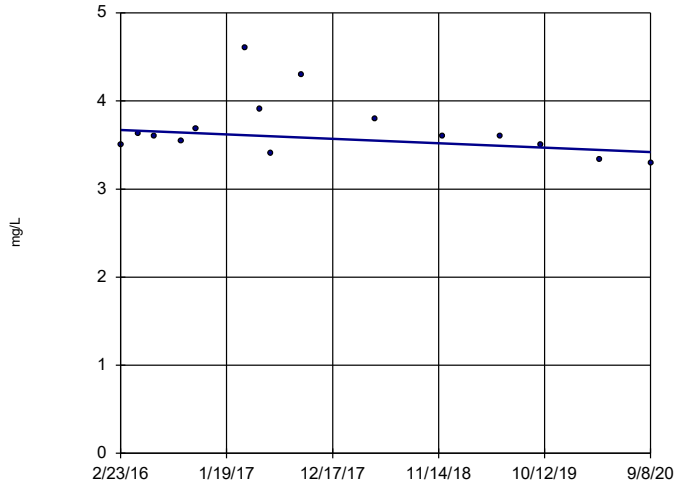
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 15

Slope = -0.05577 units per year.

Mann-Kendall statistic = -27 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

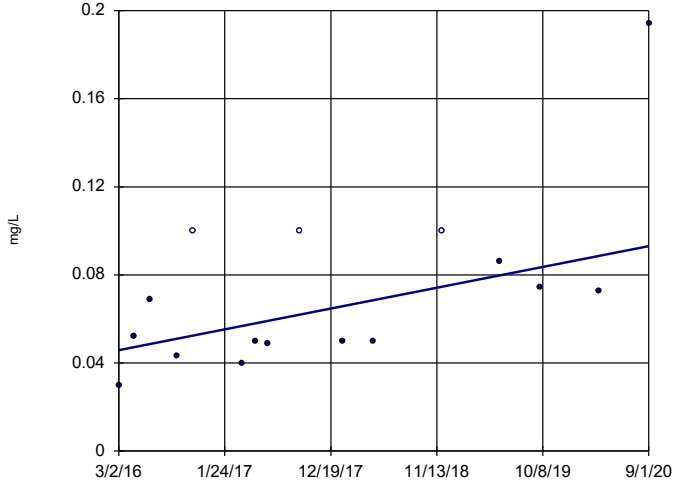
Constituent: Chloride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-1



n = 16

Slope = 0.0105 units per year.

Mann-Kendall statistic = 48 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

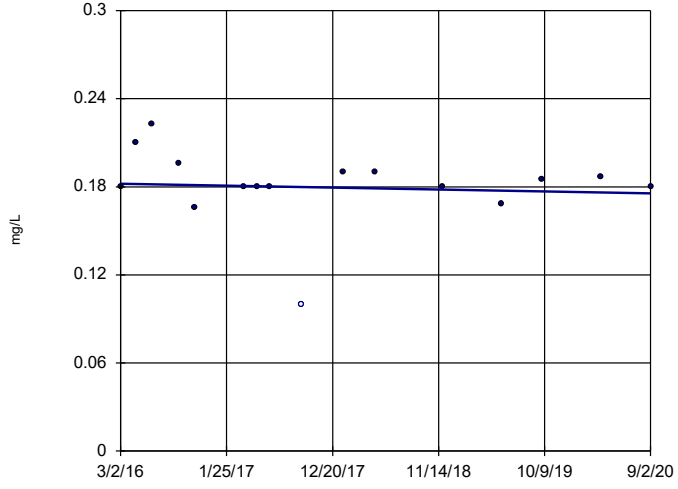
Constituent: Fluoride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-15



n = 16

Slope = -0.001465 units per year.

Mann-Kendall statistic = -18 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

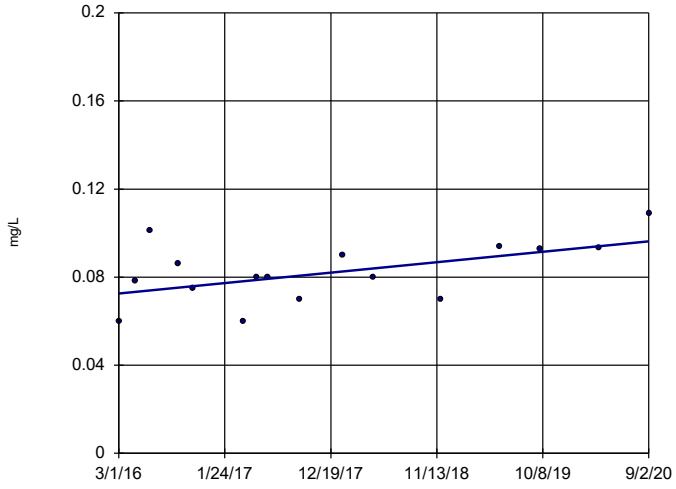
Constituent: Fluoride Analysis Run 12/8/2020 5:05 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-7



n = 16

Slope = 0.005247 units per year.

Mann-Kendall statistic = 45 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

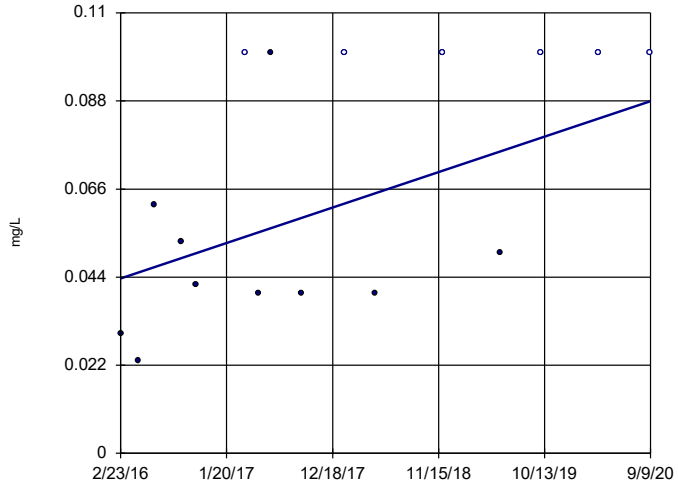
Constituent: Fluoride Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 16

Slope = 0.009724 units per year.

Mann-Kendall statistic = 46 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

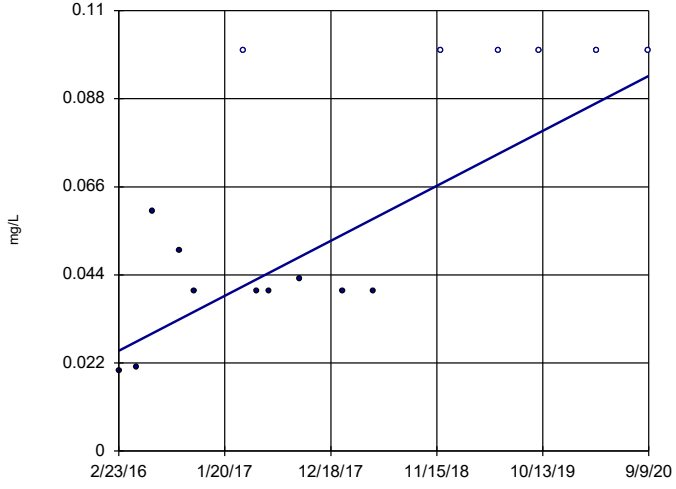
Constituent: Fluoride Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 16

Slope = 0.01509 units per year.

Mann-Kendall statistic = 55 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

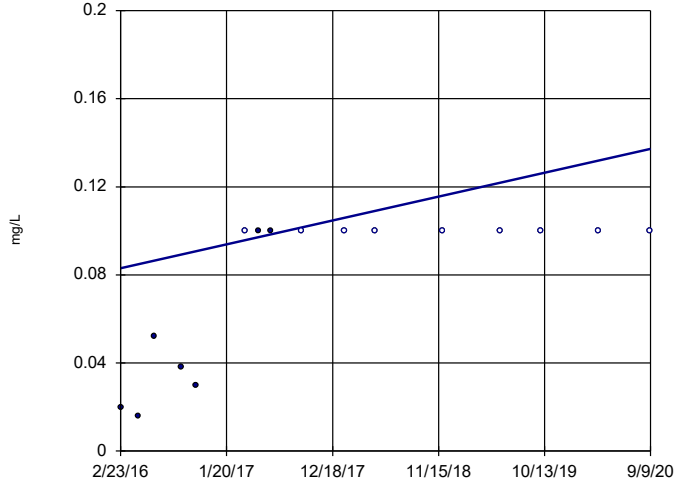
Constituent: Fluoride Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 16

Slope = 0.01192 units per year.

Mann-Kendall statistic = 57 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

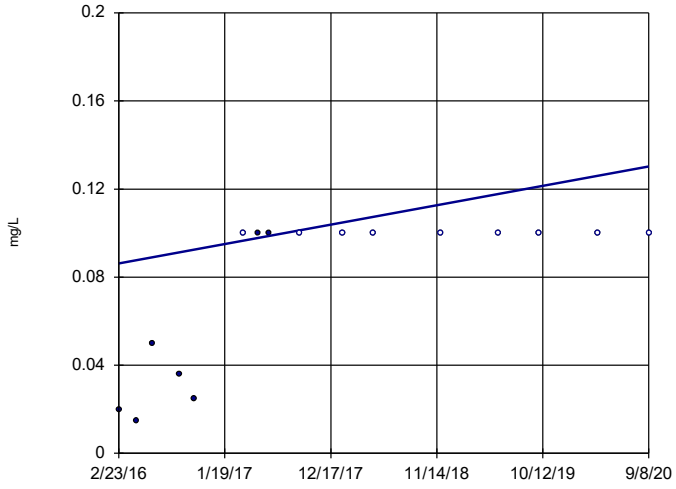
Constituent: Fluoride Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 16

Slope = 0.009702 units per year.

Mann-Kendall statistic = 57 critical = 58

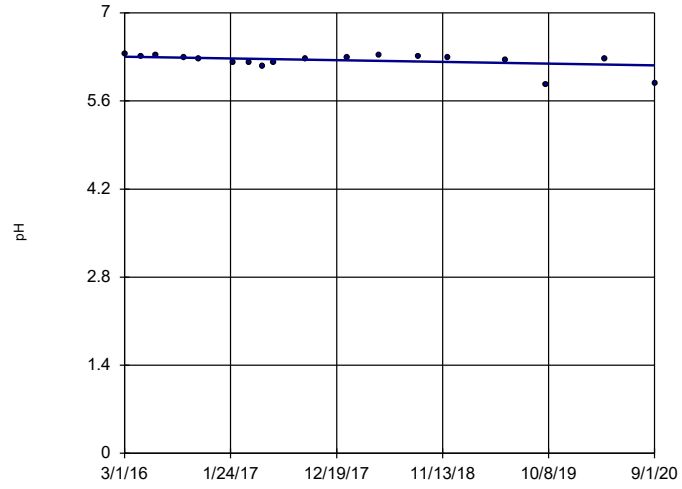
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Fluoride Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-11



n = 18

Slope = -0.03028 units per year.

Mann-Kendall statistic = -55 critical = -68

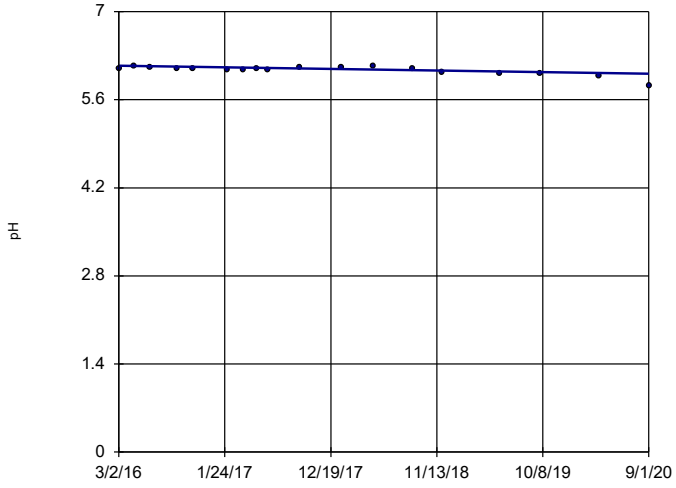
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-13



n = 18

Slope = -0.02844 units per year.

Mann-Kendall statistic = -71 critical = -68

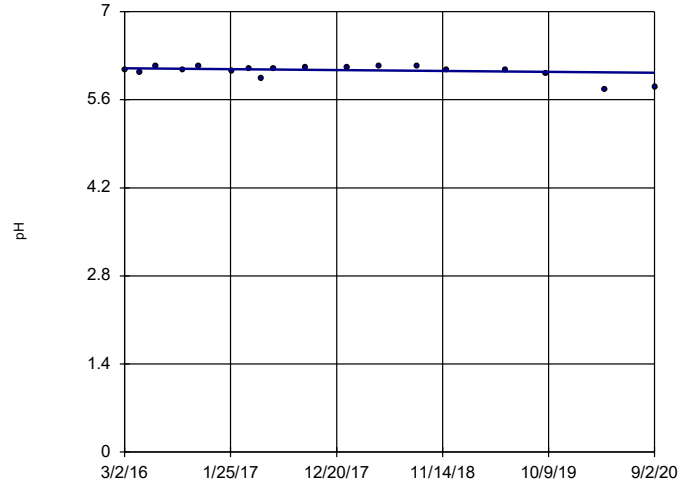
Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-14



n = 18

Slope = -0.0158 units per year.

Mann-Kendall statistic = -26 critical = -68

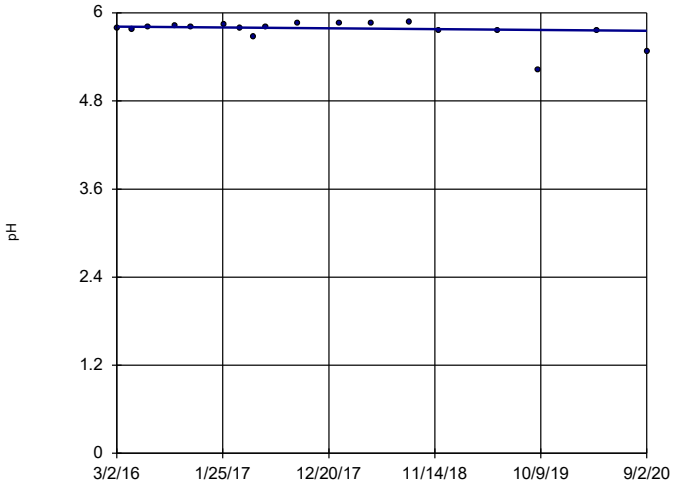
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-16



n = 18

Slope = -0.0132 units per year.

Mann-Kendall statistic = -25 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

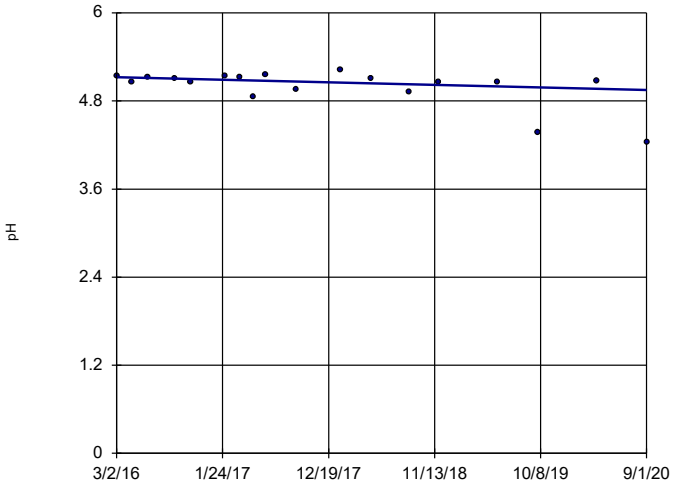
Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-3



n = 18

Slope = -0.03874 units per year.

Mann-Kendall statistic = -53 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

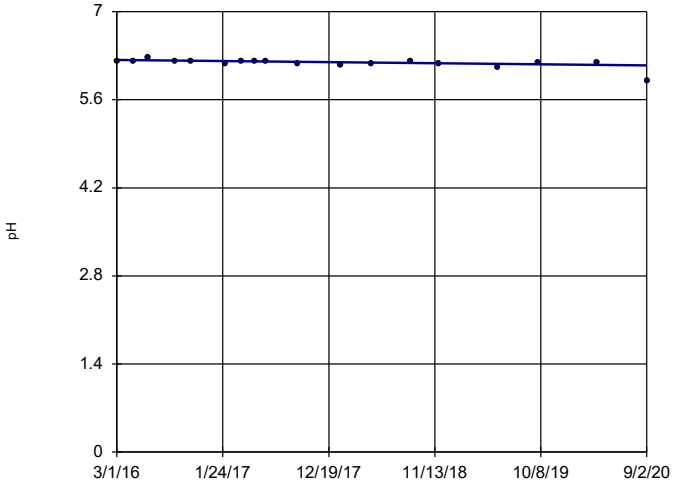
Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-8



n = 18

Slope = -0.01843 units per year.

Mann-Kendall statistic = -70 critical = -68

Decreasing trend significant at 99% confidence level (α = 0.005 per tail).

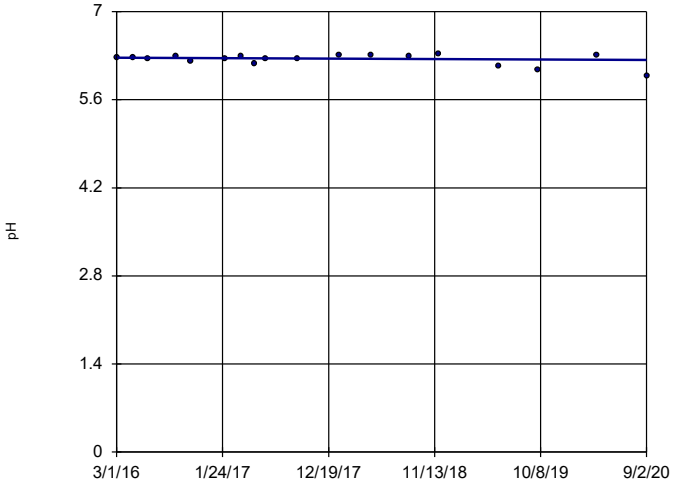
Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-9



n = 18

Slope = -0.007464 units per year.

Mann-Kendall statistic = -9 critical = -68

Trend not significant at 99% confidence level (α = 0.005 per tail).

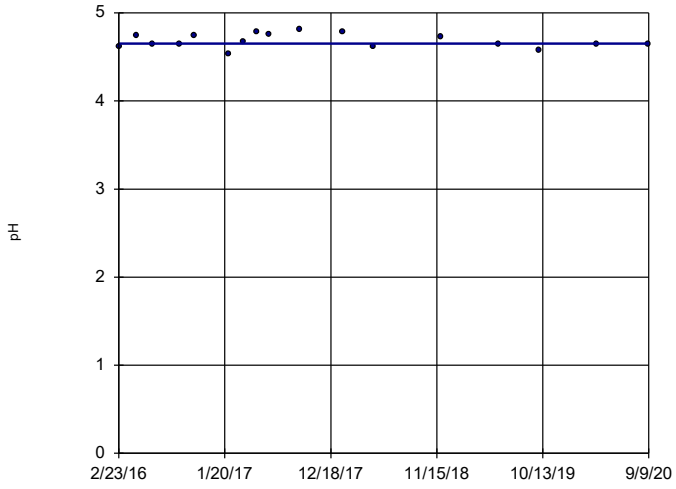
Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 17

Slope = 0
units per year.

Mann-Kendall
statistic = -3
critical = -63

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

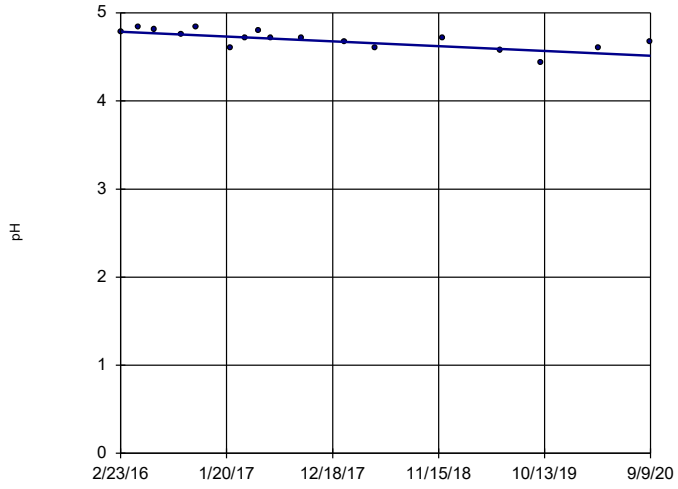
Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 17

Slope = -0.06003
units per year.

Mann-Kendall
statistic = -77
critical = -63

Decreasing trend
significant at 99%
confidence level
(α = 0.005 per
tail).

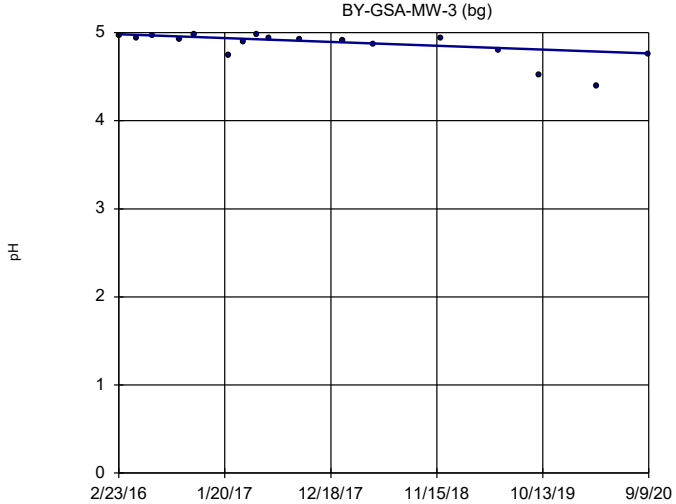
Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 17

Slope = -0.04822
units per year.

Mann-Kendall
statistic = -69
critical = -63

Decreasing trend
significant at 99%
confidence level
(α = 0.005 per
tail).

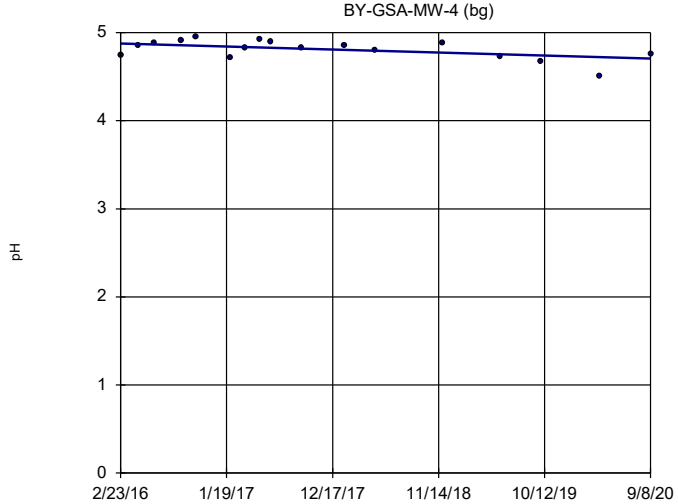
Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 17

Slope = -0.03765
units per year.

Mann-Kendall
statistic = -47
critical = -63

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

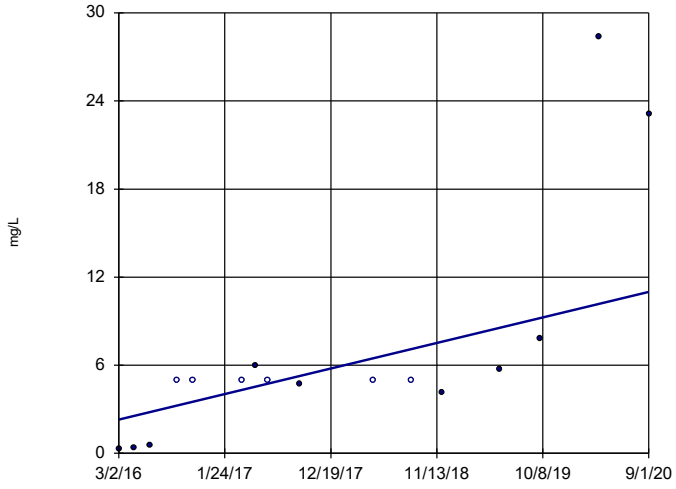
Constituent: pH Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-1



n = 16

Slope = 1.93 units per year.

Mann-Kendall statistic = 69 critical = 58

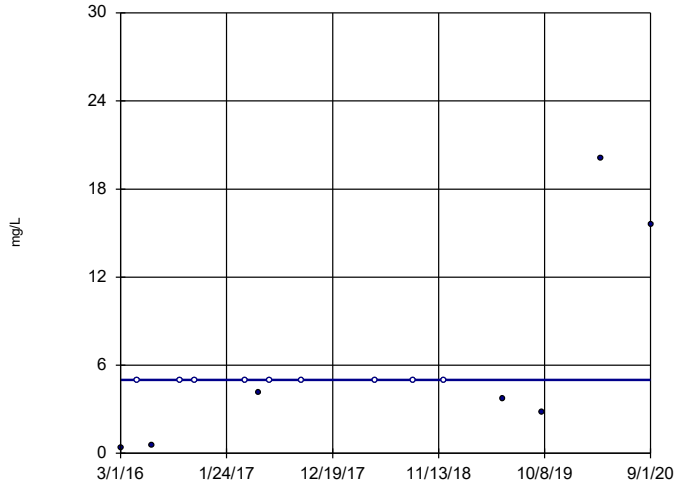
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-10



n = 16

Slope = 0 units per year.

Mann-Kendall statistic = 30 critical = 58

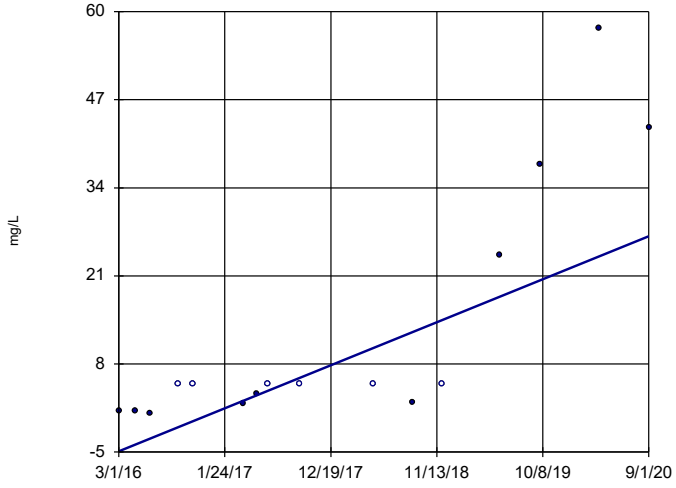
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-11



n = 16

Slope = 7.04 units per year.

Mann-Kendall statistic = 79 critical = 58

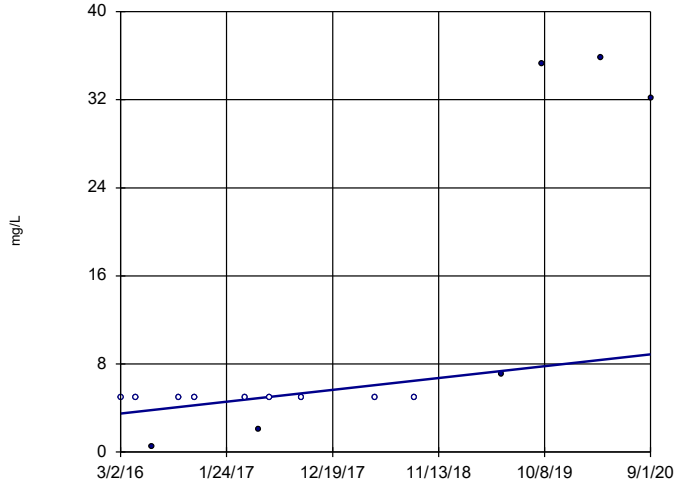
Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-12



n = 15

Slope = 1.195 units per year.

Mann-Kendall statistic = 51 critical = 53

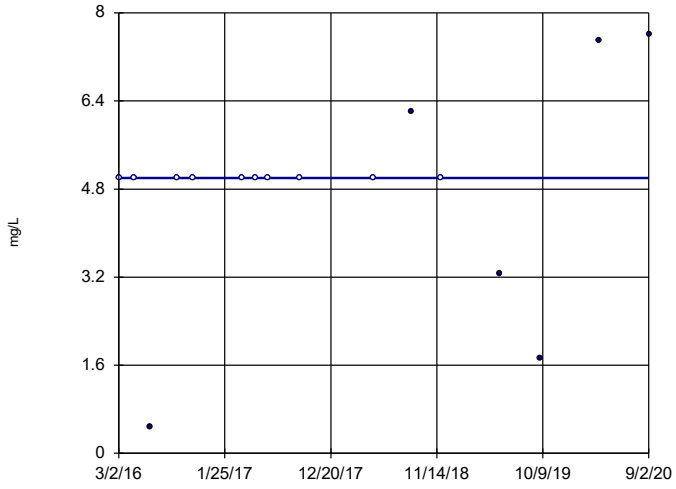
Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-15



n = 16

Slope = 0
units per year.

Mann-Kendall
statistic = 23
critical = 58

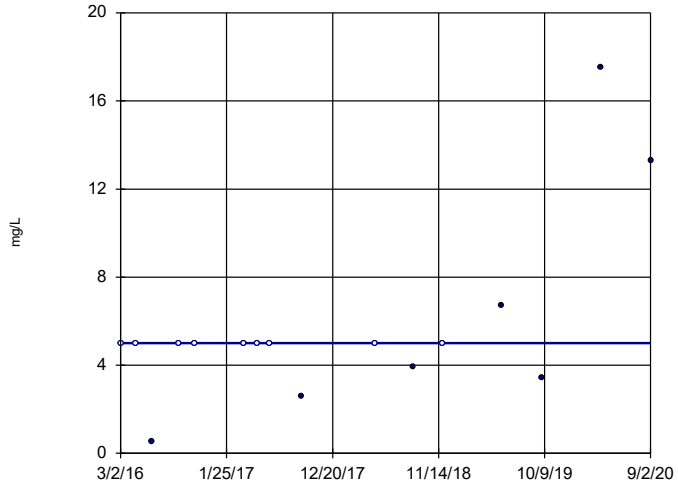
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-16



n = 16

Slope = 0
units per year.

Mann-Kendall
statistic = 26
critical = 58

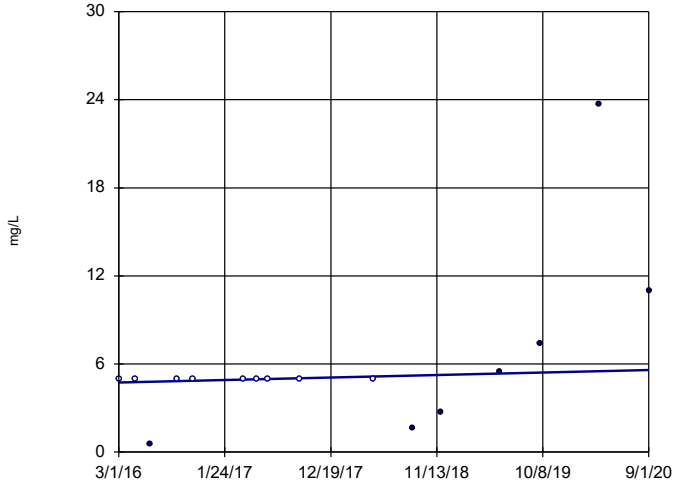
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-5



n = 16

Slope = 0.1906
units per year.

Mann-Kendall
statistic = 42
critical = 58

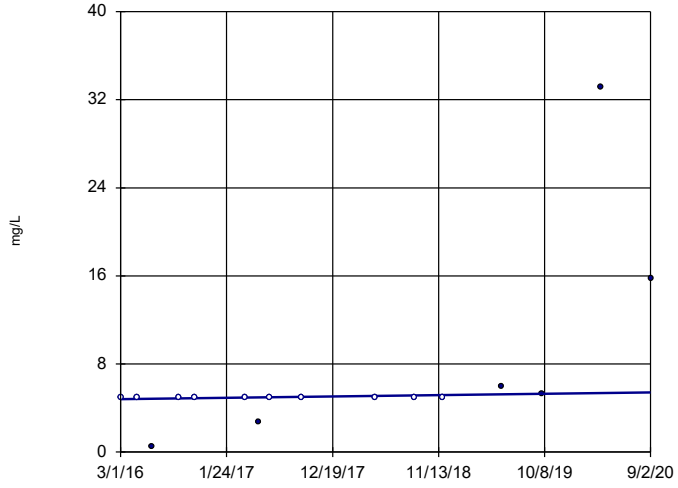
Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-AP-MW-8



n = 16

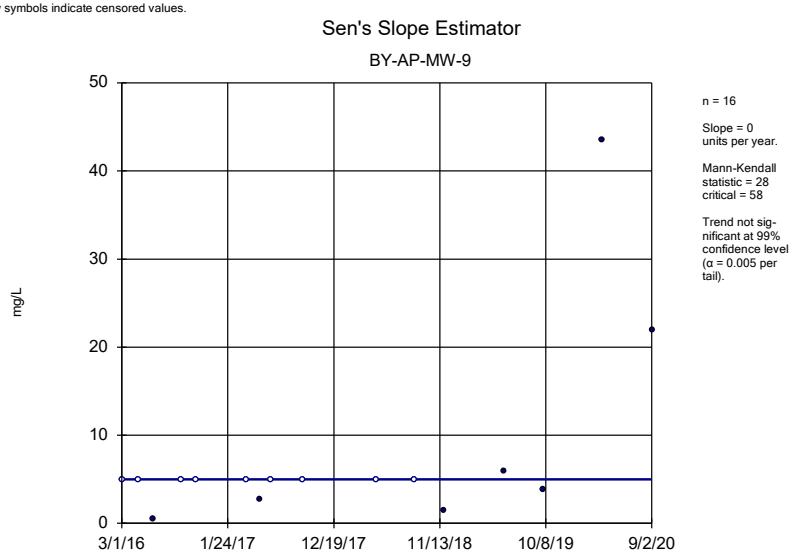
Slope = 0.1336
units per year.

Mann-Kendall
statistic = 57
critical = 58

Trend not sig-
nificant at 99%
confidence level
(α = 0.005 per
tail).

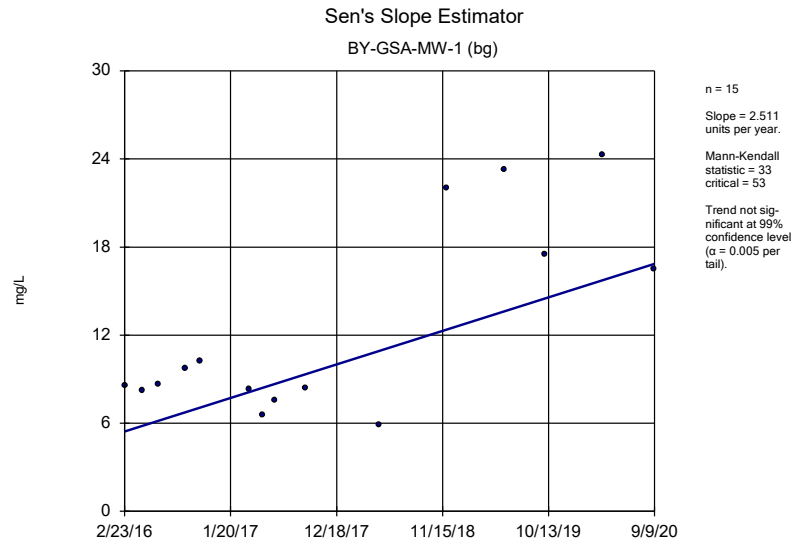
Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.



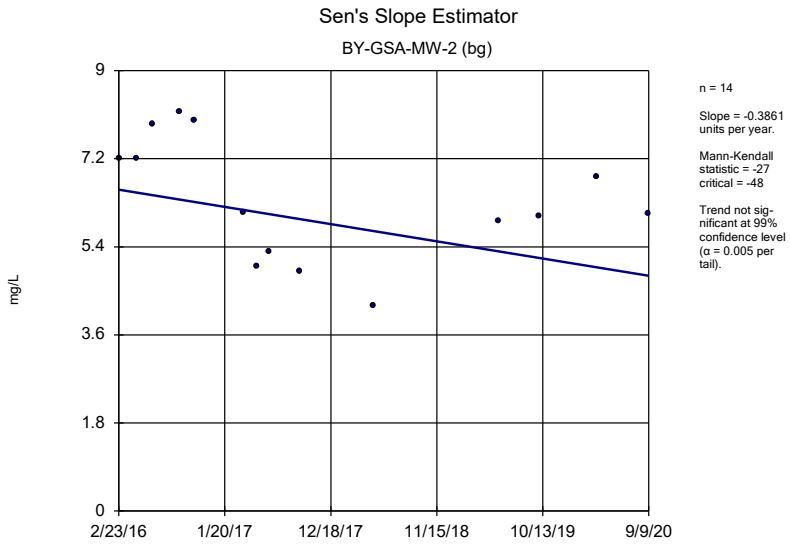
Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG



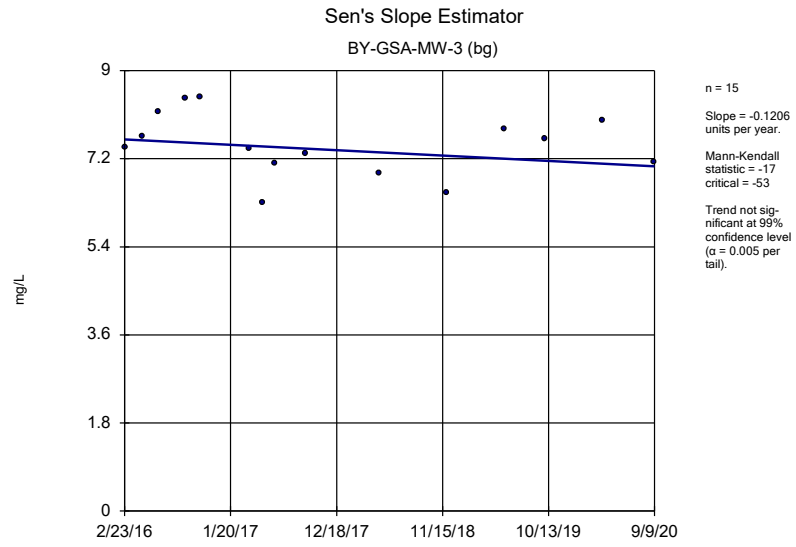
Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG



Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

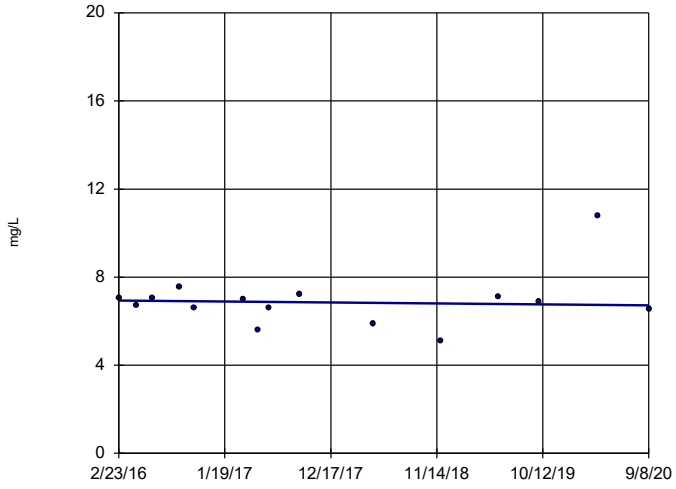


Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 15

Slope = -0.0473 units per year.

Mann-Kendall statistic = -12 critical = -53

Trend not significant at 99% confidence level (α = 0.005 per tail).

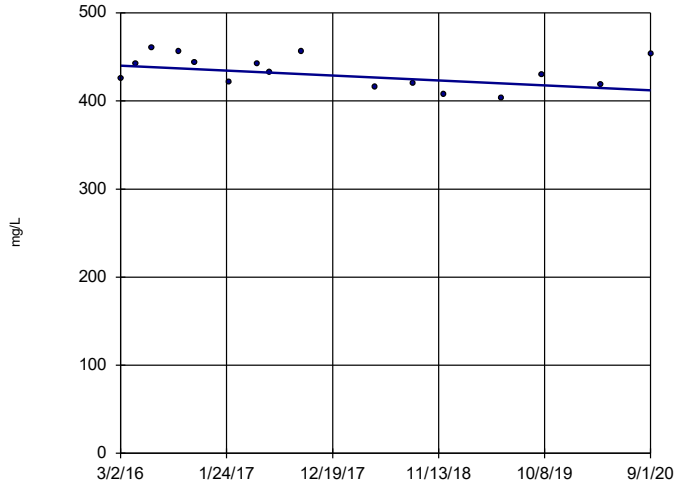
Constituent: Sulfate Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-1



n = 16

Slope = -6.195 units per year.

Mann-Kendall statistic = -40 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

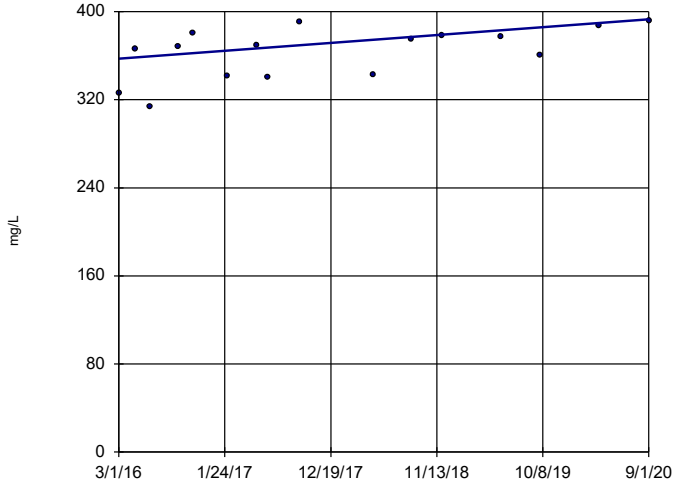
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-10



n = 16

Slope = 7.891 units per year.

Mann-Kendall statistic = 56 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

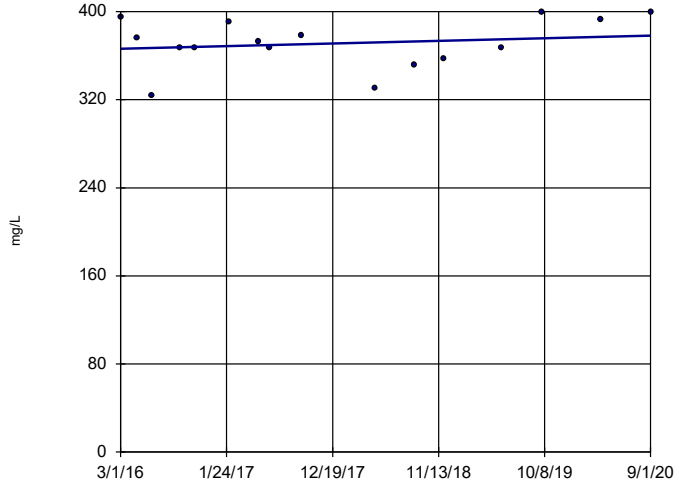
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-11



n = 16

Slope = 2.62 units per year.

Mann-Kendall statistic = 17 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

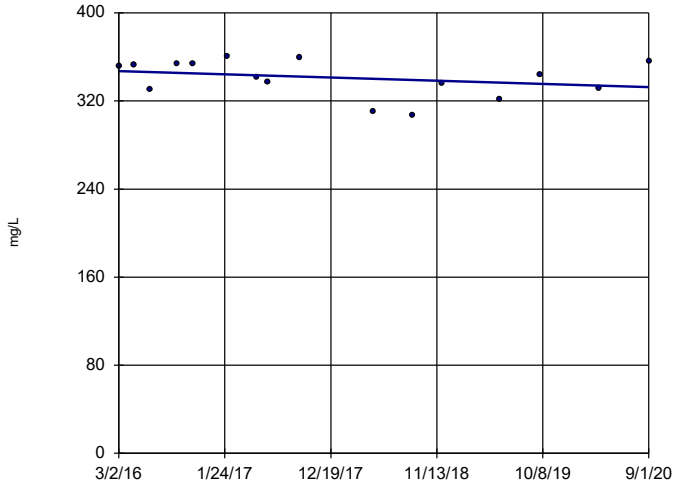
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-12



n = 16

Slope = -3.211 units per year.

Mann-Kendall statistic = -19 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

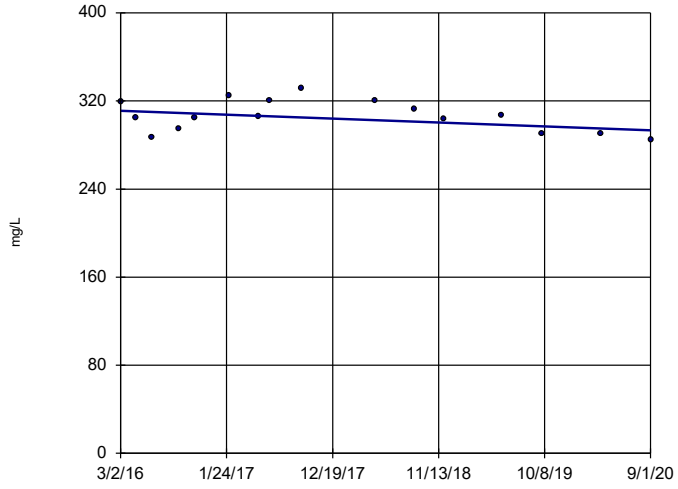
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-13



n = 16

Slope = -3.901 units per year.

Mann-Kendall statistic = -23 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

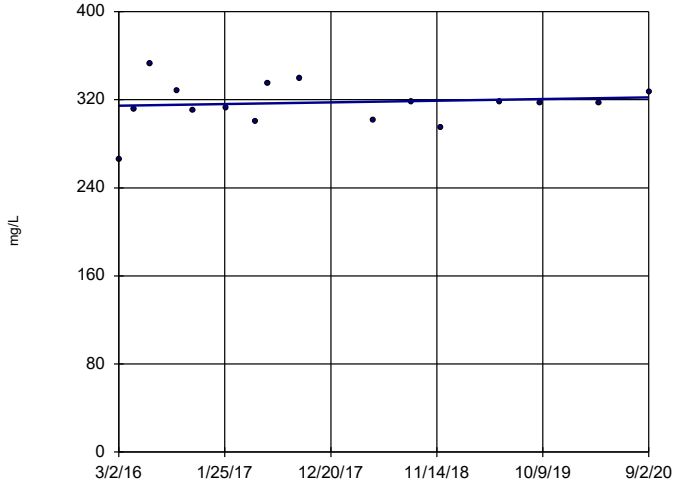
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-14



n = 16

Slope = 1.66 units per year.

Mann-Kendall statistic = 10 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

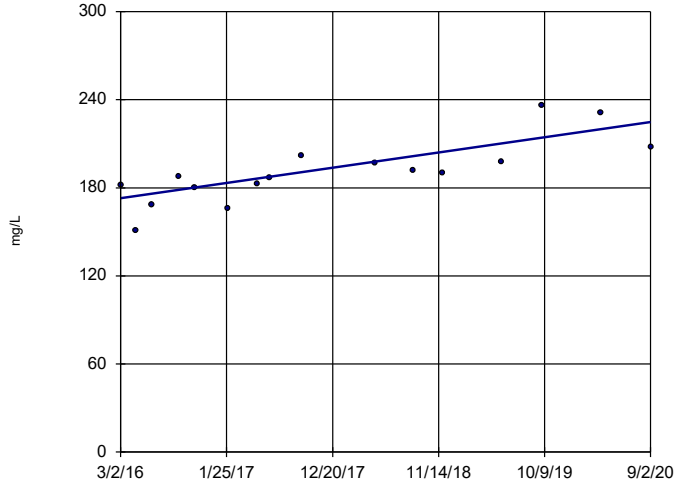
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-15



n = 16

Slope = 11.54 units per year.

