

**2019 SEMI-ANNUAL GROUNDWATER MONITORING AND
CORRECTIVE ACTION REPORT**

**ALABAMA POWER COMPANY
PLANT GADSDEN
ASH POND**

February 1, 2020

Prepared for

Alabama Power Company
Birmingham, Alabama


By

Southern Company Services
Earth Science and Environmental Engineering



CERTIFICATION STATEMENT

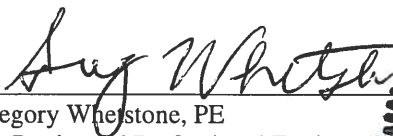
This *Semi-Annual Groundwater Monitoring and Corrective Action Report, Alabama Power Company - Plant Gadsden Ash Pond* has been prepared in accordance with ADEM Admin. Code Ch. 335-13-15 under the supervision of a licensed professional engineer in the State of Alabama. As such, I certify that the information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



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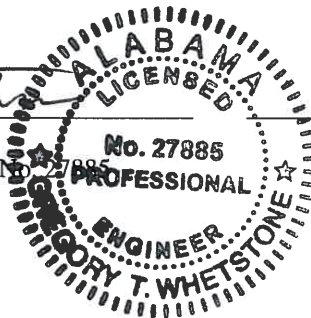
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EXECUTIVE SUMMARY

In accordance with the State of Alabama's ADEM Admin. Code Ch. 335-13-15, this 2019 Semi-Annual Groundwater Monitoring and Corrective Action Report has been prepared to document groundwater monitoring activities and results from the 2019 second semi-annual monitoring event at the Plant Gadsden Ash Pond (Ash Pond) and to satisfy the requirements of ADEM Admin. Code r. 335-13-15-.06(5)(g). Semi-annual monitoring and associated reporting for the Ash Pond is performed in accordance with the monitoring requirements of the United States Environmental Protection Agency's coal combustion residual rule (40 CFR Part 257, Subpart D) found in 40 CFR § 257.90 through § 257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6). Semi-annual groundwater monitoring activities took place in August 2019. The following summarize results and monitoring status for the Plant Gadsden Ash Pond:

- The CCR unit began the monitoring period in Assessment Monitoring pursuant to 40 CFR §257.95 and ADEM Admin. Code r. 335-13-15-.06(6). Statistically significant increases (SSIs) over background of Appendix III constituents (boron, calcium, chloride, sulfate, and TDS) were identified in the results from several wells during the first detection monitoring event (April 17, 2019). Consequently, assessment monitoring was initiated on July 16, 2019.
- Assessment monitoring activities were conducted within 90 days of initiating and took place between August 19th and August 22nd.
- Statistically significant levels (SSLs) of Appendix IV assessment monitoring constituents (arsenic and lithium) were identified above the groundwater protection standard (GWPS) on January 12, 2020.

The CCR Unit concluded the monitoring period in assessment monitoring. The following next steps are planned for the next semi-annual monitoring period:

- By April 11, 2020, complete an Alternate Source Demonstration (ASD) or initiate an Assessment of Corrective Measures (ACM) for Appendix IV SSLs identified on January 12, 2020.
- Perform the first semiannual 2020 assessment groundwater sampling in April or May and submit the results with the Annual Groundwater Monitoring and Corrective Action Report to the Department by August 1, 2020.

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ABBREVIATIONS

ADEM	Alabama Department of Environmental Management
AL	Alabama
APC	Alabama Power Company
APCEL	APC Environmental Laboratory
ASD	Alternate Source Demonstration
ASTM	American Society for Testing and Materials
BGS	below ground surface
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
COC	chain of custody
DO	dissolved oxygen
EPA	United States Environmental Protection Agency
ft	feet
GW	groundwater
GWPS	Groundwater Protection Standard(s)
LCL	Lower Confidence Limit(s)
m	meter
mg/L	milligram per liter
MSL	mean sea level
MW-	denotes "Monitoring Well"
NELAP	National Environmental Laboratory Accreditation Program
NTU	nephelometric turbidity unit
ORP	oxidation reduction potential
pCi/L	picocuries per liter
PE	Professional Engineer
PG	Professional Geologist
PL	prediction limits
PQL	practical quantitation limit
PVC	polymerizing vinyl chloride
QA/QC	quality assurance/quality control
RL	reporting limit
RPD	relative percent difference
SM	Standard Method(s)
SSI	statistically significant increase
SSL	statistically significant level
TAL	Test America, Inc.
TOC	top of casing
TDS	total dissolved solids
USGS	United States Geological Survey
UTLs	Upper Tolerance Limits

1.0 INTRODUCTION

In accordance with the State of Alabama's ADEM Admin. Code Ch. 335-13-15, this 2019 Semi-Annual Groundwater Monitoring and Corrective Action Report has been prepared to document groundwater monitoring activities and results from the 2019 second semi-annual monitoring event at the Plant Gadsden Ash Pond (Ash Pond) and to satisfy the requirements of ADEM Admin. Code r. 335-13-15-.06(1)(f). Semi-annual monitoring and annual reporting for the Ash Pond is performed in accordance with the monitoring requirements of the United States Environmental Protection Agency (EPA) coal combustion residual (CCR) rule (40 CFR Part 257, Subpart D) §§ 257.90 through 257.95, and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