Mann-Kendall statistic = 80 critical = 58

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

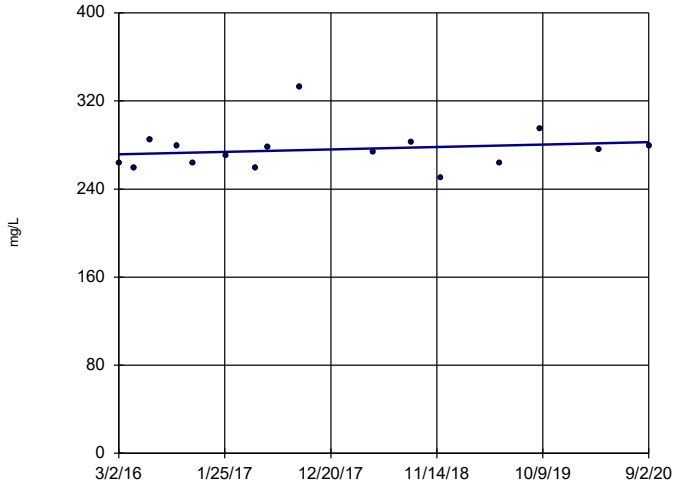
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-16



n = 16

Slope = 2.459 units per year.

Mann-Kendall statistic = 21 critical = 58

Trend not significant at 99% confidence level (α = 0.005 per tail).

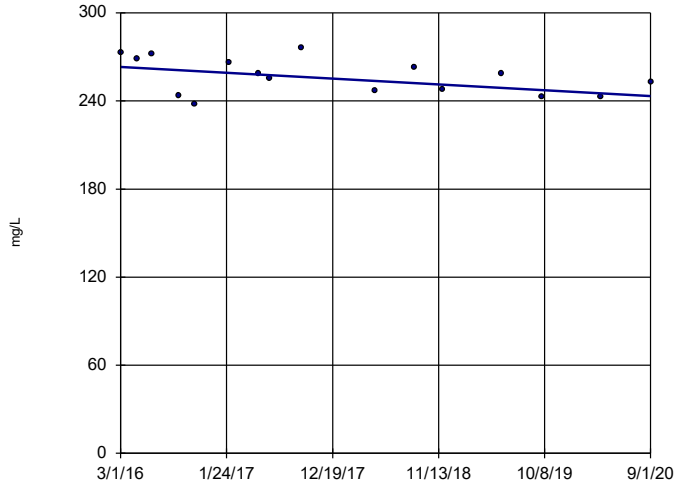
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-5



n = 16

Slope = -4.403 units per year.

Mann-Kendall statistic = -42 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

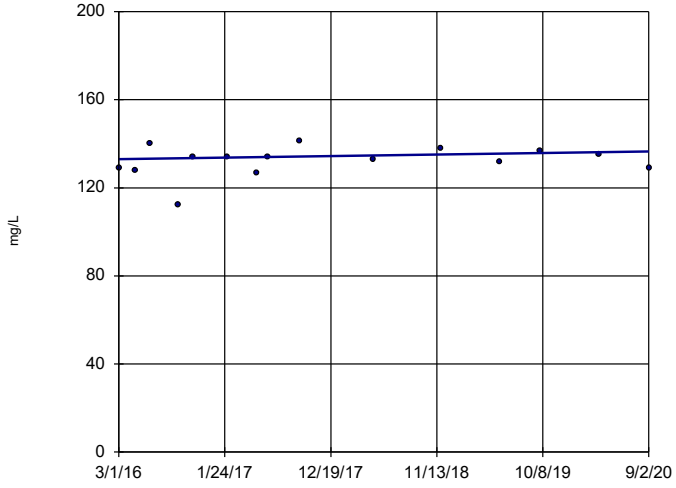
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-7



n = 15

Slope = 0.7866 units per year.

Mann-Kendall statistic = 15 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

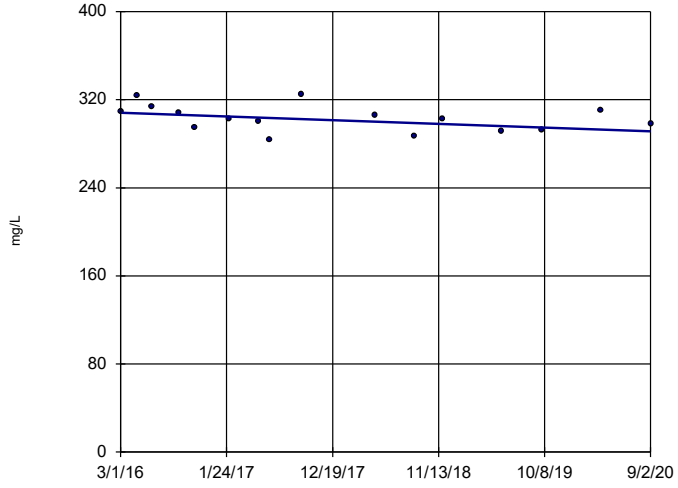
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-8



n = 16

Slope = -3.764 units per year.

Mann-Kendall statistic = -35 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

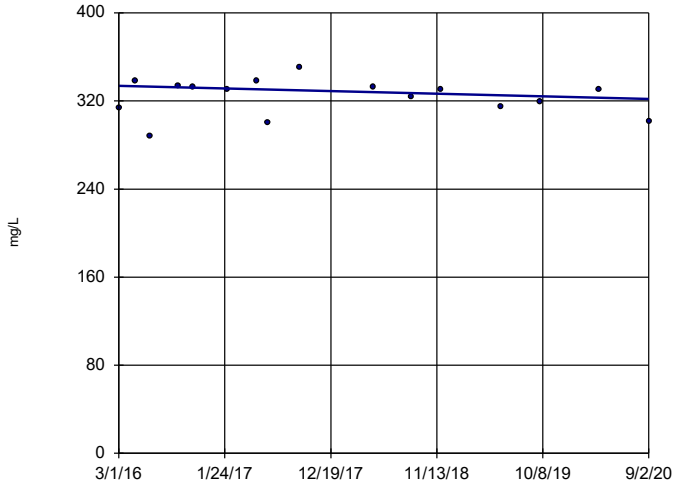
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-AP-MW-9



n = 16

Slope = -2.603 units per year.

Mann-Kendall statistic = -21 critical = -58

Trend not significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

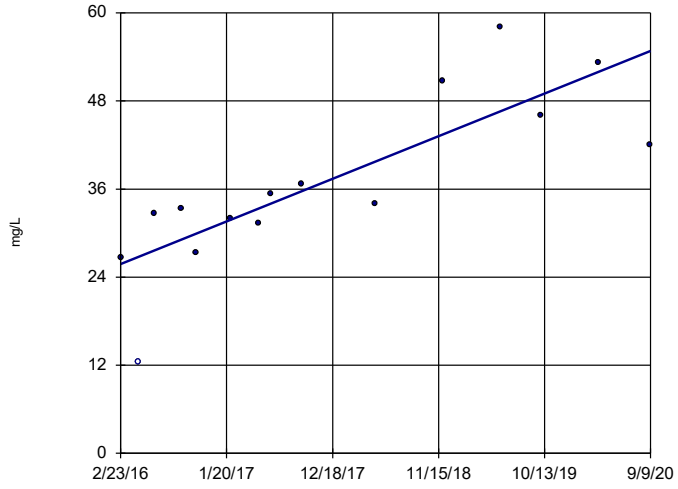
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-1 (bg)



n = 15

Slope = 6.385 units per year.

Mann-Kendall statistic = 71 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

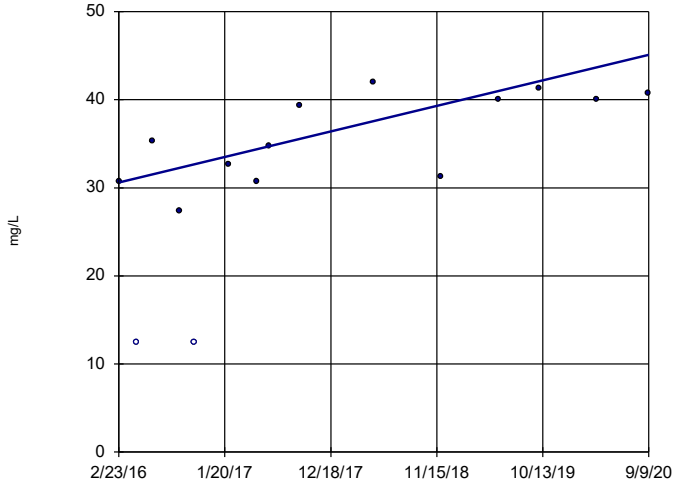
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-2 (bg)



n = 15

Slope = 3.19 units per year.

Mann-Kendall statistic = 60 critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

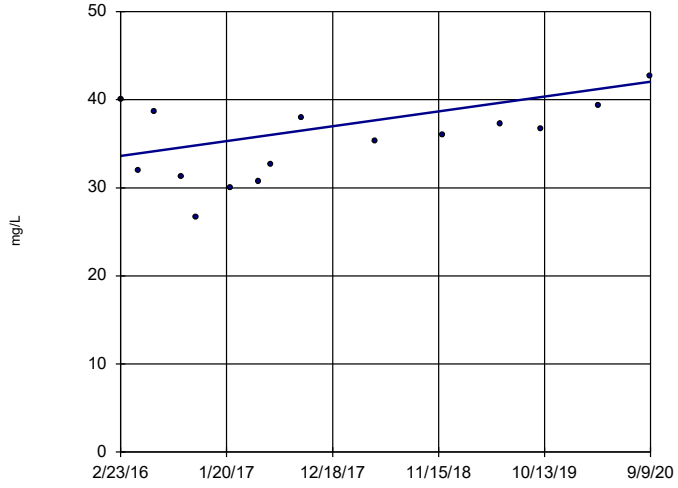
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG

Sen's Slope Estimator

BY-GSA-MW-3 (bg)



n = 15

Slope = 1.858 units per year.

Mann-Kendall statistic = 35 critical = 53

Trend not significant at 99% confidence level (α = 0.005 per tail).

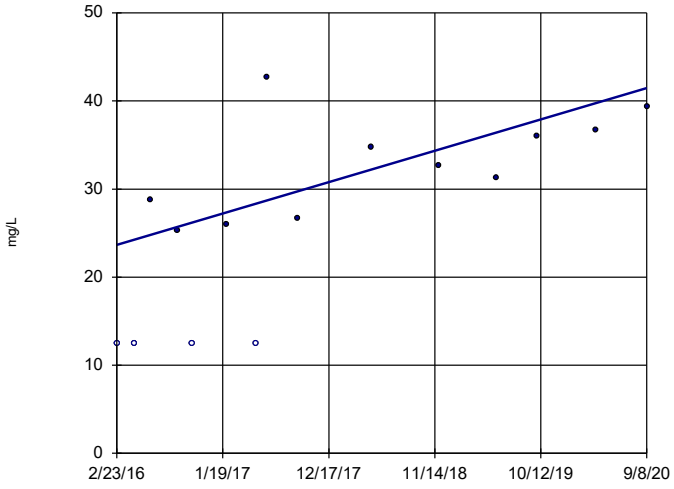
Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27 Groundwater Stats Consulting. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

BY-GSA-MW-4 (bg)



n = 15

Slope = 3.921 units per year.

Mann-Kendall statistic = 63
critical = 53

Increasing trend significant at 99% confidence level (α = 0.005 per tail).

Constituent: TDS Analysis Run 12/8/2020 5:06 PM View: Appendix III - Trend Tests
Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE G.

Upper Tolerance Limits - Appendix IV

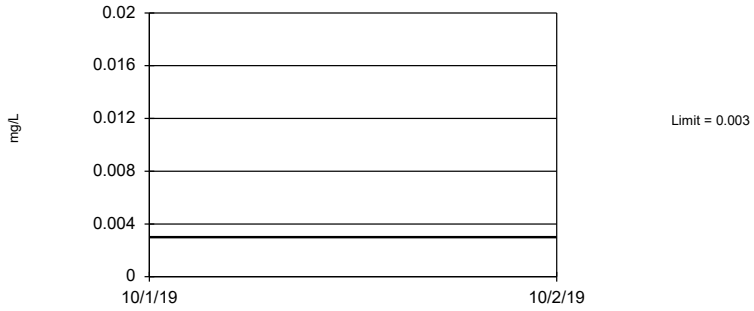
Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 7/23/2020, 4:09 PM

Constituent	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	0.003	n/a	52	n/a	n/a	90.38	n/a	n/a	0.06944	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Barium (mg/L)	0.183	n/a	52	n/a	n/a	0	n/a	n/a	0.06944	NP Inter(normal...
Beryllium (mg/L)	0.003	n/a	50	n/a	n/a	94	n/a	n/a	0.07694	NP Inter(NDs)
Cadmium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Chromium (mg/L)	0.01	n/a	52	n/a	n/a	96.15	n/a	n/a	0.06944	NP Inter(NDs)
Cobalt (mg/L)	0.0157	n/a	51	n/a	n/a	68.63	n/a	n/a	0.0731	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	3.202	n/a	52	0.9903	0.2355	0	None	x^(1/3)	0.05	Inter
Fluoride (mg/L)	0.1	n/a	56	n/a	n/a	39.29	n/a	n/a	0.05656	NP Inter(normal...
Lead (mg/L)	0.005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Lithium (mg/L)	0.02	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Mercury (mg/L)	0.0005	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Molybdenum (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Selenium (mg/L)	0.01	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)
Thallium (mg/L)	0.001	n/a	52	n/a	n/a	100	n/a	n/a	0.06944	NP Inter(NDs)

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 90.38% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Antimony Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Arsenic Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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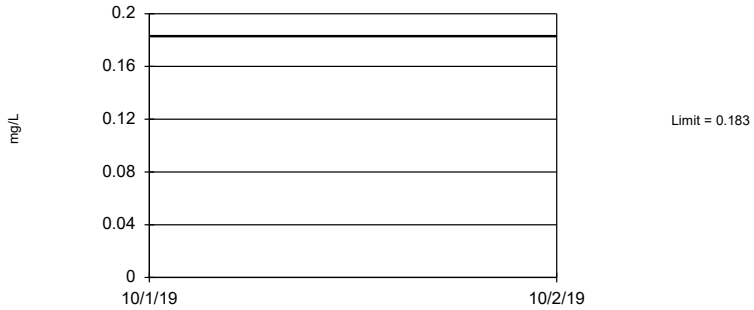
Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 52 background values. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

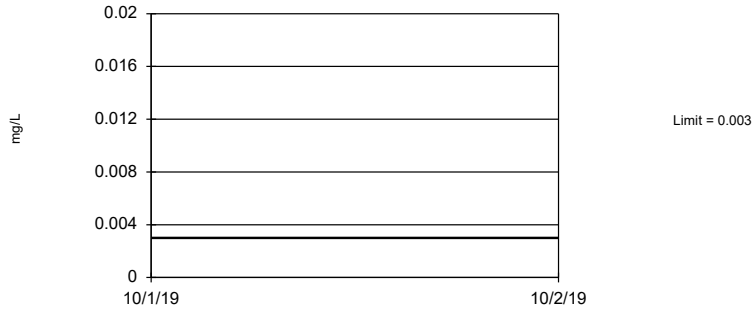
Constituent: Barium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 50 background values. 94% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.07694.

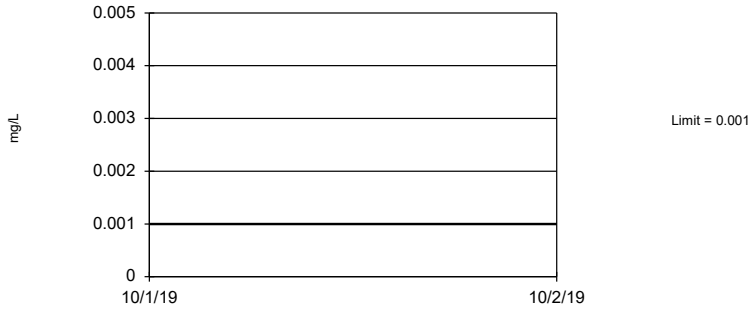
Constituent: Beryllium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Cadmium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 52 background values. 96.15% NDs. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Chromium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 51 background values. 68.63% NDs. 91.21% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.0731.

Constituent: Cobalt Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Parametric

95% coverage. Background Data Summary (based on cube root transformation): Mean=0.9903, Std. Dev.=0.2355, n=52. Normality test: Shapiro Francia @alpha = 0.01, calculated = 0.9388, critical = 0.937. Report alpha = 0.05.

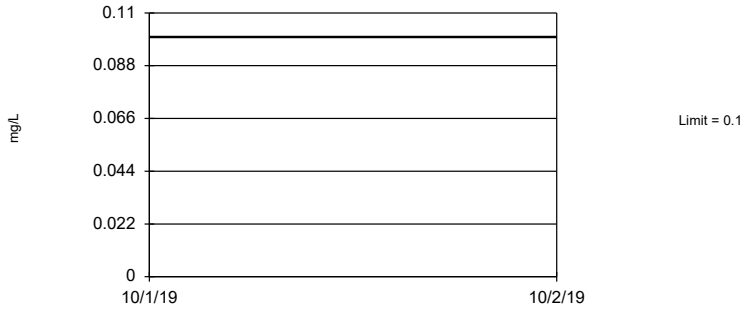
Constituent: Combined Radium 226 + 228 Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Francia normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 56 background values. 39.29% NDs. 91.99% coverage at alpha=0.01; 94.73% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.05656.

Constituent: Fluoride Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Lead Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

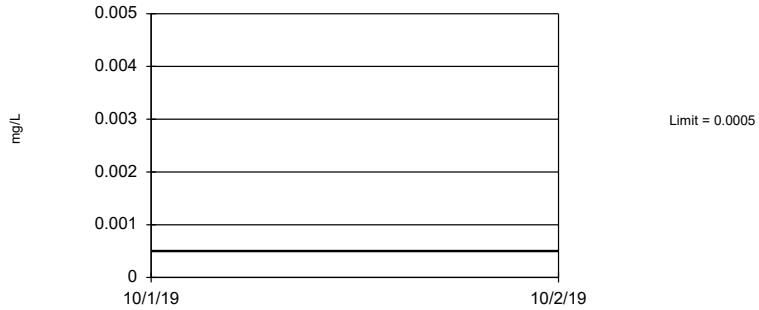
Constituent: Lithium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Mercury Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Molybdenum Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric

Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

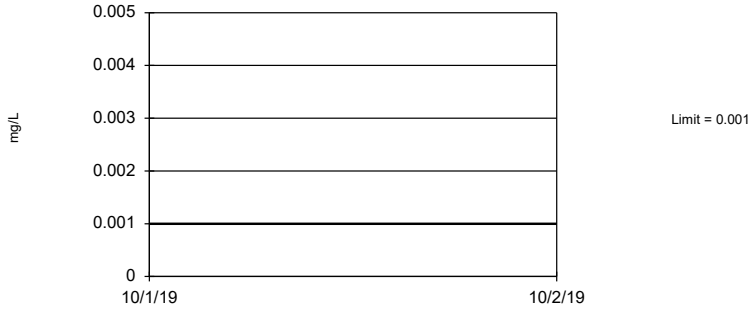
Constituent: Selenium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.24 Sanitas software licensed to Southern Company. UG

Tolerance Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 91.6% coverage at alpha=0.01; 94.34% coverage at alpha=0.05; 98.63% coverage at alpha=0.5. Report alpha = 0.06944.

Constituent: Thallium Analysis Run 7/23/2020 4:01 PM View: UTL's - Appendix IV

Plant Barry Client: Southern Company Data: Barry Ash Pond

FIGURE H.

BARRY ASH POND GWPS			
Analyte	**Units**	**Background**	**GWPS**
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.183	2
Beryllium	mg/L	0.003	0.004
Cadmium	mg/L	0.001	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.0157	0.0157
Combined Radium-226/228	pCi/L	3.202	5
Fluoride	mg/L	0.1	4
Lead	mg/L	0.005	0.015
Lithium	mg/L	0.02	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01	0.1
Selenium	mg/L	0.01	0.05
Thallium	mg/L	0.001	0.002

Notes:

1. mg/L - Milligrams per liter

2. pCi/L - Picocuries per liter

3. The background limits were used as the groundwater protection standard (GWPS) when appropriate under 40 CFR §257.95(h), ADEM Rule 335-13-15-.06(h), and the ADEM Variance.

4. GWPS established during second semi-annual sampling event in 2019.

FIGURE I.

Confidence Intervals Summary - Significant Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/11/2020, 9:28 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Arsenic (mg/L)	**BY-AP-MW-1**	**0.07668**	**0.05429**	**0.01**	**Yes**	**8**	**0.06549**	**0.01056**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-10**	**0.07544**	**0.04506**	**0.01**	**Yes**	**8**	**0.06025**	**0.01433**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-11**	**0.01612**	**0.0138**	**0.01**	**Yes**	**8**	**0.01496**	**0.001097**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-12**	**0.02427**	**0.02125**	**0.01**	**Yes**	**8**	**0.02276**	**0.001424**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-13**	**0.0175**	**0.0138**	**0.01**	**Yes**	**8**	**0.01488**	**0.00118**	**0**	**None**	**No**	**0.004**	**NP (normality)**
Arsenic (mg/L)	**BY-AP-MW-14**	**0.01699**	**0.01353**	**0.01**	**Yes**	**8**	**0.01526**	**0.00163**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-15**	**0.01915**	**0.01528**	**0.01**	**Yes**	**8**	**0.01721**	**0.001825**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-16**	**0.01412**	**0.01019**	**0.01**	**Yes**	**8**	**0.01215**	**0.001854**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-5**	**0.03414**	**0.02766**	**0.01**	**Yes**	**8**	**0.0309**	**0.00306**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-7**	**0.0228**	**0.0194**	**0.01**	**Yes**	**8**	**0.0211**	**0.001602**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-8**	**0.06075**	**0.04557**	**0.01**	**Yes**	**8**	**0.05316**	**0.00716**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-9**	**0.04413**	**0.03788**	**0.01**	**Yes**	**8**	**0.04103**	**0.003052**	**0**	**None**	**x^2**	**0.01**	**Param.**
Cobalt (mg/L)	**BY-AP-MW-15**	**0.0361**	**0.02827**	**0.0157**	**Yes**	**8**	**0.03219**	**0.003695**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	**BY-AP-MW-7**	**0.01933**	**0.01642**	**0.0157**	**Yes**	**8**	**0.01788**	**0.001375**	**0**	**None**	**No**	**0.01**	**Param.**

Confidence Intervals Summary - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/11/2020, 9:28 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	BY-AP-MW-1	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-10	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-11	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-12	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-13	0.003	0.000857	0.006	No	8	0.002732	0.0007577	87.5	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-14	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-15	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-16	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-2	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-3	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-4	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-5	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-6	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-7	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-8	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Antimony (mg/L)	BY-AP-MW-9	0.003	0.003	0.006	No	8	0.003	0	100	None	No	0.004	NP (NDs)
Arsenic (mg/L)	**BY-AP-MW-1**	**0.07668**	**0.05429**	**0.01**	**Yes**	**8**	**0.06549**	**0.01056**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-10**	**0.07544**	**0.04506**	**0.01**	**Yes**	**8**	**0.06025**	**0.01433**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-11**	**0.01612**	**0.0138**	**0.01**	**Yes**	**8**	**0.01496**	**0.001097**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-12**	**0.02427**	**0.02125**	**0.01**	**Yes**	**8**	**0.02276**	**0.001424**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-13**	**0.0175**	**0.0138**	**0.01**	**Yes**	**8**	**0.01488**	**0.00118**	**0**	**None**	**No**	**0.004**	**NP (normality)**
Arsenic (mg/L)	**BY-AP-MW-14**	**0.01699**	**0.01353**	**0.01**	**Yes**	**8**	**0.01526**	**0.00163**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-15**	**0.01915**	**0.01528**	**0.01**	**Yes**	**8**	**0.01721**	**0.001825**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-16**	**0.01412**	**0.01019**	**0.01**	**Yes**	**8**	**0.01215**	**0.001854**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	BY-AP-MW-2	0.001724	0.001376	0.01	No	8	0.00155	0.000164	0	None	No	0.01	Param.
Arsenic (mg/L)	**BY-AP-MW-5**	**0.03414**	**0.02766**	**0.01**	**Yes**	**8**	**0.0309**	**0.00306**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	BY-AP-MW-6	0.0025	0.0025	0.01	No	8	0.0025	0	100	None	No	0.004	NP (NDs)
Arsenic (mg/L)	**BY-AP-MW-7**	**0.0228**	**0.0194**	**0.01**	**Yes**	**8**	**0.0211**	**0.001602**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-8**	**0.06075**	**0.04557**	**0.01**	**Yes**	**8**	**0.05316**	**0.00716**	**0**	**None**	**No**	**0.01**	**Param.**
Arsenic (mg/L)	**BY-AP-MW-9**	**0.04413**	**0.03788**	**0.01**	**Yes**	**8**	**0.04103**	**0.003052**	**0**	**None**	**x^2**	**0.01**	**Param.**
Barium (mg/L)	BY-AP-MW-1	0.3093	0.2612	2	No	8	0.2853	0.02271	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-10	0.07497	0.06311	2	No	8	0.06904	0.005594	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-11	0.09023	0.0728	2	No	8	0.08151	0.008224	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-12	0.08398	0.07277	2	No	8	0.07838	0.005292	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-13	0.0806	0.0688	2	No	8	0.0717	0.003855	0	None	No	0.004	NP (normality)
Barium (mg/L)	BY-AP-MW-14	0.0687	0.0585	2	No	8	0.06155	0.003146	0	None	No	0.004	NP (normality)
Barium (mg/L)	BY-AP-MW-15	0.06907	0.04825	2	No	8	0.05866	0.009823	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-16	0.09141	0.07422	2	No	8	0.08281	0.008109	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-2	0.0272	0.0225	2	No	8	0.02485	0.002221	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-3	0.03884	0.03081	2	No	8	0.03483	0.003786	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-4	0.02949	0.01623	2	No	8	0.02286	0.006257	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-5	0.1536	0.1299	2	No	8	0.1418	0.01117	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-6	0.02734	0.02376	2	No	8	0.02555	0.001687	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-7	0.06883	0.05529	2	No	8	0.06206	0.006388	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-8	0.1484	0.1308	2	No	8	0.1396	0.008314	0	None	No	0.01	Param.
Barium (mg/L)	BY-AP-MW-9	0.1231	0.1124	2	No	8	0.1178	0.005092	0	None	No	0.01	Param.
Beryllium (mg/L)	BY-AP-MW-13	0.003	0.00103	0.004	No	8	0.002754	0.0006965	87.5	None	No	0.004	NP (NDs)
Beryllium (mg/L)	BY-AP-MW-4	0.003	0.00071	0.004	No	8	0.002714	0.0008096	87.5	None	No	0.004	NP (NDs)
Cadmium (mg/L)	BY-AP-MW-13	0.001	0.00077	0.005	No	8	0.0009713	0.00008132	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	BY-AP-MW-1	0.003983	0.002227	0.1	No	8	0.003105	0.0008286	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-11	0.002994	0.002118	0.1	No	8	0.00255	0.0004594	0	None	ln(x)	0.01	Param.
Chromium (mg/L)	BY-AP-MW-12	0.00605	0.00325	0.1	No	8	0.004039	0.001119	0	None	No	0.004	NP (normality)
Chromium (mg/L)	BY-AP-MW-13	0.008779	0.006564	0.1	No	8	0.007671	0.001045	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-14	0.005532	0.004665	0.1	No	8	0.005099	0.0004088	0	None	No	0.01	Param.
Chromium (mg/L)	BY-AP-MW-16	0.01	0.00253	0.1	No	8	0.009066	0.002641	87.5	None	No	0.004	NP (NDs)
Chromium (mg/L)	BY-AP-MW-7	0.01	0.00328	0.1	No	8	0.00916	0.002376	87.5	None	No	0.004	NP (NDs)

Confidence Intervals Summary - All Results

Plant Barry Client: Southern Company Data: Barry Ash Pond Printed 12/11/2020, 9:28 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Cobalt (mg/L)	BY-AP-MW-12	0.003448	0.002527	0.0157	No	8	0.002988	0.0004346	0	None	No	0.01	Param.
Cobalt (mg/L)	**BY-AP-MW-15**	**0.0361**	**0.02827**	**0.0157**	**Yes**	**8**	**0.03219**	**0.003695**	**0**	**None**	**No**	**0.01**	**Param.**
Cobalt (mg/L)	BY-AP-MW-16	0.02052	0.01283	0.0157	No	8	0.01636	0.005129	0	None	x^3	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-2	0.00747	0.006398	0.0157	No	8	0.006934	0.0005056	0	None	No	0.01	Param.
Cobalt (mg/L)	BY-AP-MW-4	0.01247	0.001972	0.0157	No	8	0.006995	0.00645	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Cobalt (mg/L)	**BY-AP-MW-7**	**0.01933**	**0.01642**	**0.0157**	**Yes**	**8**	**0.01788**	**0.001375**	**0**	**None**	**No**	**0.01**	**Param.**
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-1	2.471	1.274	5	No	8	1.873	0.5649	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-10	1.292	0.1937	5	No	8	0.7429	0.5181	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-11	1.005	0.3388	5	No	8	0.672	0.3144	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-12	1.565	0.7673	5	No	8	1.158	0.4078	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-13	0.9931	0.6139	5	No	8	0.8035	0.1788	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-14	1.369	0.2324	5	No	8	0.7748	0.6246	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-15	1.312	0.2203	5	No	8	0.7661	0.515	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-16	1.833	0.3455	5	No	8	1.055	0.8431	0	None	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-2	0.8261	0.04701	5	No	8	0.4366	0.3675	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-3	1.465	0.1508	5	No	8	0.7704	0.7532	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-4	0.8051	0.1829	5	No	8	0.494	0.2935	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-5	2.003	0.7016	5	No	8	1.352	0.6139	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-6	0.8483	-0.01702	5	No	8	0.4156	0.4082	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-7	0.6952	0.2973	5	No	8	0.4448	0.3172	0	None	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-8	3.95	0.321	5	No	8	0.9839	1.206	0	None	No	0.004	NP (normality)
Combined Radium 226 + 228 (pCi/L)	BY-AP-MW-9	1.464	0.6207	5	No	8	1.035	0.5202	0	None	ln(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-1	0.1223	0.04378	4	No	8	0.09085	0.04594	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-10	0.1	0.04	4	No	8	0.08459	0.02375	62.5	Kaplan-Meier	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-AP-MW-11	0.08943	0.05589	4	No	8	0.07266	0.01582	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-12	0.08837	0.04811	4	No	8	0.06824	0.01899	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-13	0.0853	0.0548	4	No	8	0.07005	0.01439	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-14	0.09668	0.07057	4	No	8	0.08363	0.01232	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-15	0.19	0.1	4	No	8	0.1725	0.03016	12.5	None	No	0.004	NP (normality)
Fluoride (mg/L)	BY-AP-MW-16	0.07238	0.05009	4	No	8	0.07574	0.02201	37.5	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-2	0.1	0.037	4	No	8	0.09213	0.02227	87.5	Kaplan-Meier	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-AP-MW-3	0.1	0.1	4	No	8	0.1	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-AP-MW-4	0.1	0.1	4	No	8	0.1	0	100	Kaplan-Meier	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-AP-MW-5	0.09357	0.04983	4	No	8	0.0717	0.02063	12.5	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-6	0.1	0.1	4	No	8	0.1	0	100	None	No	0.004	NP (NDs)
Fluoride (mg/L)	BY-AP-MW-7	0.1014	0.07324	4	No	8	0.08731	0.01328	0	None	No	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-8	0.07836	0.03928	4	No	8	0.06898	0.02634	25	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	BY-AP-MW-9	0.07799	0.04953	4	No	8	0.06376	0.01342	0	None	No	0.01	Param.
Lead (mg/L)	BY-AP-MW-6	0.00545	0.00171	0.015	No	8	0.003971	0.001581	50	None	No	0.004	NP (normality)
Lead (mg/L)	BY-AP-MW-9	0.005	0.00108	0.015	No	8	0.00451	0.001386	87.5	None	No	0.004	NP (NDs)
Lithium (mg/L)	BY-AP-MW-11	0.0384	0.02	0.04	No	8	0.02519	0.006761	37.5	None	No	0.004	NP (normality)
Lithium (mg/L)	BY-AP-MW-15	0.02264	0.01567	0.04	No	8	0.02056	0.003071	50	Kaplan-Meier	sqrt(x)	0.01	Param.
Lithium (mg/L)	BY-AP-MW-7	0.02	0.0102	0.04	No	8	0.01762	0.004401	75	Kaplan-Meier	No	0.004	NP (NDs)
Molybdenum (mg/L)	BY-AP-MW-15	0.01	0.00209	0.1	No	8	0.008025	0.003657	75	None	No	0.004	NP (NDs)
Thallium (mg/L)	BY-AP-MW-13	0.001	0.000878	0.002	No	8	0.0009848	0.00004313	87.5	None	No	0.004	NP (NDs)

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Non-Parametric Confidence Interval

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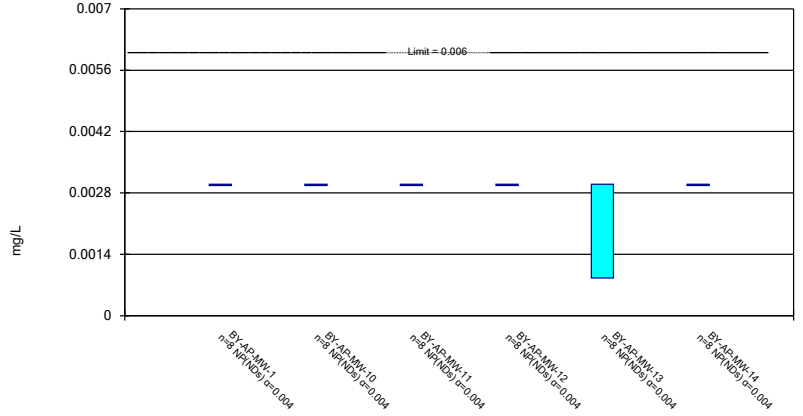

Constituent: Antimony Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Non-Parametric Confidence Interval

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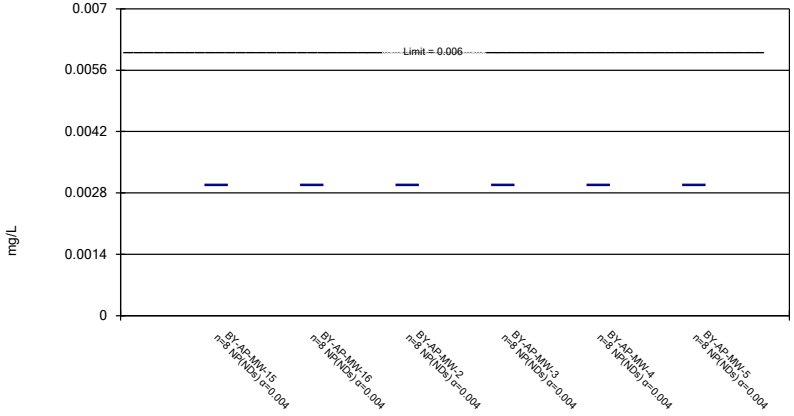

Constituent: Antimony Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Non-Parametric Confidence Interval

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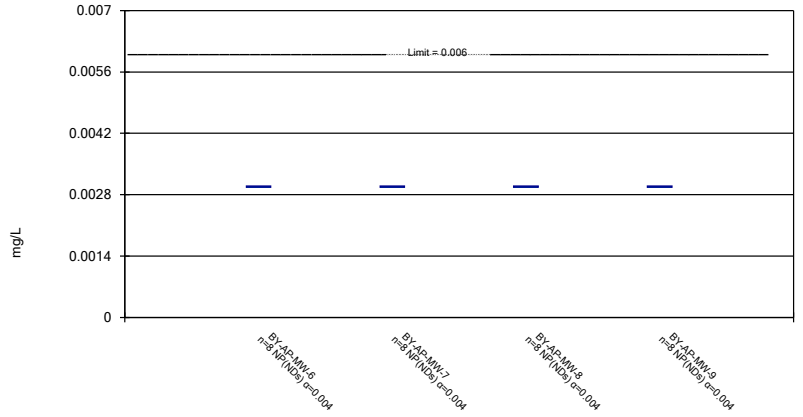

Constituent: Antimony Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

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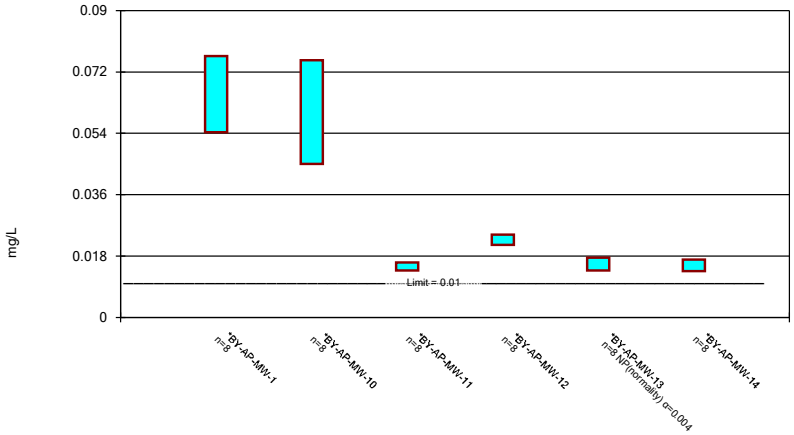
Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



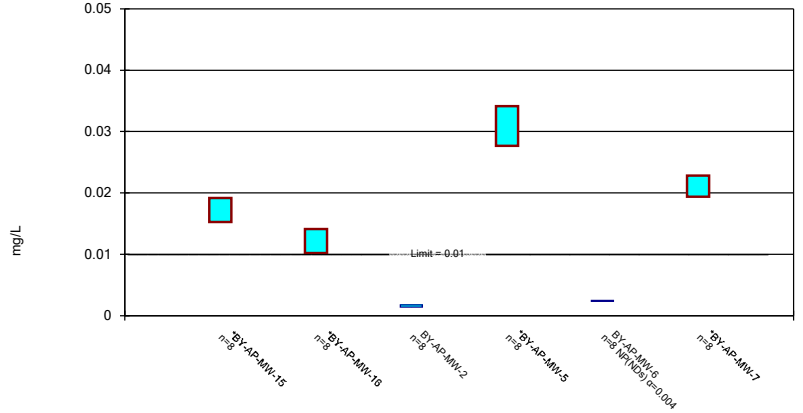
Constituent: Arsenic Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Parametric Confidence Interval

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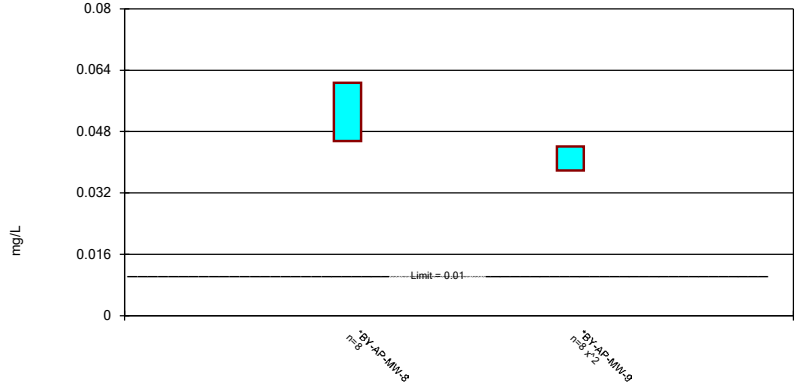

Constituent: Arsenic Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

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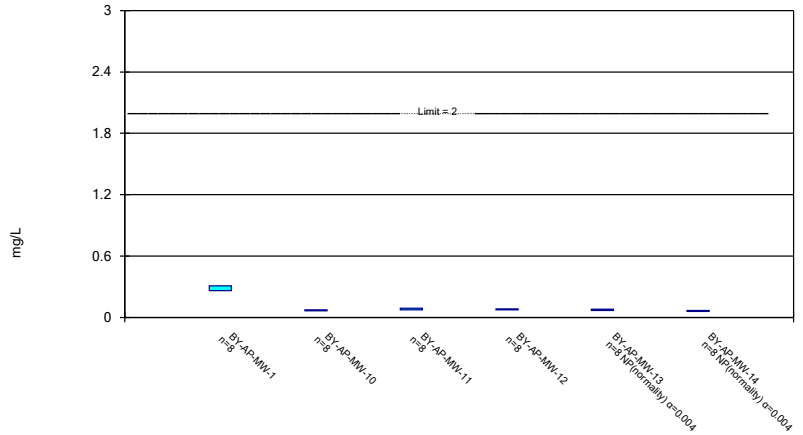
Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Parametric Confidence Interval

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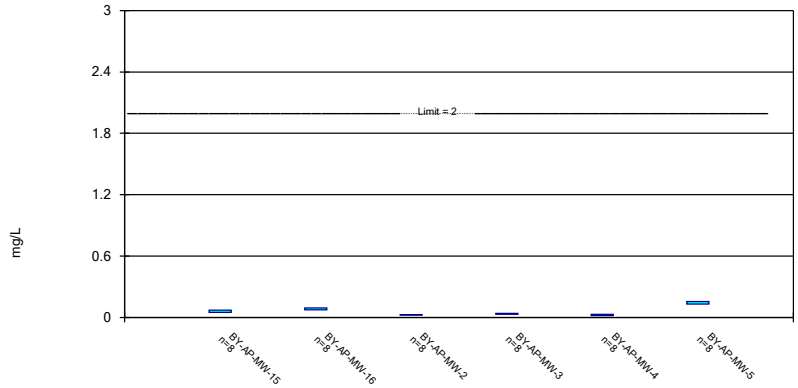

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Plant Barry Client: Southern Company Data: Barry Ash Pond

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Parametric Confidence Interval

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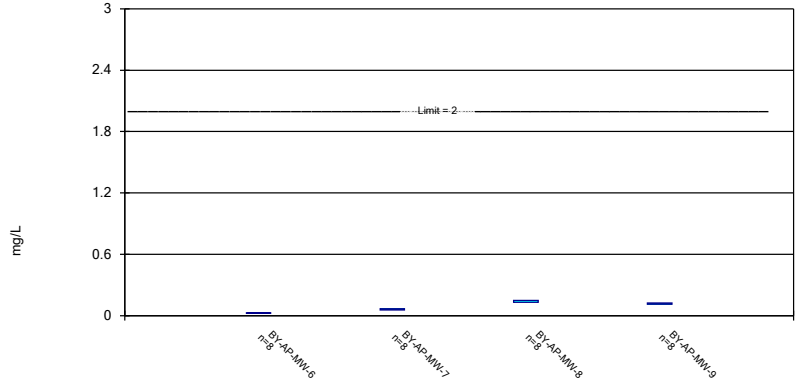

Constituent: Barium Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

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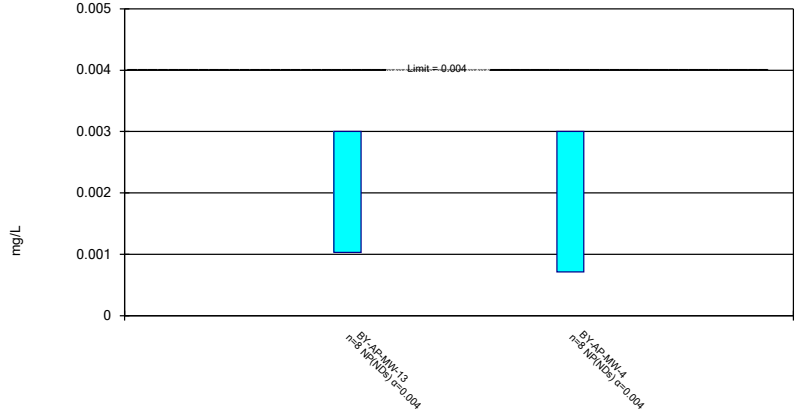
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Non-Parametric Confidence Interval

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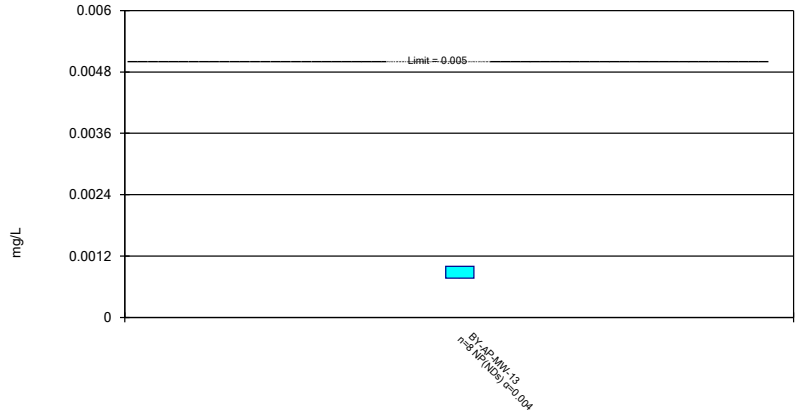

Constituent: Cadmium Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

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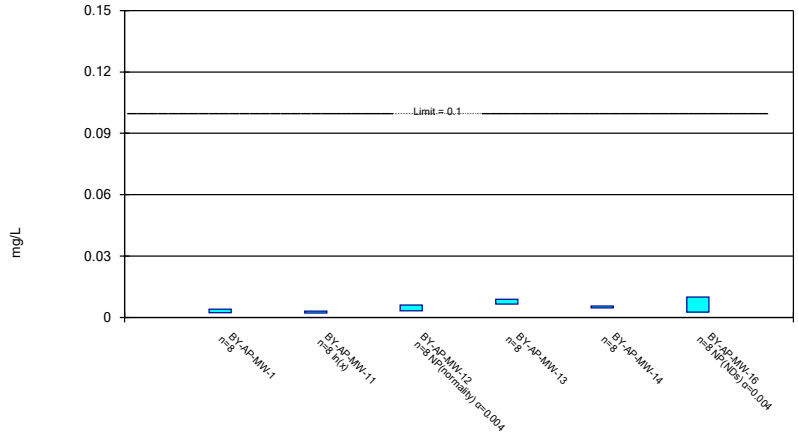
Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Chromium Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

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Non-Parametric Confidence Interval

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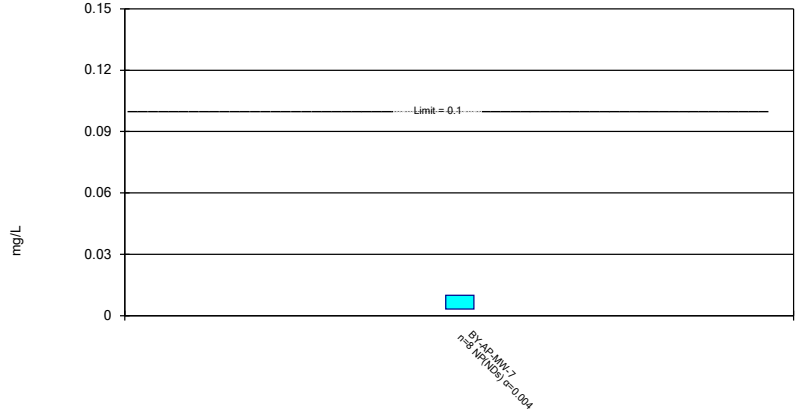

Constituent: Chromium Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

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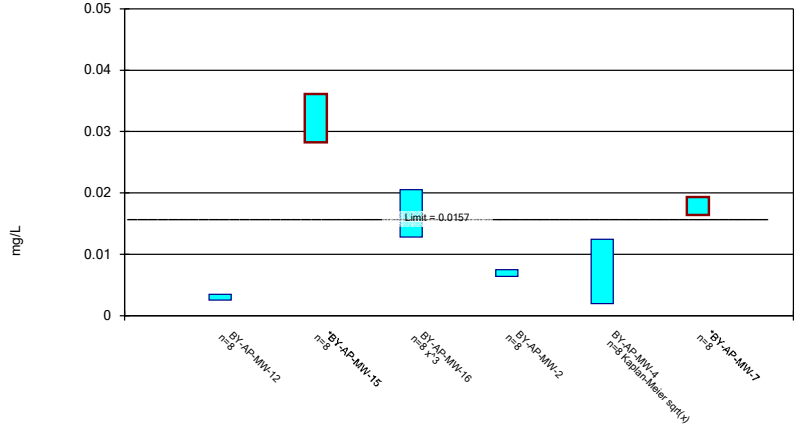
Parametric Confidence Interval

Compliance limit is exceeded.* Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

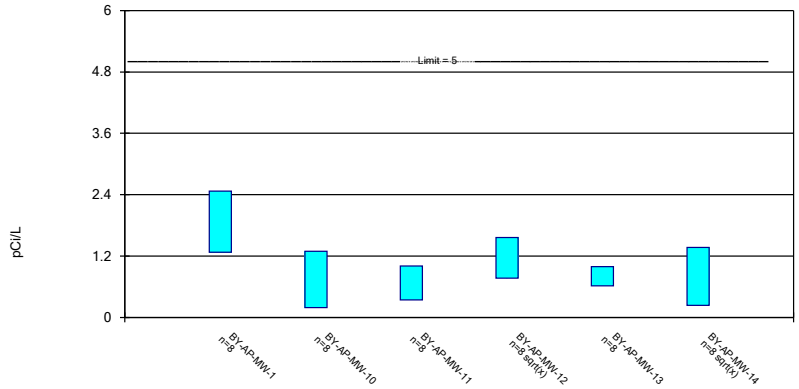


Constituent: Cobalt Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

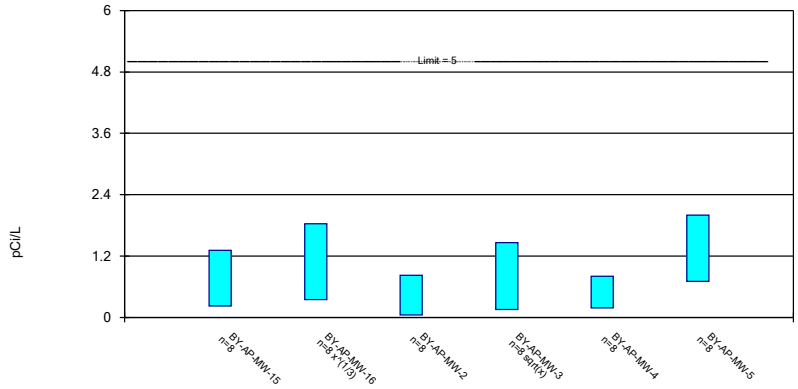


Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confide
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Parametric Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.