2.0 SITE LOCATION AND DESCRIPTION

Alabama Power Company's (APC) Plant Gadsden Electric Generating Plant (Plant Gadsden) is located in the northeastern area of the city of Gadsden, in central Etowah County, Alabama. The physical address of the plant is 1000 Goodyear Avenue, Gadsden, AL 35903. Plant Gadsden occupies Sections 2, 3, and 11, Township 12 South, Range 6 East (USGS, 1986). The Ash Pond is located northeast of the plant and separated from the main plant by the Coosa River. **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 Gadsden is located within the Coosa Valley district of the Valley and Ridge physiographic section (Sapp and Emplaincourt, 1975). The neighboring Coosa River forms a broad, gently sloping valley with elevations between 510 and 530 feet MSL. Present to the West of Coosa River are a series of ridges including Shinbone Ridge, Lookout Mountain, and Big Ridge, some of which reach elevations above 1,450 feet MSL (USGS, 1986). Local Site elevations near the Ash Pond are approximately 520 feet above mean seal level (MSL). The embankment elevations that form the perimeter of the Ash Pond reside between 520 and 525 feet MSL. **Figure 2, Site Topographic Map**, provides the topography of the Site.

2.1.2 Geology and Hydrogeology

Plant Gadsden is in the Appalachian thrust belt, which consists of a series of northeast trending thrust sheets and folds of Cambrian to Pennsylvanian strata. In general, the valleys represent eroded or breached

anticlines underlain by Cambrian and Ordovician carbonates. The ridge crests are typically composed of relatively resistant sandstone and chert units and represent erosional remnants (Mann and Baker, 1995). The Appalachian thrust belt is bordered to the west by the Black Warrior basin, to the northwest by the East Warrior Platform, and to the north-northwest by the Nashville dome. It is bordered to the southeast by the Appalachian Piedmont (Osborne and Raymond, 1992).

A thrust fault lies near Plant Gadsden. The exact geometry and configuration of the fault is unknown as the fault is concealed under alluvium. To the north of the fault, folds and faults have a more moderate expression and generally trend to the northeast. To the south of the thrust fault, geologic structures become more complex, folding is more intense, and the structures trend in a more easterly orientation (Bossong, 1989). In general, faults in this region (including the Gadsden Fault) were active during the late Paleozoic Alleghanian orogeny but are not considered to be presently active. **Figure 3, Site Geologic Map**, illustrates the surface geology at the site and neighboring areas.

Boring logs from monitoring well and piezometer installations provide details on subsurface geologic conditions between ground surface and 30 feet below ground surface (ft BGS). Site Geology consists of 2 distinct formations underlying the Ash Pond and are described from shallowest to deepest as follows:

1. Surficial soils are described as Quaternary-age alluvial low terrace deposits and high terrace deposits consisting of varying amounts of sand, silt, clay, and gravel associated with river deposition (Raymond et al., 1988). These deposits range from 20 to 30 feet in thickness at the Site. Site groundwater monitoring wells are installed within higher-permeability zones near the base of the alluvial deposits and near the interface with underlying rock.
2. The Conasauga Formation (Middle and Upper Cambrian) which consists of varying amounts of limestone, dolomite, and shale. Chert and siltstone horizons can be present locally. Limited core logs from the Site indicate the Conasauga to be a medium to dark gray mudstone or shale with noticeable calcite veining. In general, the Conasauga Formation is characterized as a shoaling-upward succession in which deep water shale grades vertically into a diverse assemblage of carbonate ramp facies. In Etowah County, the Conasauga Formation has been targeted as a potential source for shale gas and is preserved within the Gadsden antiform (Pashin, 2008). The Conasauga Formation is not considered to be a water-bearing aquifer at the site.

Figures 4A and 4B, Geologic Cross-Sections A-A' and B-B', respectively, illustrate the geologic layering beneath the Site.

2.1.3 Uppermost Aquifer

The uppermost aquifer beneath the Site corresponds to coarse and more permeable fraction of alluvial overburden soils and weathered/fractured rock near the soil-rock interface. The uppermost aquifer is typically located at depths between 15 and 50 feet below ground surface (BGS). Soils are generally poorly graded sands with layers of clay and well-graded gravels that overlay a mudstone or shale bedrock. Groundwater recharge to the uppermost aquifer is largely accomplished via infiltration of precipitation and subsequent percolation down to the water table. Monitoring wells are typically screened across reddish-brown (iron-coated) coarse sediments and or weathered Conasauga mudstone/shale.