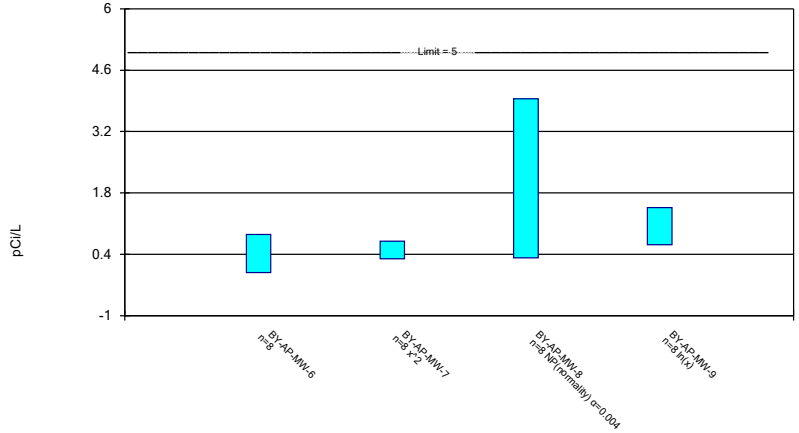


Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confide
Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



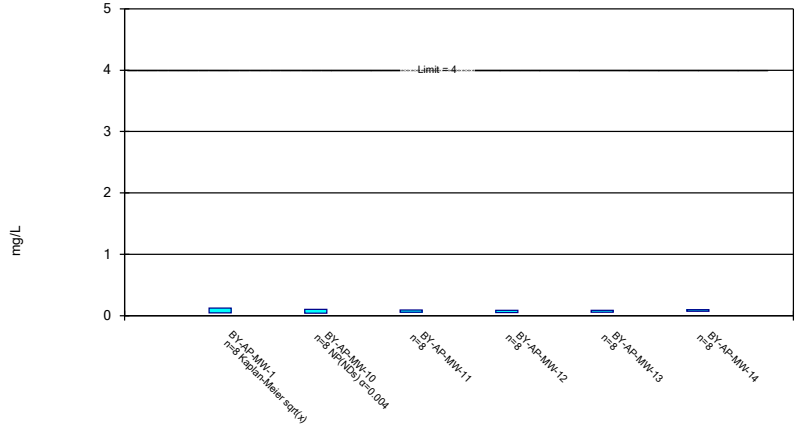
Constituent: Combined Radium 226 + 228 Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confide

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



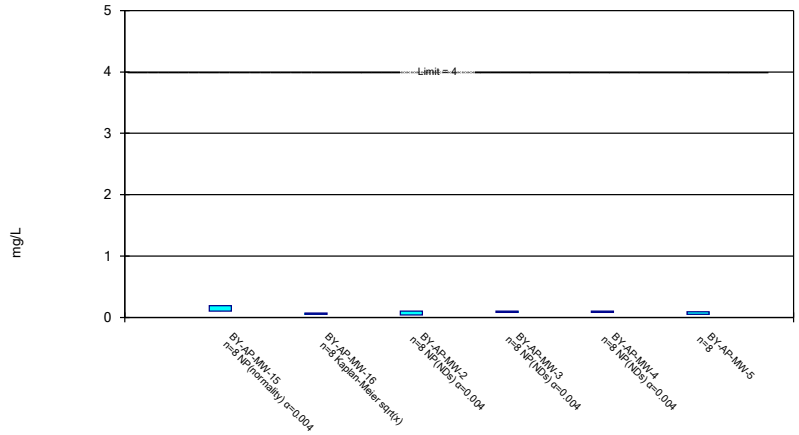
Constituent: Fluoride Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



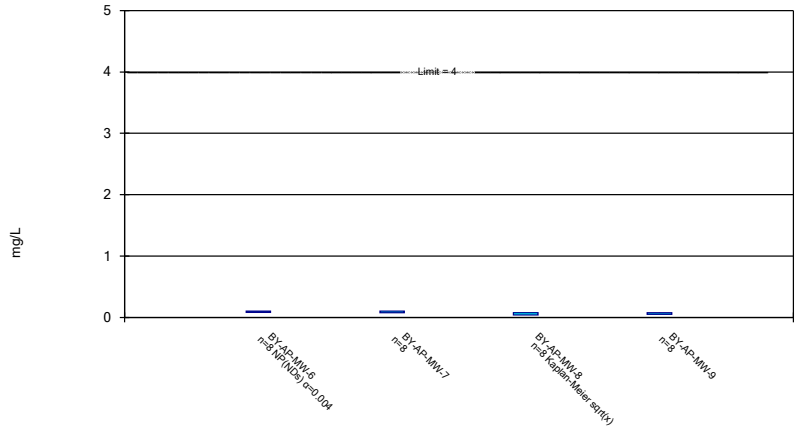
Constituent: Fluoride Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



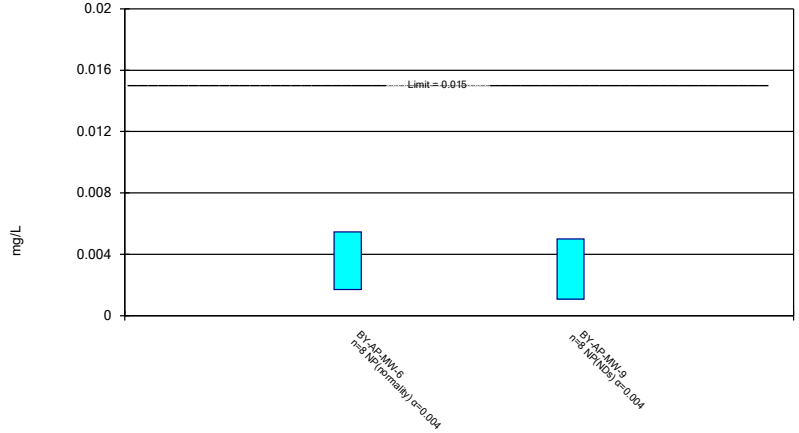
Constituent: Fluoride Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



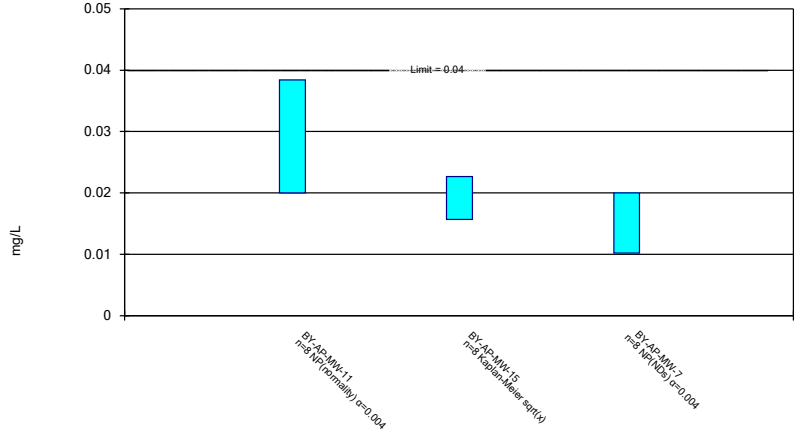
Constituent: Lead Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



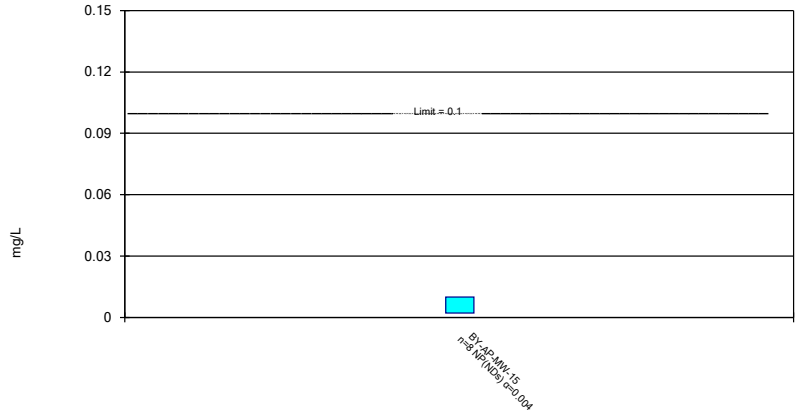
Constituent: Lithium Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



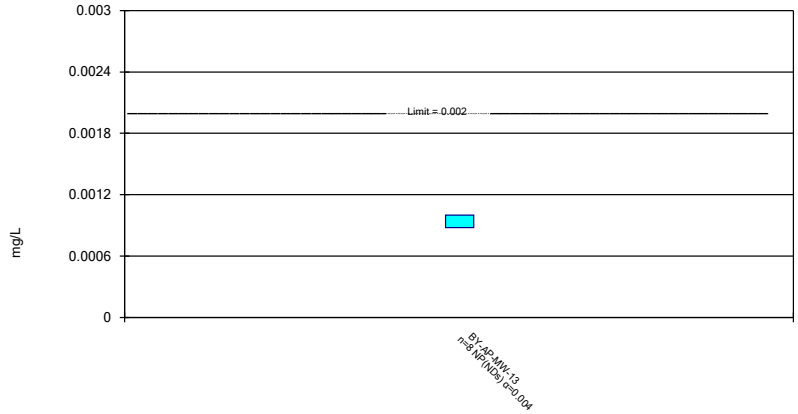
Constituent: Molybdenum Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

Sanitas™ v.9.6.27b Groundwater Stats Consulting. UG

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 12/11/2020 9:23 AM View: Appendix IV - Confidence Intervals

Plant Barry Client: Southern Company Data: Barry Ash Pond

Appendix F

MNA Sampling Field Data

Well ID	pH	ORP (mV)	Conductivity (µS/cm)	DO (mg/L)	Temperature (°C)	Turbidity (NTU)	Depth to Water (feet)
BY-AP-MW-1	5.8	-25.9	686.3	0.09	22.11	7.5	20.32
BY-AP-MW-2	6.28	-22.4	59.3	0.14	21.53	7.27	18.94
BY-AP-MW-3	5.13	170	34.6	2.6	21.46	1.12	21.4
BY-AP-MW-4	4.42	200.6	44.5	0.21	21.34	0.77	22.08
BY-AP-MW-5	5.87	34.6	422	0.1	21.11	0.65	24.45
BY-AP-MW-7	6.27	-31.1	230.2	0.16	21.65	8.47	21.18
BY-AP-MW-8	6.16	-99.1	465.9	0.1	21.38	0.39	24.3
BY-AP-MW-9	6.25	-62.5	546.9	0.09	21.86	0.44	20.32
BY-AP-MW-10	6.21	-92	606.4	0.12	21.28	0.89	23
BY-AP-MW-11	6.26	-57.3	621.9	0.1	20.84	11.6	22.27
BY-AP-MW-12	6.17	-66.2	517.7	0.11	21.33	2.03	20.24
BY-AP-MW-13	6.07	-32.6	456.5	0.09	20.88	7.25	20.59
BY-AP-MW-14	6.07	-34.1	410.1	0.09	20.75	6.89	8.75
BY-AP-MW-15	6.48	-83.7	525.7	0.12	20.57	6.49	20.14
BY-AP-MW-16	5.78	-11.1	419.3	0.12	21.69	4.04	20.65

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
205-664-6001

Analytical Report

Alabama Power

Sample Group : WMWBARAP_1258

Project/Site : Barry Ash Pond
Bucks, AL 36512

For : Southern Company Services
3535 Colonnade Parkway
Birmingham, AL 35243

Attention : Brooks, Dyer, Redwine, Mitchell, & Vlassopoulos

Released By : Laura Midkiff
lbmidkif@southernco.com
(205) 664-6197

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Alabama Power

March 18, 2020

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory between February 04, 2020 and February 06, 2020. All results reported herein conform to the laboratory's most current Quality Assurance Manual. Results marked with an asterisk conform to the most current applicable TNI/NELAC requirements. Exceptions will be noted in the body of the report.

Laboratory certification ID: E571114
Issued By: State of Florida, Department of Health
Expiration: June 30, 2020

If you have any questions concerning this report, please feel free to contact me.

Sincerely,

Quality Control: Laura Midkiff

Digitally signed by Laura Midkiff
DN: cn=Laura Midkiff, o=Alabama Power Company, ou=Environmental Affairs, email=lbmidkif@southernco.com, c=US
Date: 2020.03.18 11:19:01 -05'00'

Supervision: T. Durant Maske

Digitally signed by T. Durant Maske
DN: cn=T. Durant Maske, o=Alabama Power Company, ou=Environmental Affairs, email=tdmaske@southernco.com, c=US
Date: 2020.03.18 11:44:01 -05'00'

NELAP ACCREDITED TNI LABORATORY

REPORT OF LABORATORY ANALYSIS

This Certificate states the physical and/or chemical characteristics of the sample as submitted. This document shall not be reproduced, except in full, without written consent from Alabama Power's General Test Laboratory.

Alabama Power Lab & Field SERVICES

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICP

Barry Ash Pond

WMWBARAP_1258

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA02260	665690	WMWBARAP_1258
BA02261	665690	WMWBARAP_1258
BA02262	665690	WMWBARAP_1258
BA02263	665690	WMWBARAP_1258
BA02365	665690	WMWBARAP_1258
BA02366	665690	WMWBARAP_1258
BA02367	665690	WMWBARAP_1258
BA02368	665690	WMWBARAP_1258
BA02369	665690	WMWBARAP_1258
BA02370	665690	WMWBARAP_1258
BA02467	665691	WMWBARAP_1258
BA02468	665691	WMWBARAP_1258
BA02469	665691	WMWBARAP_1258
BA02470	665691	WMWBARAP_1258
BA02471	665691	WMWBARAP_1258
BA02472	665691	WMWBARAP_1258
BA02595	665691	WMWBARAP_1258
BA02596	665691	WMWBARAP_1258
BA02597	665691	WMWBARAP_1258
BA02598	665691	WMWBARAP_1258

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA02260	Iron	10.15
BA02261	Iron	101.5
BA02262	Iron	101.5
BA02263	Iron	101.5
BA02365	Calcium, Iron	40.6
BA02366	Iron, Sodium	40.6
BA02367	Iron, Sodium	40.6
BA02368	Iron, Sodium	10.15
BA02369	Iron, Sodium	10.15
BA02467	Iron	40.6
BA02468	Iron	101.5
BA02469	Iron	101.5
BA02472	Iron	101.5
BA02595	Iron	101.5

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICP

Barry Ash Pond

WMWBARAP_1258

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA02260	665670	WMWBARAP_1258
BA02261	665670	WMWBARAP_1258
BA02262	665670	WMWBARAP_1258
BA02263	665670	WMWBARAP_1258
BA02365	665670	WMWBARAP_1258
BA02366	665670	WMWBARAP_1258
BA02367	665670	WMWBARAP_1258
BA02368	665670	WMWBARAP_1258
BA02369	665670	WMWBARAP_1258
BA02467	665670	WMWBARAP_1258
BA02468	665671	WMWBARAP_1258
BA02469	665671	WMWBARAP_1258
BA02470	665671	WMWBARAP_1258
BA02472	665671	WMWBARAP_1258
BA02595	665671	WMWBARAP_1258
BA02596	665671	WMWBARAP_1258
BA02597	665671	WMWBARAP_1258

4. All of the above samples were analyzed and prepared by EPA 200.7 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch
- All laboratory control sample criteria were met.
- The method blank associated with each batch passed all acceptance criteria for all requested analytes.
- The spectral interference check associated with EPA 200.7 was analyzed and all acceptance criteria were met.
- All sample internal standard criteria were met.
- The high standard readbacks associated with EPA 200.7 were within acceptance criteria.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for accuracy were met, except for the following:
    - BA02467 MS/MSD spike level for iron was less than 30% of the sample nominal concentration.
- A matrix spike and matrix spike duplicate were analyzed with each ICP batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA02260	Iron	x10.15
BA02261	Iron	x101.5
BA02262	Iron	x101.5
BA02263	Iron	x101.5
BA02365	Iron	x101.5
BA02366	Iron	x101.5
BA02367	Iron	x101.5
BA02368	Iron	x101.5
BA02369	Iron	x101.5
BA02467	Iron	x101.5
BA02468	Iron	x101.5
BA02469	Iron	x101.5
BA02472	Iron	x101.5
BA02595	Iron	x101.5

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Metals ICPMS

Barry Ash Pond

WMWBARAP_1258

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA02260	665840	WMWBARAP_1258
BA02261	665840	WMWBARAP_1258
BA02262	665840	WMWBARAP_1258
BA02263	665840	WMWBARAP_1258
BA02365	665840	WMWBARAP_1258
BA02366	665840	WMWBARAP_1258
BA02367	665840	WMWBARAP_1258
BA02368	665840	WMWBARAP_1258
BA02369	665840	WMWBARAP_1258
BA02370	665840	WMWBARAP_1258
BA02467	665841	WMWBARAP_1258
BA02468	665841	WMWBARAP_1258
BA02469	665841	WMWBARAP_1258
BA02470	665841	WMWBARAP_1258
BA02471	665841	WMWBARAP_1258
BA02472	665841	WMWBARAP_1258
BA02595	665841	WMWBARAP_1258
BA02596	665841	WMWBARAP_1258
BA02597	665841	WMWBARAP_1258
BA02598	665841	WMWBARAP_1258

4. All of the above samples were analyzed by EPA 200.8 and prepared by EPA 1638.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- A preparation method blank and laboratory control sample were digested and analyzed with the samples in each digestion batch.
- All laboratory control sample criteria were met.
- The method blank associated with each digestion batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were digested and analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA02261	Manganese	5.075
BA02262	Manganese	5.075
BA02263	Manganese	5.075
BA02365	Manganese	5.075

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Dissolved Metals ICPMS

Barry Ash Pond

WMWBARAP_1258

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA02260	665961	WMWBARAP_1258
BA02261	665961	WMWBARAP_1258
BA02262	665961	WMWBARAP_1258
BA02263	665961	WMWBARAP_1258
BA02365	665961	WMWBARAP_1258
BA02366	665961	WMWBARAP_1258
BA02367	665961	WMWBARAP_1258
BA02368	665961	WMWBARAP_1258
BA02369	665961	WMWBARAP_1258
BA02467	665961	WMWBARAP_1258
BA02468	665962	WMWBARAP_1258
BA02469	665962	WMWBARAP_1258
BA02470	665962	WMWBARAP_1258
BA02472	665962	WMWBARAP_1258
BA02595	665962	WMWBARAP_1258
BA02596	665962	WMWBARAP_1258
BA02597	665962	WMWBARAP_1258

4. All of the above samples were analyzed and prepared by EPA 200.8 for dissolved analysis.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All tune and calibration met criteria for all requested analytes.
- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.
- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes.
- All continued calibration blanks (CCB) were below the limit of quantitation for the requested analytes.
- Due to no filtered method blank (MB) or laboratory control sample (LCS) submitted with the sample set, an unfiltered MB and LCS were analyzed with the samples in each batch.
- All laboratory control sample criteria were met.
- The method blank associated with each preparation batch passed all acceptance criteria for all requested analytes.
- The interference check samples associated with EPA 200.8 were analyzed and passed for all requested analytes.
- All sample internal standard criteria were met.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for accuracy were met.
- A matrix spike and matrix spike duplicate were analyzed with each ICPMS batch. All acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA02261	Manganese	5.075
BA02262	Manganese	5.075
BA02263	Manganese	5.075
BA02365	Manganese	5.075

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Anions

Barry Ash Pond

WMWBARAP_1258

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA02260	665579, 665583, & 665630	WMWBARAP_1258
BA02261	665579, 665583, & 665630	WMWBARAP_1258
BA02262	665579, 665583, & 665630	WMWBARAP_1258
BA02263	665579, 665583, & 665630	WMWBARAP_1258
BA02365	665579, 665583, & 665630	WMWBARAP_1258
BA02366	665579, 665583, & 665630	WMWBARAP_1258
BA02367	665579, 665583, & 665630	WMWBARAP_1258
BA02368	665579, 665583, & 665630	WMWBARAP_1258
BA02369	665579, 665583, & 665630	WMWBARAP_1258
BA02370	665579, 665583, & 665630	WMWBARAP_1258
BA02467	665734, 665735, & 665644	WMWBARAP_1258
BA02468	665734, 665735, & 665644	WMWBARAP_1258
BA02469	665734, 665735, & 665644	WMWBARAP_1258
BA02470	665734, 665735, & 665644	WMWBARAP_1258
BA02471	665734, 665735, & 665644	WMWBARAP_1258
BA02472	665734, 665735, & 665644	WMWBARAP_1258
BA02595	665734, 665735, & 665733	WMWBARAP_1258
BA02596	665734, 665735, & 665733	WMWBARAP_1258
BA02597	665734, 665735, & 665733	WMWBARAP_1258
BA02598	665734, 665735, & 665733	WMWBARAP_1258

4. All of the above samples were analyzed and prepared by SM4500 Cl E, SM4500 F G, and SM4500 SO4 E.
5. All samples were prepared and analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration met criteria for the requested analyte.
- Prior to sample analysis, an initial calibration verification (ICV), and all criteria were met.

- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and was below the 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.
- It is noted that the QC summary page typically provides the QC results from the original batch analytical sequence. If dilutions were subsequently performed to bring sample concentrations within the calibration range, any additional QC data from the dilution analyses may need to be obtained from the laboratory. Any qualifications applied to original analyses or dilution re-analyses are based upon QC data available at the time of review.

Matrix Specific Quality Control Procedures:

Similarity of matrix and therefore relevance of matrix specific QC results should not be automatically inferred for any sample other than the sample selected for QC.

- A matrix spike was analyzed with each batch. Acceptance criteria for accuracy were met.
- A sample duplicate was analyzed with each batch. Acceptance criteria for precision were met.

7. The following samples were diluted due to the analyzed sample concentration being greater than the high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA02261	Chloride & Sulfate	2 &4
BA02262	Chloride & Sulfate	2 & 3
BA02263	Chloride	2
BA02365	Chloride	2
BA02366	Chloride & Sulfate	2 & 5
BA02367	Chloride & Sulfate	2 & 3
BA02368	Chloride & Sulfate	4 & 2
BA02369	Chloride & Sulfate	4 & 3
BA02467	Chloride	4
BA02468	Chloride	2
BA02469	Chloride	2
BA02472	Chloride	2
BA02595	Chloride	2

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alkalinity

Barry Ash Pond

WMWBARAP_1258

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA02260	666529 & 666530	WMWBARAP_1258
BA02261	666529 & 666530	WMWBARAP_1258
BA02262	666529 & 666530	WMWBARAP_1258
BA02263	666529 & 666530	WMWBARAP_1258
BA02365	666529 & 666530	WMWBARAP_1258
BA02366	666529 & 666530	WMWBARAP_1258
BA02367	666529 & 666530	WMWBARAP_1258
BA02368	666529 & 666530	WMWBARAP_1258
BA02369	666529 & 666530	WMWBARAP_1258
BA02467	666529 & 666530	WMWBARAP_1258
BA02468	666529 & 666530	WMWBARAP_1258
BA02469	666529 & 666530	WMWBARAP_1258
BA02470	666529 & 666530	WMWBARAP_1258
BA02472	666529 & 666530	WMWBARAP_1258
BA02595	666529 & 666530	WMWBARAP_1258
BA02596	666529 & 666530	WMWBARAP_1258
BA02597	666529 & 666530	WMWBARAP_1258

4. All of the above samples were analyzed by Standard Method 2320B.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- An initial pH check was analyzed with each batch. The acceptance criteria were met.
- A final pH check was analyzed with each batch. The acceptance criteria were met.
- An alkalinity laboratory control sample was analyzed with each batch. Range criteria of within 10% of true value was met.
- An alkalinity sample duplicate was analyzed with each batch. Precision criteria less than 10 RPD was met.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Case Narrative

Alabama Power

Total Organic Carbon by High Temperature Combustion

Barry Ash Pond

WMWBARAP_1258

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA02260	666903	WMWBARAP_1258
BA02261	666903	WMWBARAP_1258
BA02262	666903	WMWBARAP_1258
BA02263	666903	WMWBARAP_1258
BA02365	666903	WMWBARAP_1258
BA02366	666903	WMWBARAP_1258
BA02367	666903	WMWBARAP_1258
BA02368	666903	WMWBARAP_1258
BA02369	666903	WMWBARAP_1258
BA02370	666903	WMWBARAP_1258
BA02467	666904	WMWBARAP_1258
BA02468	666904	WMWBARAP_1258
BA02469	666904	WMWBARAP_1258
BA02470	666904	WMWBARAP_1258
BA02471	666904	WMWBARAP_1258
BA02472	666904	WMWBARAP_1258
BA02595	666904	WMWBARAP_1258
BA02596	666904	WMWBARAP_1258
BA02597	666904	WMWBARAP_1258
BA02598	666904	WMWBARAP_1258

4. All of the above samples were analyzed by Standard Method 5310B.
5. All samples were analyzed within the established hold times.
6. All in house quality control procedures were followed, as described below.

General Quality Control Procedures:

- All calibration criteria was 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 were <1/2RL.
- All continued calibration verification (CCV) were within the acceptance range.
- All continued calibration blanks (CCB) were <1/2RL.
- Matrix Specific QC:
    - A sample duplicate was run and criteria for precision was met.
    - A matrix spike was run and criteria for accuracy was met, except for the following:
        - BA02370 MSD recovery was outside of the specification limit.

7. All samples were analyzed without a dilution factor.

Case Narrative

Nitrate/Nitrite, Nitrite, and ortho-Phosphate

Barry Ash Pond

WMWBARAP_1258

1. This report consists of all MWs and corresponding Lab IDs listed on the Chain of Custody.
2. Refer to comments on Chain of Custody for information regarding sample receipt.
3. All standards and solutions are NIST/ISO/IEC/Guide 34 traceable and were used within their recommended shelf life.

Sample ID	Batch ID	Project ID
BA02260	666306, 666305, & 666307	WMWBARAP_1258
BA02261	666306, 666305, & 666307	WMWBARAP_1258
BA02262	666306, 666305, & 666307	WMWBARAP_1258
BA02263	666306, 666305, & 666307	WMWBARAP_1258
BA02365	665783, 665782, & 665786	WMWBARAP_1258
BA02366	665783, 665782, & 665786	WMWBARAP_1258
BA02367	665783, 665782, & 665786	WMWBARAP_1258
BA02368	665783, 665782, & 665786	WMWBARAP_1258
BA02369	665783, 665782, & 665786	WMWBARAP_1258
BA02370	665783, 665782, & 665786	WMWBARAP_1258
BA02467	665912, 665911, & 665913	WMWBARAP_1258
BA02468	665912, 665911, & 665913	WMWBARAP_1258
BA02469	665912, 665911, & 665913	WMWBARAP_1258
BA02470	665912, 665911, & 665913	WMWBARAP_1258
BA02471	665912, 665911, & 665913	WMWBARAP_1258
BA02472	665912, 665911, & 665913	WMWBARAP_1258
BA02595	665986, 665985, & 665987	WMWBARAP_1258
BA02596	665986, 665985, & 665987	WMWBARAP_1258
BA02597	665986, 665985, & 665987	WMWBARAP_1258
BA02598	665986, 665985, & 665987	WMWBARAP_1258

4. All of the above samples were analyzed by NO_x and NO_2 by EPA 353.2 and PO_4 by SM 4500P-F.
5. All samples were prepared and analyzed within the established hold times, except for the following:
   - BA02260 for NO_x and PO_4
   - BA02261 for PO_4
   - BA02262 for PO_4
   - BA02263 for PO_4
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.

EPA 353.2 Specific QC:

- For NO_x: Prior to sample analysis, Cadmium coil reduction efficiency check met 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.
- Matrix Specific QC:
  - A sample duplicate was run and criteria for precision was met.
  - A matrix spike was run and criteria for accuracy was met, except for the following:
    - BA02263 & BA02472 MS recovery for NOx was outside of the specification limit.

SM 4500P-F Specific QC:

- Prior to sample analysis, an initial calibration blank (ICB) was analyzed and were below half the limit of quantitation.
- All continued calibration blanks (CCB) were below half the limit of quantitation.
- Matrix Specific QC:
  - A matrix spike was run and criteria for accuracy was met, except for the following:
    - BA02472 & BA02598 MS recovery for ortho-Phosphate was outside of the specification limit.
  - A matrix spike duplicate was run and criteria for precision was met, except for the following:
    - BA02472 & BA02598 MS precision for ortho-Phosphate was outside of the specification limit.
  - A valid matrix spike and matrix spike duplicate was not run for batch 666307.

7. The following sample was diluted due to the analyzed sample concentration being greater than high standard of the calibration curve:

Sample ID	Analyte	Dilution Factor
BA02262	PO_4	5

8. The raw data results are shown with dilution factors included.

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-7

Location Code: WMWBARAP
Collected: 2/3/20 10:45
Customer ID:
Submittal Date: 2/4/20 09:09

Laboratory ID Number: BA02260

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 09:29		1.015	0.0352	mg/L	0.03	0.1	J
* Calcium, Total	2/10/20 13:30	2/14/20 09:29		1.015	10.2	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 09:29		1.015	6.15	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 11:36		10.15	10.6	mg/L	0.203	0.5075	
* Lithium, Total	2/10/20 13:30	2/14/20 09:29		1.015	0.0147	mg/L	0.01	0.02	J
* Magnesium, Total	2/10/20 13:30	2/14/20 09:29		1.015	7.61	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 09:29		1	13.2	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 09:29		1.015	24.1	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 12:40		10.15	10.6	mg/L	0.203	0.5075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 13:43		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 13:43		1.015	0.0187	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 13:43		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/7/20 09:00	2/7/20 13:43		1.015	0.0619	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 13:43		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 13:43		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 13:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 13:43		1.015	0.0157	mg/L	0.002	0.005	
* Lead, Total	2/7/20 09:00	2/7/20 13:43		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 13:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 13:43		1.015	0.381	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 13:43		1.015	5.67	mg/L	0.3	2.5	
* Selenium, Total	2/7/20 09:00	2/7/20 13:43		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 13:43		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	0.0189	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Nitrate/Nitrite, Nitrate (calc.), and Ortho-phospate were performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-7

Location Code: WMWBARAP
Collected: 2/3/20 10:45
Customer ID:
Submittal Date: 2/4/20 09:09

Laboratory ID Number: BA02260

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	0.0157	mg/L	0.002	0.005	
* Lead, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	0.382	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 11:19		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/5/20 11:47	2/5/20 11:47		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/5/20 11:47	2/5/20 11:47		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/4/20 16:19	2/4/20 16:19		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	104	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	104	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.02	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/5/20 13:45	2/5/20 13:45		1	0.011	mg/L as P	0.010	0.03	J
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 10:20	2/17/20 10:20		1	4.06	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/5/20 10:55	2/5/20 10:55		1	12.9	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/5/20 13:42	2/5/20 13:42		1	0.125	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:08	2/6/20 10:08		1	10.1	mg/L	0.50	1	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Nitrate/Nitrite, Nitrate (calc.), and Ortho-phospate were performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/3/20 10:45
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-7

Laboratory ID Number: BA02260

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.102	0.101	0.0977	0.085 to 0.115	102	70 to 130	0.985	20
BA02467	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0949	0.0965	0.0961	0.085 to 0.115	94.9	70 to 130	1.67	20
BA02370	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0963	0.0968	0.0946	0.085 to 0.115	96.3	70 to 130	0.518	20
BA02370	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0913	0.0887	0.0898	0.085 to 0.115	91.3	70 to 130	2.89	20
BA02370	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.02	0.999	1.00	0.850 to 1.15	102	70 to 130	2.08	20
BA02467	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.0969	0.0965	0.0985	0.085 to 0.115	96.9	70 to 130	0.414	20
BA02467	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	94.6	95.1	0.202	0.17 to 0.23	-700	70 to 130	0.527	20
BA02370	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0945	0.0989	0.0922	0.085 to 0.115	94.5	70 to 130	4.55	20
BA02370	Sodium, Total	mg/L	0.00149	0.044	5.00	5.06	4.97	5.09	4.25 to 5.75	101	70 to 130	1.79	20
BA02370	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.103	0.103	0.0961	0.085 to 0.115	103	70 to 130	0.00	20
BA02467	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0814	0.0831	0.0898	0.085 to 0.115	81.4	70 to 130	2.07	20
BA02467	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.00	20
BA02370	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.111	0.110	0.0941	0.085 to 0.115	111	70 to 130	0.905	20
BA02370	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0985	0.0976	0.0941	0.085 to 0.115	98.5	70 to 130	0.918	20
BA02370	Iron, Total	mg/L	0.000678	0.0176	0.2	0.204	0.200	0.203	0.17 to 0.23	102	70 to 130	1.98	20
BA02370	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.85	9.96	9.81	8.5 to 11.5	98.5	70 to 130	1.11	20
BA02370	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0992	0.0990	0.0945	0.085 to 0.115	99.2	70 to 130	0.202	20
BA02370	Total Organic Carbon	mg/L	0.550	1.00	10.0	9.09	8.99	9.05	9 to 11	80.5	80 to 120	1.11	20
BA02467	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0952	0.0945	0.0914	0.085 to 0.115	95.2	70 to 130	0.738	20
BA02263	Ortho Phosphate	mg/L as P	0.00	0.015				0.253	0.225 to 0.275		80 to 120		10
BA02370	Boron, Total	mg/L	0.00198	0.0650254	1.00	1.00	0.991	1.01	0.85 to 1.15	100	70 to 130	0.904	20
BA02370	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0986	0.0976	0.0951	0.085 to 0.115	98.6	70 to 130	1.02	20
BA02370	Lithium, Total	mg/L	0.0000354	0.0154	0.200	0.201	0.194	0.200	0.17 to 0.23	100	70 to 130	3.54	20
BA02370	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.09	4.96	5.14	4.25 to 5.75	102	70 to 130	2.59	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Nitrate/Nitrite, Nitrate (calc.), and Ortho-phospate were performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/3/20 10:45
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-7

Laboratory ID Number: BA02260

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02467	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.119	0.119	0.0999	0.085 to 0.115	101	70 to 130	0.00	20
BA02467	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.787	0.789	0.0981	0.085 to 0.115	71.0	70 to 130	0.254	20
BA02467	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0957	0.0980	0.0966	0.085 to 0.115	93.7	70 to 130	2.37	20
BA02467	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.100	0.102	0.0986	0.085 to 0.115	100	70 to 130	1.98	20
BA02370	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0987	0.100	0.0963	0.085 to 0.115	98.7	70 to 130	1.31	20
BA02467	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.0994	0.0984	0.0990	0.085 to 0.115	99.4	70 to 130	1.01	20
BA02467	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.130	0.130	0.0982	0.085 to 0.115	95.4	70 to 130	0.00	20
BA02370	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.16	5.07	5.16	4.25 to 5.75	103	70 to 130	1.76	20
BA02370	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0990	0.1000	0.0949	0.085 to 0.115	99.0	70 to 130	1.01	20
BA02370	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0987	0.0997	0.0950	0.085 to 0.115	98.7	70 to 130	1.01	20
BA02370	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0995	0.0996	0.0952	0.085 to 0.115	99.5	70 to 130	0.100	20
BA02467	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0992	0.0988	0.0980	0.085 to 0.115	99.2	70 to 130	0.404	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Nitrate/Nitrite, Nitrate (calc.), and Ortho-phospate were performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/3/20 10:45
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-7

Laboratory ID Number: BA02260

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Chloride	mg/L	0.0368	0.50	10.0	9.84	0.132	10.0	9 to 11	98.4	80 to 120	0.00	20
BA02263	Nitrogen, Nitrite	mg/L as N	0.011	0.20	0.50	0.495	0.016	0.762	0.675 to 0.825	99.0	90 to 110	0.00	15
BA02263	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	1.95	0.202	1.92	1.8 to 2.2	87.4	90 to 110	0.494	15
BA02370	Sulfate	mg/L	-0.415	0.50	20.0	19.0	-0.713	19.3	18 to 22	95.0	80 to 120	0.00	20
BA02370	Fluoride	mg/L	0.0299	0.05	2.50	2.63	0.0293	2.62	2.25 to 2.75	105	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Nitrate/Nitrite, Nitrate (calc.), and Ortho-phospate were performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-8

Location Code: WMWBARAP
Collected: 2/3/20 12:10
Customer ID:
Submittal Date: 2/4/20 09:09

Laboratory ID Number: BA02261

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 09:32		1.015	1.12	mg/L	0.03	0.1	
* Calcium, Total	2/10/20 13:30	2/14/20 09:32		1.015	32.1	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 09:32		1.015	15.6	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 11:39		101.5	73.0	mg/L	2.03	5.075	
* Lithium, Total	2/10/20 13:30	2/14/20 09:32		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 09:32		1.015	9.75	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 09:32		1	33.4	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 09:32		1.015	19.1	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 12:43		101.5	69.9	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 13:46		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 13:46		1.015	0.0581	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 13:46		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/7/20 09:00	2/7/20 13:46		1.015	0.133	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 13:46		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 13:46		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 13:46		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 13:46		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 13:46		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 13:46		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/11/20 10:45		5.075	1.71	mg/L	0.005075	0.025375	
* Potassium, Total	2/7/20 09:00	2/7/20 13:46		1.015	0.691	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 13:46		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 13:46		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	0.0587	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-8

Location Code: WMWBARAP
Collected: 2/3/20 12:10
Customer ID:
Submittal Date: 2/4/20 09:09

Laboratory ID Number: BA02261

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/11/20 10:55		5.075	1.66	mg/L	0.005075	0.025375	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 11:22		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/5/20 11:48	2/5/20 11:48		1	0.212	mg/L as N	0.20	0.3	J
Nitrogen, Nitrate (calc.)	2/5/20 11:48	2/5/20 11:48		1	0.212	mg/L as N			J
Nitrogen, Nitrite	2/4/20 16:19	2/4/20 16:19		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	194	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	194	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.03	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/5/20 13:39	2/5/20 13:39		1	0.912	mg/L as P	0.010	0.03	HT
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 10:30	2/17/20 10:30		1	13.1	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/5/20 10:56	2/5/20 10:56		2	22.3	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/5/20 13:43	2/5/20 13:43		1	0.108	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:19	2/6/20 10:19		4	45.1	mg/L	2.00	4	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/3/20 12:10
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-8

Laboratory ID Number: BA02261

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0963	0.0968	0.0946	0.085 to 0.115	96.3	70 to 130	0.518	20
BA02370	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0913	0.0887	0.0898	0.085 to 0.115	91.3	70 to 130	2.89	20
BA02370	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.02	0.999	1.00	0.850 to 1.15	102	70 to 130	2.08	20
BA02467	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.0969	0.0965	0.0985	0.085 to 0.115	96.9	70 to 130	0.414	20
BA02467	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	94.6	95.1	0.202	0.17 to 0.23	-700	70 to 130	0.527	20
BA02263	Ortho Phosphate	mg/L as P	0.00	0.015				0.253	0.225 to 0.275		80 to 120		10
BA02370	Boron, Total	mg/L	0.00198	0.0650254	1.00	1.00	0.991	1.01	0.85 to 1.15	100	70 to 130	0.904	20
BA02370	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0986	0.0976	0.0951	0.085 to 0.115	98.6	70 to 130	1.02	20
BA02370	Lithium, Total	mg/L	0.0000354	0.0154	0.200	0.201	0.194	0.200	0.17 to 0.23	100	70 to 130	3.54	20
BA02370	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.09	4.96	5.14	4.25 to 5.75	102	70 to 130	2.59	20
BA02467	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.119	0.119	0.0999	0.085 to 0.115	101	70 to 130	0.00	20
BA02467	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.787	0.789	0.0981	0.085 to 0.115	71.0	70 to 130	0.254	20
BA02467	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0957	0.0980	0.0966	0.085 to 0.115	93.7	70 to 130	2.37	20
BA02467	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.100	0.102	0.0986	0.085 to 0.115	100	70 to 130	1.98	20
BA02370	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.16	5.07	5.16	4.25 to 5.75	103	70 to 130	1.76	20
BA02370	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0990	0.1000	0.0949	0.085 to 0.115	99.0	70 to 130	1.01	20
BA02370	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0987	0.0997	0.0950	0.085 to 0.115	98.7	70 to 130	1.01	20
BA02370	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0995	0.0996	0.0952	0.085 to 0.115	99.5	70 to 130	0.100	20
BA02467	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0992	0.0988	0.0980	0.085 to 0.115	99.2	70 to 130	0.404	20
BA02370	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.102	0.101	0.0977	0.085 to 0.115	102	70 to 130	0.985	20
BA02467	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0949	0.0965	0.0961	0.085 to 0.115	94.9	70 to 130	1.67	20
BA02370	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0945	0.0989	0.0922	0.085 to 0.115	94.5	70 to 130	4.55	20
BA02370	Sodium, Total	mg/L	0.00149	0.044	5.00	5.06	4.97	5.09	4.25 to 5.75	101	70 to 130	1.79	20
BA02370	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.103	0.103	0.0961	0.085 to 0.115	103	70 to 130	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/3/20 12:10
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-8

Laboratory ID Number: BA02261

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02467	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0814	0.0831	0.0898	0.085 to 0.115	81.4	70 to 130	2.07	20
BA02467	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.00	20
BA02370	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0987	0.100	0.0963	0.085 to 0.115	98.7	70 to 130	1.31	20
BA02467	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.0994	0.0984	0.0990	0.085 to 0.115	99.4	70 to 130	1.01	20
BA02467	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.130	0.130	0.0982	0.085 to 0.115	95.4	70 to 130	0.00	20
BA02370	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.111	0.110	0.0941	0.085 to 0.115	111	70 to 130	0.905	20
BA02370	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0985	0.0976	0.0941	0.085 to 0.115	98.5	70 to 130	0.918	20
BA02370	Iron, Total	mg/L	0.000678	0.0176	0.2	0.204	0.200	0.203	0.17 to 0.23	102	70 to 130	1.98	20
BA02370	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.85	9.96	9.81	8.5 to 11.5	98.5	70 to 130	1.11	20
BA02370	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0992	0.0990	0.0945	0.085 to 0.115	99.2	70 to 130	0.202	20
BA02370	Total Organic Carbon	mg/L	0.550	1.00	10.0	9.09	8.99	9.05	9 to 11	80.5	80 to 120	1.11	20
BA02467	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0952	0.0945	0.0914	0.085 to 0.115	95.2	70 to 130	0.738	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/3/20 12:10
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-8

Laboratory ID Number: BA02261

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Chloride	mg/L	0.0368	0.50	10.0	9.84	0.132	10.0	9 to 11	98.4	80 to 120	0.00	20
BA02263	Nitrogen, Nitrite	mg/L as N	0.011	0.20	0.50	0.495	0.016	0.762	0.675 to 0.825	99.0	90 to 110	0.00	15
BA02263	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	1.95	0.202	1.92	1.8 to 2.2	87.4	90 to 110	0.494	15
BA02370	Sulfate	mg/L	-0.415	0.50	20.0	19.0	-0.713	19.3	18 to 22	95.0	80 to 120	0.00	20
BA02370	Fluoride	mg/L	0.0299	0.05	2.50	2.63	0.0293	2.62	2.25 to 2.75	105	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
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Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-8 DUP

Location Code: WMWBARAP
Collected: 2/3/20 12:10
Customer ID:
Submittal Date: 2/4/20 09:09

Laboratory ID Number: BA02262

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 09:35		1.015	1.13	mg/L	0.03	0.1	
* Calcium, Total	2/10/20 13:30	2/14/20 09:35		1.015	32.2	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 09:35		1.015	15.6	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 11:42		101.5	71.9	mg/L	2.03	5.075	
* Lithium, Total	2/10/20 13:30	2/14/20 09:35		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 09:35		1.015	9.74	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 09:35		1	33.4	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 09:35		1.015	19.2	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 12:46		101.5	71.2	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 13:49		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 13:49		1.015	0.0580	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 13:49		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/7/20 09:00	2/7/20 13:49		1.015	0.134	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 13:49		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 13:49		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 13:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 13:49		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 13:49		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 13:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/11/20 10:47		5.075	1.71	mg/L	0.005075	0.025375	
* Potassium, Total	2/7/20 09:00	2/7/20 13:49		1.015	0.628	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 13:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 13:49		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	0.0590	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-8 DUP

Location Code: WMWBARAP
Collected: 2/3/20 12:10
Customer ID:
Submittal Date: 2/4/20 09:09

Laboratory ID Number: BA02262

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/11/20 10:58		5.075	1.70	mg/L	0.005075	0.025375	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 11:24		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/5/20 11:49	2/5/20 11:49		1	0.346	mg/L as N	0.20	0.3	
Nitrogen, Nitrate (calc.)	2/5/20 11:49	2/5/20 11:49		1	0.346	mg/L as N			
Nitrogen, Nitrite	2/4/20 16:20	2/4/20 16:20		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	184	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	184	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.03	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/5/20 14:03	2/5/20 14:03		5	0.808	mg/L as P	0.050	0.15	HT
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 10:43	2/17/20 10:43		1	13.4	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/5/20 10:58	2/5/20 10:58		2	22.4	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/5/20 13:44	2/5/20 13:44		1	0.0886	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:10	2/6/20 10:10		3	37.1	mg/L	1.50	3	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/3/20 12:10
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-8 DUP

Laboratory ID Number: BA02262

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.102	0.101	0.0977	0.085 to 0.115	102	70 to 130	0.985	20
BA02467	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0949	0.0965	0.0961	0.085 to 0.115	94.9	70 to 130	1.67	20
BA02263	Ortho Phosphate	mg/L as P	0.00	0.015				0.253	0.225 to 0.275		80 to 120		10
BA02370	Boron, Total	mg/L	0.00198	0.0650254	1.00	1.00	0.991	1.01	0.85 to 1.15	100	70 to 130	0.904	20
BA02370	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0986	0.0976	0.0951	0.085 to 0.115	98.6	70 to 130	1.02	20
BA02370	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0963	0.0968	0.0946	0.085 to 0.115	96.3	70 to 130	0.518	20
BA02370	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0913	0.0887	0.0898	0.085 to 0.115	91.3	70 to 130	2.89	20
BA02370	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.02	0.999	1.00	0.850 to 1.15	102	70 to 130	2.08	20
BA02467	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.0969	0.0965	0.0985	0.085 to 0.115	96.9	70 to 130	0.414	20
BA02467	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	94.6	95.1	0.202	0.17 to 0.23	-700	70 to 130	0.527	20
BA02370	Lithium, Total	mg/L	0.0000354	0.0154	0.200	0.201	0.194	0.200	0.17 to 0.23	100	70 to 130	3.54	20
BA02370	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.09	4.96	5.14	4.25 to 5.75	102	70 to 130	2.59	20
BA02467	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.119	0.119	0.0999	0.085 to 0.115	101	70 to 130	0.00	20
BA02467	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.787	0.789	0.0981	0.085 to 0.115	71.0	70 to 130	0.254	20
BA02467	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0957	0.0980	0.0966	0.085 to 0.115	93.7	70 to 130	2.37	20
BA02467	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.100	0.102	0.0986	0.085 to 0.115	100	70 to 130	1.98	20
BA02370	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0945	0.0989	0.0922	0.085 to 0.115	94.5	70 to 130	4.55	20
BA02370	Sodium, Total	mg/L	0.00149	0.044	5.00	5.06	4.97	5.09	4.25 to 5.75	101	70 to 130	1.79	20
BA02370	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.103	0.103	0.0961	0.085 to 0.115	103	70 to 130	0.00	20
BA02467	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0814	0.0831	0.0898	0.085 to 0.115	81.4	70 to 130	2.07	20
BA02467	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.00	20
BA02370	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.111	0.110	0.0941	0.085 to 0.115	111	70 to 130	0.905	20
BA02370	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0985	0.0976	0.0941	0.085 to 0.115	98.5	70 to 130	0.918	20
BA02370	Iron, Total	mg/L	0.000678	0.0176	0.2	0.204	0.200	0.203	0.17 to 0.23	102	70 to 130	1.98	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/3/20 12:10
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-8 DUP