2.1.4 Flow Interpretation

Within overburden soils beneath the Site groundwater flow is occurs via porous (Darcy) flow mechanics with potential for preferential movement along more conductive sand and gravel lenses or channels. Groundwater elevations fluctuate in response to rainfall. Seasonal ranges in groundwater elevations of 3 to 10 feet are typical at the Site with fluctuations typically greater further away from the Coosa River which is consistent with groundwater recharge areas. Slug and Shelby Tube permeameter testing reveal that sandy fractions generally have a hydraulic conductivity between 0.5 and 7 feet per day.

Groundwater level monitoring initiated with background sampling in December of 2017 before ash pond closure and dewatering was complete. Groundwater elevation contours between December 2017 and December 2018 displayed a radial pattern of groundwater flow away from the Site. Groundwater flow was interpreted to flow to the north, south, east, and west from this mound. Therefore, wells and piezometers around the periphery of the pond are all classified as downgradient. Between December 2018 and February 2019 (5-7 months after closure) the radial groundwater flow pattern appeared to diminish and became a north to south groundwater flow pattern. We believe this is likely the result of groundwater flow restoring to pre-pond conditions as the hydraulic influence of the pond was eliminated by closure and dewatering.

2.2 GROUNDWATER MONITORING SYSTEM

Pursuant to § 257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Gadsden has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The certified

groundwater monitoring system for the Plant Gadsden 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, and downgradient monitoring locations based on groundwater flow direction as determined by the potentiometric surface elevation contour maps. All groundwater monitoring wells were designed and constructed using “Design and Installation of Groundwater Monitoring Wells in Aquifers”, ASTM Subcommittee D18.21, as a guideline. As required by § 257.90(e) and ADEM Admin Code r. 335-13-15-.06(1)(f), the following also describes monitoring related activities performed during the preceding year.

2.2.1 Monitoring Wells

The groundwater monitoring network is comprised of 18 monitoring wells and 1 piezometer. Initially piezometers PZ-1, PZ-5, and PZ-6 were used to constrain groundwater flow at the site but were later converted to downgradient wells. Monitoring well locations referenced to the Ash Pond are presented on **Figure 5, Monitoring Well Location Map. Table 1, Groundwater Monitoring Well Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Gadsden Ash Pond.

2.2.1.1 Upgradient Wells

To evaluate upgradient well locations at the Site, groundwater elevations and CCR indicator parameters were reviewed. Radial flow has historically been observed at the Ash Pond and identifying a truly upgradient location in the vicinity was infeasible. To meet the requirements of the rules and establish background groundwater quality not affected by a release from the unit, on-site groundwater monitoring wells were installed within the same geologic formation as site monitoring wells and across the river from the Ash Pond. Monitoring well locations MW-14, MW-16, and MW-17 serve as upgradient locations for the Ash Pond. These well locations are located on the opposite side of the Coosa river and are hydraulically disconnected from downgradient flow away from the Gadsden Ash Pond. Groundwater flow in the area of upgradient locations is from south to north.

2.2.1.2 Downgradient Wells

Monitoring well locations MW-1 through MW-12, PZ-1, PZ-5, and PZ-6 are utilized as downgradient locations. These well locations are installed proximal to the waste boundary to the north, east, south, and west of the Ash Pond.

Because groundwater flow conditions have changed at the Site (as described in **Section 2.1.4**), wells previously identified as being downgradient to the north (GSD-AP-MW-1, GSD-AP-MW-2, GSD-AP-MW-3, GSD-AP-MW-4, GSD-AP-MW-5, GSD-AP-PZ-1, GSD-AP-PZ-5, GSD-AP-PZ-6) now appear hydraulically upgradient of the Site or hydraulically separated from the Site by a localized groundwater divide and could potentially serve as upgradient wells sometime in the future. APC will continue monitor all wells surrounding the Ash Pond as downgradient compliance wells until a revision to the network is proposed and approved by the Department. Changes to well designations are not recommended at this time.

2.2.1.3 Piezometers

GSD-AP-PZ-2 is a water-level only piezometer used to better define groundwater flow direction at the Site.

2.2.1.4 Characterization Wells

Pursuant to AO 19-104-GW, additional wells were installed in September 2019 to further characterize groundwater quality at the site. These wells will be sampled semiannually as part of the assessment monitoring program beginning with the first event in 2020. An Alternative Source Demonstration (ASD) may be explored for explanation of the GWPS exceedances at the Site. Should an ASD not prove successful, APC will commence groundwater sampling from the delineation wells, pursuant to the requirements of 40 CFR § 257.95(g)(1)(iv) and ADEM Admin. Code r. 335-13-15-.06(6)(g)2.(iv) using the sampling procedures described in the site groundwater monitoring plan. At a minimum, groundwater samples will be collected and analyzed for those constituents listed in Appendix III of the CCR rule and those Appendix IV constituents detected in groundwater monitoring wells at the site.