Laboratory ID Number: BA02262

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.85	9.96	9.81	8.5 to 11.5	98.5	70 to 130	1.11	20
BA02370	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0992	0.0990	0.0945	0.085 to 0.115	99.2	70 to 130	0.202	20
BA02370	Total Organic Carbon	mg/L	0.550	1.00	10.0	9.09	8.99	9.05	9 to 11	80.5	80 to 120	1.11	20
BA02467	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0952	0.0945	0.0914	0.085 to 0.115	95.2	70 to 130	0.738	20
BA02370	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.16	5.07	5.16	4.25 to 5.75	103	70 to 130	1.76	20
BA02370	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0990	0.1000	0.0949	0.085 to 0.115	99.0	70 to 130	1.01	20
BA02370	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0987	0.0997	0.0950	0.085 to 0.115	98.7	70 to 130	1.01	20
BA02370	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0995	0.0996	0.0952	0.085 to 0.115	99.5	70 to 130	0.100	20
BA02467	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0992	0.0988	0.0980	0.085 to 0.115	99.2	70 to 130	0.404	20
BA02370	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0987	0.100	0.0963	0.085 to 0.115	98.7	70 to 130	1.31	20
BA02467	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.0994	0.0984	0.0990	0.085 to 0.115	99.4	70 to 130	1.01	20
BA02467	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.130	0.130	0.0982	0.085 to 0.115	95.4	70 to 130	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/3/20 12:10
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-8 DUP

Laboratory ID Number: BA02262

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Chloride	mg/L	0.0368	0.50	10.0	9.84	0.132	10.0	9 to 11	98.4	80 to 120	0.00	20
BA02263	Nitrogen, Nitrite	mg/L as N	0.011	0.20	0.50	0.495	0.016	0.762	0.675 to 0.825	99.0	90 to 110	0.00	15
BA02263	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	1.95	0.202	1.92	1.8 to 2.2	87.4	90 to 110	0.494	15
BA02370	Sulfate	mg/L	-0.415	0.50	20.0	19.0	-0.713	19.3	18 to 22	95.0	80 to 120	0.00	20
BA02370	Fluoride	mg/L	0.0299	0.05	2.50	2.63	0.0293	2.62	2.25 to 2.75	105	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-9

Location Code: WMWBARAP
Collected: 2/3/20 12:42
Customer ID:
Submittal Date: 2/4/20 09:09

Laboratory ID Number: BA02263

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 09:38		1.015	2.31	mg/L	0.03	0.1	
* Calcium, Total	2/10/20 13:30	2/14/20 09:38		1.015	40.0	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 09:38		1.015	12.5	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 11:45		101.5	77.7	mg/L	2.03	5.075	
* Lithium, Total	2/10/20 13:30	2/14/20 09:38		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 09:38		1.015	10.9	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 09:38		1	26.8	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 09:38		1.015	21.2	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 12:49		101.5	76.8	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 13:51		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 13:51		1.015	0.0406	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 13:51		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/7/20 09:00	2/7/20 13:51		1.015	0.116	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 13:51		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 13:51		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 13:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 13:51		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 13:51		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 13:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/11/20 10:50		5.075	2.07	mg/L	0.005075	0.025375	
* Potassium, Total	2/7/20 09:00	2/7/20 13:51		1.015	0.848	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 13:51		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 13:51		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	0.0407	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours. Matrix spike recovery for Nitrate/Nitrite is outside of specification limits. The matrix spike and matrix spike duplicate performed with batch 666307 for ortho-phosphate were invalid; therefore, the results were not reported. The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-9

Location Code: WMWBARAP
Collected: 2/3/20 12:42
Customer ID:
Submittal Date: 2/4/20 09:09

Laboratory ID Number: BA02263

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/11/20 11:16		5.075	1.99	mg/L	0.005075	0.025375	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 11:27		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/5/20 11:50	2/5/20 11:50		1	0.203	mg/L as N	0.20	0.3	J
Nitrogen, Nitrate (calc.)	2/5/20 11:50	2/5/20 11:50		1	0.203	mg/L as N			J
Nitrogen, Nitrite	2/4/20 16:21	2/4/20 16:21		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	201	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	201	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.05	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/5/20 13:41	2/5/20 13:41		1	0.754	mg/L as P	0.010	0.03	HT
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 10:55	2/17/20 10:55		1	12.4	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/5/20 10:59	2/5/20 10:59		2	22.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/5/20 13:45	2/5/20 13:45		1	0.0946	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:12	2/6/20 10:12		1	28.2	mg/L	0.50	1	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours. Matrix spike recovery for Nitrate/Nitrite is outside of specification limits. The matrix spike and matrix spike duplicate performed with batch 666307 for ortho-phosphate were invalid; therefore, the results were not reported. The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/3/20 12:42
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-9

Laboratory ID Number: BA02263

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0987	0.100	0.0963	0.085 to 0.115	98.7	70 to 130	1.31	20
BA02467	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.0994	0.0984	0.0990	0.085 to 0.115	99.4	70 to 130	1.01	20
BA02467	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.130	0.130	0.0982	0.085 to 0.115	95.4	70 to 130	0.00	20
BA02370	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0963	0.0968	0.0946	0.085 to 0.115	96.3	70 to 130	0.518	20
BA02370	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0913	0.0887	0.0898	0.085 to 0.115	91.3	70 to 130	2.89	20
BA02370	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.02	0.999	1.00	0.850 to 1.15	102	70 to 130	2.08	20
BA02467	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.0969	0.0965	0.0985	0.085 to 0.115	96.9	70 to 130	0.414	20
BA02467	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	94.6	95.1	0.202	0.17 to 0.23	-700	70 to 130	0.527	20
BA02370	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.102	0.101	0.0977	0.085 to 0.115	102	70 to 130	0.985	20
BA02467	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0949	0.0965	0.0961	0.085 to 0.115	94.9	70 to 130	1.67	20
BA02370	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0945	0.0989	0.0922	0.085 to 0.115	94.5	70 to 130	4.55	20
BA02370	Sodium, Total	mg/L	0.00149	0.044	5.00	5.06	4.97	5.09	4.25 to 5.75	101	70 to 130	1.79	20
BA02370	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.103	0.103	0.0961	0.085 to 0.115	103	70 to 130	0.00	20
BA02467	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0814	0.0831	0.0898	0.085 to 0.115	81.4	70 to 130	2.07	20
BA02467	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.00	20
BA02263	Ortho Phosphate	mg/L as P	0.00	0.015				0.253	0.225 to 0.275		80 to 120		10
BA02370	Boron, Total	mg/L	0.00198	0.0650254	1.00	1.00	0.991	1.01	0.85 to 1.15	100	70 to 130	0.904	20
BA02370	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0986	0.0976	0.0951	0.085 to 0.115	98.6	70 to 130	1.02	20
BA02370	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.16	5.07	5.16	4.25 to 5.75	103	70 to 130	1.76	20
BA02370	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0990	0.1000	0.0949	0.085 to 0.115	99.0	70 to 130	1.01	20
BA02370	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0987	0.0997	0.0950	0.085 to 0.115	98.7	70 to 130	1.01	20
BA02370	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0995	0.0996	0.0952	0.085 to 0.115	99.5	70 to 130	0.100	20
BA02467	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0992	0.0988	0.0980	0.085 to 0.115	99.2	70 to 130	0.404	20
BA02370	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.111	0.110	0.0941	0.085 to 0.115	111	70 to 130	0.905	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/3/20 12:42
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-9

Laboratory ID Number: BA02263

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0985	0.0976	0.0941	0.085 to 0.115	98.5	70 to 130	0.918	20
BA02370	Iron, Total	mg/L	0.000678	0.0176	0.2	0.204	0.200	0.203	0.17 to 0.23	102	70 to 130	1.98	20
BA02370	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.85	9.96	9.81	8.5 to 11.5	98.5	70 to 130	1.11	20
BA02370	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0992	0.0990	0.0945	0.085 to 0.115	99.2	70 to 130	0.202	20
BA02370	Total Organic Carbon	mg/L	0.550	1.00	10.0	9.09	8.99	9.05	9 to 11	80.5	80 to 120	1.11	20
BA02467	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0952	0.0945	0.0914	0.085 to 0.115	95.2	70 to 130	0.738	20
BA02370	Lithium, Total	mg/L	0.0000354	0.0154	0.200	0.201	0.194	0.200	0.17 to 0.23	100	70 to 130	3.54	20
BA02370	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.09	4.96	5.14	4.25 to 5.75	102	70 to 130	2.59	20
BA02467	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.119	0.119	0.0999	0.085 to 0.115	101	70 to 130	0.00	20
BA02467	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.787	0.789	0.0981	0.085 to 0.115	71.0	70 to 130	0.254	20
BA02467	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0957	0.0980	0.0966	0.085 to 0.115	93.7	70 to 130	2.37	20
BA02467	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.100	0.102	0.0986	0.085 to 0.115	100	70 to 130	1.98	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Ortho-phospate was performed outside of the acceptable hold time of 48hours. Matrix spike recovery for Nitrate/Nitrite is outside of specification limits. The matrix spike and matrix spike duplicate performed with batch 666307 for ortho-phosphate were invalid; therefore, the results were not reported. The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/3/20 12:42
Customer ID:
Delivery Date: 2/4/20 09:09

Description: Barry Ash Pond - BY-AP-MW-9

Laboratory ID Number: BA02263

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Chloride	mg/L	0.0368	0.50	10.0	9.84	0.132	10.0	9 to 11	98.4	80 to 120	0.00	20
BA02263	Nitrogen, Nitrate/Nitrite	mg/L as N	0.00	0.20	2.00	1.95	0.202	1.92	1.8 to 2.2	87.4	90 to 110	0.494	15
BA02263	Nitrogen, Nitrite	mg/L as N	0.011	0.20	0.50	0.495	0.016	0.762	0.675 to 0.825	99.0	90 to 110	0.00	15
BA02370	Sulfate	mg/L	-0.415	0.50	20.0	19.0	-0.713	19.3	18 to 22	95.0	80 to 120	0.00	20
BA02370	Fluoride	mg/L	0.0299	0.05	2.50	2.63	0.0293	2.62	2.25 to 2.75	105	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP- MW-10

Location Code: WMWBARAP
Collected: 2/4/20 08:00
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02365

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 09:41		1.015	2.01	mg/L	0.03	0.1	
* Calcium, Total	2/10/20 13:30	2/14/20 11:48		40.6	60.0	mg/L	4.06	20.3	
Silicon, Total	2/10/20 13:30	2/14/20 09:41		1.015	11.8	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 11:48		40.6	68.7	mg/L	0.812	2.03	
* Lithium, Total	2/10/20 13:30	2/14/20 09:41		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 09:41		1.015	16.5	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 09:41		1	25.3	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 09:41		1.015	26.3	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 12:52		101.5	71.5	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 13:54		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 13:54		1.015	0.0616	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 13:54		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/7/20 09:00	2/7/20 13:54		1.015	0.0653	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 13:54		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 13:54		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 13:54		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 13:54		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 13:54		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 13:54		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/11/20 10:52		5.075	1.60	mg/L	0.005075	0.025375	
* Potassium, Total	2/7/20 09:00	2/7/20 13:54		1.015	1.54	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 13:54		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 13:54		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	0.0622	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP- MW-10

Location Code: WMWBARAP
Collected: 2/4/20 08:00
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02365

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/11/20 11:19		5.075	1.61	mg/L	0.005075	0.025375	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 11:30		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/5/20 20:43	2/5/20 20:43		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/5/20 20:43	2/5/20 20:43		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/5/20 15:35	2/5/20 15:35		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	331	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	331	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.08	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/5/20 16:02	2/5/20 16:02		1	0.779	mg/L as P	0.010	0.03	
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 11:08	2/17/20 11:08		1	13.1	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/5/20 11:00	2/5/20 11:00		2	26.0	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/5/20 13:47	2/5/20 13:47		1	0.0705	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:13	2/6/20 10:13		1	32.7	mg/L	0.50	1	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/4/20 08:00
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-10

Laboratory ID Number: BA02365

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.102	0.101	0.0977	0.085 to 0.115	102	70 to 130	0.985	20
BA02467	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0949	0.0965	0.0961	0.085 to 0.115	94.9	70 to 130	1.67	20
BA02370	Boron, Total	mg/L	0.00198	0.0650254	1.00	1.00	0.991	1.01	0.85 to 1.15	100	70 to 130	0.904	20
BA02370	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0986	0.0976	0.0951	0.085 to 0.115	98.6	70 to 130	1.02	20
BA02370	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.16	5.07	5.16	4.25 to 5.75	103	70 to 130	1.76	20
BA02370	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0990	0.1000	0.0949	0.085 to 0.115	99.0	70 to 130	1.01	20
BA02370	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0987	0.0997	0.0950	0.085 to 0.115	98.7	70 to 130	1.01	20
BA02370	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0995	0.0996	0.0952	0.085 to 0.115	99.5	70 to 130	0.100	20
BA02467	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0992	0.0988	0.0980	0.085 to 0.115	99.2	70 to 130	0.404	20
BA02370	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0963	0.0968	0.0946	0.085 to 0.115	96.3	70 to 130	0.518	20
BA02370	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0913	0.0887	0.0898	0.085 to 0.115	91.3	70 to 130	2.89	20
BA02370	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.02	0.999	1.00	0.850 to 1.15	102	70 to 130	2.08	20
BA02467	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.0969	0.0965	0.0985	0.085 to 0.115	96.9	70 to 130	0.414	20
BA02467	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	94.6	95.1	0.202	0.17 to 0.23	-700	70 to 130	0.527	20
BA02370	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.111	0.110	0.0941	0.085 to 0.115	111	70 to 130	0.905	20
BA02370	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0985	0.0976	0.0941	0.085 to 0.115	98.5	70 to 130	0.918	20
BA02370	Iron, Total	mg/L	0.000678	0.0176	0.2	0.204	0.200	0.203	0.17 to 0.23	102	70 to 130	1.98	20
BA02370	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.85	9.96	9.81	8.5 to 11.5	98.5	70 to 130	1.11	20
BA02370	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0992	0.0990	0.0945	0.085 to 0.115	99.2	70 to 130	0.202	20
BA02370	Total Organic Carbon	mg/L	0.550	1.00	10.0	9.09	8.99	9.05	9 to 11	80.5	80 to 120	1.11	20
BA02467	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0952	0.0945	0.0914	0.085 to 0.115	95.2	70 to 130	0.738	20
BA02370	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.242	0.244	0.254	0.225 to 0.275	96.8	80 to 120	0.823	10
BA02370	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0945	0.0989	0.0922	0.085 to 0.115	94.5	70 to 130	4.55	20
BA02370	Sodium, Total	mg/L	0.00149	0.044	5.00	5.06	4.97	5.09	4.25 to 5.75	101	70 to 130	1.79	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/4/20 08:00
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-10

Laboratory ID Number: BA02365

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.103	0.103	0.0961	0.085 to 0.115	103	70 to 130	0.00	20
BA02467	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0814	0.0831	0.0898	0.085 to 0.115	81.4	70 to 130	2.07	20
BA02467	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.00	20
BA02370	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0987	0.100	0.0963	0.085 to 0.115	98.7	70 to 130	1.31	20
BA02467	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.0994	0.0984	0.0990	0.085 to 0.115	99.4	70 to 130	1.01	20
BA02467	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.130	0.130	0.0982	0.085 to 0.115	95.4	70 to 130	0.00	20
BA02370	Lithium, Total	mg/L	0.0000354	0.0154	0.200	0.201	0.194	0.200	0.17 to 0.23	100	70 to 130	3.54	20
BA02370	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.09	4.96	5.14	4.25 to 5.75	102	70 to 130	2.59	20
BA02467	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.119	0.119	0.0999	0.085 to 0.115	101	70 to 130	0.00	20
BA02467	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.787	0.789	0.0981	0.085 to 0.115	71.0	70 to 130	0.254	20
BA02467	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0957	0.0980	0.0966	0.085 to 0.115	93.7	70 to 130	2.37	20
BA02467	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.100	0.102	0.0986	0.085 to 0.115	100	70 to 130	1.98	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/4/20 08:00
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-10

Laboratory ID Number: BA02365

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Chloride	mg/L	0.0368	0.50	10.0	9.84	0.132	10.0	9 to 11	98.4	80 to 120	0.00	20
BA02370	Sulfate	mg/L	-0.415	0.50	20.0	19.0	-0.713	19.3	18 to 22	95.0	80 to 120	0.00	20
BA02370	Nitrogen, Nitrite	mg/L as N	0.005	0.20	0.50	0.522	0.004	0.760	0.675 to 0.825	104	90 to 110	0.00	15
BA02370	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.92	0.122	1.88	1.8 to 2.2	96.0	90 to 110	0.00	15
BA02370	Fluoride	mg/L	0.0299	0.05	2.50	2.63	0.0293	2.62	2.25 to 2.75	105	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP- MW-11

Location Code: WMWBARAP
Collected: 2/4/20 09:45
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02366

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 09:44		1.015	0.0760	mg/L	0.03	0.1	J
* Calcium, Total	2/10/20 13:30	2/14/20 09:44		1.015	24.4	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 09:44		1.015	7.57	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 11:51		40.6	70.1	mg/L	0.812	2.03	
* Lithium, Total	2/10/20 13:30	2/14/20 09:44		1.015	0.0169	mg/L	0.01	0.02	J
* Magnesium, Total	2/10/20 13:30	2/14/20 09:44		1.015	12.6	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 09:44		1	16.2	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 11:51		40.6	52.0	mg/L	4.06	20.3	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 12:55		101.5	69.2	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 13:57		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 13:57		1.015	0.0150	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 13:57		1.015	0.488	mg/L	0.02	0.06	
* Barium, Total	2/7/20 09:00	2/7/20 13:57		1.015	0.0841	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 13:57		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 13:57		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 13:57		1.015	0.00311	mg/L	0.002	0.01	J
* Cobalt, Total	2/7/20 09:00	2/7/20 13:57		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 13:57		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 13:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 13:57		1.015	0.616	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 13:57		1.015	6.57	mg/L	0.3	2.5	
* Selenium, Total	2/7/20 09:00	2/7/20 13:57		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 13:57		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	0.0152	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP- MW-11

Location Code: WMWBARAP
Collected: 2/4/20 09:45
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02366

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	0.604	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 11:32		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/5/20 20:45	2/5/20 20:45		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/5/20 20:45	2/5/20 20:45		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/5/20 15:36	2/5/20 15:36		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	255	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	255	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.05	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/5/20 16:03	2/5/20 16:03		1	0.392	mg/L as P	0.010	0.03	
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 11:21	2/17/20 11:21		1	30.0	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/5/20 11:01	2/5/20 11:01		2	22.9	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/5/20 13:48	2/5/20 13:48		1	0.0912	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:14	2/6/20 10:14		5	90.5	mg/L	2.50	5	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/4/20 09:45
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-11

Laboratory ID Number: BA02366

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Boron, Total	mg/L	0.00198	0.0650254	1.00	1.00	0.991	1.01	0.85 to 1.15	100	70 to 130	0.904	20
BA02370	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0986	0.0976	0.0951	0.085 to 0.115	98.6	70 to 130	1.02	20
BA02370	Lithium, Total	mg/L	0.0000354	0.0154	0.200	0.201	0.194	0.200	0.17 to 0.23	100	70 to 130	3.54	20
BA02370	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.09	4.96	5.14	4.25 to 5.75	102	70 to 130	2.59	20
BA02467	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.119	0.119	0.0999	0.085 to 0.115	101	70 to 130	0.00	20
BA02467	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.787	0.789	0.0981	0.085 to 0.115	71.0	70 to 130	0.254	20
BA02467	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0957	0.0980	0.0966	0.085 to 0.115	93.7	70 to 130	2.37	20
BA02467	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.100	0.102	0.0986	0.085 to 0.115	100	70 to 130	1.98	20
BA02370	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.16	5.07	5.16	4.25 to 5.75	103	70 to 130	1.76	20
BA02370	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0990	0.1000	0.0949	0.085 to 0.115	99.0	70 to 130	1.01	20
BA02370	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0987	0.0997	0.0950	0.085 to 0.115	98.7	70 to 130	1.01	20
BA02370	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0995	0.0996	0.0952	0.085 to 0.115	99.5	70 to 130	0.100	20
BA02467	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0992	0.0988	0.0980	0.085 to 0.115	99.2	70 to 130	0.404	20
BA02370	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.102	0.101	0.0977	0.085 to 0.115	102	70 to 130	0.985	20
BA02467	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0949	0.0965	0.0961	0.085 to 0.115	94.9	70 to 130	1.67	20
BA02370	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0987	0.100	0.0963	0.085 to 0.115	98.7	70 to 130	1.31	20
BA02467	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.0994	0.0984	0.0990	0.085 to 0.115	99.4	70 to 130	1.01	20
BA02467	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.130	0.130	0.0982	0.085 to 0.115	95.4	70 to 130	0.00	20
BA02370	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.242	0.244	0.254	0.225 to 0.275	96.8	80 to 120	0.823	10
BA02370	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0945	0.0989	0.0922	0.085 to 0.115	94.5	70 to 130	4.55	20
BA02370	Sodium, Total	mg/L	0.00149	0.044	5.00	5.06	4.97	5.09	4.25 to 5.75	101	70 to 130	1.79	20
BA02370	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.103	0.103	0.0961	0.085 to 0.115	103	70 to 130	0.00	20
BA02467	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0814	0.0831	0.0898	0.085 to 0.115	81.4	70 to 130	2.07	20
BA02467	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
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Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/4/20 09:45
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-11

Laboratory ID Number: BA02366

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0963	0.0968	0.0946	0.085 to 0.115	96.3	70 to 130	0.518	20
BA02370	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0913	0.0887	0.0898	0.085 to 0.115	91.3	70 to 130	2.89	20
BA02370	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.02	0.999	1.00	0.850 to 1.15	102	70 to 130	2.08	20
BA02467	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.0969	0.0965	0.0985	0.085 to 0.115	96.9	70 to 130	0.414	20
BA02467	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	94.6	95.1	0.202	0.17 to 0.23	-700	70 to 130	0.527	20
BA02370	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.111	0.110	0.0941	0.085 to 0.115	111	70 to 130	0.905	20
BA02370	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0985	0.0976	0.0941	0.085 to 0.115	98.5	70 to 130	0.918	20
BA02370	Iron, Total	mg/L	0.000678	0.0176	0.2	0.204	0.200	0.203	0.17 to 0.23	102	70 to 130	1.98	20
BA02370	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.85	9.96	9.81	8.5 to 11.5	98.5	70 to 130	1.11	20
BA02370	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0992	0.0990	0.0945	0.085 to 0.115	99.2	70 to 130	0.202	20
BA02370	Total Organic Carbon	mg/L	0.550	1.00	10.0	9.09	8.99	9.05	9 to 11	80.5	80 to 120	1.11	20
BA02467	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0952	0.0945	0.0914	0.085 to 0.115	95.2	70 to 130	0.738	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/4/20 09:45
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-11

Laboratory ID Number: BA02366

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Chloride	mg/L	0.0368	0.50	10.0	9.84	0.132	10.0	9 to 11	98.4	80 to 120	0.00	20
BA02370	Sulfate	mg/L	-0.415	0.50	20.0	19.0	-0.713	19.3	18 to 22	95.0	80 to 120	0.00	20
BA02370	Fluoride	mg/L	0.0299	0.05	2.50	2.63	0.0293	2.62	2.25 to 2.75	105	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10
BA02370	Nitrogen, Nitrite	mg/L as N	0.005	0.20	0.50	0.522	0.004	0.760	0.675 to 0.825	104	90 to 110	0.00	15
BA02370	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.92	0.122	1.88	1.8 to 2.2	96.0	90 to 110	0.00	15

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
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Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP- MW-12

Location Code: WMWBARAP
Collected: 2/4/20 10:10
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02367

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 09:47		1.015	0.0773	mg/L	0.03	0.1	J
* Calcium, Total	2/10/20 13:30	2/14/20 09:47		1.015	23.1	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 09:47		1.015	7.63	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 11:54		40.6	62.5	mg/L	0.812	2.03	
* Lithium, Total	2/10/20 13:30	2/14/20 09:47		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 09:47		1.015	17.5	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 09:47		1	16.3	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 11:54		40.6	43.1	mg/L	4.06	20.3	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 12:58		101.5	63.2	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 13:59		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 13:59		1.015	0.0234	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 13:59		1.015	0.147	mg/L	0.02	0.06	
* Barium, Total	2/7/20 09:00	2/7/20 13:59		1.015	0.0789	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 13:59		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 13:59		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 13:59		1.015	0.00392	mg/L	0.002	0.01	J
* Cobalt, Total	2/7/20 09:00	2/7/20 13:59		1.015	0.00283	mg/L	0.002	0.005	J
* Lead, Total	2/7/20 09:00	2/7/20 13:59		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 13:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 13:59		1.015	0.634	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 13:59		1.015	2.82	mg/L	0.3	2.5	
* Selenium, Total	2/7/20 09:00	2/7/20 13:59		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 13:59		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	0.0228	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP- MW-12

Location Code: WMWBARAP
Collected: 2/4/20 10:10
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02367

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	0.00309	mg/L	0.002	0.01	J
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	0.00280	mg/L	0.002	0.005	J
* Lead, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	0.634	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 11:35		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/5/20 20:47	2/5/20 20:47		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/5/20 20:47	2/5/20 20:47		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/5/20 15:37	2/5/20 15:37		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	234	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	234	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.04	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/5/20 16:03	2/5/20 16:03		1	0.695	mg/L as P	0.010	0.03	
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 11:35	2/17/20 11:35		1	22.3	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/5/20 11:02	2/5/20 11:02		2	22.7	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/5/20 13:49	2/5/20 13:49		1	0.0836	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:15	2/6/20 10:15		3	60.6	mg/L	1.50	3	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/4/20 10:10
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-12

Laboratory ID Number: BA02367

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Lithium, Total	mg/L	0.0000354	0.0154	0.200	0.201	0.194	0.200	0.17 to 0.23	100	70 to 130	3.54	20
BA02370	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.09	4.96	5.14	4.25 to 5.75	102	70 to 130	2.59	20
BA02467	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.119	0.119	0.0999	0.085 to 0.115	101	70 to 130	0.00	20
BA02467	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.787	0.789	0.0981	0.085 to 0.115	71.0	70 to 130	0.254	20
BA02467	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0957	0.0980	0.0966	0.085 to 0.115	93.7	70 to 130	2.37	20
BA02467	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.100	0.102	0.0986	0.085 to 0.115	100	70 to 130	1.98	20
BA02370	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.16	5.07	5.16	4.25 to 5.75	103	70 to 130	1.76	20
BA02370	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0990	0.1000	0.0949	0.085 to 0.115	99.0	70 to 130	1.01	20
BA02370	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0987	0.0997	0.0950	0.085 to 0.115	98.7	70 to 130	1.01	20
BA02370	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0995	0.0996	0.0952	0.085 to 0.115	99.5	70 to 130	0.100	20
BA02467	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0992	0.0988	0.0980	0.085 to 0.115	99.2	70 to 130	0.404	20
BA02370	Boron, Total	mg/L	0.00198	0.0650254	1.00	1.00	0.991	1.01	0.85 to 1.15	100	70 to 130	0.904	20
BA02370	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0986	0.0976	0.0951	0.085 to 0.115	98.6	70 to 130	1.02	20
BA02370	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.111	0.110	0.0941	0.085 to 0.115	111	70 to 130	0.905	20
BA02370	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0985	0.0976	0.0941	0.085 to 0.115	98.5	70 to 130	0.918	20
BA02370	Iron, Total	mg/L	0.000678	0.0176	0.2	0.204	0.200	0.203	0.17 to 0.23	102	70 to 130	1.98	20
BA02370	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.85	9.96	9.81	8.5 to 11.5	98.5	70 to 130	1.11	20
BA02370	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0992	0.0990	0.0945	0.085 to 0.115	99.2	70 to 130	0.202	20
BA02370	Total Organic Carbon	mg/L	0.550	1.00	10.0	9.09	8.99	9.05	9 to 11	80.5	80 to 120	1.11	20
BA02467	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0952	0.0945	0.0914	0.085 to 0.115	95.2	70 to 130	0.738	20
BA02370	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.102	0.101	0.0977	0.085 to 0.115	102	70 to 130	0.985	20
BA02467	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0949	0.0965	0.0961	0.085 to 0.115	94.9	70 to 130	1.67	20
BA02370	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.242	0.244	0.254	0.225 to 0.275	96.8	80 to 120	0.823	10
BA02370	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0945	0.0989	0.0922	0.085 to 0.115	94.5	70 to 130	4.55	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/4/20 10:10
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-12

Laboratory ID Number: BA02367

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Sodium, Total	mg/L	0.00149	0.044	5.00	5.06	4.97	5.09	4.25 to 5.75	101	70 to 130	1.79	20
BA02370	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.103	0.103	0.0961	0.085 to 0.115	103	70 to 130	0.00	20
BA02467	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0814	0.0831	0.0898	0.085 to 0.115	81.4	70 to 130	2.07	20
BA02467	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.00	20
BA02370	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0987	0.100	0.0963	0.085 to 0.115	98.7	70 to 130	1.31	20
BA02467	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.0994	0.0984	0.0990	0.085 to 0.115	99.4	70 to 130	1.01	20
BA02467	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.130	0.130	0.0982	0.085 to 0.115	95.4	70 to 130	0.00	20
BA02370	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0963	0.0968	0.0946	0.085 to 0.115	96.3	70 to 130	0.518	20
BA02370	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0913	0.0887	0.0898	0.085 to 0.115	91.3	70 to 130	2.89	20
BA02370	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.02	0.999	1.00	0.850 to 1.15	102	70 to 130	2.08	20
BA02467	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.0969	0.0965	0.0985	0.085 to 0.115	96.9	70 to 130	0.414	20
BA02467	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	94.6	95.1	0.202	0.17 to 0.23	-700	70 to 130	0.527	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/4/20 10:10
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-12

Laboratory ID Number: BA02367

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Chloride	mg/L	0.0368	0.50	10.0	9.84	0.132	10.0	9 to 11	98.4	80 to 120	0.00	20
BA02370	Sulfate	mg/L	-0.415	0.50	20.0	19.0	-0.713	19.3	18 to 22	95.0	80 to 120	0.00	20
BA02370	Nitrogen, Nitrite	mg/L as N	0.005	0.20	0.50	0.522	0.004	0.760	0.675 to 0.825	104	90 to 110	0.00	15
BA02370	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.92	0.122	1.88	1.8 to 2.2	96.0	90 to 110	0.00	15
BA02370	Fluoride	mg/L	0.0299	0.05	2.50	2.63	0.0293	2.62	2.25 to 2.75	105	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP- MW-13

Location Code: WMWBARAP
Collected: 2/4/20 12:36
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02368

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 09:50		1.015	0.0473	mg/L	0.03	0.1	J
* Calcium, Total	2/10/20 13:30	2/14/20 09:50		1.015	13.9	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 09:50		1.015	7.47	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 11:57		10.15	29.1	mg/L	0.203	0.5075	
* Lithium, Total	2/10/20 13:30	2/14/20 09:50		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 09:50		1.015	7.26	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 09:50		1	16.0	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 11:57		10.15	57.2	mg/L	1.015	5.075	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 13:01		101.5	28.1	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:02		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:02		1.015	0.0150	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 14:02		1.015	0.382	mg/L	0.02	0.06	
* Barium, Total	2/7/20 09:00	2/7/20 14:02		1.015	0.0679	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 14:02		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:02		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:02		1.015	0.00822	mg/L	0.002	0.01	J
* Cobalt, Total	2/7/20 09:00	2/7/20 14:02		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 14:02		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:02		1.015	0.407	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 14:02		1.015	2.07	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 14:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:02		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	0.0149	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP- MW-13

Location Code: WMWBARAP
Collected: 2/4/20 12:36
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02368

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	0.00676	mg/L	0.002	0.01	J
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	0.402	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 11:38		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/5/20 20:48	2/5/20 20:48		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/5/20 20:48	2/5/20 20:48		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/5/20 15:38	2/5/20 15:38		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	164	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	164	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.03	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/5/20 16:05	2/5/20 16:05		1	0.467	mg/L as P	0.010	0.03	
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 11:48	2/17/20 11:48		1	27.3	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/5/20 11:10	2/5/20 11:10		4	40.2	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/5/20 13:50	2/5/20 13:50		1	0.0749	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:16	2/6/20 10:16		2	28.5	mg/L	1.00	2	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/4/20 12:36
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-13

Laboratory ID Number: BA02368

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Boron, Total	mg/L	0.00198	0.0650254	1.00	1.00	0.991	1.01	0.85 to 1.15	100	70 to 130	0.904	20
BA02370	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0986	0.0976	0.0951	0.085 to 0.115	98.6	70 to 130	1.02	20
BA02370	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0963	0.0968	0.0946	0.085 to 0.115	96.3	70 to 130	0.518	20
BA02370	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0913	0.0887	0.0898	0.085 to 0.115	91.3	70 to 130	2.89	20
BA02370	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.02	0.999	1.00	0.850 to 1.15	102	70 to 130	2.08	20
BA02467	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.0969	0.0965	0.0985	0.085 to 0.115	96.9	70 to 130	0.414	20
BA02467	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	94.6	95.1	0.202	0.17 to 0.23	-700	70 to 130	0.527	20
BA02370	Lithium, Total	mg/L	0.0000354	0.0154	0.200	0.201	0.194	0.200	0.17 to 0.23	100	70 to 130	3.54	20
BA02370	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.09	4.96	5.14	4.25 to 5.75	102	70 to 130	2.59	20
BA02467	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.119	0.119	0.0999	0.085 to 0.115	101	70 to 130	0.00	20
BA02467	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.787	0.789	0.0981	0.085 to 0.115	71.0	70 to 130	0.254	20
BA02467	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0957	0.0980	0.0966	0.085 to 0.115	93.7	70 to 130	2.37	20
BA02467	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.100	0.102	0.0986	0.085 to 0.115	100	70 to 130	1.98	20
BA02370	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.111	0.110	0.0941	0.085 to 0.115	111	70 to 130	0.905	20
BA02370	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0985	0.0976	0.0941	0.085 to 0.115	98.5	70 to 130	0.918	20
BA02370	Iron, Total	mg/L	0.000678	0.0176	0.2	0.204	0.200	0.203	0.17 to 0.23	102	70 to 130	1.98	20
BA02370	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.85	9.96	9.81	8.5 to 11.5	98.5	70 to 130	1.11	20
BA02370	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0992	0.0990	0.0945	0.085 to 0.115	99.2	70 to 130	0.202	20
BA02370	Total Organic Carbon	mg/L	0.550	1.00	10.0	9.09	8.99	9.05	9 to 11	80.5	80 to 120	1.11	20
BA02467	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0952	0.0945	0.0914	0.085 to 0.115	95.2	70 to 130	0.738	20
BA02370	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.102	0.101	0.0977	0.085 to 0.115	102	70 to 130	0.985	20
BA02467	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0949	0.0965	0.0961	0.085 to 0.115	94.9	70 to 130	1.67	20
BA02370	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.242	0.244	0.254	0.225 to 0.275	96.8	80 to 120	0.823	10
BA02370	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0945	0.0989	0.0922	0.085 to 0.115	94.5	70 to 130	4.55	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/4/20 12:36
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-13

Laboratory ID Number: BA02368

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Sodium, Total	mg/L	0.00149	0.044	5.00	5.06	4.97	5.09	4.25 to 5.75	101	70 to 130	1.79	20
BA02370	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.103	0.103	0.0961	0.085 to 0.115	103	70 to 130	0.00	20
BA02467	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0814	0.0831	0.0898	0.085 to 0.115	81.4	70 to 130	2.07	20
BA02467	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.00	20
BA02370	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0987	0.100	0.0963	0.085 to 0.115	98.7	70 to 130	1.31	20
BA02467	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.0994	0.0984	0.0990	0.085 to 0.115	99.4	70 to 130	1.01	20
BA02467	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.130	0.130	0.0982	0.085 to 0.115	95.4	70 to 130	0.00	20
BA02370	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.16	5.07	5.16	4.25 to 5.75	103	70 to 130	1.76	20
BA02370	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0990	0.1000	0.0949	0.085 to 0.115	99.0	70 to 130	1.01	20
BA02370	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0987	0.0997	0.0950	0.085 to 0.115	98.7	70 to 130	1.01	20
BA02370	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0995	0.0996	0.0952	0.085 to 0.115	99.5	70 to 130	0.100	20
BA02467	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0992	0.0988	0.0980	0.085 to 0.115	99.2	70 to 130	0.404	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/4/20 12:36
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-13

Laboratory ID Number: BA02368

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Sulfate	mg/L	-0.415	0.50	20.0	19.0	-0.713	19.3	18 to 22	95.0	80 to 120	0.00	20
BA02370	Chloride	mg/L	0.0368	0.50	10.0	9.84	0.132	10.0	9 to 11	98.4	80 to 120	0.00	20
BA02370	Fluoride	mg/L	0.0299	0.05	2.50	2.63	0.0293	2.62	2.25 to 2.75	105	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10
BA02370	Nitrogen, Nitrite	mg/L as N	0.005	0.20	0.50	0.522	0.004	0.760	0.675 to 0.825	104	90 to 110	0.00	15
BA02370	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.92	0.122	1.88	1.8 to 2.2	96.0	90 to 110	0.00	15

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP- MW-14

Location Code: WMWBARAP
Collected: 2/4/20 12:55
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02369

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 09:53		1.015	0.0538	mg/L	0.03	0.1	J
* Calcium, Total	2/10/20 13:30	2/14/20 09:53		1.015	9.37	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 09:53		1.015	8.46	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 12:00		10.15	27.2	mg/L	0.203	0.5075	
* Lithium, Total	2/10/20 13:30	2/14/20 09:53		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 09:53		1.015	5.35	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 09:53		1	18.1	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 12:00		10.15	71.6	mg/L	1.015	5.075	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 13:04		101.5	26.3	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:05		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:05		1.015	0.0164	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 14:05		1.015	0.523	mg/L	0.02	0.06	
* Barium, Total	2/7/20 09:00	2/7/20 14:05		1.015	0.0550	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 14:05		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:05		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:05		1.015	0.00624	mg/L	0.002	0.01	J
* Cobalt, Total	2/7/20 09:00	2/7/20 14:05		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 14:05		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:05		1.015	0.241	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 14:05		1.015	2.37	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 14:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:05		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	0.0164	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP- MW-14

Location Code: WMWBARAP
Collected: 2/4/20 12:55
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02369

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	0.00535	mg/L	0.002	0.01	J
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	0.239	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 11:41		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/5/20 20:50	2/5/20 20:50		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/5/20 20:50	2/5/20 20:50		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/5/20 15:39	2/5/20 15:39		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	195	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	195	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.03	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/5/20 16:07	2/5/20 16:07		1	0.950	mg/L as P	0.010	0.03	
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 12:01	2/17/20 12:01		1	18.4	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/5/20 11:05	2/5/20 11:05		4	39.8	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/5/20 13:51	2/5/20 13:51		1	0.0831	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:18	2/6/20 10:18		3	31.8	mg/L	1.50	3	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/4/20 12:55
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-14

Laboratory ID Number: BA02369

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0963	0.0968	0.0946	0.085 to 0.115	96.3	70 to 130	0.518	20
BA02370	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0913	0.0887	0.0898	0.085 to 0.115	91.3	70 to 130	2.89	20
BA02370	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.02	0.999	1.00	0.850 to 1.15	102	70 to 130	2.08	20
BA02467	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.0969	0.0965	0.0985	0.085 to 0.115	96.9	70 to 130	0.414	20
BA02467	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	94.6	95.1	0.202	0.17 to 0.23	-700	70 to 130	0.527	20
BA02370	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.102	0.101	0.0977	0.085 to 0.115	102	70 to 130	0.985	20
BA02467	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0949	0.0965	0.0961	0.085 to 0.115	94.9	70 to 130	1.67	20
BA02370	Lithium, Total	mg/L	0.0000354	0.0154	0.200	0.201	0.194	0.200	0.17 to 0.23	100	70 to 130	3.54	20
BA02370	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.09	4.96	5.14	4.25 to 5.75	102	70 to 130	2.59	20
BA02467	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.119	0.119	0.0999	0.085 to 0.115	101	70 to 130	0.00	20
BA02467	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.787	0.789	0.0981	0.085 to 0.115	71.0	70 to 130	0.254	20
BA02467	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0957	0.0980	0.0966	0.085 to 0.115	93.7	70 to 130	2.37	20
BA02467	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.100	0.102	0.0986	0.085 to 0.115	100	70 to 130	1.98	20
BA02370	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0987	0.100	0.0963	0.085 to 0.115	98.7	70 to 130	1.31	20
BA02467	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.0994	0.0984	0.0990	0.085 to 0.115	99.4	70 to 130	1.01	20
BA02467	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.130	0.130	0.0982	0.085 to 0.115	95.4	70 to 130	0.00	20
BA02370	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.16	5.07	5.16	4.25 to 5.75	103	70 to 130	1.76	20
BA02370	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0990	0.1000	0.0949	0.085 to 0.115	99.0	70 to 130	1.01	20
BA02370	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0987	0.0997	0.0950	0.085 to 0.115	98.7	70 to 130	1.01	20
BA02370	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0995	0.0996	0.0952	0.085 to 0.115	99.5	70 to 130	0.100	20
BA02467	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0992	0.0988	0.0980	0.085 to 0.115	99.2	70 to 130	0.404	20
BA02370	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.111	0.110	0.0941	0.085 to 0.115	111	70 to 130	0.905	20
BA02370	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0985	0.0976	0.0941	0.085 to 0.115	98.5	70 to 130	0.918	20
BA02370	Iron, Total	mg/L	0.000678	0.0176	0.2	0.204	0.200	0.203	0.17 to 0.23	102	70 to 130	1.98	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/4/20 12:55
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-14

Laboratory ID Number: BA02369

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.85	9.96	9.81	8.5 to 11.5	98.5	70 to 130	1.11	20
BA02370	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0992	0.0990	0.0945	0.085 to 0.115	99.2	70 to 130	0.202	20
BA02370	Total Organic Carbon	mg/L	0.550	1.00	10.0	9.09	8.99	9.05	9 to 11	80.5	80 to 120	1.11	20
BA02467	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0952	0.0945	0.0914	0.085 to 0.115	95.2	70 to 130	0.738	20
BA02370	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.242	0.244	0.254	0.225 to 0.275	96.8	80 to 120	0.823	10
BA02370	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0945	0.0989	0.0922	0.085 to 0.115	94.5	70 to 130	4.55	20
BA02370	Sodium, Total	mg/L	0.00149	0.044	5.00	5.06	4.97	5.09	4.25 to 5.75	101	70 to 130	1.79	20
BA02370	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.103	0.103	0.0961	0.085 to 0.115	103	70 to 130	0.00	20
BA02467	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0814	0.0831	0.0898	0.085 to 0.115	81.4	70 to 130	2.07	20
BA02467	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.00	20
BA02370	Boron, Total	mg/L	0.00198	0.0650254	1.00	1.00	0.991	1.01	0.85 to 1.15	100	70 to 130	0.904	20
BA02370	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0986	0.0976	0.0951	0.085 to 0.115	98.6	70 to 130	1.02	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/4/20 12:55
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond - BY-AP- MW-14

Laboratory ID Number: BA02369

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Chloride	mg/L	0.0368	0.50	10.0	9.84	0.132	10.0	9 to 11	98.4	80 to 120	0.00	20
BA02370	Sulfate	mg/L	-0.415	0.50	20.0	19.0	-0.713	19.3	18 to 22	95.0	80 to 120	0.00	20
BA02370	Nitrogen, Nitrite	mg/L as N	0.005	0.20	0.50	0.522	0.004	0.760	0.675 to 0.825	104	90 to 110	0.00	15
BA02370	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.92	0.122	1.88	1.8 to 2.2	96.0	90 to 110	0.00	15
BA02370	Fluoride	mg/L	0.0299	0.05	2.50	2.63	0.0293	2.62	2.25 to 2.75	105	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 2/4/20 10:58
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02370

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 09:56		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/10/20 13:30	2/14/20 09:56		1.015	Not Detected	mg/L	0.1	0.5	U
Silicon, Total	2/10/20 13:30	2/14/20 09:56		1.015	Not Detected	mg/L	0.03	0.3	U
* Iron, Total	2/10/20 13:30	2/14/20 09:56		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	2/10/20 13:30	2/14/20 09:56		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 09:56		1.015	Not Detected	mg/L	0.1	0.5	U
Silica, Total (calc.)	2/10/20 13:30	2/14/20 09:56		1	Not Detected	mg/L			U
* Sodium, Total	2/10/20 13:30	2/14/20 09:56		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:07		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/5/20 20:51	2/5/20 20:51		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/5/20 20:51	2/5/20 20:51		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/5/20 15:40	2/5/20 15:40		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/5/20 16:09	2/5/20 16:09		1	Not Detected	mg/L as P	0.010	0.03	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020
The matrix spike duplicate recovery for TOC was outside of the specification limit. LBM 2/19/20

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 2/4/20 10:58
Customer ID:
Submittal Date: 2/5/20 09:03

Laboratory ID Number: BA02370

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 12:12	2/17/20 12:12		1	1.04	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/5/20 11:06	2/5/20 11:06		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/5/20 13:53	2/5/20 13:53		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:20	2/6/20 10:20		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020
The matrix spike duplicate recovery for TOC was outside of the specification limit. LBM 2/19/20

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAPFB
Sample Date: 2/4/20 10:58
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA02370

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0987	0.100	0.0963	0.085 to 0.115	98.7	70 to 130	1.31	20
BA02370	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0963	0.0968	0.0946	0.085 to 0.115	96.3	70 to 130	0.518	20
BA02370	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0913	0.0887	0.0898	0.085 to 0.115	91.3	70 to 130	2.89	20
BA02370	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.02	0.999	1.00	0.850 to 1.15	102	70 to 130	2.08	20
BA02370	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.102	0.101	0.0977	0.085 to 0.115	102	70 to 130	0.985	20
BA02370	Boron, Total	mg/L	0.00198	0.0650254	1.00	1.00	0.991	1.01	0.85 to 1.15	100	70 to 130	0.904	20
BA02370	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0986	0.0976	0.0951	0.085 to 0.115	98.6	70 to 130	1.02	20
BA02370	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.16	5.07	5.16	4.25 to 5.75	103	70 to 130	1.76	20
BA02370	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0990	0.1000	0.0949	0.085 to 0.115	99.0	70 to 130	1.01	20
BA02370	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0987	0.0997	0.0950	0.085 to 0.115	98.7	70 to 130	1.01	20
BA02370	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0995	0.0996	0.0952	0.085 to 0.115	99.5	70 to 130	0.100	20
BA02370	Lithium, Total	mg/L	0.0000354	0.0154	0.200	0.201	0.194	0.200	0.17 to 0.23	100	70 to 130	3.54	20
BA02370	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.09	4.96	5.14	4.25 to 5.75	102	70 to 130	2.59	20
BA02370	Ortho Phosphate	mg/L as P	0.00	0.015	0.250	0.242	0.244	0.254	0.225 to 0.275	96.8	80 to 120	0.823	10
BA02370	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0945	0.0989	0.0922	0.085 to 0.115	94.5	70 to 130	4.55	20
BA02370	Sodium, Total	mg/L	0.00149	0.044	5.00	5.06	4.97	5.09	4.25 to 5.75	101	70 to 130	1.79	20
BA02370	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.103	0.103	0.0961	0.085 to 0.115	103	70 to 130	0.00	20
BA02370	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.111	0.110	0.0941	0.085 to 0.115	111	70 to 130	0.905	20
BA02370	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0985	0.0976	0.0941	0.085 to 0.115	98.5	70 to 130	0.918	20
BA02370	Iron, Total	mg/L	0.000678	0.0176	0.2	0.204	0.200	0.203	0.17 to 0.23	102	70 to 130	1.98	20
BA02370	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.85	9.96	9.81	8.5 to 11.5	98.5	70 to 130	1.11	20
BA02370	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0992	0.0990	0.0945	0.085 to 0.115	99.2	70 to 130	0.202	20
BA02370	Total Organic Carbon	mg/L	0.550	1.00	10.0	9.09	8.99	9.05	9 to 11	80.5	80 to 120	1.11	20