Three horizontal characterization wells were installed to assess lateral extent of elevated arsenic concentrations in the direction(s) of groundwater flow away from the facility (GSD-AP-MW-18H, GSD-AP-MW-19H, and GSD-AP-MW-20H). Two vertical characterization wells were installed to assess potential vertical occurrences of arsenic in the vicinity of the Ash Pond boundary (GSD-AP-MW-2V and GSD-AP-MW-4V). GSD-AP-MW-2V did not yield sufficient groundwater for well development and will be abandoned and replaced during the first half of 2020.

2.2.1.5 Monitoring Variance

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

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

2.2.2 Groundwater Monitoring History

Background groundwater monitoring was performed at the site from December 2017 through February 2019. Semi-annual compliance monitoring began in April 2019.

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 (8) independent samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendix III and IV prior to April 17, 2019. Background sampling was performed over the period of December 2017 to February 2019. Groundwater sampling for the first detection monitoring event after the background period was performed in February 2019.

Based on results of the 2018 and 2019 monitoring results, APC initiated an assessment monitoring program on July 16, 2019. 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 August, within 90 days of initiating the assessment monitoring program.

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

2.2.2.2 Historical Groundwater Flow

Groundwater level monitoring initiated with background sampling in December of 2017 before ash pond closure and dewatering was complete. Groundwater elevation contours between December 2017 and December 2018 displayed a radial pattern of groundwater flow away from the Site. Groundwater flow was interpreted to flow to the north, south, east, and west from this mound.

Between December 2018 and February 2019, as the pond was dewatered, the radial groundwater flow pattern appears to have diminished, exhibiting a more north-to-south groundwater flow pattern. The observed change in flow pattern likely represents groundwater flow returning to pre-pond conditions as the hydraulic influence of the pond was eliminated by closure and dewatering.

A less prominent groundwater mound was observed just to the north of the Site during the most recent sampling event and appears to form a localized groundwater divide where groundwater flows to the north (north of the divide) or to the south (south of the divide). The groundwater divide appears to be centered approximately 120 feet north of the Ash Pond and therefore, indicates north to south flow across the Ash Pond.

Groundwater elevations fluctuate in response to rainfall. Seasonal variations in groundwater elevations of 3 to 10 feet are typical at the Site with fluctuations typically greater further away from the Coosa River which is consistent with groundwater recharge areas. Standard variations (variance from mean groundwater elevation) are more typically between 1 and 2 feet with slightly higher variance observed in areas further north of the Coosa River.

2.2.3 Groundwater Sampling and Analysis

As described in **Section 2.2.2.1**, the Site entered an assessment monitoring pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a) in July 2019. The following sections and subsections describe activities and results from the semi-annual assessment monitoring event.

2.2.3.1 Sampling Event Summary

Semi-annual assessment monitoring began in August 2019, and this also corresponds to the second semi-annual sampling event of 2019 at the Site. Groundwater samples were analyzed for the complete list of Appendix III and Appendix IV parameters during the assessment monitoring event. Analytical data from

the groundwater monitoring event is included as **Appendix B, Laboratory and Field Records**, in accordance with the requirements of §257.90(e)(3) and ADEM Admin. Code r. 335-13-15-.06(1)(f)3.

2.2.3.2 Groundwater Sample Collection

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

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

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

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

2.2.3.3 Sample Preservation and Handling

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

Where temperature control was required, samples were placed in an ice-packed cooler and cooled to less than 4°C immediately after collection. Blue ice or other cooling packs were not used for cooling samples. An ice-packed cooler was on hand when samples were collected.

2.2.3.4 Chain of Custody

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

2.2.3.5 Laboratory Analysis

Laboratory analyses was 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 B**.

3.0 GROUNDWATER ELEVATIONS

3.1 GROUNDWATER ELEVATIONS AND FLOW

During August 2019 sampling event, depths to water ranged from 7.34 to 26.12 feet below top of casing and groundwater elevations ranged from 530.30 to 507.89 feet above mean seal level (ft MSL).

Figure 6, Potentiometric Surface Contour Map (August 19, 2019) depicts groundwater elevations and inferred groundwater flow direction. A less prominent groundwater mound was observed just to the north of the Site during the most recent sampling event and appears to form a localized groundwater divide where groundwater flows to the north (north of the divide) or to the south (south of the divide). The groundwater divide appears to be centered approximately 120 feet north of the Ash Pond and therefore, indicates north to south flow across the Ash Pond. All available groundwater elevation data recorded since 2017 have been tabulated and included in **Table 3, Groundwater Elevations Summary**.

3.2 GROUNDWATER FLOW VELOCITY CALCULATIONS

Groundwater flow velocity at the Site was calculated based on hydraulic gradients, hydraulic conductivity values derived from slug tests, and an estimated effective porosity of the screened horizon. To date, four (4) slug tests have been analyzed. Based on these analyses, the horizontal hydraulic conductivities for the uppermost aquifer ranges from 2.28 ft/day and 67.75 ft/day with 67.75 ft/day observed in a more permeable gravel zone. The geometric mean hydraulic conductivity for the Site is 12.33 ft/day. The hydraulic gradient was calculated between well pairs shown on **Table 4, Horizontal Groundwater Flow Velocity Calculation**. The hydraulic conductivity value used in the calculations is 4.35×10^{-3} cm/sec or 12.33 ft/day and representative of the geometric mean. An estimated effective porosity of 20% 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 $\left(\frac{\text{feet}}{\text{day}}\right)$

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

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 2019.