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020
The matrix spike duplicate recovery for TOC was outside of the specification limit. LBM 2/19/20

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAPFB
Sample Date: 2/4/20 10:58
Customer ID:
Delivery Date: 2/5/20 09:03

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA02370

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02370	Fluoride	mg/L	0.0299	0.05	2.50	2.63	0.0293	2.62	2.25 to 2.75	105	80 to 120	0.00	20
BA02370	Sulfate	mg/L	-0.415	0.50	20.0	19.0	-0.713	19.3	18 to 22	95.0	80 to 120	0.00	20
BA02370	Chloride	mg/L	0.0368	0.50	10.0	9.84	0.132	10.0	9 to 11	98.4	80 to 120	0.00	20
BA02370	Nitrogen, Nitrite	mg/L as N	0.005	0.20	0.50	0.522	0.004	0.760	0.675 to 0.825	104	90 to 110	0.00	15
BA02370	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.92	0.122	1.88	1.8 to 2.2	96.0	90 to 110	0.00	15

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020
The matrix spike duplicate recovery for TOC was outside of the specification limit. LBM 2/19/20

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-15

Location Code: WMWBARAP
Collected: 2/5/20 08:57
Customer ID:
Submittal Date: 2/6/20 09:20

Laboratory ID Number: BA02467

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 10:11		1.015	0.0921	mg/L	0.03	0.1	J
* Calcium, Total	2/10/20 13:30	2/14/20 10:11		1.015	7.32	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 10:11		1.015	5.96	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 12:09		40.6	96.8	mg/L	0.812	2.03	
* Lithium, Total	2/10/20 13:30	2/14/20 10:11		1.015	0.0152	mg/L	0.01	0.02	J
* Magnesium, Total	2/10/20 13:30	2/14/20 10:11		1.015	5.36	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 10:11		1	12.8	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 10:11		1.015	28.0	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 13:07		101.5	96.0	mg/L	2.03	5.075	RA
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:23		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:23		1.015	0.0180	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 14:23		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/7/20 09:00	2/7/20 14:23		1.015	0.0667	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 14:23		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:23		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 14:23		1.015	0.0340	mg/L	0.002	0.005	
* Lead, Total	2/7/20 09:00	2/7/20 14:23		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:23		1.015	0.707	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 14:23		1.015	3.95	mg/L	0.3	2.5	
* Selenium, Total	2/7/20 09:00	2/7/20 14:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:23		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	0.0180	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Revised Copy

Alabama Power

Description: Barry Ash Pond - BY-AP-MW-15

Location Code: WMWBARAP
Collected: 2/5/20 08:57
Customer ID:
Submittal Date: 2/6/20 09:20

Laboratory ID Number: BA02467

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	0.0346	mg/L	0.002	0.005	
* Lead, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	0.00200	mg/L	0.002	0.01	J
* Manganese, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	0.716	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 11:44		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/6/20 12:05	2/6/20 12:05		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/6/20 12:05	2/6/20 12:05		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/6/20 10:24	2/6/20 10:24		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	121	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	121	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.03	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/6/20 13:29	2/6/20 13:29		1	0.180	mg/L as P	0.010	0.03	
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 13:04	2/17/20 13:04		1	5.54	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/7/20 10:24	2/7/20 10:24		4	64.0	mg/L	2.00	4	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/7/20 14:04	2/7/20 14:04		1	0.267	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:34	2/6/20 10:34		1	17.8	mg/L	0.50	1	

MDL's and RL's are adjusted for sample dilution, as applicable

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Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/5/20 08:57
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-15

Laboratory ID Number: BA02467

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02467	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0992	0.0988	0.0980	0.085 to 0.115	99.2	70 to 130	0.404	20
BA02598	Sodium, Total	mg/L	0.00149	0.044	5.00	4.98	5.05	5.09	4.25 to 5.75	99.6	70 to 130	1.40	20
BA02598	Boron, Total	mg/L	0.00198	0.0650254	1.00	0.996	1.00	1.01	0.85 to 1.15	99.6	70 to 130	0.401	20
BA02598	Iron, Total	mg/L	0.000678	0.0176	0.2	0.202	0.202	0.203	0.17 to 0.23	101	70 to 130	0.00	20
BA02598	Total Organic Carbon	mg/L	0.590	1.00	10.0	8.95	9.15	9.09	9 to 11	89.5	80 to 120	2.21	20
BA02467	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0952	0.0945	0.0914	0.085 to 0.115	95.2	70 to 130	0.738	20
BA02598	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0973	0.0991	0.0963	0.085 to 0.115	97.3	70 to 130	1.83	20
BA02598	Lithium, Total	mg/L	0.0000354	0.0154	0.20	0.197	0.199	0.200	0.17 to 0.23	98.5	70 to 130	1.01	20
BA02467	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0814	0.0831	0.0898	0.085 to 0.115	81.4	70 to 130	2.07	20
BA02467	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.101	0.101	0.101	0.085 to 0.115	101	70 to 130	0.00	20
BA02598	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0970	0.0975	0.0941	0.085 to 0.115	97.0	70 to 130	0.514	20
BA02598	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0973	0.0987	0.0950	0.085 to 0.115	97.3	70 to 130	1.43	20
BA02598	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0961	0.0972	0.0946	0.085 to 0.115	96.1	70 to 130	1.14	20
BA02467	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0949	0.0965	0.0961	0.085 to 0.115	94.9	70 to 130	1.67	20
BA02598	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0979	0.0974	0.0951	0.085 to 0.115	97.9	70 to 130	0.512	20
BA02598	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0975	0.0991	0.0949	0.085 to 0.115	97.5	70 to 130	1.63	20
BA02598	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.04	5.07	5.14	4.25 to 5.75	101	70 to 130	0.593	20
BA02598	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0893	0.0898	0.0898	0.085 to 0.115	89.3	70 to 130	0.558	20
BA02598	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.01	1.01	1.00	0.850 to 1.15	101	70 to 130	0.00	20
BA02467	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.0969	0.0965	0.0985	0.085 to 0.115	96.9	70 to 130	0.414	20
BA02467	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	94.6	95.1	0.202	0.17 to 0.23	-700	70 to 130	0.527	20
BA02598	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.0980	0.0993	0.0941	0.085 to 0.115	98.0	70 to 130	1.32	20
BA02598	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0994	0.0985	0.0945	0.085 to 0.115	99.4	70 to 130	0.910	20
BA02467	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.0994	0.0984	0.0990	0.085 to 0.115	99.4	70 to 130	1.01	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/5/20 08:57
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-15

Laboratory ID Number: BA02467

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02467	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.130	0.130	0.0982	0.085 to 0.115	95.4	70 to 130	0.00	20
BA02472	Ortho Phosphate	mg/L as P	0.003	0.015	0.250	0.501	0.425	0.242	0.225 to 0.275	78.8	80 to 120	16.4	10
BA02598	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0987	0.0935	0.0922	0.085 to 0.115	98.7	70 to 130	5.41	20
BA02467	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.119	0.119	0.0999	0.085 to 0.115	101	70 to 130	0.00	20
BA02467	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.787	0.789	0.0981	0.085 to 0.115	71.0	70 to 130	0.254	20
BA02467	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0957	0.0980	0.0966	0.085 to 0.115	93.7	70 to 130	2.37	20
BA02467	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.100	0.102	0.0986	0.085 to 0.115	100	70 to 130	1.98	20
BA02598	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.103	0.101	0.0977	0.085 to 0.115	103	70 to 130	1.96	20
BA02598	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.09	5.12	5.16	4.25 to 5.75	102	70 to 130	0.588	20
BA02598	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.76	9.88	9.81	8.5 to 11.5	97.6	70 to 130	1.22	20
BA02598	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0992	0.101	0.0952	0.085 to 0.115	99.2	70 to 130	1.80	20
BA02598	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.102	0.100	0.0961	0.085 to 0.115	102	70 to 130	1.98	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/5/20 08:57
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-15

Laboratory ID Number: BA02467

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02472	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.66	0.202	1.85	1.8 to 2.2	83.0	90 to 110	0.00	15
BA02472	Nitrogen, Nitrite	mg/L as N	-0.004	0.20	0.50	0.480	-0.001	0.779	0.675 to 0.825	96.0	90 to 110	0.00	15
BA02598	Fluoride	mg/L	0.0184	0.05	2.50	2.69	0.0164	2.58	2.25 to 2.75	108	80 to 120	0.00	20
BA02472	Sulfate	mg/L	-0.470	0.50	20.0	29.3	11.2	18.9	18 to 22	89.0	80 to 120	2.64	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10
BA02598	Chloride	mg/L	-0.0192	0.50	10.0	10.1	0.144	10.4	9 to 11	101	80 to 120	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-16

Location Code: WMWBARAP
Collected: 2/5/20 08:35
Customer ID:
Submittal Date: 2/6/20 09:20

Laboratory ID Number: BA02468

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 10:14		1.015	1.71	mg/L	0.03	0.1	
* Calcium, Total	2/10/20 13:30	2/14/20 10:14		1.015	14.1	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 10:14		1.015	11.2	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 12:12		101.5	72.2	mg/L	2.03	5.075	
* Lithium, Total	2/10/20 13:30	2/14/20 10:14		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 10:14		1.015	7.02	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 10:14		1	24.0	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 10:14		1.015	26.1	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 13:22		101.5	76.0	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:26		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:26		1.015	0.0114	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 14:26		1.015	0.135	mg/L	0.02	0.06	
* Barium, Total	2/7/20 09:00	2/7/20 14:26		1.015	0.0840	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 14:26		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:26		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 14:26		1.015	0.0194	mg/L	0.002	0.005	
* Lead, Total	2/7/20 09:00	2/7/20 14:26		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:26		1.015	0.971	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 14:26		1.015	1.97	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 14:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:26		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	0.0115	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Revised Copy

Alabama Power

Description: Barry Ash Pond - BY-AP-MW-16

Location Code: WMWBARAP
Collected: 2/5/20 08:35
Customer ID:
Submittal Date: 2/6/20 09:20

Laboratory ID Number: BA02468

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	0.0191	mg/L	0.002	0.005	
* Lead, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	0.959	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 12:00		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/6/20 12:08	2/6/20 12:08		1	0.246	mg/L as N	0.20	0.3	J
Nitrogen, Nitrate (calc.)	2/6/20 12:08	2/6/20 12:08		1	0.246	mg/L as N			J
Nitrogen, Nitrite	2/6/20 10:25	2/6/20 10:25		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	226	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	226	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.02	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/6/20 13:30	2/6/20 13:30		1	0.256	mg/L as P	0.010	0.03	
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 13:17	2/17/20 13:17		1	10.4	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/7/20 10:26	2/7/20 10:26		2	20.5	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/7/20 14:05	2/7/20 14:05		1	0.115	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:36	2/6/20 10:36		1	5.79	mg/L	0.50	1	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/5/20 08:35
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-16

Laboratory ID Number: BA02468

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.0980	0.0993	0.0941	0.085 to 0.115	98.0	70 to 130	1.32	20
BA02598	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0994	0.0985	0.0945	0.085 to 0.115	99.4	70 to 130	0.910	20
BA02472	Ortho Phosphate	mg/L as P	0.003	0.015	0.250	0.501	0.425	0.242	0.225 to 0.275	78.8	80 to 120	16.4	10
BA02597	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.103	0.0999	0.0985	0.085 to 0.115	103	70 to 130	3.06	20
BA02598	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0987	0.0935	0.0922	0.085 to 0.115	98.7	70 to 130	5.41	20
BA02597	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	0.203	0.202	0.202	0.17 to 0.23	102	70 to 130	0.494	20
BA02597	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.104	0.104	0.101	0.085 to 0.115	104	70 to 130	0.00	20
BA02598	Sodium, Total	mg/L	0.00149	0.044	5.00	4.98	5.05	5.09	4.25 to 5.75	99.6	70 to 130	1.40	20
BA02597	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.104	0.103	0.0999	0.085 to 0.115	104	70 to 130	0.966	20
BA02597	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0988	0.0997	0.0980	0.085 to 0.115	98.8	70 to 130	0.907	20
BA02597	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.101	0.101	0.0986	0.085 to 0.115	101	70 to 130	0.00	20
BA02598	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0973	0.0991	0.0963	0.085 to 0.115	97.3	70 to 130	1.83	20
BA02598	Lithium, Total	mg/L	0.0000354	0.0154	0.20	0.197	0.199	0.200	0.17 to 0.23	98.5	70 to 130	1.01	20
BA02597	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.108	0.105	0.0990	0.085 to 0.115	108	70 to 130	2.82	20
BA02597	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.101	0.100	0.0982	0.085 to 0.115	101	70 to 130	0.995	20
BA02598	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.103	0.101	0.0977	0.085 to 0.115	103	70 to 130	1.96	20
BA02598	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.09	5.12	5.16	4.25 to 5.75	102	70 to 130	0.588	20
BA02598	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.76	9.88	9.81	8.5 to 11.5	97.6	70 to 130	1.22	20
BA02598	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0992	0.101	0.0952	0.085 to 0.115	99.2	70 to 130	1.80	20
BA02598	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.102	0.100	0.0961	0.085 to 0.115	102	70 to 130	1.98	20
BA02597	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.108	0.107	0.0981	0.085 to 0.115	101	70 to 130	0.930	20
BA02597	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0905	0.0911	0.0898	0.085 to 0.115	90.5	70 to 130	0.661	20
BA02598	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0970	0.0975	0.0941	0.085 to 0.115	97.0	70 to 130	0.514	20
BA02598	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0973	0.0987	0.0950	0.085 to 0.115	97.3	70 to 130	1.43	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/5/20 08:35
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-16

Laboratory ID Number: BA02468

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0961	0.0972	0.0946	0.085 to 0.115	96.1	70 to 130	1.14	20
BA02597	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0964	0.0976	0.0961	0.085 to 0.115	96.4	70 to 130	1.24	20
BA02598	Boron, Total	mg/L	0.00198	0.0650254	1.00	0.996	1.00	1.01	0.85 to 1.15	99.6	70 to 130	0.401	20
BA02598	Iron, Total	mg/L	0.000678	0.0176	0.2	0.202	0.202	0.203	0.17 to 0.23	101	70 to 130	0.00	20
BA02598	Total Organic Carbon	mg/L	0.590	1.00	10.0	8.95	9.15	9.09	9 to 11	89.5	80 to 120	2.21	20
BA02597	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0962	0.0943	0.0914	0.085 to 0.115	96.2	70 to 130	1.99	20
BA02597	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0981	0.0979	0.0966	0.085 to 0.115	98.1	70 to 130	0.204	20
BA02598	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0979	0.0974	0.0951	0.085 to 0.115	97.9	70 to 130	0.512	20
BA02598	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0975	0.0991	0.0949	0.085 to 0.115	97.5	70 to 130	1.63	20
BA02598	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.04	5.07	5.14	4.25 to 5.75	101	70 to 130	0.593	20
BA02598	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0893	0.0898	0.0898	0.085 to 0.115	89.3	70 to 130	0.558	20
BA02598	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.01	1.01	1.00	0.850 to 1.15	101	70 to 130	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/5/20 08:35
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-16

Laboratory ID Number: BA02468

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Fluoride	mg/L	0.0184	0.05	2.50	2.69	0.0164	2.58	2.25 to 2.75	108	80 to 120	0.00	20
BA02472	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.66	0.202	1.85	1.8 to 2.2	83.0	90 to 110	0.00	15
BA02472	Nitrogen, Nitrite	mg/L as N	-0.004	0.20	0.50	0.480	-0.001	0.779	0.675 to 0.825	96.0	90 to 110	0.00	15
BA02472	Sulfate	mg/L	-0.470	0.50	20.0	29.3	11.2	18.9	18 to 22	89.0	80 to 120	2.64	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10
BA02598	Chloride	mg/L	-0.0192	0.50	10.0	10.1	0.144	10.4	9 to 11	101	80 to 120	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-1

Location Code: WMWBARAP
Collected: 2/5/20 10:50
Customer ID:
Submittal Date: 2/6/20 09:20

Laboratory ID Number: BA02469

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 10:17		1.015	1.76	mg/L	0.03	0.1	
* Calcium, Total	2/10/20 13:30	2/14/20 10:17		1.015	32.7	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 10:17		1.015	10.6	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 12:15		101.5	144	mg/L	2.03	5.075	
* Lithium, Total	2/10/20 13:30	2/14/20 10:17		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 10:17		1.015	11.1	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 10:17		1	22.7	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 10:17		1.015	25.1	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 13:25		101.5	144	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:28		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:28		1.015	0.0549	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 14:28		1.015	0.319	mg/L	0.02	0.06	
* Barium, Total	2/7/20 09:00	2/7/20 14:28		1.015	0.269	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 14:28		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:28		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:28		1.015	0.00346	mg/L	0.002	0.01	J
* Cobalt, Total	2/7/20 09:00	2/7/20 14:28		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 14:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:28		1.015	0.803	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 14:28		1.015	1.95	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 14:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:28		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	0.0600	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-1

Location Code: WMWBARAP
Collected: 2/5/20 10:50
Customer ID:
Submittal Date: 2/6/20 09:20

Laboratory ID Number: BA02469

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	0.00302	mg/L	0.002	0.01	J
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	0.797	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 12:02		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/6/20 12:09	2/6/20 12:09		1	0.310	mg/L as N	0.20	0.3	
Nitrogen, Nitrate (calc.)	2/6/20 12:09	2/6/20 12:09		1	0.310	mg/L as N			
Nitrogen, Nitrite	2/6/20 10:26	2/6/20 10:26		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	415	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	415	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.04	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/6/20 13:31	2/6/20 13:31		1	0.291	mg/L as P	0.010	0.03	
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 13:30	2/17/20 13:30		1	16.3	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/7/20 10:27	2/7/20 10:27		2	26.1	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/7/20 14:06	2/7/20 14:06		1	0.153	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:37	2/6/20 10:37		1	11.5	mg/L	0.50	1	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/5/20 10:50
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-1

Laboratory ID Number: BA02469

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02597	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	0.203	0.202	0.202	0.17 to 0.23	102	70 to 130	0.494	20
BA02597	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.104	0.104	0.101	0.085 to 0.115	104	70 to 130	0.00	20
BA02598	Sodium, Total	mg/L	0.00149	0.044	5.00	4.98	5.05	5.09	4.25 to 5.75	99.6	70 to 130	1.40	20
BA02597	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.108	0.105	0.0990	0.085 to 0.115	108	70 to 130	2.82	20
BA02597	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.101	0.100	0.0982	0.085 to 0.115	101	70 to 130	0.995	20
BA02598	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.103	0.101	0.0977	0.085 to 0.115	103	70 to 130	1.96	20
BA02598	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.09	5.12	5.16	4.25 to 5.75	102	70 to 130	0.588	20
BA02598	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.76	9.88	9.81	8.5 to 11.5	97.6	70 to 130	1.22	20
BA02598	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0992	0.101	0.0952	0.085 to 0.115	99.2	70 to 130	1.80	20
BA02598	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.102	0.100	0.0961	0.085 to 0.115	102	70 to 130	1.98	20
BA02597	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.104	0.103	0.0999	0.085 to 0.115	104	70 to 130	0.966	20
BA02597	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0988	0.0997	0.0980	0.085 to 0.115	98.8	70 to 130	0.907	20
BA02597	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.101	0.101	0.0986	0.085 to 0.115	101	70 to 130	0.00	20
BA02598	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0973	0.0991	0.0963	0.085 to 0.115	97.3	70 to 130	1.83	20
BA02598	Lithium, Total	mg/L	0.0000354	0.0154	0.20	0.197	0.199	0.200	0.17 to 0.23	98.5	70 to 130	1.01	20
BA02597	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.108	0.107	0.0981	0.085 to 0.115	101	70 to 130	0.930	20
BA02597	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0905	0.0911	0.0898	0.085 to 0.115	90.5	70 to 130	0.661	20
BA02598	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0970	0.0975	0.0941	0.085 to 0.115	97.0	70 to 130	0.514	20
BA02598	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0973	0.0987	0.0950	0.085 to 0.115	97.3	70 to 130	1.43	20
BA02598	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0961	0.0972	0.0946	0.085 to 0.115	96.1	70 to 130	1.14	20
BA02598	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.0980	0.0993	0.0941	0.085 to 0.115	98.0	70 to 130	1.32	20
BA02598	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0994	0.0985	0.0945	0.085 to 0.115	99.4	70 to 130	0.910	20
BA02597	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0964	0.0976	0.0961	0.085 to 0.115	96.4	70 to 130	1.24	20
BA02598	Boron, Total	mg/L	0.00198	0.0650254	1.00	0.996	1.00	1.01	0.85 to 1.15	99.6	70 to 130	0.401	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/5/20 10:50
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-1

Laboratory ID Number: BA02469

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Iron, Total	mg/L	0.000678	0.0176	0.2	0.202	0.202	0.203	0.17 to 0.23	101	70 to 130	0.00	20
BA02598	Total Organic Carbon	mg/L	0.590	1.00	10.0	8.95	9.15	9.09	9 to 11	89.5	80 to 120	2.21	20
BA02597	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0962	0.0943	0.0914	0.085 to 0.115	96.2	70 to 130	1.99	20
BA02597	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0981	0.0979	0.0966	0.085 to 0.115	98.1	70 to 130	0.204	20
BA02598	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0979	0.0974	0.0951	0.085 to 0.115	97.9	70 to 130	0.512	20
BA02598	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0975	0.0991	0.0949	0.085 to 0.115	97.5	70 to 130	1.63	20
BA02598	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.04	5.07	5.14	4.25 to 5.75	101	70 to 130	0.593	20
BA02598	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0893	0.0898	0.0898	0.085 to 0.115	89.3	70 to 130	0.558	20
BA02598	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.01	1.01	1.00	0.850 to 1.15	101	70 to 130	0.00	20
BA02472	Ortho Phosphate	mg/L as P	0.003	0.015	0.250	0.501	0.425	0.242	0.225 to 0.275	78.8	80 to 120	16.4	10
BA02597	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.103	0.0999	0.0985	0.085 to 0.115	103	70 to 130	3.06	20
BA02598	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0987	0.0935	0.0922	0.085 to 0.115	98.7	70 to 130	5.41	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/5/20 10:50
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-1

Laboratory ID Number: BA02469

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02472	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.66	0.202	1.85	1.8 to 2.2	83.0	90 to 110	0.00	15
BA02598	Fluoride	mg/L	0.0184	0.05	2.50	2.69	0.0164	2.58	2.25 to 2.75	108	80 to 120	0.00	20
BA02472	Nitrogen, Nitrite	mg/L as N	-0.004	0.20	0.50	0.480	-0.001	0.779	0.675 to 0.825	96.0	90 to 110	0.00	15
BA02472	Sulfate	mg/L	-0.470	0.50	20.0	29.3	11.2	18.9	18 to 22	89.0	80 to 120	2.64	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10
BA02598	Chloride	mg/L	-0.0192	0.50	10.0	10.1	0.144	10.4	9 to 11	101	80 to 120	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-2

Location Code: WMWBARAP
Collected: 2/5/20 10:35
Customer ID:
Submittal Date: 2/6/20 09:20

Laboratory ID Number: BA02470

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 10:20		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/10/20 13:30	2/14/20 10:20		1.015	2.91	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 10:20		1.015	7.55	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 10:20		1.015	0.515	mg/L	0.02	0.05	
* Lithium, Total	2/10/20 13:30	2/14/20 10:20		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 10:20		1.015	1.83	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 10:20		1	16.2	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 10:20		1.015	4.06	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 12:10		1.015	0.490	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:31		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:31		1.015	0.00137	mg/L	0.001	0.005	J
* Aluminum, Total	2/7/20 09:00	2/7/20 14:31		1.015	0.159	mg/L	0.02	0.06	
* Barium, Total	2/7/20 09:00	2/7/20 14:31		1.015	0.0256	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 14:31		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:31		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 14:31		1.015	0.00680	mg/L	0.002	0.005	
* Lead, Total	2/7/20 09:00	2/7/20 14:31		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:31		1.015	0.307	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 14:31		1.015	1.01	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 14:31		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:31		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	0.00140	mg/L	0.001	0.005	J
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Revised Copy

Alabama Power

Description: Barry Ash Pond - BY-AP-MW-2

Location Code: WMWBARAP
Collected: 2/5/20 10:35
Customer ID:
Submittal Date: 2/6/20 09:20

Laboratory ID Number: BA02470

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	0.00696	mg/L	0.002	0.005	
* Lead, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	0.310	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 12:05		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/6/20 12:10	2/6/20 12:10		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/6/20 12:10	2/6/20 12:10		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/6/20 10:26	2/6/20 10:26		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	12.0	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	12.0	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.00	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/6/20 13:32	2/6/20 13:32		1	0.011	mg/L as P	0.010	0.03	J
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 13:41	2/17/20 13:41		1	2.02	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/7/20 10:28	2/7/20 10:28		1	8.70	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/7/20 14:08	2/7/20 14:08		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:38	2/6/20 10:38		1	2.45	mg/L	0.50	1	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/5/20 10:35
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-2

Laboratory ID Number: BA02470

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02472	Ortho Phosphate	mg/L as P	0.003	0.015	0.250	0.501	0.425	0.242	0.225 to 0.275	78.8	80 to 120	16.4	10
BA02597	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.103	0.0999	0.0985	0.085 to 0.115	103	70 to 130	3.06	20
BA02598	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0987	0.0935	0.0922	0.085 to 0.115	98.7	70 to 130	5.41	20
BA02597	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0964	0.0976	0.0961	0.085 to 0.115	96.4	70 to 130	1.24	20
BA02598	Boron, Total	mg/L	0.00198	0.0650254	1.00	0.996	1.00	1.01	0.85 to 1.15	99.6	70 to 130	0.401	20
BA02598	Iron, Total	mg/L	0.000678	0.0176	0.2	0.202	0.202	0.203	0.17 to 0.23	101	70 to 130	0.00	20
BA02598	Total Organic Carbon	mg/L	0.590	1.00	10.0	8.95	9.15	9.09	9 to 11	89.5	80 to 120	2.21	20
BA02598	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.0980	0.0993	0.0941	0.085 to 0.115	98.0	70 to 130	1.32	20
BA02598	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0994	0.0985	0.0945	0.085 to 0.115	99.4	70 to 130	0.910	20
BA02597	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.108	0.105	0.0990	0.085 to 0.115	108	70 to 130	2.82	20
BA02597	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.101	0.100	0.0982	0.085 to 0.115	101	70 to 130	0.995	20
BA02598	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.103	0.101	0.0977	0.085 to 0.115	103	70 to 130	1.96	20
BA02598	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.09	5.12	5.16	4.25 to 5.75	102	70 to 130	0.588	20
BA02598	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.76	9.88	9.81	8.5 to 11.5	97.6	70 to 130	1.22	20
BA02598	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0992	0.101	0.0952	0.085 to 0.115	99.2	70 to 130	1.80	20
BA02598	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.102	0.100	0.0961	0.085 to 0.115	102	70 to 130	1.98	20
BA02597	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.108	0.107	0.0981	0.085 to 0.115	101	70 to 130	0.930	20
BA02597	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0905	0.0911	0.0898	0.085 to 0.115	90.5	70 to 130	0.661	20
BA02598	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0970	0.0975	0.0941	0.085 to 0.115	97.0	70 to 130	0.514	20
BA02598	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0973	0.0987	0.0950	0.085 to 0.115	97.3	70 to 130	1.43	20
BA02598	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0961	0.0972	0.0946	0.085 to 0.115	96.1	70 to 130	1.14	20
BA02597	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.104	0.103	0.0999	0.085 to 0.115	104	70 to 130	0.966	20
BA02597	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0988	0.0997	0.0980	0.085 to 0.115	98.8	70 to 130	0.907	20
BA02597	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.101	0.101	0.0986	0.085 to 0.115	101	70 to 130	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
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Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/5/20 10:35
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-2

Laboratory ID Number: BA02470

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0973	0.0991	0.0963	0.085 to 0.115	97.3	70 to 130	1.83	20
BA02598	Lithium, Total	mg/L	0.0000354	0.0154	0.20	0.197	0.199	0.200	0.17 to 0.23	98.5	70 to 130	1.01	20
BA02597	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	0.203	0.202	0.202	0.17 to 0.23	102	70 to 130	0.494	20
BA02597	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.104	0.104	0.101	0.085 to 0.115	104	70 to 130	0.00	20
BA02598	Sodium, Total	mg/L	0.00149	0.044	5.00	4.98	5.05	5.09	4.25 to 5.75	99.6	70 to 130	1.40	20
BA02597	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0962	0.0943	0.0914	0.085 to 0.115	96.2	70 to 130	1.99	20
BA02597	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0981	0.0979	0.0966	0.085 to 0.115	98.1	70 to 130	0.204	20
BA02598	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0979	0.0974	0.0951	0.085 to 0.115	97.9	70 to 130	0.512	20
BA02598	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0975	0.0991	0.0949	0.085 to 0.115	97.5	70 to 130	1.63	20
BA02598	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.04	5.07	5.14	4.25 to 5.75	101	70 to 130	0.593	20
BA02598	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0893	0.0898	0.0898	0.085 to 0.115	89.3	70 to 130	0.558	20
BA02598	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.01	1.01	1.00	0.850 to 1.15	101	70 to 130	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/5/20 10:35
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-2

Laboratory ID Number: BA02470

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02472	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.66	0.202	1.85	1.8 to 2.2	83.0	90 to 110	0.00	15
BA02472	Nitrogen, Nitrite	mg/L as N	-0.004	0.20	0.50	0.480	-0.001	0.779	0.675 to 0.825	96.0	90 to 110	0.00	15
BA02598	Fluoride	mg/L	0.0184	0.05	2.50	2.69	0.0164	2.58	2.25 to 2.75	108	80 to 120	0.00	20
BA02472	Sulfate	mg/L	-0.470	0.50	20.0	29.3	11.2	18.9	18 to 22	89.0	80 to 120	2.64	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10
BA02598	Chloride	mg/L	-0.0192	0.50	10.0	10.1	0.144	10.4	9 to 11	101	80 to 120	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Revised Copy

Description: Barry Ash Pond Equipment Blank

Location Code: WMWBARAPEB
Collected: 2/5/20 11:16
Customer ID:
Submittal Date: 2/6/20 09:30

Laboratory ID Number: BA02471

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 10:23		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/10/20 13:30	2/14/20 10:23		1.015	Not Detected	mg/L	0.1	0.5	U
Silicon, Total	2/10/20 13:30	2/14/20 10:23		1.015	Not Detected	mg/L	0.03	0.3	U
* Iron, Total	2/10/20 13:30	2/14/20 10:23		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	2/10/20 13:30	2/14/20 10:23		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 10:23		1.015	Not Detected	mg/L	0.1	0.5	U
Silica, Total (calc.)	2/10/20 13:30	2/14/20 10:23		1	Not Detected	mg/L			U
* Sodium, Total	2/10/20 13:30	2/14/20 10:23		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:34		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/6/20 12:11	2/6/20 12:11		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/6/20 12:11	2/6/20 12:11		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/6/20 10:27	2/6/20 10:27		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/6/20 13:33	2/6/20 13:33		1	Not Detected	mg/L as P	0.010	0.03	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond Equipment Blank

Location Code: WMWBARAPEB
Collected: 2/5/20 11:16
Customer ID:
Submittal Date: 2/6/20 09:30

Laboratory ID Number: BA02471

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 13:53	2/17/20 13:53		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/7/20 10:29	2/7/20 10:29		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/7/20 14:09	2/7/20 14:09		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:39	2/6/20 10:39		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAPEB
Sample Date: 2/5/20 11:16
Customer ID:
Delivery Date: 2/6/20 09:30

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: BA02471

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Sodium, Total	mg/L	0.00149	0.044	5.00	4.98	5.05	5.09	4.25 to 5.75	99.6	70 to 130	1.40	20
BA02598	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0970	0.0975	0.0941	0.085 to 0.115	97.0	70 to 130	0.514	20
BA02598	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0973	0.0987	0.0950	0.085 to 0.115	97.3	70 to 130	1.43	20
BA02598	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0961	0.0972	0.0946	0.085 to 0.115	96.1	70 to 130	1.14	20
BA02598	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.0980	0.0993	0.0941	0.085 to 0.115	98.0	70 to 130	1.32	20
BA02598	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0994	0.0985	0.0945	0.085 to 0.115	99.4	70 to 130	0.910	20
BA02598	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0973	0.0991	0.0963	0.085 to 0.115	97.3	70 to 130	1.83	20
BA02598	Lithium, Total	mg/L	0.0000354	0.0154	0.20	0.197	0.199	0.200	0.17 to 0.23	98.5	70 to 130	1.01	20
BA02598	Boron, Total	mg/L	0.00198	0.0650254	1.00	0.996	1.00	1.01	0.85 to 1.15	99.6	70 to 130	0.401	20
BA02598	Iron, Total	mg/L	0.000678	0.0176	0.2	0.202	0.202	0.203	0.17 to 0.23	101	70 to 130	0.00	20
BA02598	Total Organic Carbon	mg/L	0.590	1.00	10.0	8.95	9.15	9.09	9 to 11	89.5	80 to 120	2.21	20
BA02598	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0979	0.0974	0.0951	0.085 to 0.115	97.9	70 to 130	0.512	20
BA02598	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0975	0.0991	0.0949	0.085 to 0.115	97.5	70 to 130	1.63	20
BA02598	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.04	5.07	5.14	4.25 to 5.75	101	70 to 130	0.593	20
BA02598	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0893	0.0898	0.0898	0.085 to 0.115	89.3	70 to 130	0.558	20
BA02598	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.01	1.01	1.00	0.850 to 1.15	101	70 to 130	0.00	20
BA02472	Ortho Phosphate	mg/L as P	0.003	0.015	0.250	0.501	0.425	0.242	0.225 to 0.275	78.8	80 to 120	16.4	10
BA02598	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0987	0.0935	0.0922	0.085 to 0.115	98.7	70 to 130	5.41	20
BA02598	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.103	0.101	0.0977	0.085 to 0.115	103	70 to 130	1.96	20
BA02598	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.09	5.12	5.16	4.25 to 5.75	102	70 to 130	0.588	20
BA02598	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.76	9.88	9.81	8.5 to 11.5	97.6	70 to 130	1.22	20
BA02598	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0992	0.101	0.0952	0.085 to 0.115	99.2	70 to 130	1.80	20
BA02598	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.102	0.100	0.0961	0.085 to 0.115	102	70 to 130	1.98	20

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAPEB
Sample Date: 2/5/20 11:16
Customer ID:
Delivery Date: 2/6/20 09:30

Description: Barry Ash Pond Equipment Blank

Laboratory ID Number: BA02471

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02472	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.66	0.202	1.85	1.8 to 2.2	83.0	90 to 110	0.00	15
BA02472	Nitrogen, Nitrite	mg/L as N	-0.004	0.20	0.50	0.480	-0.001	0.779	0.675 to 0.825	96.0	90 to 110	0.00	15
BA02598	Fluoride	mg/L	0.0184	0.05	2.50	2.69	0.0164	2.58	2.25 to 2.75	108	80 to 120	0.00	20
BA02472	Sulfate	mg/L	-0.470	0.50	20.0	29.3	11.2	18.9	18 to 22	89.0	80 to 120	2.64	20
BA02598	Chloride	mg/L	-0.0192	0.50	10.0	10.1	0.144	10.4	9 to 11	101	80 to 120	0.00	20

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-1 DUP

Location Code: WMWBARAP
Collected: 2/5/20 10:50
Customer ID:
Submittal Date: 2/6/20 09:20

Laboratory ID Number: BA02472

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 10:26		1.015	1.75	mg/L	0.03	0.1	
* Calcium, Total	2/10/20 13:30	2/14/20 10:26		1.015	32.8	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 10:26		1.015	10.6	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 12:18		101.5	145	mg/L	2.03	5.075	
* Lithium, Total	2/10/20 13:30	2/14/20 10:26		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 10:26		1.015	11.1	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 10:26		1	22.7	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 10:26		1.015	25.1	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 13:28		101.5	143	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:36		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:36		1.015	0.0539	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 14:36		1.015	0.298	mg/L	0.02	0.06	
* Barium, Total	2/7/20 09:00	2/7/20 14:36		1.015	0.272	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 14:36		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:36		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:36		1.015	0.00337	mg/L	0.002	0.01	J
* Cobalt, Total	2/7/20 09:00	2/7/20 14:36		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 14:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:36		1.015	0.794	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 14:36		1.015	1.93	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 14:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:36		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	0.0590	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Precision, Matrix Spike recovery, and Matrix Spike Duplicate recovery were outside of the specification limits for Ortho-Phosphate.
Matrix Spike Recovery was outside of the specification limits for Nitrate/Nitrite.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-1 DUP

Location Code: WMWBARAP
Collected: 2/5/20 10:50
Customer ID:
Submittal Date: 2/6/20 09:20

Laboratory ID Number: BA02472

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	0.00304	mg/L	0.002	0.01	J
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	0.796	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 12:08		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/6/20 12:12	2/6/20 12:12		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/6/20 12:12	2/6/20 12:12		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/6/20 10:28	2/6/20 10:28		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	373	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	373	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.04	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/6/20 13:34	2/6/20 13:34		1	0.304	mg/L as P	0.010	0.03	R
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 14:03	2/17/20 14:03		1	15.4	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/7/20 10:30	2/7/20 10:30		2	26.2	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/7/20 14:10	2/7/20 14:10		1	0.0837	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/6/20 10:40	2/6/20 10:40		1	11.5	mg/L	0.50	1	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Precision, Matrix Spike recovery, and Matrix Spike Duplicate recovery were outside of the specification limits for Ortho-Phosphate.
Matrix Spike Recovery was outside of the specification limits for Nitrate/Nitrite.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/5/20 10:50
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-1 DUP

Laboratory ID Number: BA02472

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.0980	0.0993	0.0941	0.085 to 0.115	98.0	70 to 130	1.32	20
BA02598	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0994	0.0985	0.0945	0.085 to 0.115	99.4	70 to 130	0.910	20
BA02597	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	0.203	0.202	0.202	0.17 to 0.23	102	70 to 130	0.494	20
BA02597	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.104	0.104	0.101	0.085 to 0.115	104	70 to 130	0.00	20
BA02598	Sodium, Total	mg/L	0.00149	0.044	5.00	4.98	5.05	5.09	4.25 to 5.75	99.6	70 to 130	1.40	20
BA02472	Ortho Phosphate	mg/L as P	0.003	0.015	0.250	0.501	0.425	0.242	0.225 to 0.275	78.8	80 to 120	16.4	10
BA02597	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.103	0.0999	0.0985	0.085 to 0.115	103	70 to 130	3.06	20
BA02598	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0987	0.0935	0.0922	0.085 to 0.115	98.7	70 to 130	5.41	20
BA02597	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.108	0.107	0.0981	0.085 to 0.115	101	70 to 130	0.930	20
BA02597	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0905	0.0911	0.0898	0.085 to 0.115	90.5	70 to 130	0.661	20
BA02598	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0970	0.0975	0.0941	0.085 to 0.115	97.0	70 to 130	0.514	20
BA02598	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0973	0.0987	0.0950	0.085 to 0.115	97.3	70 to 130	1.43	20
BA02598	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0961	0.0972	0.0946	0.085 to 0.115	96.1	70 to 130	1.14	20
BA02597	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.108	0.105	0.0990	0.085 to 0.115	108	70 to 130	2.82	20
BA02597	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.101	0.100	0.0982	0.085 to 0.115	101	70 to 130	0.995	20
BA02598	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.103	0.101	0.0977	0.085 to 0.115	103	70 to 130	1.96	20
BA02598	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.09	5.12	5.16	4.25 to 5.75	102	70 to 130	0.588	20
BA02598	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.76	9.88	9.81	8.5 to 11.5	97.6	70 to 130	1.22	20
BA02598	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0992	0.101	0.0952	0.085 to 0.115	99.2	70 to 130	1.80	20
BA02598	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.102	0.100	0.0961	0.085 to 0.115	102	70 to 130	1.98	20
BA02597	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.104	0.103	0.0999	0.085 to 0.115	104	70 to 130	0.966	20
BA02597	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0988	0.0997	0.0980	0.085 to 0.115	98.8	70 to 130	0.907	20
BA02597	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.101	0.101	0.0986	0.085 to 0.115	101	70 to 130	0.00	20
BA02598	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0973	0.0991	0.0963	0.085 to 0.115	97.3	70 to 130	1.83	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Precision, Matrix Spike recovery, and Matrix Spike Duplicate recovery were outside of the specification limits for Ortho-Phosphate.
Matrix Spike Recovery was outside of the specification limits for Nitrate/Nitrite.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/5/20 10:50
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-1 DUP

Laboratory ID Number: BA02472

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Lithium, Total	mg/L	0.0000354	0.0154	0.20	0.197	0.199	0.200	0.17 to 0.23	98.5	70 to 130	1.01	20
BA02597	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0964	0.0976	0.0961	0.085 to 0.115	96.4	70 to 130	1.24	20
BA02598	Boron, Total	mg/L	0.00198	0.0650254	1.00	0.996	1.00	1.01	0.85 to 1.15	99.6	70 to 130	0.401	20
BA02598	Iron, Total	mg/L	0.000678	0.0176	0.2	0.202	0.202	0.203	0.17 to 0.23	101	70 to 130	0.00	20
BA02598	Total Organic Carbon	mg/L	0.590	1.00	10.0	8.95	9.15	9.09	9 to 11	89.5	80 to 120	2.21	20
BA02597	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0962	0.0943	0.0914	0.085 to 0.115	96.2	70 to 130	1.99	20
BA02597	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0981	0.0979	0.0966	0.085 to 0.115	98.1	70 to 130	0.204	20
BA02598	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0979	0.0974	0.0951	0.085 to 0.115	97.9	70 to 130	0.512	20
BA02598	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0975	0.0991	0.0949	0.085 to 0.115	97.5	70 to 130	1.63	20
BA02598	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.04	5.07	5.14	4.25 to 5.75	101	70 to 130	0.593	20
BA02598	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0893	0.0898	0.0898	0.085 to 0.115	89.3	70 to 130	0.558	20
BA02598	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.01	1.01	1.00	0.850 to 1.15	101	70 to 130	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Precision, Matrix Spike recovery, and Matrix Spike Duplicate recovery were outside of the specification limits for Ortho-Phosphate.
Matrix Spike Recovery was outside of the specification limits for Nitrate/Nitrite.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/5/20 10:50
Customer ID:
Delivery Date: 2/6/20 09:20

Description: Barry Ash Pond - BY-AP-MW-1 DUP

Laboratory ID Number: BA02472

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02472	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.07	0.20	2.00	1.66	0.202	1.85	1.8 to 2.2	83.0	90 to 110	0.00	15
BA02472	Nitrogen, Nitrite	mg/L as N	-0.004	0.20	0.50	0.480	-0.001	0.779	0.675 to 0.825	96.0	90 to 110	0.00	15
BA02598	Fluoride	mg/L	0.0184	0.05	2.50	2.69	0.0164	2.58	2.25 to 2.75	108	80 to 120	0.00	20
BA02472	Sulfate	mg/L	-0.470	0.50	20.0	29.3	11.2	18.9	18 to 22	89.0	80 to 120	2.64	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10
BA02598	Chloride	mg/L	-0.0192	0.50	10.0	10.1	0.144	10.4	9 to 11	101	80 to 120	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
Precision, Matrix Spike recovery, and Matrix Spike Duplicate recovery were outside of the specification limits for Ortho-Phosphate.
Matrix Spike Recovery was outside of the specification limits for Nitrate/Nitrite.
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-5

Location Code: WMWBARAP
Collected: 2/6/20 08:26
Customer ID:
Submittal Date: 2/6/20 16:41

Laboratory ID Number: BA02595

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 10:29		1.015	0.0714	mg/L	0.03	0.1	J
* Calcium, Total	2/10/20 13:30	2/14/20 10:29		1.015	13.9	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 10:29		1.015	12.1	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 12:21		101.5	71.5	mg/L	2.03	5.075	
* Lithium, Total	2/10/20 13:30	2/14/20 10:29		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 10:29		1.015	4.62	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 10:29		1	25.9	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 10:29		1.015	21.4	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 13:31		101.5	71.6	mg/L	2.03	5.075	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:39		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:39		1.015	0.0301	mg/L	0.001	0.005	
* Aluminum, Total	2/7/20 09:00	2/7/20 14:39		1.015	0.0239	mg/L	0.02	0.06	J
* Barium, Total	2/7/20 09:00	2/7/20 14:39		1.015	0.137	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 14:39		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:39		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 14:39		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 14:39		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:39		1.015	0.592	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 14:39		1.015	1.43	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 14:39		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:39		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	0.0302	mg/L	0.001	0.005	
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-5

Location Code: WMWBARAP
Collected: 2/6/20 08:26
Customer ID:
Submittal Date: 2/6/20 16:41

Laboratory ID Number: BA02595

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	0.588	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 12:10		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/7/20 12:25	2/7/20 12:25		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/7/20 12:25	2/7/20 12:25		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/6/20 17:22	2/6/20 17:22		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	169	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	169	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.03	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/7/20 14:14	2/7/20 14:14		1	0.231	mg/L as P	0.010	0.03	
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 14:16	2/17/20 14:16		1	15.3	mg/L	1.00	2	
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/7/20 10:32	2/7/20 10:32		2	20.3	mg/L	1.00	2	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/7/20 14:11	2/7/20 14:11		1	0.0679	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/7/20 09:05	2/7/20 09:05		1	11.5	mg/L	0.50	1	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/6/20 08:26
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond - BY-AP-MW-5

Laboratory ID Number: BA02595

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.0980	0.0993	0.0941	0.085 to 0.115	98.0	70 to 130	1.32	20
BA02598	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0994	0.0985	0.0945	0.085 to 0.115	99.4	70 to 130	0.910	20
BA02597	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	0.203	0.202	0.202	0.17 to 0.23	102	70 to 130	0.494	20
BA02597	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.104	0.104	0.101	0.085 to 0.115	104	70 to 130	0.00	20
BA02598	Sodium, Total	mg/L	0.00149	0.044	5.00	4.98	5.05	5.09	4.25 to 5.75	99.6	70 to 130	1.40	20
BA02597	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0964	0.0976	0.0961	0.085 to 0.115	96.4	70 to 130	1.24	20
BA02598	Boron, Total	mg/L	0.00198	0.0650254	1.00	0.996	1.00	1.01	0.85 to 1.15	99.6	70 to 130	0.401	20
BA02598	Iron, Total	mg/L	0.000678	0.0176	0.2	0.202	0.202	0.203	0.17 to 0.23	101	70 to 130	0.00	20
BA02598	Total Organic Carbon	mg/L	0.590	1.00	10.0	8.95	9.15	9.09	9 to 11	89.5	80 to 120	2.21	20
BA02597	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.108	0.107	0.0981	0.085 to 0.115	101	70 to 130	0.930	20
BA02597	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0905	0.0911	0.0898	0.085 to 0.115	90.5	70 to 130	0.661	20
BA02598	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0970	0.0975	0.0941	0.085 to 0.115	97.0	70 to 130	0.514	20
BA02598	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0973	0.0987	0.0950	0.085 to 0.115	97.3	70 to 130	1.43	20
BA02598	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0961	0.0972	0.0946	0.085 to 0.115	96.1	70 to 130	1.14	20
BA02597	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.104	0.103	0.0999	0.085 to 0.115	104	70 to 130	0.966	20
BA02597	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0988	0.0997	0.0980	0.085 to 0.115	98.8	70 to 130	0.907	20
BA02597	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.101	0.101	0.0986	0.085 to 0.115	101	70 to 130	0.00	20
BA02598	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0973	0.0991	0.0963	0.085 to 0.115	97.3	70 to 130	1.83	20
BA02598	Lithium, Total	mg/L	0.0000354	0.0154	0.20	0.197	0.199	0.200	0.17 to 0.23	98.5	70 to 130	1.01	20
BA02597	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.103	0.0999	0.0985	0.085 to 0.115	103	70 to 130	3.06	20
BA02598	Ortho Phosphate	mg/L as P	-0.003	0.015	0.25	0.302	2.49	0.243	0.225 to 0.275	121	80 to 120	157	10
BA02598	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0987	0.0935	0.0922	0.085 to 0.115	98.7	70 to 130	5.41	20
BA02597	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0962	0.0943	0.0914	0.085 to 0.115	96.2	70 to 130	1.99	20
BA02597	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0981	0.0979	0.0966	0.085 to 0.115	98.1	70 to 130	0.204	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/6/20 08:26
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond - BY-AP-MW-5