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 blanks and duplicate 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 are used as measure of laboratory precision. Where field duplicates are collected, the RPD) between the sample and duplicate sample is calculated as:

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

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

Where the relative percent differences 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 2019 sampling events. All RPD's were below 20% for the most recent sampling event except for TDS. A qualifier of (+) J was added to the TDS result for well GSD-AP-MW-14 and no further action is required.

Data from all equipment and field blanks were reviewed for purposes of QA/QC. All equipment and field blank data were below laboratory detection limits and additional data validation was not required.

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-3 verification strategy, were constructed for fluoride and pH. Interwell prediction limits, combined with a 1-of-2 verification strategy, are used to evaluate boron, calcium, chloride, sulfate, and TDS. 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 April 2019 Statistical Analysis Plan. Time series plots were used to screen proposed background data for suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective. Suspected outliers at all wells for Appendix III parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database.

The following adjustments were made:

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

4.2.2 Appendix IV Evaluation

When in assessment, 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 **2.2.1.4**), 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; and
 - (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. GWPS for Appendix IV constituents will be updated every two years beginning with the most recent event (Fall 2019). The next update to GWPS will occur no earlier than the Fall of 2021. Data from upgradient wells collected in between updates may still be used to support ASDs.

4.3 STATISTICAL EXCEEDANCES

Analytical data from the 2019 semi-annual monitoring event in August was statistically analyzed in accordance with the PE-certified Statistical Analysis Plan (April 2019) 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

Statistical analysis of Appendix III data identified the following statistically significant increases (SSIs) over background at the listed wells:

- GSD-AP-MW-1: boron, calcium, chloride, sulfate, TDS
- GSD-AP-MW-2: boron, calcium, TDS
- GSD-AP-MW-3: boron, calcium, chloride, TDS
- GSD-AP-MW-4: boron, chloride
- GSD-AP-MW-5: boron, calcium, chloride
- GSD-AP-MW-6: chloride
- GSD-AP-MW-7: chloride
- GSD-AP-MW-8: calcium, chloride
- GSD-AP-MW-9: calcium, chloride
- GSD-AP-MW-10: calcium, chloride
- GSD-AP-MW-11: boron, calcium, chloride, sulfate, TDS
- GSD-AP-MW-12: calcium, chloride, sulfate, TDS
- GSD-AP-PZ-1: calcium

Statistical analyses of Appendix III constituents are presented in **Appendix C, Statistical Analyses**.

4.3.2 Appendix IV Constituents

Table 6, Summary of Background Levels and Groundwater Protection Standards, summarizes the background limit established at each monitoring well and the GWPS. A summary table of the statistical limits accompanies the prediction limits in **Appendix C**. Statistical analysis of the August 2019 Appendix IV sampling results identified the following SSLs over GWPS at the listed wells:

- GSD-AP-MW-2: Arsenic, Lithium
- GSD-AP-MW-4: Arsenic

Table 7, Second Semi-Annual Monitoring Event Analytical Summary, provides a summary of all detected constituents for the second semi-annual sampling event. Statistical reporting output is included as **Appendix C**. Pursuant to § 257.95(g)(3) and ADEM Admin. Code r. 335-13-15-.06(6)(g)4., within 90 days of finding that any of the Appendix IV constituents exceeds the GWPS (i.e. 90 days from January 12, 2020), APC will either (1) prepare a demonstration that a source other than the Ash Pond was the cause, or

(2) initiate an assessment of corrective measures (ACM) following § 257.95 and ADEM Admin. Code r. 335-13-15-.06(7).

5.0 MONITORING PROGRAM STATUS

The site is currently in assessment monitoring as SSIs of Appendix III parameters were identified at the Plant Gadsden Ash Pond during sampling events conducted in 2019. In accordance with § 257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC initiated assessment monitoring in July 2019. SSLs of Appendix IV constituents were identified above the groundwater protection standards. Prior to April 11, 2020 APC will either (1) prepare a demonstration that a source other than the Ash Pond was the cause, or (2) initiate an assessment of corrective measures (ACM) following § 257.95 and ADEM Admin. Code r. 335-13-15-.06(7).

6.0 SUMMARY AND CONCLUSIONS

In accordance with § 257.94(b) and ADEM Admin. Code r. 335-13-15-.06(5)(b), eight (8) independent samples were collected from each background and downgradient well and analyzed for the constituents listed in Appendix III and IV prior to April 17, 2019. Background sampling was performed over the period of December 2017 to February 2019. Groundwater sampling for the first detection monitoring event was performed the week of February 25, 2019. Constituents listed in Appendix III were statistically analyzed and SSIs identified. Pursuant to § 257.94(e)(1) and ADEM Admin. Code r. 335-13-15-.06(5)(e)1., Assessment Monitoring was implemented at the Site on July 16, 2019.