Laboratory ID Number: BA02595

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0979	0.0974	0.0951	0.085 to 0.115	97.9	70 to 130	0.512	20
BA02598	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0975	0.0991	0.0949	0.085 to 0.115	97.5	70 to 130	1.63	20
BA02598	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.04	5.07	5.14	4.25 to 5.75	101	70 to 130	0.593	20
BA02598	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0893	0.0898	0.0898	0.085 to 0.115	89.3	70 to 130	0.558	20
BA02598	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.01	1.01	1.00	0.850 to 1.15	101	70 to 130	0.00	20
BA02597	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.108	0.105	0.0990	0.085 to 0.115	108	70 to 130	2.82	20
BA02597	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.101	0.100	0.0982	0.085 to 0.115	101	70 to 130	0.995	20
BA02598	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.103	0.101	0.0977	0.085 to 0.115	103	70 to 130	1.96	20
BA02598	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.09	5.12	5.16	4.25 to 5.75	102	70 to 130	0.588	20
BA02598	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.76	9.88	9.81	8.5 to 11.5	97.6	70 to 130	1.22	20
BA02598	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0992	0.101	0.0952	0.085 to 0.115	99.2	70 to 130	1.80	20
BA02598	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.102	0.100	0.0961	0.085 to 0.115	102	70 to 130	1.98	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/6/20 08:26
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond - BY-AP-MW-5

Laboratory ID Number: BA02595

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Nitrogen, Nitrite	mg/L as N	0.003	0.20	0.50	0.515	0.001	0.759	0.675 to 0.825	103	90 to 110	0.00	15
BA02598	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.20	2.00	2.07	-0.030	1.88	1.8 to 2.2	104	90 to 110	0.00	15
BA02598	Fluoride	mg/L	0.0184	0.05	2.50	2.69	0.0164	2.58	2.25 to 2.75	108	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10
BA02598	Chloride	mg/L	-0.0192	0.50	10.0	10.1	0.144	10.4	9 to 11	101	80 to 120	0.00	20
BA02598	Sulfate	mg/L	-0.494	0.50	20.0	19.5	-0.330	20.1	18 to 22	97.5	80 to 120	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-4

Location Code: WMWBARAP
Collected: 2/6/20 08:50
Customer ID:
Submittal Date: 2/6/20 16:41

Laboratory ID Number: BA02596

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 10:32		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/10/20 13:30	2/14/20 10:32		1.015	0.753	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 10:32		1.015	8.18	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 10:32		1.015	0.817	mg/L	0.02	0.05	
* Lithium, Total	2/10/20 13:30	2/14/20 10:32		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 10:32		1.015	0.554	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 10:32		1	17.5	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 10:32		1.015	4.21	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 12:19		1.015	0.806	mg/L	0.02	0.05	
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:42		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Aluminum, Total	2/7/20 09:00	2/7/20 14:42		1.015	0.0333	mg/L	0.02	0.06	J
* Barium, Total	2/7/20 09:00	2/7/20 14:42		1.015	0.0173	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 14:42		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:42		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 14:42		1.015	0.0125	mg/L	0.002	0.005	
* Lead, Total	2/7/20 09:00	2/7/20 14:42		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:42		1.015	0.00986	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 14:42		1.015	1.15	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 14:42		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:42		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	0.0203	mg/L	0.02	0.06	J
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-4

Location Code: WMWBARAP
Collected: 2/6/20 08:50
Customer ID:
Submittal Date: 2/6/20 16:41

Laboratory ID Number: BA02596

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	0.0124	mg/L	0.002	0.005	
* Lead, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	0.00958	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 12:13		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/7/20 12:26	2/7/20 12:26		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/7/20 12:26	2/7/20 12:26		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/6/20 17:23	2/6/20 17:23		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	0.12	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.12	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.00	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/7/20 14:15	2/7/20 14:15		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 14:28	2/17/20 14:28		1	1.16	mg/L	1.00	2	J
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/7/20 10:33	2/7/20 10:33		1	9.39	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/7/20 14:12	2/7/20 14:12		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/7/20 09:07	2/7/20 09:07		1	4.43	mg/L	0.50	1	

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/6/20 08:50
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond - BY-AP-MW-4

Laboratory ID Number: BA02596

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.0980	0.0993	0.0941	0.085 to 0.115	98.0	70 to 130	1.32	20
BA02598	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0994	0.0985	0.0945	0.085 to 0.115	99.4	70 to 130	0.910	20
BA02597	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	0.203	0.202	0.202	0.17 to 0.23	102	70 to 130	0.494	20
BA02597	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.104	0.104	0.101	0.085 to 0.115	104	70 to 130	0.00	20
BA02598	Sodium, Total	mg/L	0.00149	0.044	5.00	4.98	5.05	5.09	4.25 to 5.75	99.6	70 to 130	1.40	20
BA02597	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.108	0.107	0.0981	0.085 to 0.115	101	70 to 130	0.930	20
BA02597	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0905	0.0911	0.0898	0.085 to 0.115	90.5	70 to 130	0.661	20
BA02598	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0970	0.0975	0.0941	0.085 to 0.115	97.0	70 to 130	0.514	20
BA02598	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0973	0.0987	0.0950	0.085 to 0.115	97.3	70 to 130	1.43	20
BA02598	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0961	0.0972	0.0946	0.085 to 0.115	96.1	70 to 130	1.14	20
BA02597	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.103	0.0999	0.0985	0.085 to 0.115	103	70 to 130	3.06	20
BA02598	Ortho Phosphate	mg/L as P	-0.003	0.015	0.25	0.302	2.49	0.243	0.225 to 0.275	121	80 to 120	157	10
BA02598	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0987	0.0935	0.0922	0.085 to 0.115	98.7	70 to 130	5.41	20
BA02597	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0964	0.0976	0.0961	0.085 to 0.115	96.4	70 to 130	1.24	20
BA02598	Boron, Total	mg/L	0.00198	0.0650254	1.00	0.996	1.00	1.01	0.85 to 1.15	99.6	70 to 130	0.401	20
BA02598	Iron, Total	mg/L	0.000678	0.0176	0.2	0.202	0.202	0.203	0.17 to 0.23	101	70 to 130	0.00	20
BA02598	Total Organic Carbon	mg/L	0.590	1.00	10.0	8.95	9.15	9.09	9 to 11	89.5	80 to 120	2.21	20
BA02597	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.108	0.105	0.0990	0.085 to 0.115	108	70 to 130	2.82	20
BA02597	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.101	0.100	0.0982	0.085 to 0.115	101	70 to 130	0.995	20
BA02598	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.103	0.101	0.0977	0.085 to 0.115	103	70 to 130	1.96	20
BA02598	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.09	5.12	5.16	4.25 to 5.75	102	70 to 130	0.588	20
BA02598	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.76	9.88	9.81	8.5 to 11.5	97.6	70 to 130	1.22	20
BA02598	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0992	0.101	0.0952	0.085 to 0.115	99.2	70 to 130	1.80	20
BA02598	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.102	0.100	0.0961	0.085 to 0.115	102	70 to 130	1.98	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/6/20 08:50
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond - BY-AP-MW-4

Laboratory ID Number: BA02596

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02597	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.104	0.103	0.0999	0.085 to 0.115	104	70 to 130	0.966	20
BA02597	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0988	0.0997	0.0980	0.085 to 0.115	98.8	70 to 130	0.907	20
BA02597	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.101	0.101	0.0986	0.085 to 0.115	101	70 to 130	0.00	20
BA02598	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0973	0.0991	0.0963	0.085 to 0.115	97.3	70 to 130	1.83	20
BA02598	Lithium, Total	mg/L	0.0000354	0.0154	0.20	0.197	0.199	0.200	0.17 to 0.23	98.5	70 to 130	1.01	20
BA02597	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0962	0.0943	0.0914	0.085 to 0.115	96.2	70 to 130	1.99	20
BA02597	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0981	0.0979	0.0966	0.085 to 0.115	98.1	70 to 130	0.204	20
BA02598	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0979	0.0974	0.0951	0.085 to 0.115	97.9	70 to 130	0.512	20
BA02598	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0975	0.0991	0.0949	0.085 to 0.115	97.5	70 to 130	1.63	20
BA02598	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.04	5.07	5.14	4.25 to 5.75	101	70 to 130	0.593	20
BA02598	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0893	0.0898	0.0898	0.085 to 0.115	89.3	70 to 130	0.558	20
BA02598	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.01	1.01	1.00	0.850 to 1.15	101	70 to 130	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/6/20 08:50
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond - BY-AP-MW-4

Laboratory ID Number: BA02596

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Nitrogen, Nitrite	mg/L as N	0.003	0.20	0.50	0.515	0.001	0.759	0.675 to 0.825	103	90 to 110	0.00	15
BA02598	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.20	2.00	2.07	-0.030	1.88	1.8 to 2.2	104	90 to 110	0.00	15
BA02598	Fluoride	mg/L	0.0184	0.05	2.50	2.69	0.0164	2.58	2.25 to 2.75	108	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10
BA02598	Chloride	mg/L	-0.0192	0.50	10.0	10.1	0.144	10.4	9 to 11	101	80 to 120	0.00	20
BA02598	Sulfate	mg/L	-0.494	0.50	20.0	19.5	-0.330	20.1	18 to 22	97.5	80 to 120	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-3

Location Code: WMWBARAP
Collected: 2/6/20 07:45
Customer ID:
Submittal Date: 2/6/20 16:41

Laboratory ID Number: BA02597

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 10:35		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/10/20 13:30	2/14/20 10:35		1.015	1.03	mg/L	0.1	0.5	
Silicon, Total	2/10/20 13:30	2/14/20 10:35		1.015	6.56	mg/L	0.03	0.3	
* Iron, Total	2/10/20 13:30	2/14/20 10:35		1.015	0.0267	mg/L	0.02	0.05	J
* Lithium, Total	2/10/20 13:30	2/14/20 10:35		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 10:35		1.015	0.756	mg/L	0.1	0.5	
Silica, Total (calc.)	2/10/20 13:30	2/14/20 10:35		1	14.0	mg/L			
* Sodium, Total	2/10/20 13:30	2/14/20 10:35		1.015	4.03	mg/L	0.1	0.5	
Analytical Method: EPA 200.7	***Analyst: RDA***								
* Iron, Dissolved	2/10/20 10:30	2/11/20 12:22		1.015	Not Detected	mg/L	0.02	0.05	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Aluminum, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.02	0.06	U
* Barium, Total	2/7/20 09:00	2/7/20 14:44		1.015	0.0336	mg/L	0.002	0.01	
* Beryllium, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:44		1.015	0.00667	mg/L	0.001	0.005	
* Potassium, Total	2/7/20 09:00	2/7/20 14:44		1.015	1.00	mg/L	0.3	2.5	J
* Selenium, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:44		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 200.8	***Analyst: DLJ***								
* Antimony, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Beryllium, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.0006	0.003	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond - BY-AP-MW-3

Location Code: WMWBARAP
Collected: 2/6/20 07:45
Customer ID:
Submittal Date: 2/6/20 16:41

Laboratory ID Number: BA02597

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
* Cadmium, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	0.00685	mg/L	0.001	0.005	
* Selenium, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Dissolved	2/7/20 10:15	2/7/20 12:15		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2		***Analyst: CES***							
* Nitrogen, Nitrate/Nitrite	2/7/20 12:27	2/7/20 12:27		1	0.249	mg/L as N	0.20	0.3	J
Nitrogen, Nitrate (calc.)	2/7/20 12:27	2/7/20 12:27		1	0.249	mg/L as N			J
Nitrogen, Nitrite	2/6/20 17:24	2/6/20 17:24		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 2320 B		***Analyst: JAG***							
Alkalinity, Total as CaCO3	2/12/20 09:30	2/12/20 10:35		1	1.92	mg/L		0.1	
Analytical Method: SM 4500CO2 D		***Analyst: JAG***							
Bicarbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	1.92	mg/L			
Carbonate Alkalinity, (calc.)	2/12/20 09:30	2/12/20 10:35		1	0.00	mg/L			
Analytical Method: SM 4500PF-OP		***Analyst: CES***							
Ortho Phosphate	2/7/20 14:16	2/7/20 14:16		1	Not Detected	mg/L as P	0.010	0.03	U
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 14:39	2/17/20 14:39		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/7/20 10:34	2/7/20 10:34		1	8.29	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/7/20 14:14	2/7/20 14:14		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/7/20 09:08	2/7/20 09:08		1	0.974	mg/L	0.50	1	J

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/6/20 07:45
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond - BY-AP-MW-3

Laboratory ID Number: BA02597

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02597	Iron, Dissolved	mg/L	-0.00000922	0.0176	0.2	0.203	0.202	0.202	0.17 to 0.23	102	70 to 130	0.494	20
BA02597	Thallium, Dissolved	mg/L	0.0000131	0.0001474	0.10	0.104	0.104	0.101	0.085 to 0.115	104	70 to 130	0.00	20
BA02598	Sodium, Total	mg/L	0.00149	0.044	5.00	4.98	5.05	5.09	4.25 to 5.75	99.6	70 to 130	1.40	20
BA02597	Cadmium, Dissolved	mg/L	0.00000425	0.0001474	0.10	0.0964	0.0976	0.0961	0.085 to 0.115	96.4	70 to 130	1.24	20
BA02598	Boron, Total	mg/L	0.00198	0.0650254	1.00	0.996	1.00	1.01	0.85 to 1.15	99.6	70 to 130	0.401	20
BA02598	Iron, Total	mg/L	0.000678	0.0176	0.2	0.202	0.202	0.203	0.17 to 0.23	101	70 to 130	0.00	20
BA02598	Total Organic Carbon	mg/L	0.590	1.00	10.0	8.95	9.15	9.09	9 to 11	89.5	80 to 120	2.21	20
BA02598	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.0980	0.0993	0.0941	0.085 to 0.115	98.0	70 to 130	1.32	20
BA02598	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0994	0.0985	0.0945	0.085 to 0.115	99.4	70 to 130	0.910	20
BA02597	Manganese, Dissolved	mg/L	0.0000915	0.0001474	0.10	0.108	0.107	0.0981	0.085 to 0.115	101	70 to 130	0.930	20
BA02597	Antimony, Dissolved	mg/L	0.000259	0.00066	0.10	0.0905	0.0911	0.0898	0.085 to 0.115	90.5	70 to 130	0.661	20
BA02598	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0970	0.0975	0.0941	0.085 to 0.115	97.0	70 to 130	0.514	20
BA02598	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0973	0.0987	0.0950	0.085 to 0.115	97.3	70 to 130	1.43	20
BA02598	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0961	0.0972	0.0946	0.085 to 0.115	96.1	70 to 130	1.14	20
BA02597	Beryllium, Dissolved	mg/L	0.0000367	0.00088	0.10	0.0962	0.0943	0.0914	0.085 to 0.115	96.2	70 to 130	1.99	20
BA02597	Molybdenum, Dissolved	mg/L	-0.00000214	0.0001474	0.10	0.0981	0.0979	0.0966	0.085 to 0.115	98.1	70 to 130	0.204	20
BA02598	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0979	0.0974	0.0951	0.085 to 0.115	97.9	70 to 130	0.512	20
BA02598	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0975	0.0991	0.0949	0.085 to 0.115	97.5	70 to 130	1.63	20
BA02598	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.04	5.07	5.14	4.25 to 5.75	101	70 to 130	0.593	20
BA02598	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0893	0.0898	0.0898	0.085 to 0.115	89.3	70 to 130	0.558	20
BA02598	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.01	1.01	1.00	0.850 to 1.15	101	70 to 130	0.00	20
BA02597	Arsenic, Dissolved	mg/L	0.0000344	0.0001474	0.10	0.104	0.103	0.0999	0.085 to 0.115	104	70 to 130	0.966	20
BA02597	Lead, Dissolved	mg/L	0.00000991	0.0001474	0.10	0.0988	0.0997	0.0980	0.085 to 0.115	98.8	70 to 130	0.907	20
BA02597	Selenium, Dissolved	mg/L	0.000155	0.00066	0.10	0.101	0.101	0.0986	0.085 to 0.115	101	70 to 130	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Revised Copy

Alabama Power

Customer Account: WMWBARAP
Sample Date: 2/6/20 07:45
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond - BY-AP-MW-3

Laboratory ID Number: BA02597

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0973	0.0991	0.0963	0.085 to 0.115	97.3	70 to 130	1.83	20
BA02598	Lithium, Total	mg/L	0.0000354	0.0154	0.20	0.197	0.199	0.200	0.17 to 0.23	98.5	70 to 130	1.01	20
BA02597	Chromium, Dissolved	mg/L	-0.0000179	0.00044	0.10	0.103	0.0999	0.0985	0.085 to 0.115	103	70 to 130	3.06	20
BA02598	Ortho Phosphate	mg/L as P	-0.003	0.015	0.25	0.302	2.49	0.243	0.225 to 0.275	121	80 to 120	157	10
BA02598	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0987	0.0935	0.0922	0.085 to 0.115	98.7	70 to 130	5.41	20
BA02597	Aluminum, Dissolved	mg/L	0.000732	0.0088	0.10	0.108	0.105	0.0990	0.085 to 0.115	108	70 to 130	2.82	20
BA02597	Cobalt, Dissolved	mg/L	-0.00000045	0.0001474	0.10	0.101	0.100	0.0982	0.085 to 0.115	101	70 to 130	0.995	20
BA02598	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.103	0.101	0.0977	0.085 to 0.115	103	70 to 130	1.96	20
BA02598	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.09	5.12	5.16	4.25 to 5.75	102	70 to 130	0.588	20
BA02598	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.76	9.88	9.81	8.5 to 11.5	97.6	70 to 130	1.22	20
BA02598	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0992	0.101	0.0952	0.085 to 0.115	99.2	70 to 130	1.80	20
BA02598	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.102	0.100	0.0961	0.085 to 0.115	102	70 to 130	1.98	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAP
Sample Date: 2/6/20 07:45
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond - BY-AP-MW-3

Laboratory ID Number: BA02597

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Nitrogen, Nitrite	mg/L as N	0.003	0.20	0.50	0.515	0.001	0.759	0.675 to 0.825	103	90 to 110	0.00	15
BA02598	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.20	2.00	2.07	-0.030	1.88	1.8 to 2.2	104	90 to 110	0.00	15
BA02598	Fluoride	mg/L	0.0184	0.05	2.50	2.69	0.0164	2.58	2.25 to 2.75	108	80 to 120	0.00	20
BA02597	Alkalinity, Total as CaCO3	mg/L					2.08	48.8	45.0 to 55.0			8.00	10
BA02598	Chloride	mg/L	-0.0192	0.50	10.0	10.1	0.144	10.4	9 to 11	101	80 to 120	0.00	20
BA02598	Sulfate	mg/L	-0.494	0.50	20.0	19.5	-0.330	20.1	18 to 22	97.5	80 to 120	0.00	20

Comments: Revised Copy: Customer requested total and dissolved aluminum. LBM 3/6/2020
The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted.
Therefore, dissolved data is qualified. LBM 3/2/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 2/6/20 08:13
Customer ID:
Submittal Date: 2/6/20 16:41

Laboratory ID Number: BA02598

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7	***Analyst: RDA***				***Preparation Method: EPA 1638***				
* Boron, Total	2/10/20 13:30	2/14/20 10:37		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	2/10/20 13:30	2/14/20 10:37		1.015	Not Detected	mg/L	0.1	0.5	U
Silicon, Total	2/10/20 13:30	2/14/20 10:37		1.015	Not Detected	mg/L	0.03	0.3	U
* Iron, Total	2/10/20 13:30	2/14/20 10:37		1.015	Not Detected	mg/L	0.02	0.05	U
* Lithium, Total	2/10/20 13:30	2/14/20 10:37		1.015	Not Detected	mg/L	0.01	0.02	U
* Magnesium, Total	2/10/20 13:30	2/14/20 10:37		1.015	Not Detected	mg/L	0.1	0.5	U
Silica, Total (calc.)	2/10/20 13:30	2/14/20 10:37		1	Not Detected	mg/L			U
* Sodium, Total	2/10/20 13:30	2/14/20 10:37		1.015	Not Detected	mg/L	0.1	0.5	U
Analytical Method: EPA 200.8	***Analyst: DLJ***				***Preparation Method: EPA 1638***				
* Antimony, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.0008	0.003	U
* Aluminum, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.02	0.06	U
* Arsenic, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Manganese, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.001	0.005	U
* Potassium, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.3	2.5	U
* Selenium, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	2/7/20 09:00	2/7/20 14:47		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 353.2	***Analyst: CES***								
* Nitrogen, Nitrate/Nitrite	2/7/20 12:28	2/7/20 12:28		1	Not Detected	mg/L as N	0.20	0.3	U
Nitrogen, Nitrate (calc.)	2/7/20 12:28	2/7/20 12:28		1	Not Detected	mg/L as N			U
Nitrogen, Nitrite	2/6/20 17:25	2/6/20 17:25		1	Not Detected	mg/L as N	0.20	0.3	U
Analytical Method: SM 4500PF-OP	***Analyst: CES***								
Ortho Phosphate	2/7/20 14:17	2/7/20 14:17		1	Not Detected	mg/L as P	0.010	0.03	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020
Precision, Matrix Spike recovery, and Matrix Spike Duplicate recovery were outside of the specification limits for Ortho-Phosphate. The Matrix Spike Duplicate failed due to instrument error. LBM 2/18/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Certificate Of Analysis

Alabama Power

Revised Copy

Description: Barry Ash Pond Field Blank

Location Code: WMWBARAPFB
Collected: 2/6/20 08:13
Customer ID:
Submittal Date: 2/6/20 16:41

Laboratory ID Number: BA02598

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: SM 5310 B		***Analyst: HRG***							
* Total Organic Carbon	2/17/20 14:51	2/17/20 14:51		1	Not Detected	mg/L	1.00	2	U
Analytical Method: SM4500Cl E		***Analyst: JCC***							
* Chloride	2/7/20 10:35	2/7/20 10:35		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		***Analyst: JCC***							
* Fluoride	2/7/20 14:15	2/7/20 14:15		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		***Analyst: JCC***							
* Sulfate	2/7/20 09:09	2/7/20 09:09		1	Not Detected	mg/L	0.50	1	U

MDL's and RL's are adjusted for sample dilution, as applicable

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020
Precision, Matrix Spike recovery, and Matrix Spike Duplicate recovery were outside of the specification limits for Ortho-Phosphate. The Matrix Spike Duplicate failed due to instrument error. LBM 2/18/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Batch QC Summary

Alabama Power

Revised Copy

Customer Account: WMWBARAPFB
Sample Date: 2/6/20 08:13
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA02598

Sample	Analysis	Units	MB	MB Limit	Spike	MS	MSD	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Sodium, Total	mg/L	0.00149	0.044	5.00	4.98	5.05	5.09	4.25 to 5.75	99.6	70 to 130	1.40	20
BA02598	Aluminum, Total	mg/L	0.00129	0.0088	0.10	0.0980	0.0993	0.0941	0.085 to 0.115	98.0	70 to 130	1.32	20
BA02598	Lead, Total	mg/L	0.0000124	0.0001474	0.10	0.0994	0.0985	0.0945	0.085 to 0.115	99.4	70 to 130	0.910	20
BA02598	Ortho Phosphate	mg/L as P	-0.003	0.015	0.25	0.302	2.49	0.243	0.225 to 0.275	121	80 to 120	157	10
BA02598	Beryllium, Total	mg/L	0.0000258	0.00088	0.10	0.0987	0.0935	0.0922	0.085 to 0.115	98.7	70 to 130	5.41	20
BA02598	Barium, Total	mg/L	0.00000713	0.0002	0.10	0.0970	0.0975	0.0941	0.085 to 0.115	97.0	70 to 130	0.514	20
BA02598	Manganese, Total	mg/L	0.0000331	0.0001474	0.10	0.0973	0.0987	0.0950	0.085 to 0.115	97.3	70 to 130	1.43	20
BA02598	Molybdenum, Total	mg/L	0.00000352	0.0001474	0.10	0.0961	0.0972	0.0946	0.085 to 0.115	96.1	70 to 130	1.14	20
BA02598	Cobalt, Total	mg/L	-0.00000336	0.0001474	0.10	0.0973	0.0991	0.0963	0.085 to 0.115	97.3	70 to 130	1.83	20
BA02598	Lithium, Total	mg/L	0.0000354	0.0154	0.20	0.197	0.199	0.200	0.17 to 0.23	98.5	70 to 130	1.01	20
BA02598	Boron, Total	mg/L	0.00198	0.0650254	1.00	0.996	1.00	1.01	0.85 to 1.15	99.6	70 to 130	0.401	20
BA02598	Iron, Total	mg/L	0.000678	0.0176	0.2	0.202	0.202	0.203	0.17 to 0.23	101	70 to 130	0.00	20
BA02598	Total Organic Carbon	mg/L	0.590	1.00	10.0	8.95	9.15	9.09	9 to 11	89.5	80 to 120	2.21	20
BA02598	Arsenic, Total	mg/L	0.0000110	0.0001474	0.10	0.103	0.101	0.0977	0.085 to 0.115	103	70 to 130	1.96	20
BA02598	Calcium, Total	mg/L	-0.0122	0.1518	5.00	5.09	5.12	5.16	4.25 to 5.75	102	70 to 130	0.588	20
BA02598	Potassium, Total	mg/L	0.00103	0.3674	10.0	9.76	9.88	9.81	8.5 to 11.5	97.6	70 to 130	1.22	20
BA02598	Selenium, Total	mg/L	0.0000486	0.00066	0.10	0.0992	0.101	0.0952	0.085 to 0.115	99.2	70 to 130	1.80	20
BA02598	Thallium, Total	mg/L	0.0000122	0.0001474	0.10	0.102	0.100	0.0961	0.085 to 0.115	102	70 to 130	1.98	20
BA02598	Cadmium, Total	mg/L	-0.00000033	0.0001474	0.10	0.0979	0.0974	0.0951	0.085 to 0.115	97.9	70 to 130	0.512	20
BA02598	Chromium, Total	mg/L	-0.0000433	0.00044	0.10	0.0975	0.0991	0.0949	0.085 to 0.115	97.5	70 to 130	1.63	20
BA02598	Magnesium, Total	mg/L	0.00214	0.0462	5.00	5.04	5.07	5.14	4.25 to 5.75	101	70 to 130	0.593	20
BA02598	Antimony, Total	mg/L	0.000204	0.00066	0.10	0.0893	0.0898	0.0898	0.085 to 0.115	89.3	70 to 130	0.558	20
BA02598	Silicon, Total	mg/L	-0.000502	0.044	1.00	1.01	1.01	1.00	0.850 to 1.15	101	70 to 130	0.00	20

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020
Precision, Matrix Spike recovery, and Matrix Spike Duplicate recovery were outside of the specification limits for Ortho-Phosphate. The Matrix Spike Duplicate failed due to instrument error. LBM 2/18/2020

Reported: 3/18/2020
Version: 3.1
COA_CCR

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040

Alabama Power

Batch QC Summary

Revised Copy

Customer Account: WMWBARAPFB
Sample Date: 2/6/20 08:13
Customer ID:
Delivery Date: 2/6/20 16:41

Description: Barry Ash Pond Field Blank

Laboratory ID Number: BA02598

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
BA02598	Nitrogen, Nitrate/Nitrite	mg/L as N	-0.02	0.20	2.00	2.07	-0.030	1.88	1.8 to 2.2	104	90 to 110	0.00	15
BA02598	Nitrogen, Nitrite	mg/L as N	0.003	0.20	0.50	0.515	0.001	0.759	0.675 to 0.825	103	90 to 110	0.00	15
BA02598	Fluoride	mg/L	0.0184	0.05	2.50	2.69	0.0164	2.58	2.25 to 2.75	108	80 to 120	0.00	20
BA02598	Chloride	mg/L	-0.0192	0.50	10.0	10.1	0.144	10.4	9 to 11	101	80 to 120	0.00	20
BA02598	Sulfate	mg/L	-0.494	0.50	20.0	19.5	-0.330	20.1	18 to 22	97.5	80 to 120	0.00	20

Comments: Revised Copy: Customer requested total aluminum. LBM 3/6/2020
Precision, Matrix Spike recovery, and Matrix Spike Duplicate recovery were outside of the specification limits for Ortho-Phosphate. The Matrix Spike Duplicate failed due to instrument error. LBM 2/18/2020

Alabama Power
General Test Laboratory
744 County Road 87, GSC #8
Calera, AL 35040
(205) 664-6001

Definitions

Abbreviation	Description
DF	Dilution Factor
LCS	Lab Control Sample
LFM	Lab Fortified Matrix
MB	Method Blank
MDL	Method Detection Limit; minimum concentration of an analyte that can be determined with 99% confidence that the concentration is greater than zero.
MS	Matrix Spike
MSD	Matrix Spike Duplicate
Prec	Precision (% RPD)
Q	Qualifier; comment used to note deviations or additional information associated with analytical results.
QC	Quality Control
Rec	Recovery of Matrix Spike
RL	Reporting Limit; lowest concentration at which an analyte can be quantitatively measured.
Vio Spec	Violation Specification; regulatory limit which has been exceeded by the sample analyzed.

Qualifier	Description
HT	Analysis was performed outside of the analytical holding time.
J	Reported value is an estimate because concentration is less than reporting limit.
R	Matrix spike recovery and/or matrix spike duplicate recovery is outside of specification limit.
RA	Matrix spike is invalid due to sample concentration.
U	Compound was analyzed, but not detected.

WMWBAP_FP_1258

Chain of Custody Groundwater

APC General Testing Laboratory

☐ Field Complete ☐ Outside Lab

☐ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Rick Hoyendorfer	Requested By	Greg Dyer
Collector	Rick Hoyendorfer/Colton Evans	Location	Plant Barry

Bottles

1	Metals	500 mL	3	Anions/Alk.	250 mL	5	TOC	500 mL	7	N/A	N/A
2	Diss. Metals	500 mL	4	NO3/Ortho-P	250 mL	6	N/A	N/A	8	N/A	N/A

Comments: correcting date & description. RBM 2/4/20

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
BY-AP-MW-7	2-3-19	1045	5	Groundwater	.	BA02260
BY-AP-MW-8	2-3-19	1210	5	↓		BA02261
BY-AP-MW-8DUP	2-3-19	1210	5	Sample DUP		BA02262
BY-AP-MW9	2-3-19	1242	5	↓		BA02263
	2020					

Relinquished By	Received By	Date/Time
[illegible]	[illegible]	2-3-20 1300
[illegible]	[illegible]	2-3-20 1515
[illegible]	Laura [illegible]	2/4/20 0825

SmarTroll ID	
Turbidity ID	
Sample Event	1258

TOC, All metals and radiological bottles have pH < 2 ☑

Cooler Temp	0.4 °C
Thermometer ID	5408-27568-2-2
pH Strip ID	7453-40656-10-8

7.1

WMW BARAP_1258

Chain of Custody Groundwater

APC General Testing Laboratory

☑ Field Complete ☐ Lab Complete ☐ Outside Lab

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Rick Hagendorfer	Requested By	Greg Dyer
Collector	Rick Hagendorfer/Colton Evans	Location	Plant Barry

Bottles

1	Metals	500 mL	3	Anions/Alk.	250 mL	5	TOC	500 mL	7	N/A	N/A
2	Diss. Metals	500 mL	4	NO3/Ortho-P	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
BY-AP-MW-10	2-4-20	0800	5	ground water		BA02305
BY-AP-MW-11	2-4-20	0945	5	↓		66
BY-AP-MW-12	2-4-20	1010	5			67
BY-AP-MW-13	2-4-20	1236	5			68
BY-AP-MW-14	2-4-20	1255	5			69
Field Blank-1	2-4-20	1058	~~5~~ 4	D.I. water		70

Relinquished By	Received By	Date/Time
[signature]	B. Hagendorfer	2-4-20 1536
B. Hagendorfer	Anthony Eggi	2-4-20 1523
Anthony Eggi	Laura [illegible]	2-5-20 0837

SmarTroll ID

Turbidity ID

Sample Event 1258

TOC, All metals and radiological bottles have pH < 2 ☑

Cooler Temp 0.8°C

Thermometer ID 5408-27568-2-2

pH Strip ID 7453-40656-10-8

7901-43572-2-1

7.1

WMWBARAP_1258

Chain of Custody Groundwater

APC General Testing Laboratory

☐ Field Complete ☐ Outside Lab

☐ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Rice Hagendorfer	Requested By	Greg Dyer
Collector	Rice Hagendorfer / Colton Evans	Location	Plant Barry

Bottles

1	Metals	500 mL	3	Anions/Alk.	250 mL	5	TOC	500 mL	7	N/A	N/A
2	Diss. Metals	500 mL	4	NO3/Ortho-P	250 mL	6	N/A	N/A	8	N/A	N/A

Comments: SEND RESULTS TO JimRedwine@JRedwine@anchorQEA.com Dimitri Valssopoulos at DVlassopoulos@AnchorQEA.com Kristi Mitchell at Kmitchell@AnchorQEA.com
Standard TAT

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
BY-AP-MW-15	2-5-20	0857	5	Ground water		BA02467
BY-AP-MW-16	↓	0835	5	↓		68
BY-AP-MW-1		1050	5			69
BY-AP-MW-2		1035	5	↓ RDH		70
Equipment Blank-1		1116	4	D.I. water		71
BY-AP-MW-1 Dup	↓ MAX	1050	5	Ground water		72

Relinquished By	Received By	Date/Time
[signature]	[signature]	2/5/20 1345
Anthony Gozzi	Laura Mulhoff	2/6/20 0821

SmarTroll ID	
Turbidity ID	
Sample Event	1258

TOC, All metals, and radiological bottles have pH < 2 ☑

Cooler Temp	0.4°C
Thermometer ID	5408-27568-2-2
pH Strip ID	7901-43572-2-1

7.1

WMWBARAP_1258

Chain of Custody Groundwater

APC General Testing Laboratory

☐ Field Complete ☐ Outside Lab

☐ Lab Complete

Lab ETA

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Rick Hagendorfer	Requested By	Greg Dyer
Collector	Rick Hagendorfer / Colton Rivers	Location	Plant Barry

Bottles

1	Metals	500 mL	3	Anions/Alk.	250 mL	5	TOC	500 mL	7	N/A	N/A
2	Diss. Metals	500 mL	4	NO3/Ortho-P	250 mL	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
BY-AP-MW-5	2-6-20	0824	5	Ground water		BA02595
BY-AP-MW-4		0850	5			96
BY-AP-MW-3		0245	5			97
Field Blank-2		0813	4	DI water		98

Relinquished By	Received By	Date/Time
[illegible]	[illegible]	2-6-20 / 1000
[illegible]	[illegible]	2-6-20 / 1435
Anthony Coggin	Laura Muff	2-6-20 / 1625

SmarTroll ID

Turbidity ID

Sample Event 1258

TOC, All metals, and radiological bottles have pH < 2 ☑

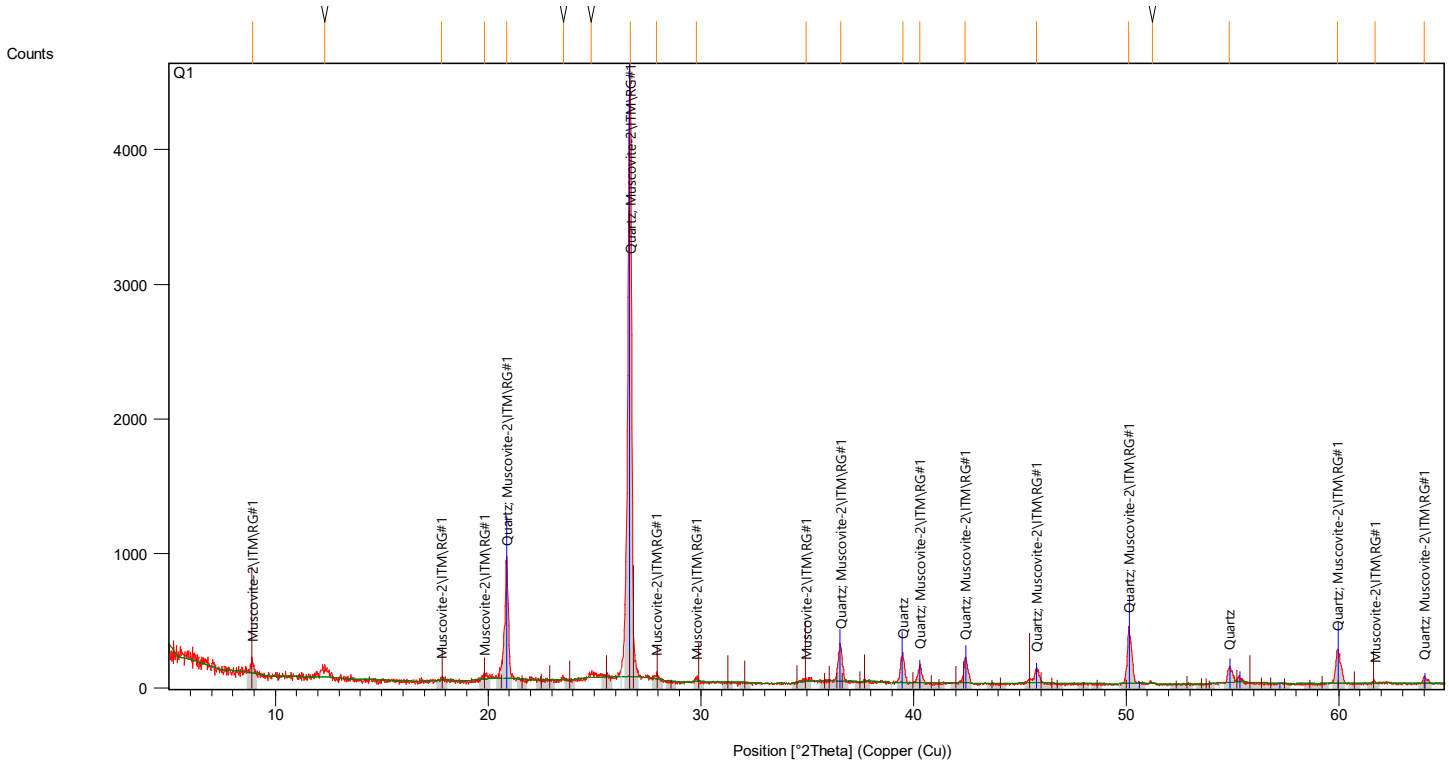
Cooler Temp 2.8 °C

Thermometer ID 6603-#789-1-1

pH Strip ID 7901-43577-2-1

7.1

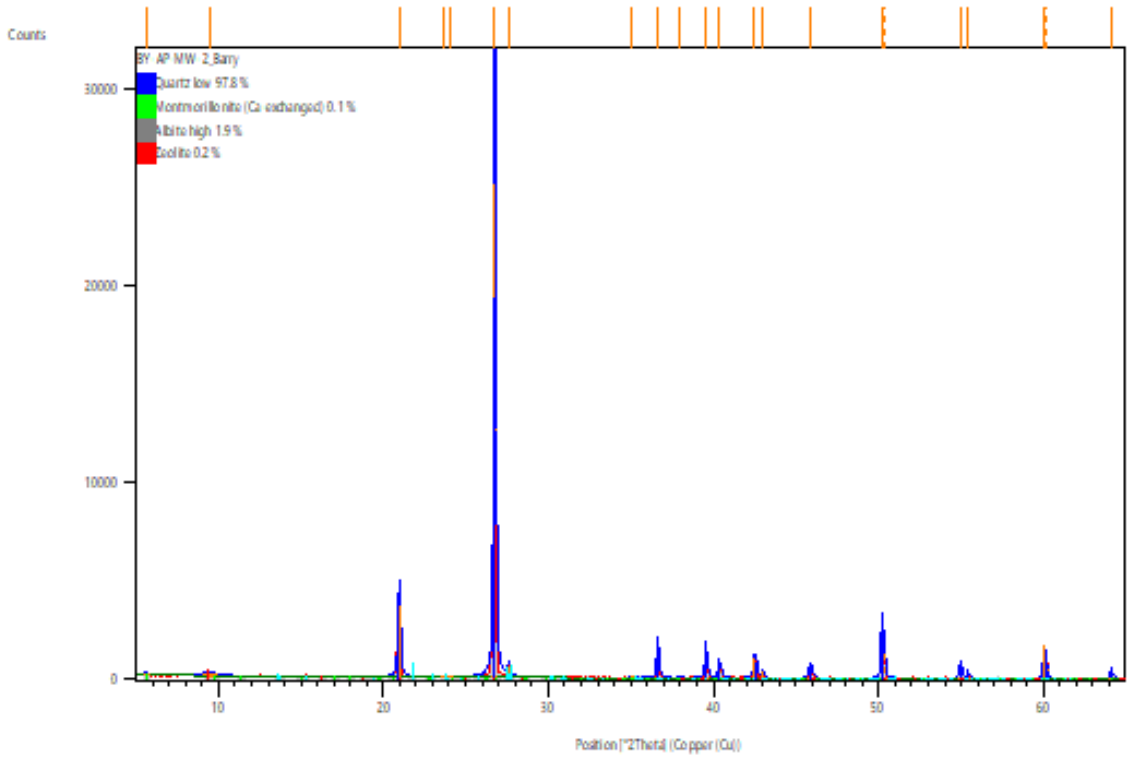
Sample Identification BY-AP-MW-1



Pos. [°2Th.]	Height [cts]	FWHM Left [°2Th.]	d-spacing [Å]	Rel. Int. [%]
8.913563	97.598510	0.118080	9.92106	2.18
12.309920	68.950920	0.393600	7.19038	1.54
17.825100	17.595690	0.472320	4.97614	0.39
19.840970	32.576030	0.314880	4.47487	0.73
20.866070	854.702600	0.137760	4.25729	19.13
23.558150	21.965900	0.236160	3.77654	0.49
24.866310	35.805990	0.236160	3.58075	0.80
26.685430	4468.761000	0.177120	3.34064	100.00
27.934490	39.231390	0.236160	3.19404	0.88
29.777880	25.932450	0.157440	3.00038	0.58
34.967730	21.538810	0.629760	2.56605	0.48
36.587580	262.941800	0.177120	2.45608	5.88
39.511510	199.562300	0.098400	2.28080	4.47
40.304290	126.515900	0.196800	2.23775	2.83
42.441600	197.560300	0.137760	2.12988	4.42
45.803260	101.628000	0.196800	1.98108	2.27
50.115770	399.546200	0.118080	1.82025	8.94
51.239190	12.723190	0.236160	1.78295	0.28
54.830230	114.944800	0.137760	1.67437	2.57
59.944580	261.264300	0.118080	1.54317	5.85
61.716870	12.592090	0.472320	1.50304	0.28
64.011740	52.468820	0.118080	1.45458	1.17

Mineral Name	Chemical Formula
Quartz	Si O2
Muscovite-2\ITM\RG#1	K Al2 (Si3 Al) O10 (O H , F)2

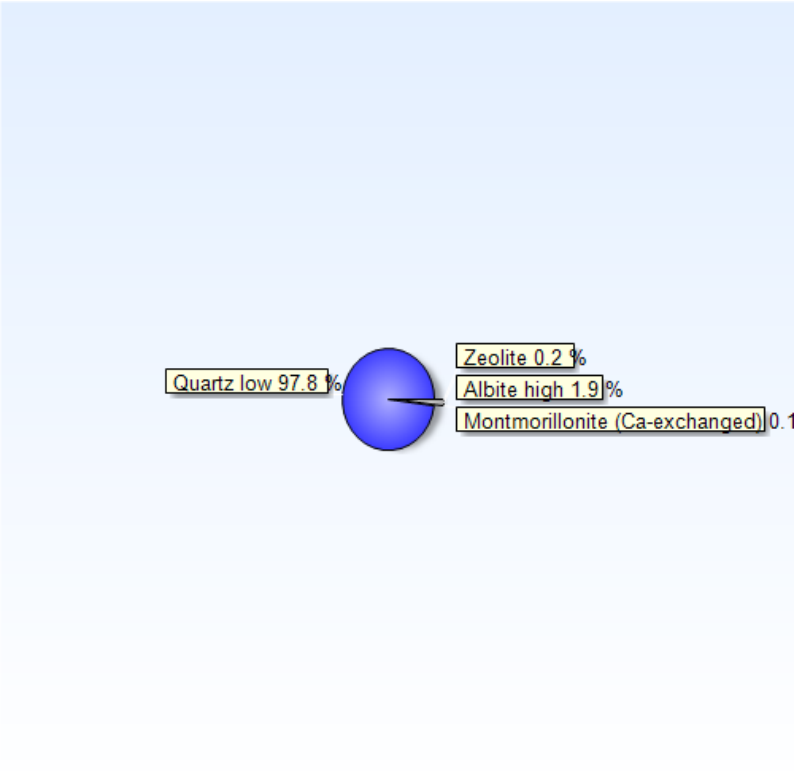
Graphics



Peak List

Pos.[°2Th.]	d-spacing [Å]	Rel. Int. [%]	Matched by
5.6190	15.72845	0.48	98-005-1636
9.4862	9.32345	0.51	98-017-0495
20.9622	4.23799	14.33	98-009-3974;98..
23.6632	3.76000	0.25	98-010-0505
24.1038	3.69226	0.21	98-005-1636;98..
26.7427	3.33361	100.00	98-009-3974;98..
27.6160	3.23015	2.33	98-010-0505
35.0734	2.55856	0.24	98-005-1636
36.6195	2.45401	5.56	98-009-3974;98..
37.9838	2.36895	0.15	98-005-1636;98..
39.5404	2.27920	4.59	98-009-3974;98..
40.3641	2.23458	2.70	98-009-3974;98..
42.5112	2.12655	3.93	98-009-3974;98..
42.9546	2.10562	1.73	98-005-1636;98..
45.8471	1.97929	2.32	98-009-3974
50.2260	1.81501	12.00	98-009-3974;98..
54.9488	1.66966	3.68	98-009-3974;98..
55.3934	1.65730	0.96	98-009-3974;98..
60.0223	1.54008	6.73	98-009-3974;98..
64.0721	1.45215	1.31	98-009-3974;98..