The first assessment sampling event was performed in August 2019. Statistical analysis of the assessment monitoring results identified SSLs of arsenic and lithium above GWPS. APC will either complete an ASD for the Appendix IV SSLs or initiate an ACM by April 11, 2020.

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

- APC will commence groundwater sampling from the delineation wells, pursuant to the requirements of 40 CFR § 257.95(g)(1)(iv) and ADEM Admin. Code r. 335-13-15-.06(6)(g)2.(iv) using the sampling procedures described in the site groundwater monitoring plan. At a minimum, groundwater samples will be collected and analyzed for those constituents listed in Appendix III of the CCR rule and those Appendix IV constituents detected in groundwater monitoring wells at the site; and
- Conduct the first semi-annual assessment sampling event in April or May of 2020 and submit report summarizing findings by July 31, 2020.

7.0 REFERENCES

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

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

Bossong, C.R., 1989, Geohydrology and Susceptibility of Major Aquifers to Surface Contamination in Alabama; Area 2, USGS Water-Resources Investigations Report 88-4177.

Geological Survey of Alabama (GSA), 2010b, Digital Geologic Map of Alabama, URL: <http://www.gsa.state.al.us/index.html>, accessed November, 2010.

Mann, S.D. and Baker, R.M., 1995, Ground-Water Availability in Etowah County, Alabama, Geological Survey of Alabama, Special Map 243.

Osborne, W.E., Raymond, D.E., 1992, The Knox Group in the Appalachian Fold-Thrust Belt and Black Warrior Basin of Alabama: Stratigraphy and Petroleum Exploration, Geological Survey of Alabama, Circular 162.

Pashin, J. C., 2008, Gas shale potential of Alabama: Tuscaloosa, Alabama, University of Alabama, College of Continuing Studies, 2008 International Coalbed & Shale Gas Symposium Proceedings, paper 0808, 13 p.

Raymond, D.E., Osborne, W.E., Copeland, C.W., Neathery, T.L., 1988, Alabama Stratigraphy, Geological Survey of Alabama, Circular 140.

USEPA. 2009. Statistical Analysis of Groundwater Monitoring Data at RCRA Facilities, Unified Guidance. Office of Resource Conservation and Recovery – Program Implementation and Information Division. March.

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

United States Geological Survey (USGS), 1986, Gadsden West and Gadsden East Alabama Quadrangles, 7.5 Minutes Series Topographic Map.

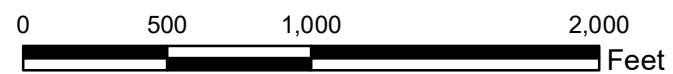
Sapp, C.D., and Emplainscourt, J., 1975, Physiographic regions of Alabama, Special Map 168, Geological Survey of Alabama.

Southern Company Services (SCS), 2018, Plant Gadsden Ash Pond Groundwater Monitoring Plan.

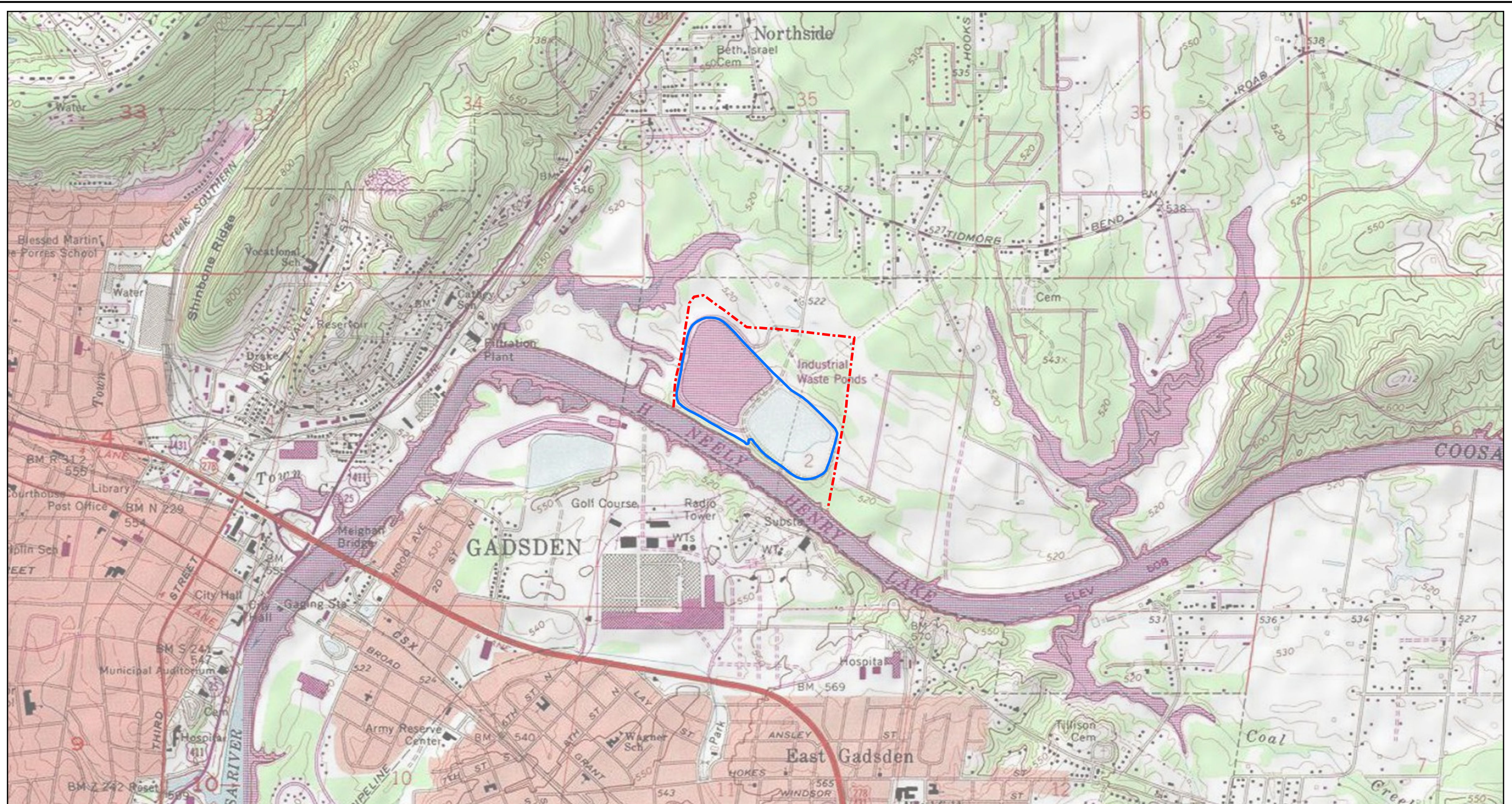
Figures



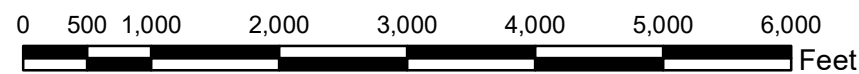
- Legend**
- Ash Pond Boundary
 - Property Boundary (Approximate)



SCALE	1:8000	DRAWING TITLE	SITE LOCATION MAP PLANT GADSDEN ASH POND
DATE	1/2/2020		
DRAWN BY	KWR	FIGURE NO	FIGURE 1
CHECKED BY	CTL		



- Legend**
- Ash Pond Boundary
 - Property Boundary (Approximate)



SCALE 1:18000

DATE 1/2/2020

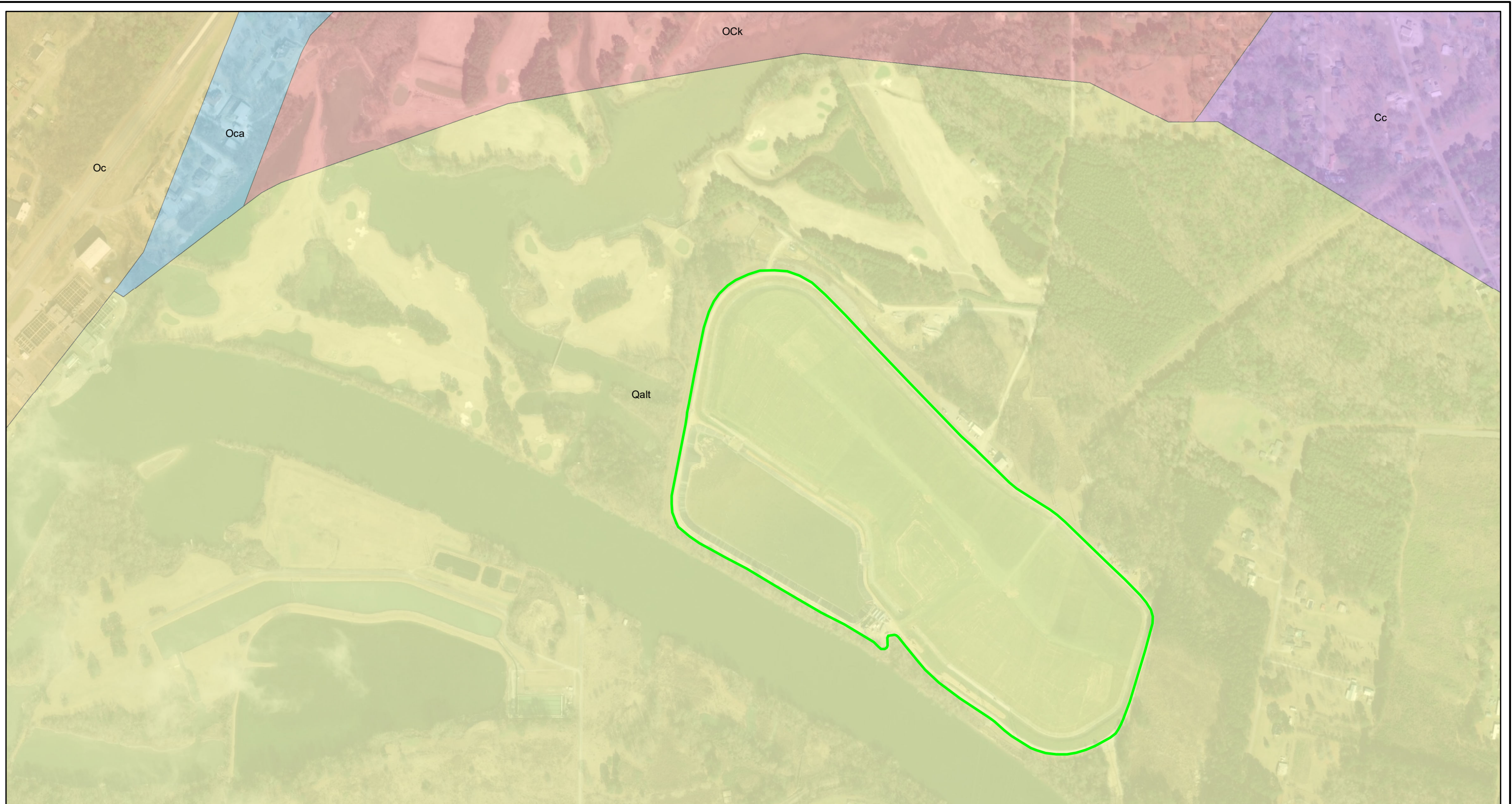
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DRAWING TITLE
**SITE TOPOGRAPHIC MAP
 PLANT GADSDEN ASH POND**