Quantitative Results



Phase Quartz low:	Weight fraction/ %:	98
Phase Montmorillonite :	Weight fraction/ %:	0.10
Phase Albite high:	Weight fraction/ %:	1.9
Phase Zeolite:	Weight fraction/ %:	0.19

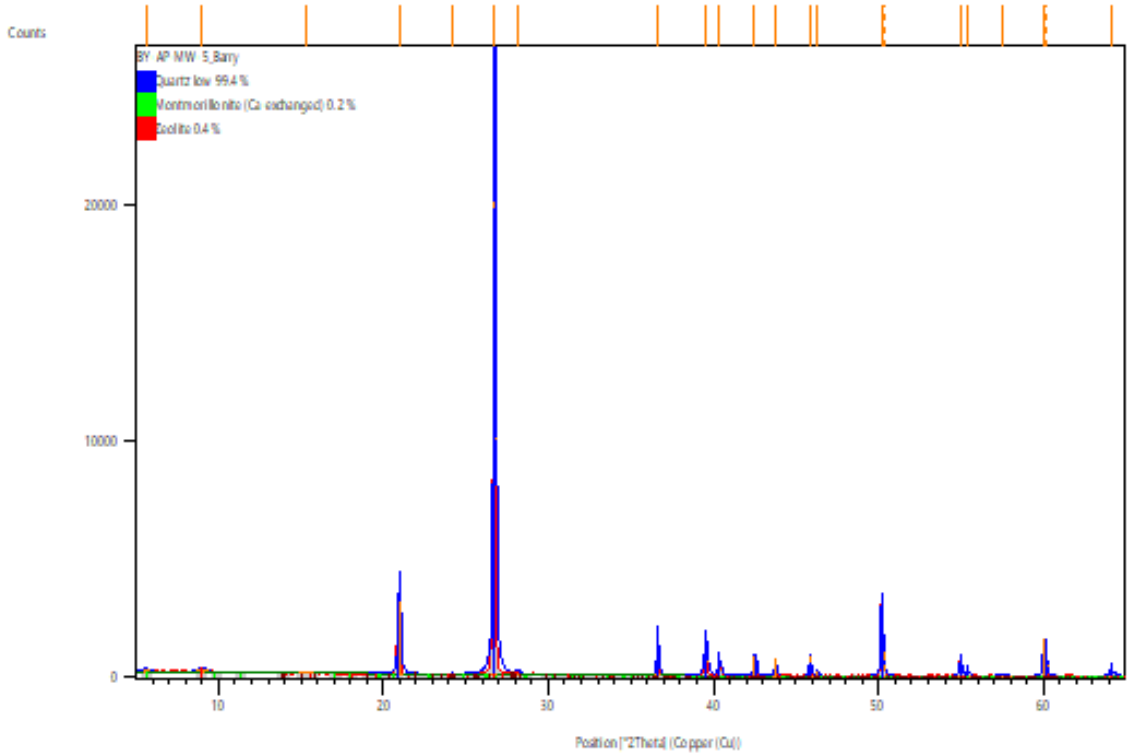
Pattern List

Ref.Code	Score	Compound Name	Chem. Formula
98-009-3974	76	Quartz low	O2 Si1
98-005-1636	25	Montmorillonite	H8.2 Al4 Ca1.2 O27..
98-010-0505	13	Albite high	Al1 Na1 O8 Si3
98-017-0495	13	Zeolite	O2 Si1

Anchor Scan Parameters

Dataset Name:	BY-AP-MW-2_Barry
File name:	C:\Users\Rick\Documents\RCIA_Win10\AnchorQEA\2020_March\BY-AP-MW-2_Barry.rd
Sample Identification:	BA-AP-MW-2 Barry
Comment:	Exported by X'Pert SW Generated by hugo in project AnchorQEA_2
Measurement Date / Time:	3/20/2020 8:42:00 AM
Raw Data Origin:	PHILIPS-binary (scan) (.RD)
Scan Axis:	Gonio
Start Position [°2Th.]:	5.0150
End Position [°2Th.]:	64.9850
Step Size [°2Th.]:	0.0300
Scan Step Time [s]:	2.5000
Scan Type:	Continuous
Offset [°2Th.]:	0.0000
Divergence Slit Type:	Fixed
Divergence Slit Size [°]:	0.5000
Specimen Length [mm]:	10.00
Receiving Slit Size [mm]:	0.1000
Measurement Temperature [°C]:	0.00
Anode Material:	Cu
K-Alpha1 [Å]:	1.54060
K-Alpha2 [Å]:	1.54443
K-Beta [Å]:	1.39225
K-A2 / K-A1 Ratio:	0.50000
Generator Settings:	30 mA, 40 kV
Diffractometer Type:	XPert MPD
Diffractometer Number:	1
Goniometer Radius [mm]:	200.00
Dist. Focus-Diverg. Slit [mm]:	91.00
Incident Beam Monochromator:	No
Spinning:	No

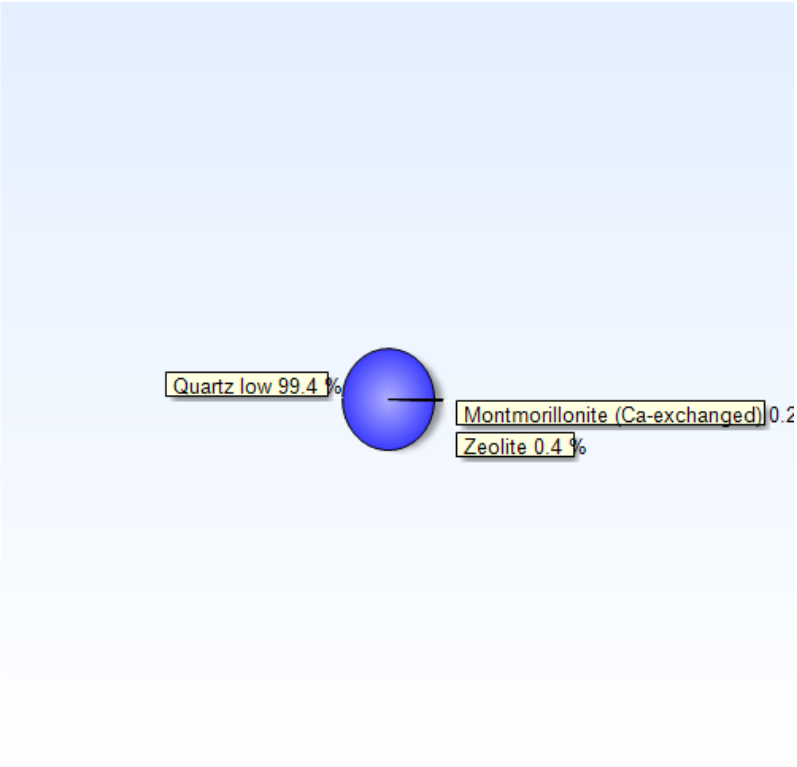
Graphics



Peak List

Pos.[°2Th.]	d-spacing [Å]	Rel. Int. [%]	Matched by
5.6067	15.76293	0.61	98-005-1636
9.0402	9.78235	0.77	98-017-0521
15.3287	5.78044	0.10	96-901-1423
20.9768	4.23508	15.72	98-020-1352
24.1194	3.68992	0.30	98-005-1636;98..
26.7391	3.33406	100.00	98-020-1352;98..
28.1334	3.17191	0.39	96-901-1423
36.6277	2.45348	6.27	98-020-1352;98..
39.5250	2.28006	6.18	98-020-1352;98..
40.3547	2.23507	2.72	98-020-1352;98..
42.5126	2.12648	4.19	98-020-1352;96..
43.7444	2.06942	3.73	98-005-1636;98..
45.8466	1.97931	4.48	98-020-1352;96..
46.2717	1.96211	1.25	98-005-1636;98..
50.1759	1.81670	15.82	98-020-1352;98..
54.9356	1.67002	3.16	98-020-1352;98..
55.3777	1.65774	1.23	98-020-1352;98..
57.4909	1.60172	0.07	98-020-1352;98..
60.0152	1.54024	7.96	98-020-1352;98..
64.0943	1.45170	1.41	98-020-1352;98..

Quantitative Results



Phase Quartz low:	Weight fraction/ %:	99
Phase Montmorillonite :	Weight fraction/ %:	0.17
Phase Zeolite:	Weight fraction/ %:	0.41

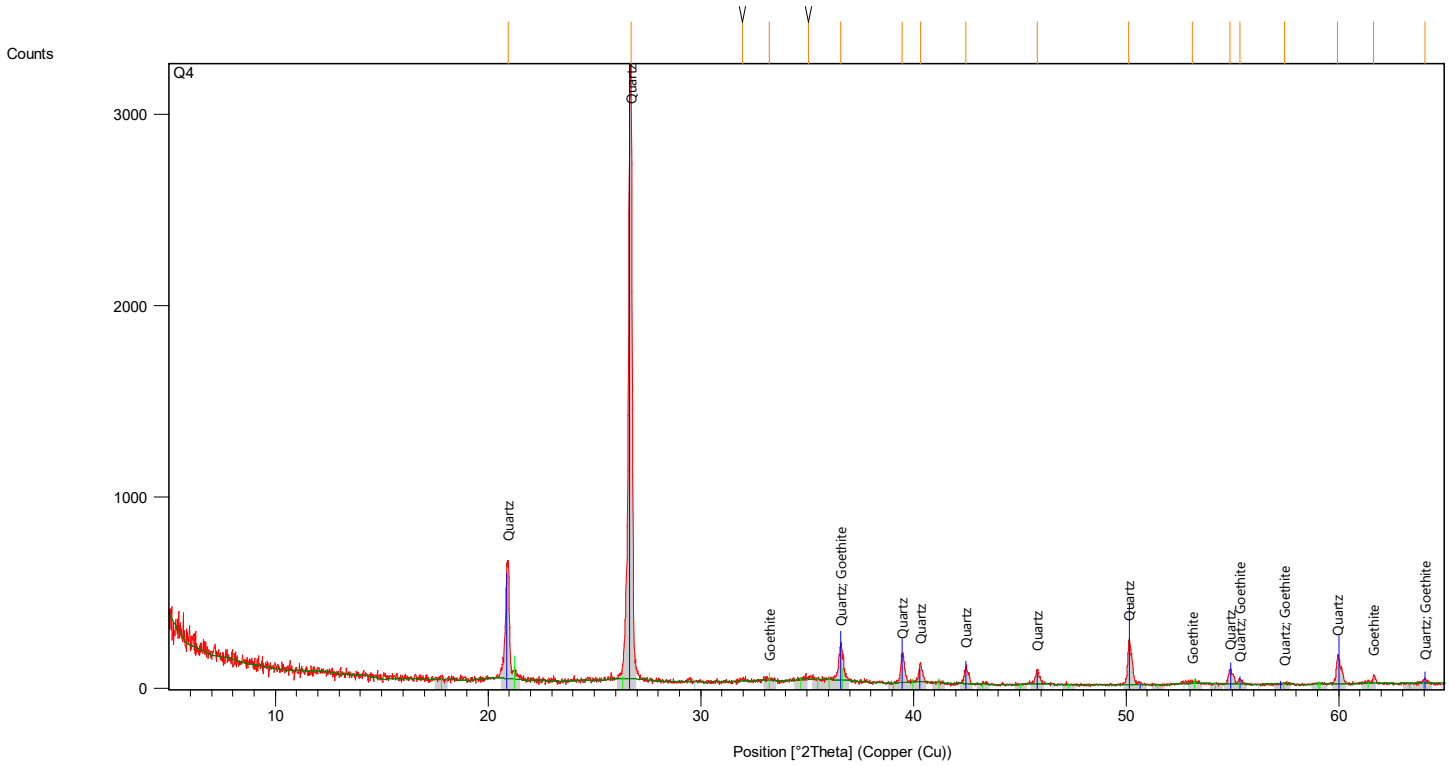
Pattern List

Ref.Code	Score	Compound Name	Chem. Formula
98-020-1352	77	Quartz low	O2 Si1
98-005-1636	22	Montmorillonite (C..	H8.2 Al4 Ca1.2 O27..
98-017-0521	23	Zeolite	O2 Si1

Anchor Scan Parameters

Dataset Name:	BY-AP-MW-5_Barry
File name:	C:\Users\Rick\Documents\RCIA_Win10\AnchorQEA\2020_March\BY-AP-MW-5_Barry.rd
Sample Identification:	BA-AP-MW-5 Barry
Comment:	Exported by X'Pert SW Generated by hugo in project AnchorQEA_2
Measurement Date / Time:	3/20/2020 10:07:00 AM
Raw Data Origin:	PHILIPS-binary (scan) (.RD)
Scan Axis:	Gonio
Start Position [°2Th.]:	5.0150
End Position [°2Th.]:	64.9850
Step Size [°2Th.]:	0.0300
Scan Step Time [s]:	2.5000
Scan Type:	Continuous
Offset [°2Th.]:	0.0000
Divergence Slit Type:	Fixed
Divergence Slit Size [°]:	0.5000
Specimen Length [mm]:	10.00
Receiving Slit Size [mm]:	0.1000
Measurement Temperature [°C]:	0.00
Anode Material:	Cu
K-Alpha1 [Å]:	1.54060
K-Alpha2 [Å]:	1.54443
K-Beta [Å]:	1.39225
K-A2 / K-A1 Ratio:	0.50000
Generator Settings:	30 mA, 40 kV
Diffractometer Type:	XPert MPD
Diffractometer Number:	1
Goniometer Radius [mm]:	200.00
Dist. Focus-Diverg. Slit [mm]:	91.00
Incident Beam Monochromator:	No
Spinning:	No

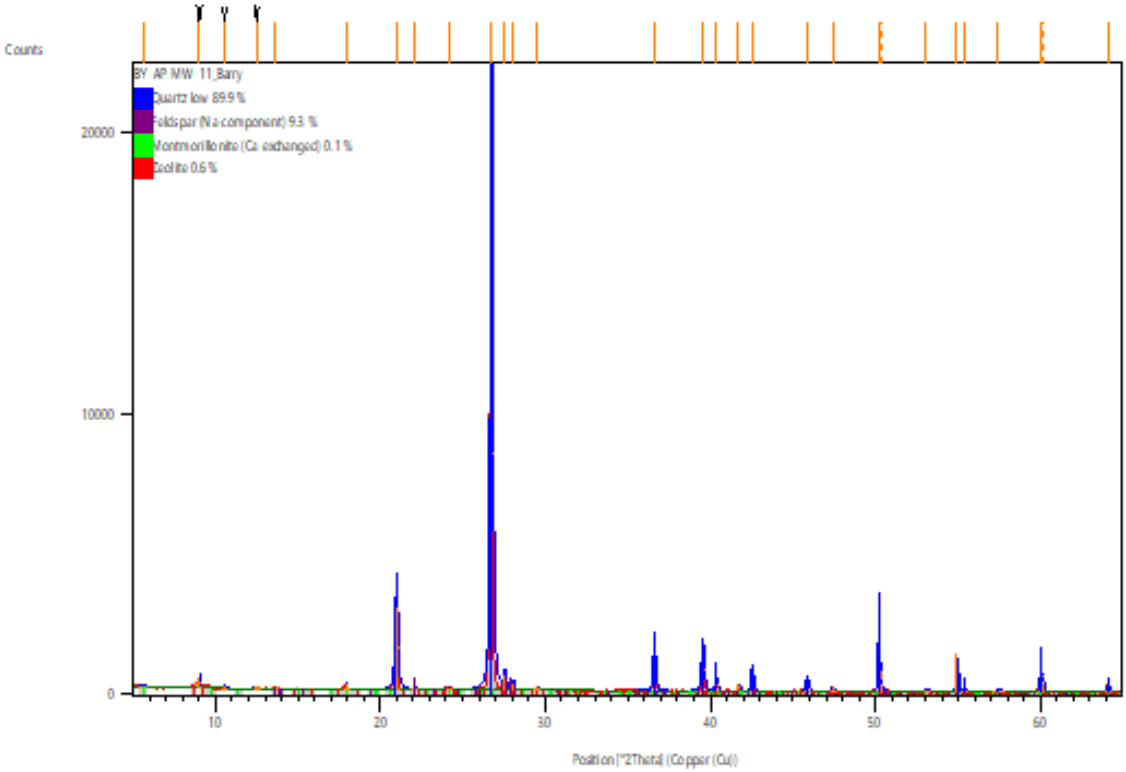
Sample Identification BY-AP-MW-7



Pos. [°2Th.]	Height [cts]	FWHM Left [°2Th.]	d-spacing [Å]	Rel. Int. [%]
20.939050	621.114500	0.137760	4.24262	20.11
26.726840	3087.889000	0.177120	3.33556	100.00
31.955880	10.862020	0.472320	2.80069	0.35
33.213540	10.555480	0.629760	2.69746	0.34
35.048390	13.042680	0.472320	2.56033	0.42
36.596000	189.546700	0.118080	2.45553	6.14
39.472150	134.403400	0.098400	2.28299	4.35
40.329870	102.279000	0.137760	2.23639	3.31
42.458650	91.940850	0.098400	2.12906	2.98
45.816140	76.909170	0.196800	1.98055	2.49
50.136380	236.776300	0.118080	1.81955	7.67
53.104440	11.241970	0.944640	1.72464	0.36
54.900500	81.708990	0.118080	1.67239	2.65
55.336000	26.852120	0.118080	1.66026	0.87
57.444710	5.511724	0.629760	1.60423	0.18
59.954300	155.637800	0.137760	1.54294	5.04
61.637760	48.125520	0.078720	1.50478	1.56
64.040930	27.249670	0.118080	1.45399	0.88

Mineral Name	Chemical Formula
Quartz	Si O2
Goethite	Fe +3 O (O H)

Graphics

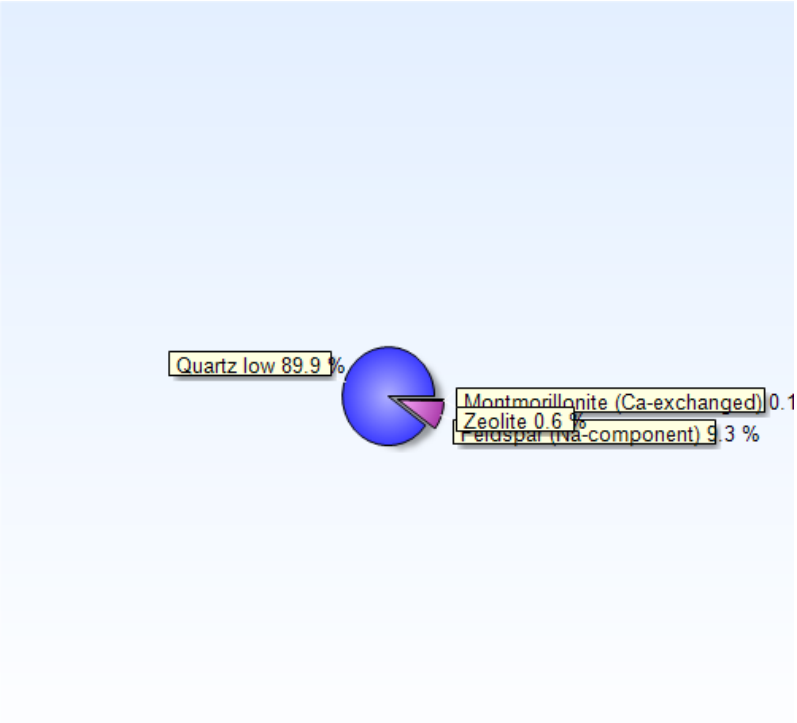


Peak List

Pos.[°2Th.]	d-spacing [Å]	Rel. Int. [%]	Matched by
5.6051	15.76756	0.49	98-005-1636
9.0576	9.76359	2.11	
10.5513	8.38457	0.64	
12.5026	7.08003	0.10	
13.6448	6.48979	0.10	98-008-8899
17.9566	4.93999	1.29	98-005-1636
20.9745	4.23553	17.64	98-020-1353
22.1020	4.02195	0.30	98-008-8899;98..
24.1767	3.68130	0.30	98-005-1636
26.7318	3.33495	100.00	98-020-1353;98..
27.5377	3.23916	3.14	98-008-8899;98..
28.0211	3.18436	1.67	98-008-8899;98..
29.4605	3.03198	0.77	98-017-0494
36.5969	2.45547	7.51	98-020-1353;98..
39.5303	2.27976	9.05	98-020-1353;98..
40.3539	2.23511	2.77	98-020-1353;98..
41.7192	2.16507	1.64	98-008-8899;98..
42.5292	2.12570	5.06	98-020-1353;98..
45.8483	1.97924	2.92	98-020-1353;98..
47.4016	1.91794	1.01	98-008-8899;98..
50.1845	1.81641	10.54	98-020-1353;98..

53.0773	1.72403	0.22	98-008-8899;98..
54.9050	1.67088	8.16	98-020-1353;98..
55.3614	1.65818	1.10	98-020-1353;98..
57.4234	1.60344	0.16	98-020-1353;98..
60.0212	1.54011	6.71	98-020-1353;98..
64.0892	1.45181	1.33	98-020-1353;98..

Quantitative Results



Phase Quartz low:	Weight fraction/ %:	90
Phase Feldspar (Na-component):	Weight fraction/ %:	9
Phase Montmorillonite:	Weight fraction/ %:	0.13
Phase Zeolite:	Weight fraction/ %:	0.59

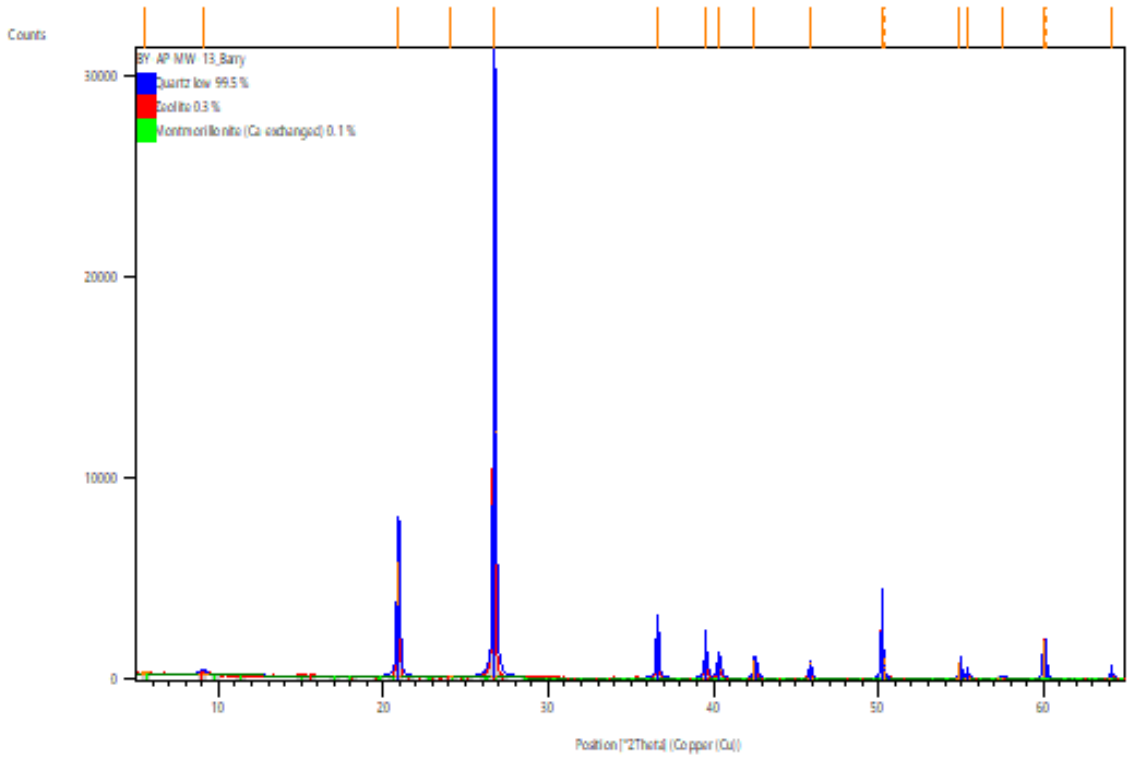
Pattern List

Ref.Code	Score	Compound Name	Chem. Formula
98-020-1353	73	Quartz low	O2 Si1
98-008-8899	22	Feldspar (Na-compo..	Al1 Na1 O8 Si3
98-005-1636	17	Montmorillonite	H8.2 Al4 Ca1.2 O27..
98-017-0494	8	Zeolite	O2 Si1

Anchor Scan Parameters

Dataset Name:	BY-AP-MW-11_Barry
File name:	C:\Users\Rick\Documents\RCIA_Win10\AnchorQEA\2020_March\BY-AP-MW-11_Barry.rd
Sample Identification:	BA-AP-MW-11 Barry
Comment:	Exported by X'Pert SW Generated by hugo in project AnchorQEA_2
Measurement Date / Time:	3/19/2020 1:02:00 PM
Raw Data Origin:	PHILIPS-binary (scan) (.RD)
Scan Axis:	Gonio
Start Position [°2Th.]:	5.0125
End Position [°2Th.]:	64.9875
Step Size [°2Th.]:	0.0250
Scan Step Time [s]:	2.5000
Scan Type:	Continuous
Offset [°2Th.]:	0.0000
Divergence Slit Type:	Fixed
Divergence Slit Size [°]:	0.5000
Specimen Length [mm]:	10.00
Receiving Slit Size [mm]:	0.1000
Measurement Temperature [°C]:	0.00
Anode Material:	Cu
K-Alpha1 [Å]:	1.54060
K-Alpha2 [Å]:	1.54443
K-Beta [Å]:	1.39225
K-A2 / K-A1 Ratio:	0.50000
Generator Settings:	30 mA, 40 kV
Diffractometer Type:	XPert MPD
Diffractometer Number:	1
Goniometer Radius [mm]:	200.00
Dist. Focus-Diverg. Slit [mm]:	91.00
Incident Beam Monochromator:	No
Spinning:	No

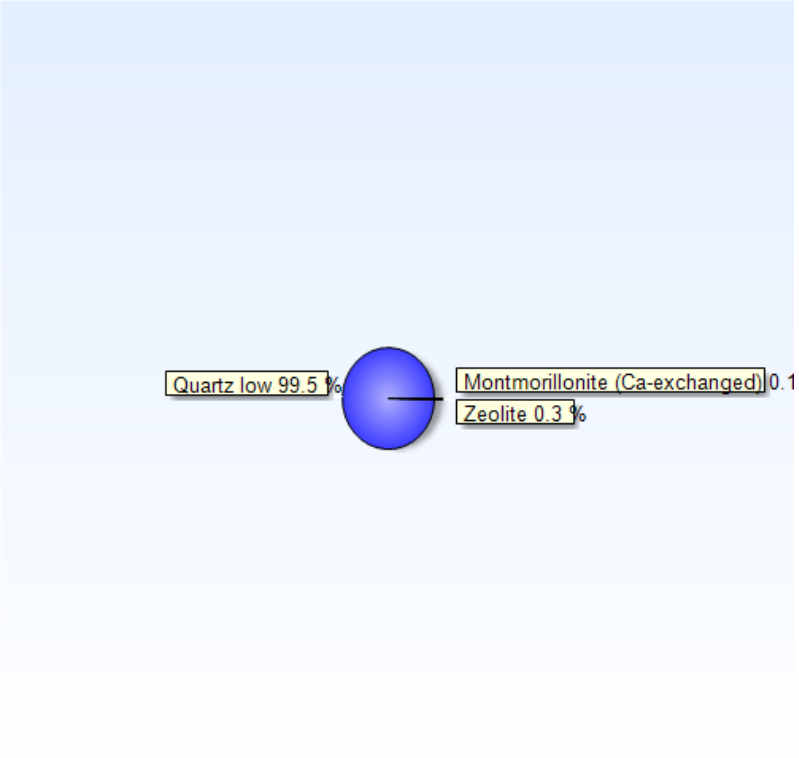
Graphics



Peak List

Pos.[°2Th.]	d-spacing [Å]	Rel. Int. [%]	Matched by
5.5822	15.83207	0.47	98-005-1636
9.0683	9.75212	0.66	98-017-0521
20.9095	4.24855	23.66	98-020-1353
24.0789	3.69604	0.15	98-017-0521;98..
26.7269	3.33555	100.00	98-020-1353;98..
36.5989	2.45534	10.88	98-020-1353;98..
39.5204	2.28031	4.70	98-020-1353;98..
40.3237	2.23672	3.53	98-020-1353;98..
42.5185	2.12621	3.73	98-020-1353
45.8622	1.97867	3.30	98-020-1353
50.1794	1.81659	10.10	98-020-1353;98..
54.9267	1.67027	3.42	98-020-1353;98..
55.3706	1.65793	1.08	98-020-1353;98..
57.4688	1.60229	0.20	98-020-1353;98..
60.0053	1.54047	7.84	98-020-1353;98..
64.0804	1.45199	1.04	98-020-1353;98..

Quantitative Results



Phase Quartz low:	Weight fraction/ %:	100
Phase Zeolite:	Weight fraction/ %:	0.33
Phase Montmorillonite :	Weight fraction/ %:	0.14

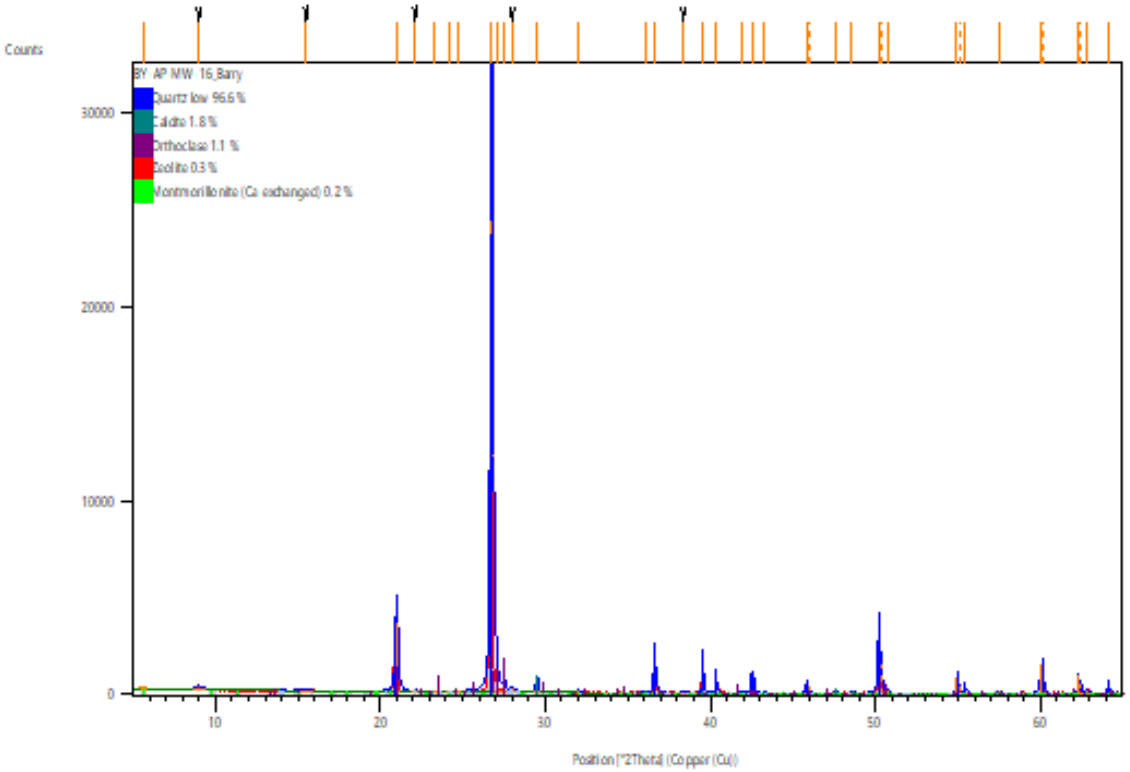
Pattern List

Ref.Code	Score	Compound Name	Chem. Formula
98-020-1353	83	Quartz low	O2 Si1
98-017-0521	22	Zeolite	O2 Si1
98-005-1636	20	Montmorillonite	H8.2 Al4 Ca1.2 O27..

Anchor Scan Parameters

Dataset Name:	BY-AP-MW-13_Barry
File name:	C:\Users\Rick\Documents\RCIA_Win10\AnchorQEA\2020_March\BY-AP-MW-13_Barry.rd
Sample Identification:	BA-AP-MW-13 Barry
Comment:	Exported by X'Pert SW Generated by hugo in project AnchorQEA_2
Measurement Date / Time:	3/20/2020 3:52:00 PM
Raw Data Origin:	PHILIPS-binary (scan) (.RD)
Scan Axis:	Gonio
Start Position [°2Th.]:	5.0150
End Position [°2Th.]:	64.9850
Step Size [°2Th.]:	0.0300
Scan Step Time [s]:	2.5000
Scan Type:	Continuous
Offset [°2Th.]:	0.0000
Divergence Slit Type:	Fixed
Divergence Slit Size [°]:	0.5000
Specimen Length [mm]:	10.00
Receiving Slit Size [mm]:	0.1000
Measurement Temperature [°C]:	0.00
Anode Material:	Cu
K-Alpha1 [Å]:	1.54060
K-Alpha2 [Å]:	1.54443
K-Beta [Å]:	1.39225
K-A2 / K-A1 Ratio:	0.50000
Generator Settings:	30 mA, 40 kV
Diffractometer Type:	XPert MPD
Diffractometer Number:	1
Goniometer Radius [mm]:	200.00
Dist. Focus-Diverg. Slit [mm]:	91.00
Incident Beam Monochromator:	No
Spinning:	No

Graphics

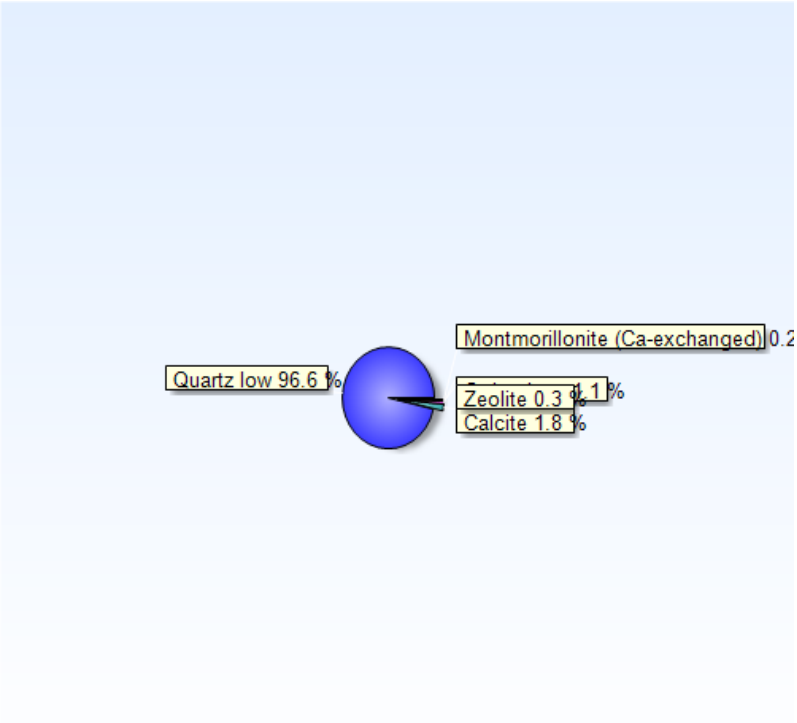


Peak List

Pos.[°2Th.]	d-spacing [Å]	Rel. Int. [%]	Matched by
5.6236	15.71566	0.48	98-005-1636
8.9949	9.83156	0.59	
15.4870	5.72171	0.10	
20.9763	4.23517	14.58	98-009-3974;98..
22.1216	4.01843	0.40	
23.2489	3.82607	0.16	98-003-7241
24.1157	3.69048	0.22	98-005-1636
24.7733	3.59398	0.18	98-003-4783;98..
26.7465	3.33315	100.00	98-009-3974;98..
27.0396	3.29768	3.56	98-003-4783;98..
27.4947	3.24412	1.78	98-003-4783
27.9819	3.18873	0.72	
29.4831	3.02971	2.60	98-003-7241
32.0222	2.79503	0.51	98-003-4783;98..
36.0896	2.48881	0.17	98-003-7241;98..
36.6169	2.45418	4.85	98-009-3974;98..
38.3332	2.34815	0.09	
39.5457	2.27891	5.29	98-009-3974;98..
40.3521	2.23521	2.71	98-009-3974;98..
41.8383	2.15919	0.14	98-003-4783;98..
42.5397	2.12519	4.03	98-009-3974;98..

43.2742	2.09081	0.19	98-003-7241;98..
45.8243	1.97858	2.00	98-009-3974;98..
47.6111	1.90841	0.18	98-003-7241;98..
48.5530	1.87356	0.20	98-003-7241
50.2033	1.81578	12.18	98-009-3974;98..
50.7147	1.79866	0.36	98-009-3974;98..
54.9339	1.67007	3.15	98-009-3974;98..
55.3835	1.65757	1.07	98-009-3974;98..
57.4956	1.60160	0.34	98-009-3974;98..
60.0219	1.54009	6.23	98-009-3974;98..
62.2968	1.48920	3.96	98-005-1636
62.7926	1.47863	0.52	98-003-4783;98..
64.1025	1.45154	1.04	98-009-3974;98..

Quantitative Results



Phase Quartz low:	Weight fraction/ %:	97
Phase Calcite:	Weight fraction/ %:	1.8
Phase Orthoclase:	Weight fraction/ %:	1.1
Phase Zeolite:	Weight fraction/ %:	0.33
Phase Montmorillonite:	Weight fraction/ %:	0.17

Pattern List

Ref.Code	Score	Compound Name	Chem. Formula
98-009-3974	68	Quartz low	O2 Si1
98-003-7241	30	Calcite	C1 Ca1 O3
98-003-4783	20	Orthoclase	Al0.97 Ba0.005 Ca0..
98-005-1636	18	Montmorillonite	H8.2 Al4 Ca1.2 O27..

Anchor Scan Parameters

Dataset Name:	BY-AP-MW-16_Barry
File name:	C:\Users\Rick\Documents\RCIA_Win10\AnchorQEA\2020_March\BY-AP-MW-16_Barry.rd
Sample Identification:	BA-AP-MW-16 Barry
Comment:	Exported by X'Pert SW Generated by hugo in project AnchorQEA_2
Measurement Date / Time:	3/19/2020 2:47:00 PM
Raw Data Origin:	PHILIPS-binary (scan) (.RD)
Scan Axis:	Gonio
Start Position [°2Th.]:	5.0125
End Position [°2Th.]:	64.9875
Step Size [°2Th.]:	0.0250
Scan Step Time [s]:	2.5000
Scan Type:	Continuous
Offset [°2Th.]:	0.0000
Divergence Slit Type:	Fixed
Divergence Slit Size [°]:	0.5000
Specimen Length [mm]:	10.00
Receiving Slit Size [mm]:	0.1000
Measurement Temperature [°C]:	0.00
Anode Material:	Cu
K-Alpha1 [Å]:	1.54060
K-Alpha2 [Å]:	1.54443
K-Beta [Å]:	1.39225
K-A2 / K-A1 Ratio:	0.50000
Generator Settings:	30 mA, 40 kV
Diffractometer Type:	XPert MPD
Diffractometer Number:	1
Goniometer Radius [mm]:	200.00
Dist. Focus-Diverg. Slit [mm]:	91.00
Incident Beam Monochromator:	No
Spinning:	No

Site ID	SAMPLE ID	Units	Al	Al Error	As	As Error	Bal	Bal Error	Ca	Ca Error	Ce	Ce Error	Cl	Cl Error	Co	Co Error	Fe	Fe Error	K	K Error	La	La Error	Mg	Mg Error	Mn
Barry	BY-AP-MW-1	ppm	11732	506	21	3	637177	1314	2172	128	- -	- -	738	28	< LOD	89	25553	218	6525	139	- -	- -	< LOD	2950	< LOD
Barry	BY-AP-MW-1	ppm	2930	564	10	3	724244	1130	1805	72	71	23	147	59	< LOD	68	4258	263	2747	121	65	23	< LOD	3310	< LOD
Barry	BY-AP-MW-10	ppm	2981	532	< LOD	3	540920	1596	3116	162	- -	- -	733	35	< LOD	120	45428	329	2543	125	- -	- -	< LOD	5297	< LOD
Barry	BY-AP-MW-11	ppm	4061	626	11	3	722592	1139	2280	91	237	27	397	65	< LOD	83	10186	296	4838	148	226	25	< LOD	5671	< LOD
Barry	BY-AP-MW-12	ppm	1814	266	< LOD	2	702139	1088	1344	65	- -	- -	246	18	< LOD	33	2220	67	2168	63	- -	- -	< LOD	1764	< LOD
Barry	BY-AP-MW-13	ppm	1372	511	< LOD	4	733269	1080	816	50	123	24	146	58	< LOD	65	2646	257	2893	89	128	23	< LOD	3219	< LOD
Barry	BY-AP-MW-13 DUP	ppm	1603	540	< LOD	4	728814	1077	829	50	120	23	208	61	< LOD	63	2892	250	2574	90	126	23	< LOD	3250	< LOD
Barry	BY-AP-MW-16	ppm	4343	337	< LOD	2	663739	1162	1923	87	- -	- -	183	20	< LOD	38	4015	83	5924	98	- -	- -	< LOD	2180	< LOD
Barry	BY-AP-MW-16	ppm	1810	624	8	3	695943	1214	5044	119	83	24	< LOD	98	< LOD	72	5779	264	3705	125	62	23	< LOD	3698	< LOD
Barry	BY-AP-MW-2	ppm	7021	485	< LOD	2	603460	1367	2013	108	- -	- -	336	28	< LOD	53	7808	121	7059	126	- -	- -	< LOD	4546	< LOD
Barry	BY-AP-MW-2	ppm	2897	652	7	3	693366	1222	955	62	< LOD	29	< LOD	111	< LOD	66	3757	255	3102	147	< LOD	30	< LOD	5861	< LOD
Barry	BY-AP-MW-3	ppm	5981	342	< LOD	3	685665	1122	1474	84	- -	- -	224	19	< LOD	58	11195	134	4608	93	- -	- -	< LOD	2553	< LOD
Barry	BY-AP-MW-5	ppm	39410	1388	15	4	447728	2228	5292	270	- -	- -	895	51	< LOD	138	39029	365	22002	323	- -	- -	< LOD	8843	< LOD
Barry	BY-AP-MW-5	ppm	2485	663	24	5	698082	1418	946	61	125	27	353	71	< LOD	92	6544	349	1162	159	73	26	< LOD	5397	< LOD
Barry	BY-AP-MW-7	ppm	4294	355	44	3	696279	1104	3712	162	- -	- -	522	22	< LOD	108	49774	305	3755	117	- -	- -	< LOD	2776	< LOD
Barry	BY-AP-MW-7 Dup	ppm	4416	357	46	3	693553	1110	3644	161	- -	- -	517	22	< LOD	109	49887	305	3875	117	- -	- -	< LOD	2493	< LOD
Barry	BY-AP-MW-9	ppm	4371	810	10	3	685219	1433	6914	225	- -	- -	61348	378	< LOD	111	31628	293	2917	131	- -	- -	< LOD	7287	< LOD
Barry	BY-AP-MW-9	ppm	2355	1092	44	5	871330	799	6256	226	< LOD	38	7010	236	< LOD	128	32951	381	2452	205	< LOD	39	< LOD	7189	< LOD
Barry	BY-AP-MW-9 DUP	ppm	< LOD	1613	45	5	876147	771	6225	229	< LOD	37	7207	247	< LOD	132	33386	389	2382	206	< LOD	38	< LOD	5729	< LOD

Site ID	SAMPLE ID	Units	Mn Error	Mo	Mo Error	Nb	Nb Error	Nd	Nd Error	P	P Error	Pr	Pr Error	S	S Error	Se	Se Error	Si	Si Error	Ti	Ti Error	Zn	Zn Error	Zr	Zr Error
Barry	BY-AP-MW-1	ppm	66	< LOD	3	31	2	- -	- -	4364	171	- -	- -	1941	70	< LOD	2	301601	1337	6630	74	86	10	491	6
Barry	BY-AP-MW-1	ppm	1158	< LOD	3	12	2	107	38	8754	3268	95	29	994	228	< LOD	2	246261	2159	5561	750	< LOD	12	1750	13
Barry	BY-AP-MW-10	ppm	87	10	2	13	2	- -	- -	5529	228	- -	- -	1333	80	< LOD	3	391887	1616	1096	42	2023	37	93	3
Barry	BY-AP-MW-11	ppm	1252	< LOD	4	15	2	425	44	9170	3395	273	33	604	235	< LOD	2	236961	2165	6088	859	< LOD	16	1218	10
Barry	BY-AP-MW-12	ppm	64	< LOD	3	10	2	- -	- -	7976	1260	- -	- -	583	100	< LOD	2	279428	1278	1002	21	54	8	537	5
Barry	BY-AP-MW-13	ppm	1151	< LOD	2	< LOD	2	288	39	3317	312	210	30	< LOD	163	< LOD	2	252502	1967	1998	479	< LOD	9	139	3
Barry	BY-AP-MW-13 DUP	ppm	1114	< LOD	2	< LOD	2	266	39	3115	324	211	29	< LOD	174	< LOD	2	256501	1994	2485	510	< LOD	9	102	2
Barry	BY-AP-MW-16	ppm	60	< LOD	2	17	2	- -	- -	3907	150	- -	- -	364	45	< LOD	2	311431	1296	2631	34	303	13	418	4
Barry	BY-AP-MW-16	ppm	1144	< LOD	3	19	2	69	38	9162	3644	< LOD	43	552	251	< LOD	2	270829	2381	4869	744	< LOD	15	1725	13
Barry	BY-AP-MW-2	ppm	63	4	2	19	2	- -	- -	4731	200	- -	- -	421	62	< LOD	2	362115	1502	3645	48	90	10	327	4
Barry	BY-AP-MW-2	ppm	1118	< LOD	4	26	2	< LOD	49	6953	3911	< LOD	37	< LOD	404	< LOD	2	278546	2506	8404	926	< LOD	10	1476	11
Barry	BY-AP-MW-3	ppm	70	3	2	16	2	- -	- -	3537	138	- -	- -	257	41	< LOD	2	283282	1232	2340	35	106	9	387	4
Barry	BY-AP-MW-5	ppm	96	12	2	35	3	- -	- -	10090	321	- -	- -	2242	121	< LOD	12	419617	1844	10728	135	259	19	181	4
Barry	BY-AP-MW-5	ppm	1522	< LOD	9	55	3	72	43	6386	4226	< LOD	75	467	294	< LOD	3	263204	2645	11106	1083	44	10	8433	61
Barry	BY-AP-MW-7	ppm	70	< LOD	5	25	2	- -	- -	7798	1347	- -	- -	943	110	< LOD	2	223004	1112	2127	48	3109	41	1177	10
Barry	BY-AP-MW-7 Dup	ppm	68	< LOD	5	25	2	- -	- -	8995	1355	- -	- -	1053	110	< LOD	2	224077	1113	2185	48	3111	41	1174	10
Barry	BY-AP-MW-9	ppm	87	8	2	13	2	- -	- -	7115	266	- -	- -	7112	175	< LOD	4	189374	1325	1896	49	652	23	32	2
Barry	BY-AP-MW-9	ppm	894	15	2	13	2	< LOD	64	7137	520	< LOD	49	14468	399	< LOD	7	46454	1380	< LOD	1930	1349	37	15	2
Barry	BY-AP-MW-9 DUP	ppm	900	13	2	13	2	< LOD	63	7638	548	< LOD	48	14860	418	< LOD	6	46764	1434	2153	1288	1416	38	16	2

July 20, 2020 Service Request No:K2004415

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory May 29, 2020
For your reference, these analyses have been assigned our service request number **K2004415.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

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Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004415
Date Received: 05/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Six water samples were received for analysis at ALS Environmental on 05/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____ Date 06/15/2020

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
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Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Arsenic	Lithium	Cobalt		Molybdenum												Comments/Preservation
1	BY-AP-MW-11_F1_001	5/26/2020	9:00	Water	1	x		x														nitric acid
2	BY-AP-MW-12_F1_002	5/26/2020	9:05	Water	1	x		x														nitric acid
3	BY-AP-MW-13_F1_003	5/26/2020	9:10	Water	1	x		x														nitric acid
4	BY-AP-MW-2_F1_004	5/26/2020	9:15	Water	1	x		x														nitric acid
5	BY-AP-MW-7_F1_005	5/26/2020	9:20	Water	1	x		x														nitric acid
6	BY-AP-MW-9_F1_006	5/26/2020	9:25	Water	1	x		x														nitric acid
7	GC-AP-MW-1_F1_007	5/26/2020	9:30	Water	1	x	x	x														nitric acid
8	GC-AP-MW-11_F1_008	5/26/2020	9:35	Water	1	x	x	x														nitric acid
9	GC-AP-MW-16_F1_009	5/26/2020	9:40	Water	1	x	x	x														nitric acid
10	OLD-MW-11S_F1_010	5/26/2020	9:45	Water	1	x	x			x												nitric acid
11	OLD-MW-11_F1_011	5/26/2020	9:50	Water	1	x	x			x												nitric acid
12	OLD-MW-2D_F1_012	5/26/2020	9:55	Water	1	x	x			x												nitric acid
13	GC-AP-MW-17_F1_013	5/26/2020	10:00	Water	1	x	x	x														nitric acid
14	GN-AP-MW-5_F1_014	5/26/2020	10:05	Water	1	x	x			x												nitric acid
15	GS-AP-MW-6D_F1_015	5/26/2020	10:10	Water	1	x	x			x												nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
[signature]	ARS
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PC MH

Cooler Receipt and Preservation Form

Client ANCHOR QEA Service Request K20 04415

Received: 5/29/2020 Opened: 5/29/2020 By: CG Unloaded: 5/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID NA	Tracking Number NA	Filed
—	10.7	12.0	10.6	9.6	IR02			

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N

   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
All "F2" samples	1-125mL, each				X	HNO_3	0.5mL	RE1-54-C	CG	1100 6/1/20

Notes, Discrepancies, & Resolutions: Temp okay - metals analyses

Miscellaneous Forms

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Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20 09:00
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-11_F1_001	**Basis:**	NA
Lab Code:	K2004415-001		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**13**	**J**	ug/L	21	5	1	06/11/20 14:23	06/09/20	
Cobalt	6010C	**0.9**	**J**	ug/L	2.1	0.7	1	06/11/20 14:23	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20 09:05
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-12_F1_002	**Basis:**	NA
Lab Code:	K2004415-002		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**11 J**	ug/L	21	5	1	06/11/20 14:34	06/09/20	
Cobalt	6010C	ND U	ug/L	2.1	0.7	1	06/11/20 14:34	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20 09:10
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-13_F1_003	**Basis:**	NA
Lab Code:	K2004415-003		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	ug/L	21	5	1	06/11/20 14:36	06/09/20	
Cobalt	6010C	ND	U	ug/L	2.1	0.7	1	06/11/20 14:36	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20 09:15
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-2_F1_004	**Basis:**	NA
Lab Code:	K2004415-004		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	ug/L	21	5	1	06/11/20 14:39	06/09/20	
Cobalt	6010C	ND	U	ug/L	2.1	0.7	1	06/11/20 14:39	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20 09:20
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-7_F1_005	**Basis:**	NA
Lab Code:	K2004415-005		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/11/20 14:42	06/09/20	
Cobalt	6010C	**3.6**	ug/L	2.1	0.7	1	06/11/20 14:42	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20 09:25
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-9_F1_006	**Basis:**	NA
Lab Code:	K2004415-006		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	ug/L	21	5	1	06/11/20 14:57	06/09/20	
Cobalt	6010C	**1.7**	**J**	ug/L	2.1	0.7	1	06/11/20 14:57	06/09/20	

QC Summary Forms

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1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
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ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2007740-02		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	ug/L	21	5	1	06/11/20 14:18	06/09/20	
Cobalt	6010C	ND	U	ug/L	2.1	0.7	1	06/11/20 14:18	06/09/20	
Lithium	6010C	ND	U	ug/L	21	6	1	06/11/20 14:18	06/09/20	
Molybdenum	6010C	ND	U	ug/L	8.4	2.1	1	06/11/20 14:18	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project:	APC SSE	**Date Collected:**	05/26/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/11/20
		Date Extracted:	06/9/20

Matrix Spike Summary
Total Metals

Sample Name:	BY-AP-MW-11_F1_001	**Units:**	ug/L
Lab Code:	K2004415-001	**Basis:**	NA
Analysis Method:	6010C		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2007740-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	13 J	861	1000	85	75-125
Cobalt	0.9 J	440	500	88	75-125
Lithium	ND U	9360	10000	94	75-125
Molybdenum	10.8	1010	1000	100	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004415
Project	APC SSE	**Date Collected:**	05/26/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/11/20

Replicate Sample Summary
Total Metals

Sample Name:	BY-AP-MW-11_F1_001	**Units:**	ug/L
Lab Code:	K2004415-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample KQ2007740-03 Result	Average	RPD	RPD Limit
Arsenic	6010C	21	5	13 J	ND U	NC	NC	20
Cobalt	6010C	2.1	0.7	0.9 J	1.1 J	1.0	20	20
Lithium	6010C	21	6	ND U	ND U	ND	-	20
Molybdenum	6010C	8.4	2.1	10.8	ND U	NC	NC	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004415
Date Analyzed: 06/11/20

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2007740-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	2440	2500	98	80-120
Cobalt	6010C	1200	1250	96	80-120
Lithium	6010C	9280	10000	93	80-120
Molybdenum	6010C	1010	1000	101	80-120

July 20, 2020 Service Request No:K2004416

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory May 29, 2020
For your reference, these analyses have been assigned our service request number **K2004416.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004416
Date Received: 05/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Seven water samples were received for analysis at ALS Environmental on 05/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____ Date 06/17/2020

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Parameters: Arsenic	Lithium	Cobalt	Molybdenum	Comments/Preservation
16	GS-AP-MW-8_F1_016	5/26/2020	10:15	Water	1	x	x		x	nitric acid
17	MR-AP-MW-3D_F1_017	5/26/2020	10:20	Water	1	x	x	x		nitric acid
18	MR-AP-MW-4_F1_018	5/26/2020	10:25	Water	1	x	x	x		nitric acid
19	MR-AP-MW-5_F1_019	5/26/2020	10:30	Water	1	x	x	x		nitric acid
20	MW-1_F1_020	5/26/2020	10:35	Water	1	x	x		x	nitric acid
21	MW-12_F1_021	5/26/2020	10:40	Water	1	x	x		x	nitric acid
22	Blank_F1_022	5/26/2020	10:45	Water	1	x	x	x	x	nitric acid
23	OLD-MW-2D-F1_012_DUP	5/26/2020	10:50	Water	1	x	x		x	nitric acid

Notes:

Relinquished by:	Company:	Received by:	Company:
Anthony Dalton-Atha	Anchor QEA	[signature]	ALS
Signature/Print Name:	Date/Time:	Signature/Print Name:	Date/Time:
	5/29/2020 10:00		5/29/20 1145

Relinquished by:	Company:	Received by:	Company:
Signature/Print Name:	Date/Time:	Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Page_____of_____

Chain of Custody Record & Laboratory Analysis Request

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Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Arsenic	Lithium	Cobalt	Molybdenum	Iron	Manganese	Calcium										Comments/Preservation
1	BY-AP-MW-11_F2_001	5/27/2020	9:00	Water	1	x		x		x	x	x										nitric acid
2	BY-AP-MW-12_F2_002	5/27/2020	9:05	Water	1	x		x		x	x	x										nitric acid
3	BY-AP-MW-13_F2_003	5/27/2020	9:10	Water	1	x		x		x	x	x										nitric acid
4	BY-AP-MW-2_F2_004	5/27/2020	9:15	Water	1	x		x		x	x	x										nitric acid
5	BY-AP-MW-7_F2_005	5/27/2020	9:20	Water	1	x		x		x	x	x										nitric acid
6	BY-AP-MW-9_F2_006	5/27/2020	9:25	Water	1	x		x		x	x	x										nitric acid
7	GC-AP-MW-1_F2_007	5/27/2020	9:30	Water	1	x	x	x		x	x	x										nitric acid
8	GC-AP-MW-11_F2_008	5/27/2020	9:35	Water	1	x	x	x		x	x	x										nitric acid
9	GC-AP-MW-16_F2_009	5/27/2020	9:40	Water	1	x	x	x		x	x	x										nitric acid
10	OLD-MW-11S_F2_010	5/27/2020	9:45	Water	1	x	x		x	x	x	x										nitric acid
11	OLD-MW-11_F2_011	5/27/2020	9:50	Water	1	x	x		x	x	x	x										nitric acid
12	OLD-MW-2D_F2_012	5/27/2020	9:55	Water	1	x	x		x	x	x	x										nitric acid
13	GC-AP-MW-17_F2_013	5/27/2020	10:00	Water	1	x	x	x		x	x	x										nitric acid
14	GN-AP-MW-5_F2_014	5/27/2020	10:05	Water	1	x	x		x	x	x	x										nitric acid
15	GS-AP-MW-6D_F2_015	5/27/2020	10:10	Water	1	x	x		x	x	x	x										nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
Swolf	ALS
Signature/Print Name:	Date/Time:
A	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

PC MH

Cooler Receipt and Preservation Form

Client ANCHOR QEA Service Request K2004416

Received: 5/29/2020 Opened: 5/29/2020 By: CG Unloaded: 5/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID NA	Tracking Number NA	Filed
—	10.7	12.0	10.6	9.6	IR02			

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N

   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
All "F2" samples	1-125mL, each				X	HNO_3	0.5mL	RE1-54-C	CG	1100 6/1/20

Notes, Discrepancies, & Resolutions: Temp okay - metals analyses

Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
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Metals

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/26/20 10:45
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	Blank_F1_022	**Basis:**	NA
Lab Code:	K2004416-002		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	ug/L	21	5	1	06/11/20 15:27	06/09/20	
Cobalt	6010C	**0.9**	**J**	ug/L	2.1	0.7	1	06/11/20 15:27	06/09/20	
Lithium	6010C	ND	U	ug/L	21	6	1	06/11/20 15:27	06/09/20	
Molybdenum	6010C	**2.4**	**J**	ug/L	8.4	2.1	1	06/11/20 15:27	06/09/20	

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dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/27/20 09:00
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-11_F2_001	**Basis:**	NA
Lab Code:	K2004416-004		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/11/20 15:34	06/09/20	
Calcium	6010C	**4540**	ug/L	21	3	1	06/11/20 15:34	06/09/20	
Cobalt	6010C	**3.8**	ug/L	2.1	0.7	1	06/11/20 15:34	06/09/20	
Iron	6010C	**1120**	ug/L	21	8	1	06/11/20 15:34	06/09/20	
Manganese	6010C	**24.3**	ug/L	1.1	0.2	1	06/11/20 15:34	06/09/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/27/20 09:05
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-12_F2_002	**Basis:**	NA
Lab Code:	K2004416-005		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/12/20 14:11	06/09/20	
Calcium	6010C	**554**	ug/L	21	3	1	06/11/20 15:53	06/09/20	
Cobalt	6010C	ND U	ug/L	2.1	0.7	1	06/11/20 15:53	06/09/20	
Iron	6010C	**765**	ug/L	21	8	1	06/12/20 14:11	06/09/20	
Manganese	6010C	**6.7**	ug/L	1.1	0.2	1	06/11/20 15:53	06/09/20	

ALS Group USA, Corp.
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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/27/20 09:10
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-13_F2_003	**Basis:**	NA
Lab Code:	K2004416-006		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	ug/L	21	5	1	06/12/20 14:13	06/09/20	
Calcium	6010C	**1890**		ug/L	21	3	1	06/11/20 15:56	06/09/20	
Cobalt	6010C	ND	U	ug/L	2.1	0.7	1	06/11/20 15:56	06/09/20	
Iron	6010C	**481**		ug/L	21	8	1	06/12/20 14:13	06/09/20	
Manganese	6010C	**8.5**		ug/L	1.1	0.2	1	06/11/20 15:56	06/09/20	

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dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/27/20 09:15
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-2_F2_004	**Basis:**	NA
Lab Code:	K2004416-007		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND U	ug/L	21	5	1	06/12/20 14:16	06/09/20	
Calcium	6010C	**348**	ug/L	21	3	1	06/11/20 16:00	06/09/20	
Cobalt	6010C	**3.2**	ug/L	2.1	0.7	1	06/11/20 16:00	06/09/20	
Iron	6010C	**918**	ug/L	21	8	1	06/12/20 14:16	06/09/20	
Manganese	6010C	**19.6**	ug/L	1.1	0.2	1	06/11/20 16:00	06/09/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/27/20 09:20
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-7_F2_005	**Basis:**	NA
Lab Code:	K2004416-008		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**142**	ug/L	21	5	1	06/12/20 14:19	06/09/20	
Calcium	6010C	**6490**	ug/L	21	3	1	06/11/20 16:03	06/09/20	
Cobalt	6010C	**10.9**	ug/L	2.1	0.7	1	06/11/20 16:03	06/09/20	
Iron	6010C	**1320**	ug/L	21	8	1	06/12/20 14:19	06/09/20	
Manganese	6010C	**76.5**	ug/L	1.1	0.2	1	06/11/20 16:03	06/09/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/27/20 09:25
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-9_F2_006	**Basis:**	NA
Lab Code:	K2004416-009		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**32**		ug/L	21	5	1	06/12/20 14:22	06/09/20	
Calcium	6010C	**3660**		ug/L	21	3	1	06/11/20 16:07	06/09/20	
Cobalt	6010C	**2.0**	**J**	ug/L	2.1	0.7	1	06/11/20 16:07	06/09/20	
Iron	6010C	**875**		ug/L	21	8	1	06/12/20 14:22	06/09/20	
Manganese	6010C	**154**		ug/L	1.1	0.2	1	06/11/20 16:07	06/09/20	

QC Summary Forms

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2007741-02		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	ug/L	21	5	1	06/11/20 15:02	06/09/20	
Calcium	6010C	**3**	**J**	ug/L	21	3	1	06/11/20 15:02	06/09/20	
Cobalt	6010C	ND	U	ug/L	2.1	0.7	1	06/11/20 15:02	06/09/20	
Iron	6010C	ND	U	ug/L	21	8	1	06/11/20 15:02	06/09/20	
Lithium	6010C	ND	U	ug/L	21	6	1	06/11/20 15:02	06/09/20	
Manganese	6010C	**0.4**	**J**	ug/L	1.1	0.2	1	06/11/20 15:02	06/09/20	
Molybdenum	6010C	ND	U	ug/L	8.4	2.1	1	06/11/20 15:02	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project:	APC SSE	**Date Collected:**	05/26/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/11/20
		Date Extracted:	06/9/20

Matrix Spike Summary
Total Metals

Sample Name:	MW-12_F1_021	**Units:**	ug/L
Lab Code:	K2004416-001	**Basis:**	NA
Analysis Method:	6010C		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2007741-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	ND U	916	1000	92	75-125
Calcium	4060	13300	10000	93	75-125
Cobalt	16.9	427	500	82	75-125
Iron	62	975	1000	91	75-125
Lithium	ND U	10000	10000	100	75-125
Manganese	287	774	500	97	75-125
Molybdenum	52.0	999	1000	95	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004416
Project	APC SSE	**Date Collected:**	05/26/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/11/20

Replicate Sample Summary
Total Metals

Sample Name:	MW-12_F1_021	**Units:**	ug/L
Lab Code:	K2004416-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample KQ2007741-03 Result	Average	RPD	RPD Limit
Arsenic	6010C	21	5	ND U	ND U	ND	-	20
Calcium	6010C	21	3	4060	4050	4060	<1	20
Cobalt	6010C	2.1	0.7	16.9	17.9	17.4	6	20
Iron	6010C	21	8	62	62	62	<1	20
Lithium	6010C	21	6	ND U	ND U	ND	-	20
Manganese	6010C	1.1	0.2	287	290	289	1	20
Molybdenum	6010C	8.4	2.1	52.0	52.3	52.2	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004416
Date Analyzed: 06/11/20

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2007741-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	2790	2500	111	80-120
Calcium	6010C	12600	12500	101	80-120
Cobalt	6010C	1230	1250	98	80-120
Iron	6010C	2490	2500	99	80-120
Lithium	6010C	9750	10000	98	80-120
Manganese	6010C	1250	1250	100	80-120
Molybdenum	6010C	1040	1000	104	80-120

July 20, 2020 Service Request No:K2004418

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory May 29, 2020
For your reference, these analyses have been assigned our service request number **K2004418.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

1317 South 13th Ave, Kelso, WA 98626 | 1-360-577-7222 | www.alsglobal.com

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004418
Date Received: 05/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Seven water samples were received for analysis at ALS Environmental on 05/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

Method 6010C, 06/19/2020: Samples in this delivery group required dilution to non-target matrix components. Attempts to analyze the undiluted samples resulted in failed instrument QC check samples. The detection limits were elevated accordingly. No further corrective action was appropriate.

Approved by _____ Date 06/22/2020

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

PC MH

Cooler Receipt and Preservation Form

Client ANCHOR QEA Service Request K20 04418

Received: 5/29/2020 Opened: 5/29/2020 By: CG Unloaded: 5/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID NA	Tracking Number NA	Filed
—	10.7	12.0	10.6	9.6	IR02			

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N

   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
All "F2" samples	1-125mL, each				X	HNO_3	0.5mL	RE1-54-C	CG	1100 6/4/20

Notes, Discrepancies, & Resolutions: Temp okay - metals analyses

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Arsenic	Lithium	Cobalt	Molybdenum	Iron	Manganese	Calcium										Comments/Preservation
16	GS-AP-MW-8_F2_016	5/27/2020	10:15	Water	1	x	x		x	x	x	x										nitric acid
17	MR-AP-MW-3D_F2_017	5/27/2020	10:20	Water	1	x	x	x		x	x	x										nitric acid
18	MR-AP-MW-4_F2_018	5/27/2020	10:25	Water	1	x	x	x		x	x	x										nitric acid
19	MR-AP-MW-5_F2_019	5/27/2020	10:30	Water	1	x	x	x		x	x	x										nitric acid
20	MW-1_F2_020	5/27/2020	10:35	Water	1	x	x		x	x	x	x										nitric acid
21	MW-12_F2_021	5/27/2020	10:40	Water	1	x	x		x	x	x	x										nitric acid
22	Blank_F2_022	5/27/2020	10:45	Water	1	x	x	x	x	x	x	x										nitric acid
23	OLD-MW-2D-F2_012_DUP	5/27/2020	10:50	Water	1	x	x		x	x	x	x										nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
Swoff	ALS
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Arsenic	Lithium	Cobalt	Molybdenum	Iron	Manganese	Aluminum										Comments/Preservation
1	BY-AP-MW-11_F3_001			Water	1	x		x		x	x	x										nitric acid
2	BY-AP-MW-12_F3_002			Water	1	x		x		x	x	x										nitric acid
3	BY-AP-MW-13_F3_003			Water	1	x		x		x	x	x										nitric acid
4	BY-AP-MW-2_F3_004			Water	1	x		x		x	x	x										nitric acid
5	BY-AP-MW-7_F3_005			Water	1	x		x		x	x	x										nitric acid
6	BY-AP-MW-9_F3_006			Water	1	x		x		x	x	x										nitric acid
7	GC-AP-MW-1_F3_007			Water	1	x	x	x		x	x	x										nitric acid
8	GC-AP-MW-11_F3_008			Water	1	x	x	x		x	x	x										nitric acid
9	GC-AP-MW-16_F3_009			Water	1	x	x	x		x	x	x										nitric acid
10	OLD-MW-11S_F3_010			Water	1	x	x		x	x	x	x										nitric acid
11	OLD-MW-11_F3_011			Water	1	x	x		x	x	x	x										nitric acid
12	OLD-MW-2D_F3_012			Water	1	x	x		x	x	x	x										nitric acid
13	GC-AP-MW-17_F3_013			Water	1	x	x	x		x	x	x										nitric acid
14	GN-AP-MW-5_F3_014			Water	1	x	x		x	x	x	x										nitric acid
15	GS-AP-MW-6D_F3_015			Water	1	x	x		x	x	x	x										nitric acid

Notes:

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
[signature]	ALS
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Miscellaneous Forms

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

Metals

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/27/20 10:45
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	Blank_F2_022	**Basis:**	NA
Lab Code:	K2004418-005		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	ug/L	110	30	5	06/19/20 12:15	06/09/20	
Calcium	6010C	**130**		ug/L	110	20	5	06/19/20 12:15	06/09/20	
Cobalt	6010C	ND	U	ug/L	11	4	5	06/19/20 12:15	06/09/20	
Iron	6010C	**50**	**J**	ug/L	210	40	5	06/19/20 12:15	06/09/20	
Lithium	6010C	ND	U	ug/L	110	30	5	06/19/20 12:15	06/09/20	
Manganese	6010C	ND	U	ug/L	5.3	1.1	5	06/19/20 12:15	06/09/20	
Molybdenum	6010C	**18**	**J**	ug/L	42	11	5	06/19/20 12:15	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/28/20 09:00
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-11_F3_001	**Basis:**	NA
Lab Code:	K2004418-007		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	**710**	ug/L	110	30	5	06/19/20 12:20	06/09/20	
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 12:20	06/09/20	
Cobalt	6010C	ND U	ug/L	11	4	5	06/19/20 12:20	06/09/20	
Iron	6010C	**9950**	ug/L	210	40	5	06/19/20 12:20	06/09/20	
Manganese	6010C	**40.8**	ug/L	5.3	1.1	5	06/19/20 12:20	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/28/20 09:05
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-12_F3_002	**Basis:**	NA
Lab Code:	K2004418-008		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	**110**	ug/L	110	30	5	06/19/20 12:22	06/09/20	
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 12:22	06/09/20	
Cobalt	6010C	ND U	ug/L	11	4	5	06/19/20 12:22	06/09/20	
Iron	6010C	**170 J**	ug/L	210	40	5	06/19/20 12:22	06/09/20	
Manganese	6010C	**3.4 J**	ug/L	5.3	1.1	5	06/19/20 12:22	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/28/20 09:10
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-13_F3_003	**Basis:**	NA
Lab Code:	K2004418-009		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	**570**	ug/L	110	30	5	06/19/20 12:25	06/09/20	
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 12:25	06/09/20	
Cobalt	6010C	ND U	ug/L	11	4	5	06/19/20 12:25	06/09/20	
Iron	6010C	**850**	ug/L	210	40	5	06/19/20 12:25	06/09/20	
Manganese	6010C	**5.4**	ug/L	5.3	1.1	5	06/19/20 12:25	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/28/20 09:15
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-2_F3_004	**Basis:**	NA
Lab Code:	K2004418-010		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	**300**	ug/L	110	30	5	06/19/20 12:28	06/09/20	
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 12:28	06/09/20	
Cobalt	6010C	ND U	ug/L	11	4	5	06/19/20 12:28	06/09/20	
Iron	6010C	**380**	ug/L	210	40	5	06/19/20 12:28	06/09/20	
Manganese	6010C	**4.1 J**	ug/L	5.3	1.1	5	06/19/20 12:28	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/28/20 09:20
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-7_F3_005	**Basis:**	NA
Lab Code:	K2004418-011		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	**760**		ug/L	110	30	5	06/19/20 12:38	06/09/20	
Arsenic	6010C	**40**	**J**	ug/L	110	30	5	06/19/20 12:38	06/09/20	
Cobalt	6010C	**9**	**J**	ug/L	11	4	5	06/19/20 12:38	06/09/20	
Iron	6010C	**12200**		ug/L	210	40	5	06/19/20 12:38	06/09/20	
Manganese	6010C	**73.7**		ug/L	5.3	1.1	5	06/19/20 12:38	06/09/20	

ALS Group USA, Corp.
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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/28/20 09:25
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	BY-AP-MW-9_F3_006	**Basis:**	NA
Lab Code:	K2004418-012		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	**450**	ug/L	110	30	5	06/19/20 12:40	06/09/20	
Arsenic	6010C	ND U	ug/L	110	30	5	06/19/20 12:40	06/09/20	
Cobalt	6010C	ND U	ug/L	11	4	5	06/19/20 12:40	06/09/20	
Iron	6010C	**11700**	ug/L	210	40	5	06/19/20 12:40	06/09/20	
Manganese	6010C	**1270**	ug/L	5.3	1.1	5	06/19/20 12:40	06/09/20	

QC Summary Forms

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Metals

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ALS Group USA, Corp.
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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2007742-02		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum	6010C	ND	U	ug/L	21	5	1	06/19/20 11:09	06/09/20	
Arsenic	6010C	ND	U	ug/L	21	5	1	06/19/20 11:09	06/09/20	
Calcium	6010C	**8**	**J**	ug/L	21	3	1	06/19/20 11:09	06/09/20	
Cobalt	6010C	ND	U	ug/L	2.1	0.7	1	06/19/20 11:09	06/09/20	
Iron	6010C	ND	U	ug/L	21	8	1	06/19/20 11:09	06/09/20	
Lithium	6010C	ND	U	ug/L	21	6	1	06/19/20 11:09	06/09/20	
Manganese	6010C	ND	U	ug/L	1.1	0.2	1	06/19/20 11:09	06/09/20	
Molybdenum	6010C	ND	U	ug/L	8.4	2.1	1	06/19/20 11:09	06/09/20	

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QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project:	APC SSE	**Date Collected:**	05/27/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20
		Date Extracted:	06/9/20

Matrix Spike Summary
Total Metals

Sample Name:	MR-AP-MW-4_F2_018	**Units:**	ug/L
Lab Code:	K2004418-001	**Basis:**	NA
Analysis Method:	6010C		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2007742-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Aluminum	790	2470	2000	84	75-125
Arsenic	ND U	980	1000	98	75-125
Calcium	9980	19600	10000	97	75-125
Cobalt	14	481	500	93	75-125
Iron	300	1270	1000	97	75-125
Lithium	ND U	10300	10000	103	75-125
Manganese	1960	2350	500	78	75-125
Molybdenum	24 J	1050	1000	102	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

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QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004418
Project	APC SSE	**Date Collected:**	05/27/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20

Replicate Sample Summary
Total Metals

Sample Name:	MR-AP-MW-4_F2_018	**Units:**	ug/L
Lab Code:	K2004418-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample KQ2007742-03 Result	Average	RPD	RPD Limit
Aluminum	6010C	110	30	790	760	780	4	20
Arsenic	6010C	110	30	ND U	ND U	ND	-	20
Calcium	6010C	110	20	9980	9390	9690	6	20
Cobalt	6010C	11	4	14	11	13	24 #	20
Iron	6010C	110	40	300	310	310	3	20
Lithium	6010C	110	30	ND U	ND U	ND	-	20
Manganese	6010C	5.3	1.1	1960	1850	1910	6	20
Molybdenum	6010C	42	11	24 J	18 J	21	29 #	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004418
Date Analyzed: 06/19/20

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2007742-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum	6010C	5240	5000	105	80-120
Arsenic	6010C	2610	2500	105	80-120
Calcium	6010C	12800	12500	102	80-120
Cobalt	6010C	1210	1250	97	80-120
Iron	6010C	2580	2500	103	80-120
Lithium	6010C	10600	10000	106	80-120
Manganese	6010C	1220	1250	97	80-120
Molybdenum	6010C	1030	1000	103	80-120

July 21, 2020 Service Request No:K2004639

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory June 04, 2020
For your reference, these analyses have been assigned our service request number **K2004639.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

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1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
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Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Soil

Service Request: K2004639
Date Received: 06/04/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

Twenty three soil samples were received for analysis at ALS Environmental on 06/04/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The samples were stored at minimum in accordance with the analytical method requirements.

Metals:

No significant anomalies were noted with this analysis.

Approved by _____ Date 07/21/2020

Sample Receipt Information

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
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Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Arsenic	Lithium	Cobalt	Molybdenum	Comments/Preservation
1	BY-AP-MW-11_F5_001			SED	1					
2	BY-AP-MW-12_F5_002			SED	1					
3	BY-AP-MW-13_F5_003			SED	1					
4	BY-AP-MW-2_F5_004			SED	1					
5	BY-AP-MW-7_F5_005			SED	1					
6	BY-AP-MW-9_F5_006			SED	1					
7	GC-AP-MW-1_F5_007			SED	1					
8	GC-AP-MW-11_F5_008			SED	1					
9	GC-AP-MW-16_F5_009			SED	1					
10	OLD-MW-11S_F5_010			SED	1					
11	OLD-MW-11_F5_011			SED	1					
12	OLD-MW-2D_F5_012			SED	1					
13	GC-AP-MW-17_F5_013			SED	1					
14	GN-AP-MW-5_F5_014			SED	1					
15	GS-AP-MW-6D_F5_015			SED	1					nitric acid

Notes:

Relinquished by:	Company:	Received by:	Company:
Anthony Dalton-Atha	Anchor QEA		ALS 6/4/20 1420
Signature/Print Name:	Date/Time: ~~5/29/2020 10:00~~ 6/4/2020 PAN	Signature/Print Name:	Date/Time:
Relinquished by:	Company:	Received by:	Company:
Signature/Print Name:	Date/Time:	Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Page_____of_____

K2004639

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Arsenic	Lithium	Cobalt	Molybdenum	Comments/Preservation
16	GS-AP-MW-8_F5_016			SED	1					
17	MR-AP-MW-3D_F5_017			SED	1					
18	MR-AP-MW-4_F5_018			SED	1					
19	MR-AP-MW-5_F5_019			SED	1					
20	MW-1_F5_020			SED	1					
21	MW-12_F5_021			SED	1					
22	Blank_F5_022			SED	1					
23	OLD-MW-2D-F5_012_DUP			SED	1					

Notes:

Relinquished by:	Company:	Received by:	Company:
Anthony Dalton-Atha	Anchor QEA	[signature]	ACS 6/4/20 1420
Signature/Print Name:	Date/Time: 6/4/2020 ~~5/29/2020~~ 10:00	Signature/Print Name:	Date/Time:
Relinquished by:	Company:	Received by:	Company:
Signature/Print Name:	Date/Time:	Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Page_____of_____

PC MH

Cooler Receipt and Preservation Form

Client Anchor QEA Service Request *K20* 04639

Received: 6/4/20 Opened: 6/4/20 By: KN Unloaded: 6/4/20 By: KN

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID NA	Tracking Number NA	Filed
N/A	15.5	17.9	13.2	17.0	TR02			

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* Blue ice
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N

   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time

Notes, Discrepancies, & Resolutions:

Miscellaneous Forms

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Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

ALS Environmental—Kelso Laboratory
1317 South 13th Avenue, Kelso, WA 98626
Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

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Phone (360) 577-7222 Fax (360) 425-9096
www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	06/04/20 14:20
Sample Name:	BY-AP-MW-11_F5_001	**Basis:**	As Received
Lab Code:	K2004639-001		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	mg/Kg	8.4	2.1	2	06/18/20 15:57	06/15/20	
Cobalt	6010C	**0.25**	**J**	mg/Kg	0.84	0.10	2	06/18/20 15:57	06/15/20	
Lithium	6010C	ND	U	mg/Kg	4.2	0.6	2	06/18/20 15:57	06/15/20	
Molybdenum	6010C	**0.90**		mg/Kg	0.84	0.21	2	06/18/20 15:57	06/15/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	06/04/20 14:20
Sample Name:	BY-AP-MW-12_F5_002	**Basis:**	As Received
Lab Code:	K2004639-002		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	mg/Kg	8.4	2.1	2	06/18/20 16:05	06/15/20	
Cobalt	6010C	**0.17**	**J**	mg/Kg	0.84	0.11	2	06/18/20 16:05	06/15/20	
Lithium	6010C	ND	U	mg/Kg	4.2	0.6	2	06/18/20 16:05	06/15/20	
Molybdenum	6010C	**5.36**		mg/Kg	0.84	0.21	2	06/18/20 16:05	06/15/20	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	06/04/20 14:20
Sample Name:	BY-AP-MW-13_F5_003	**Basis:**	As Received
Lab Code:	K2004639-003		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	mg/Kg	8.4	2.1	2	06/18/20 16:07	06/15/20	
Cobalt	6010C	**0.13**	**J**	mg/Kg	0.84	0.10	2	06/18/20 16:07	06/15/20	
Lithium	6010C	ND	U	mg/Kg	4.2	0.6	2	06/18/20 16:07	06/15/20	
Molybdenum	6010C	**1.45**		mg/Kg	0.84	0.21	2	06/18/20 16:07	06/15/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	06/04/20 14:20
Sample Name:	BY-AP-MW-2_F5_004	**Basis:**	As Received
Lab Code:	K2004639-004		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**2.5**	**J**	mg/Kg	8.4	2.1	2	06/18/20 16:10	06/15/20	
Cobalt	6010C	**0.29**	**J**	mg/Kg	0.84	0.11	2	06/18/20 16:10	06/15/20	
Lithium	6010C	ND	U	mg/Kg	4.2	0.6	2	06/18/20 16:10	06/15/20	
Molybdenum	6010C	**0.80**	**J**	mg/Kg	0.84	0.21	2	06/18/20 16:10	06/15/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	06/04/20 14:20
Sample Name:	BY-AP-MW-7_F5_005	**Basis:**	As Received
Lab Code:	K2004639-005		

Total Metals

Analyte Name	Analysis Method	Result	Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	**31.0**	mg/Kg	9.0	2.2	2	06/18/20 16:12	06/15/20	
Cobalt	6010C	**2.25**	mg/Kg	0.90	0.11	2	06/18/20 16:12	06/15/20	
Lithium	6010C	**0.7**	mg/Kg	4.5	0.7	2	06/18/20 16:12	06/15/20	J
Molybdenum	6010C	**2.27**	mg/Kg	0.90	0.22	2	06/18/20 16:12	06/15/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	06/04/20 14:20
Sample Name:	BY-AP-MW-9_F5_006	**Basis:**	As Received
Lab Code:	K2004639-006		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	mg/Kg	25	6	2	06/18/20 16:23	06/15/20	
Cobalt	6010C	**0.6**	**J**	mg/Kg	2.5	0.3	2	06/18/20 16:23	06/15/20	
Lithium	6010C	ND	U	mg/Kg	13	2	2	06/18/20 16:23	06/15/20	
Molybdenum	6010C	**1.8**	**J**	mg/Kg	2.5	0.6	2	06/18/20 16:23	06/15/20	

QC Summary Forms

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	As Received
Lab Code:	KQ2007817-01		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	mg/Kg	8.0	2.0	2	06/18/20 15:50	06/15/20	
Cobalt	6010C	ND	U	mg/Kg	0.80	0.10	2	06/18/20 15:50	06/15/20	
Lithium	6010C	ND	U	mg/Kg	4.0	0.6	2	06/18/20 15:50	06/15/20	
Molybdenum	6010C	ND	U	mg/Kg	0.80	0.20	2	06/18/20 15:50	06/15/20	

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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Soil	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	As Received
Lab Code:	KQ2007818-01		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	mg/Kg	8.0	2.0	2	06/18/20 17:08	06/15/20	
Cobalt	6010C	ND	U	mg/Kg	0.80	0.10	2	06/18/20 17:08	06/15/20	
Lithium	6010C	ND	U	mg/Kg	4.0	0.6	2	06/18/20 17:08	06/15/20	
Molybdenum	6010C	ND	U	mg/Kg	0.80	0.20	2	06/18/20 17:08	06/15/20	

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QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Analyzed:**	06/18/20
Sample Matrix:	Soil		

Lab Control Sample Summary
Total Metals

Units:mg/Kg
Basis: As Received

Lab Control Sample
KQ2007817-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	97.3	100	97	80-120
Cobalt	6010C	96.0	100	96	80-120
Lithium	6010C	490	500	98	80-120
Molybdenum	6010C	101	100	101	80-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004639
Project:	APC SSE	**Date Analyzed:**	06/18/20
Sample Matrix:	Soil		

Lab Control Sample Summary
Total Metals

Units:mg/Kg
Basis: As Received

Lab Control Sample
KQ2007818-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	94.5	100	95	80-120
Cobalt	6010C	93.6	100	94	80-120
Lithium	6010C	477	500	95	80-120
Molybdenum	6010C	98.1	100	98	80-120

July 20, 2020 Service Request No:K2004421

Anthony Dalton-Atha
Anchor QEA, LLC
6720 SW Macadam Avenue
Suite 125
Portland, OR 97219

Laboratory Results for: APC SSE

Dear Anthony,

Enclosed are the results of the sample(s) submitted to our laboratory May 29, 2020
For your reference, these analyses have been assigned our service request number **K2004421.**

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. The test results meet requirements of the current NELAP standards, where applicable, and except as noted in the laboratory case narrative provided. For a specific list of NELAP-accredited analytes, refer to the certifications section at www.alsglobal.com. All results are intended to be considered in their entirety, and ALS Group USA Corp. dba ALS Environmental (ALS) is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report.

Please contact me if you have any questions. My extension is 3376. You may also contact me via email at Mark.Harris@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Mark Harris
Project Manager

ADDRESS 1317 S. 13th Avenue, Kelso, WA 98626
PHONE +1 360 577 7222 | FAX +1 360 636 1068
ALS Group USA, Corp.
dba ALS Environmental

Narrative Documents

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Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004421
Date Received: 05/29/2020

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples for the Tier II level requested by the client.

Sample Receipt:

One water sample was received for analysis at ALS Environmental on 05/29/2020. Any discrepancies upon initial sample inspection are annotated on the sample receipt and preservation form included within this report. The sample was stored at minimum in accordance with the analytical method requirements.

Metals:

Method 6010C, 06/19/2020: Samples in this delivery group required dilution to non-target matrix components. Attempts to analyze the undiluted samples resulted in failed instrument QC check samples. The detection limits were elevated accordingly. No further corrective action was appropriate.

Approved by _____ Date 06/22/2020

Sample Receipt Information

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PC MH

Cooler Receipt and Preservation Form

Client ANCHOR QEA Service Request K20 044221

Received: 5/29/2020 Opened: 5/29/2020 By: CG Unloaded: 5/29/2020 By: CG

1. Samples were received via? *USPS* *Fed Ex* *UPS* *DHL* *PDX* *Courier* *Hand Delivered*
2. Samples were received in: (circle) *Cooler* *Box* *Envelope* *Other* _____ *NA*
3. Were custody seals on coolers? NA Y N If yes, how many and where? 1 Front

   If present, were custody seals intact? Y N If present, were they signed and dated? Y N

Temp Blank	Sample 1	Sample 2	Sample 3	Sample 4	IR GUN	Cooler / COC ID NA	Tracking Number NA	Filed
—	10.7	12.0	10.6	9.6	IR02			

4. Packing material: *Inserts* *Baggies* *Bubble Wrap* *Gel Packs* *Wet Ice* *Dry Ice* *Sleeves* _____
5. Were custody papers properly filled out (ink, signed, etc.)? NA Y N
6. Were samples received in good condition (temperature, unbroken)? *Indicate in the table below.* NA Y N

   If applicable, tissue samples were received: *Frozen* *Partially Thawed* *Thawed*
7. Were all sample labels complete (i.e analysis, preservation, etc.)? NA Y N
8. Did all sample labels and tags agree with custody papers? *Indicate major discrepancies in the table on page 2.* NA Y N
9. Were appropriate bottles/containers and volumes received for the tests indicated? NA Y N
10. Were the pH-preserved bottles (*see SMO GEN SOP*) received at the appropriate pH? *Indicate in the table below* NA Y N
11. Were VOA vials received without headspace? *Indicate in the table below.* NA Y N
12. Was C12/Res negative? NA Y N

Sample ID on Bottle	Sample ID on COC	Identified by:

Sample ID	Bottle Count Bottle Type	Out of Temp	Head-space	Broke	pH	Reagent	Volume added	Reagent Lot Number	Initials	Time
All "F2" samples	1-125mL, each				X	HNO_3	0.5mL	RE1-54-C	CG	1100 6/1/20

Notes, Discrepancies, & Resolutions: Temp okay - metals analyses

Chain of Custody Record & Laboratory Analysis Request

Date:	5/29/2020
Project Name:	APC SSE
Project Manager:	Anthony Dalton-Atha
email:	adalton-atha@anchorqea.com
Phone Number:	541-760-0851
Shipment Method:	Courier

ANCHOR QEA

Jessica Goin
6720 SW Macadam Ave
Suite 125
Portland OR 97219

Line	Field Sample ID	Collection Date	Collection Time	Matrix	No. of Containers	Arsenic	Lithium	Cobalt	Molybdenum	Iron											Comments/Preservation
16	GS-AP-MW-8_F4_016			Water	1	x	x		x	x											nitric acid
17	MR-AP-MW-3D_F4_017			Water	1	x	x	x		x											nitric acid
18	MR-AP-MW-4_F4_018			Water	1	x	x	x		x											nitric acid
19	MR-AP-MW-5_F4_019			Water	1	x	x	x		x											nitric acid
20	MW-1_F4_020			Water	1	x	x		x	x											nitric acid
21	MW-12_F4_021			Water	1	x	x		x	x											nitric acid
22	Blank_F4_022			Water	1	x	x	x	x	x											nitric acid
23	OLD-MW-2D-F4_012_DUP			Water	1	x	x		x	x											nitric acid

Notes: **CAUTION! F4 samples are concentrated (16N) nitric acid.**

Relinquished by:	Company:
Anthony Dalton-Atha	Anchor QEA
Signature/Print Name:	Date/Time:
	5/29/2020 10:00

Received by:	Company:
SWOLF	ACS
Signature/Print Name:	Date/Time:
	5/29/20 1145

Relinquished by:	Company:
Signature/Print Name:	Date/Time:

Received by:	Company:
Signature/Print Name:	Date/Time:

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Miscellaneous Forms

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Inorganic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
E	The result is an estimate amount because the value exceeded the instrument calibration range.
J	The result is an estimated value.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.

Metals Data Qualifiers

#	The control limit criteria is not applicable. See case narrative.
J	The result is an estimated value.
E	The percent difference for the serial dilution was greater than 10%, indicating a possible matrix interference in the sample.
M	The duplicate injection precision was not met.
N	The Matrix Spike sample recovery is not within control limits. See case narrative.
S	The reported value was determined by the Method of Standard Additions (MSA).
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
W	The post-digestion spike for furnace AA analysis is out of control limits, while sample absorbance is less than 50% of spike absorbance.
i	The MRL/MDL or LOQ/LOD is elevated due to a matrix interference.
X	See case narrative.
+	The correlation coefficient for the MSA is less than 0.995.
Q	See case narrative. One or more quality control criteria was outside the limits.

Organic Data Qualifiers

*	The result is an outlier. See case narrative.
#	The control limit criteria is not applicable. See case narrative.
A	A tentatively identified compound, a suspected aldol-condensation product.
B	The analyte was found in the associated method blank at a level that is significant relative to the sample result as defined by the DOD or NELAC standards.
C	The analyte was qualitatively confirmed using GC/MS techniques, pattern recognition, or by comparing to historical data.
D	The reported result is from a dilution.
E	The result is an estimated value.
J	The result is an estimated value.
N	The result is presumptive. The analyte was tentatively identified, but a confirmation analysis was not performed.
P	The GC or HPLC confirmation criteria was exceeded. The relative percent difference is greater than 40% between the two analytical results.
U	The analyte was analyzed for, but was not detected ("Non-detect") at or above the MRL/MDL. *DOD-QSM 4.2 definition* : Analyte was not detected and is reported as less than the LOD or as defined by the project. The detection limit is adjusted for dilution.
i	The MRL/MDL or LOQ/LOD is elevated due to a chromatographic interference.
X	See case narrative.
Q	See case narrative. One or more quality control criteria was outside the limits.

Additional Petroleum Hydrocarbon Specific Qualifiers

F	The chromatographic fingerprint of the sample matches the elution pattern of the calibration standard.
L	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of lighter molecular weight constituents than the calibration standard.
H	The chromatographic fingerprint of the sample resembles a petroleum product, but the elution pattern indicates the presence of a greater amount of heavier molecular weight constituents than the calibration standard.
O	The chromatographic fingerprint of the sample resembles an oil, but does not match the calibration standard.
Y	The chromatographic fingerprint of the sample resembles a petroleum product eluting in approximately the correct carbon range, but the elution pattern does not match the calibration standard.
Z	The chromatographic fingerprint does not resemble a petroleum product.

ALS Group USA Corp. dba ALS Environmental (ALS) - Kelso
State Certifications, Accreditations, and Licenses

Agency	Web Site	Number
Alaska DEH	http://dec.alaska.gov/eh/lab/cs/csapproval.htm	UST-040
Arizona DHS	http://www.azdhs.gov/lab/license/env.htm	AZ0339
Arkansas - DEQ	http://www.adeq.state.ar.us/techsvs/labcert.htm	88-0637
California DHS (ELAP)	http://www.cdph.ca.gov/certlic/labs/Pages/ELAP.aspx	2795
DOD ELAP	http://www.denix.osd.mil/edqw/Accreditation/AccreditedLabs.cfm	L16-58-R4
Florida DOH	http://www.doh.state.fl.us/lab/EnvLabCert/WaterCert.htm	E87412
Hawaii DOH	http://health.hawaii.gov/	-
ISO 17025	http://www.pjlabs.com/	L16-57
Louisiana DEQ	http://www.deq.louisiana.gov/page/la-lab-accreditation	03016
Maine DHS	http://www.maine.gov/dhhs/	WA01276
Minnesota DOH	http://www.health.state.mn.us/accreditation	053-999-457
Nevada DEP	http://ndep.nv.gov/bsdw/labservice.htm	WA01276
New Jersey DEP	http://www.nj.gov/dep/enforcement/oqa.html	WA005
New York - DOH	https://www.wadsworth.org/regulatory/elap	12060
North Carolina DEQ	https://deq.nc.gov/about/divisions/water-resources/water-resources-data/water-sciences-home-page/laboratory-certification-branch/non-field-lab-certification	605
Oklahoma DEQ	http://www.deq.state.ok.us/CSDnew/labcert.htm	9801
Oregon – DEQ (NELAP)	http://public.health.oregon.gov/LaboratoryServices/EnvironmentalLaboratoryAccreditation/Pages/index.aspx	WA100010
South Carolina DHEC	http://www.scdhec.gov/environment/EnvironmentalLabCertification/	61002
Texas CEQ	http://www.tceq.texas.gov/field/qa/env_lab_accreditation.html	T104704427
Washington DOE	http://www.ecy.wa.gov/programs/eap/labs/lab-accreditation.html	C544
Wyoming (EPA Region 8)	https://www.epa.gov/region8-waterops/epa-region-8-certified-drinking-water-	-
Kelso Laboratory Website	www.alsglobal.com	NA

Analyses were performed according to our laboratory's NELAP-approved quality assurance program. A complete listing of specific NELAP-certified analytes, can be found in the certification section at www.ALSGlobal.com or at the accreditation bodies web site.
Please refer to the certification and/or accreditation body's web site if samples are submitted for compliance purposes. The states highlighted above, require the analysis be listed on the state certification if used for compliance purposes and if the method/anlayte is offered by that state.

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LOD	Limit of Detection
LOQ	Limit of Quantitation
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Sample Results

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ALS Group USA, Corp.
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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	05/28/20 10:45
Sample Matrix:	Water	**Date Received:**	05/29/20 11:45
Sample Name:	Blank_F4_022	**Basis:**	NA
Lab Code:	K2004421-011		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	ug/L	21	5	1	06/19/20 17:56	06/09/20	
Cobalt	6010C	ND	U	ug/L	2.1	0.7	1	06/19/20 17:56	06/09/20	
Iron	6010C	**21**	**J**	ug/L	42	8	1	06/19/20 17:56	06/09/20	
Lithium	6010C	ND	U	ug/L	21	6	1	06/19/20 17:56	06/09/20	
Molybdenum	6010C	ND	U	ug/L	8.4	2.1	1	06/19/20 17:56	06/09/20	

QC Summary Forms

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ALS Group USA, Corp.
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Analytical Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	NA
Sample Matrix:	Water	**Date Received:**	NA
Sample Name:	Method Blank	**Basis:**	NA
Lab Code:	KQ2007746-02		

Total Metals

Analyte Name	Analysis Method	Result		Units	MRL	MDL	Dil.	Date Analyzed	Date Extracted	Q
Arsenic	6010C	ND	U	ug/L	21	5	1	06/19/20 16:24	06/09/20	
Cobalt	6010C	ND	U	ug/L	2.1	0.7	1	06/19/20 16:24	06/09/20	
Iron	6010C	ND	U	ug/L	42	8	1	06/19/20 16:24	06/09/20	
Lithium	6010C	ND	U	ug/L	21	6	1	06/19/20 16:24	06/09/20	
Molybdenum	6010C	ND	U	ug/L	8.4	2.1	1	06/19/20 16:24	06/09/20	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project:	APC SSE	**Date Collected:**	05/28/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20
		Date Extracted:	06/9/20

Matrix Spike Summary
Total Metals

Sample Name:	OLD-MW-2D_F4_012	**Units:**	ug/L
Lab Code:	K2004421-001	**Basis:**	NA
Analysis Method:	6010C		
Prep Method:	EPA CLP ILM04.0		

Matrix Spike
KQ2007746-04

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	ND U	960	1000	96	75-125
Cobalt	74	513	500	88	75-125
Iron	1050000	1020000	1000	-2168 #	75-125
Lithium	ND U	9900	10000	99	75-125
Molybdenum	ND U	952	1000	95	75-125

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

Matrix Spike and Matrix Spike Duplicate Data is presented for information purposes only. The matrix may or may not be relevant to samples reported in this report. The laboratory evaluates system performance based on the LCS and LCSD control limits.

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client:	Anchor QEA, LLC	**Service Request:**	K2004421
Project	APC SSE	**Date Collected:**	05/28/20
Sample Matrix:	Water	**Date Received:**	05/29/20
		Date Analyzed:	06/19/20

Replicate Sample Summary
Total Metals

Sample Name:	OLD-MW-2D_F4_012	**Units:**	ug/L
Lab Code:	K2004421-001	**Basis:**	NA

Analyte Name	Analysis Method	MRL	MDL	Sample Result	Duplicate Sample KQ2007746-03 Result	Average	RPD	RPD Limit
Arsenic	6010C	210	50	ND U	ND U	ND	-	20
Cobalt	6010C	11	4	74	76	75	3	20
Iron	6010C	110	40	1050000	1050000	1050000	<1	20
Lithium	6010C	110	30	ND U	ND U	ND	-	20
Molybdenum	6010C	84	21	ND U	ND U	ND	-	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Anchor QEA, LLC
Project: APC SSE
Sample Matrix: Water

Service Request: K2004421
Date Analyzed: 06/19/20

Lab Control Sample Summary
Total Metals

Units:ug/L
Basis:NA

Lab Control Sample
KQ2007746-01

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Arsenic	6010C	2540	2500	102	80-120
Cobalt	6010C	1190	1250	95	80-120
Iron	6010C	2340	2500	93	80-120
Lithium	6010C	9940	10000	99	80-120
Molybdenum	6010C	1010	1000	101	80-120