FIGURE NO
FIGURE 2



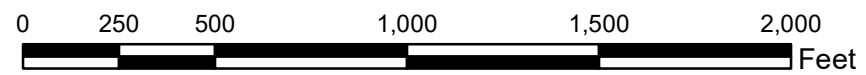


Legend

- Ash Pond Boundary
- Property Boundary (Approximate)

Geologic Units

- Alluvial, coastal, and low terrace deposits
- Attalla Chert Conglomerate Member of the Chickamauga Limestone
- Chickamauga Limestone
- Conasauga Formation
- Knox Group undifferentiated



SCALE 1:6000

DATE 1/2/2020

DRAWN BY KWR

CHECKED BY CTL

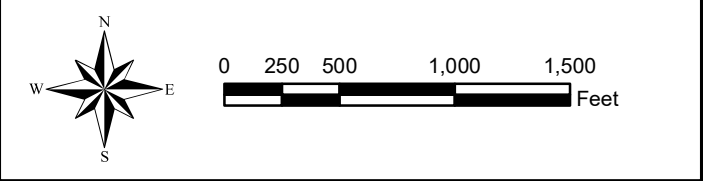
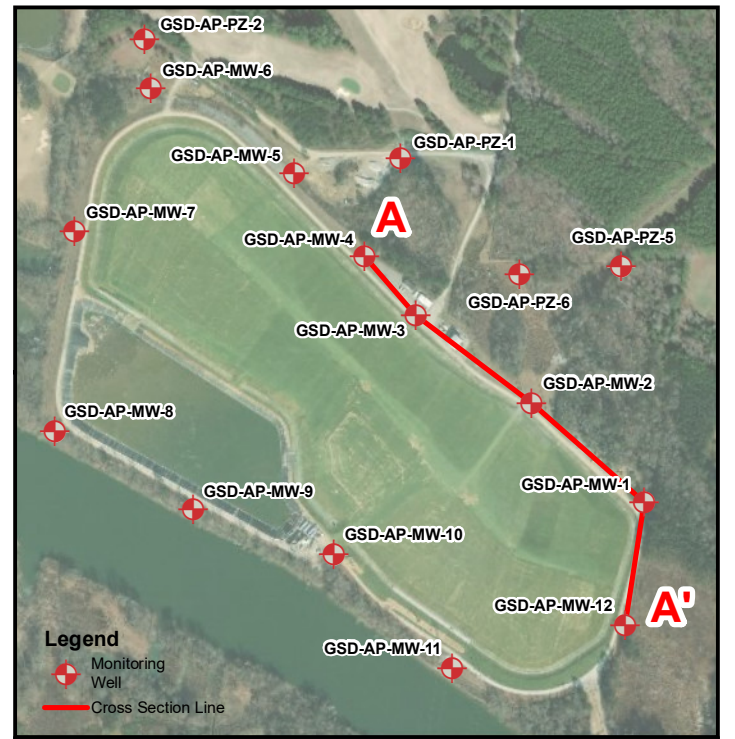
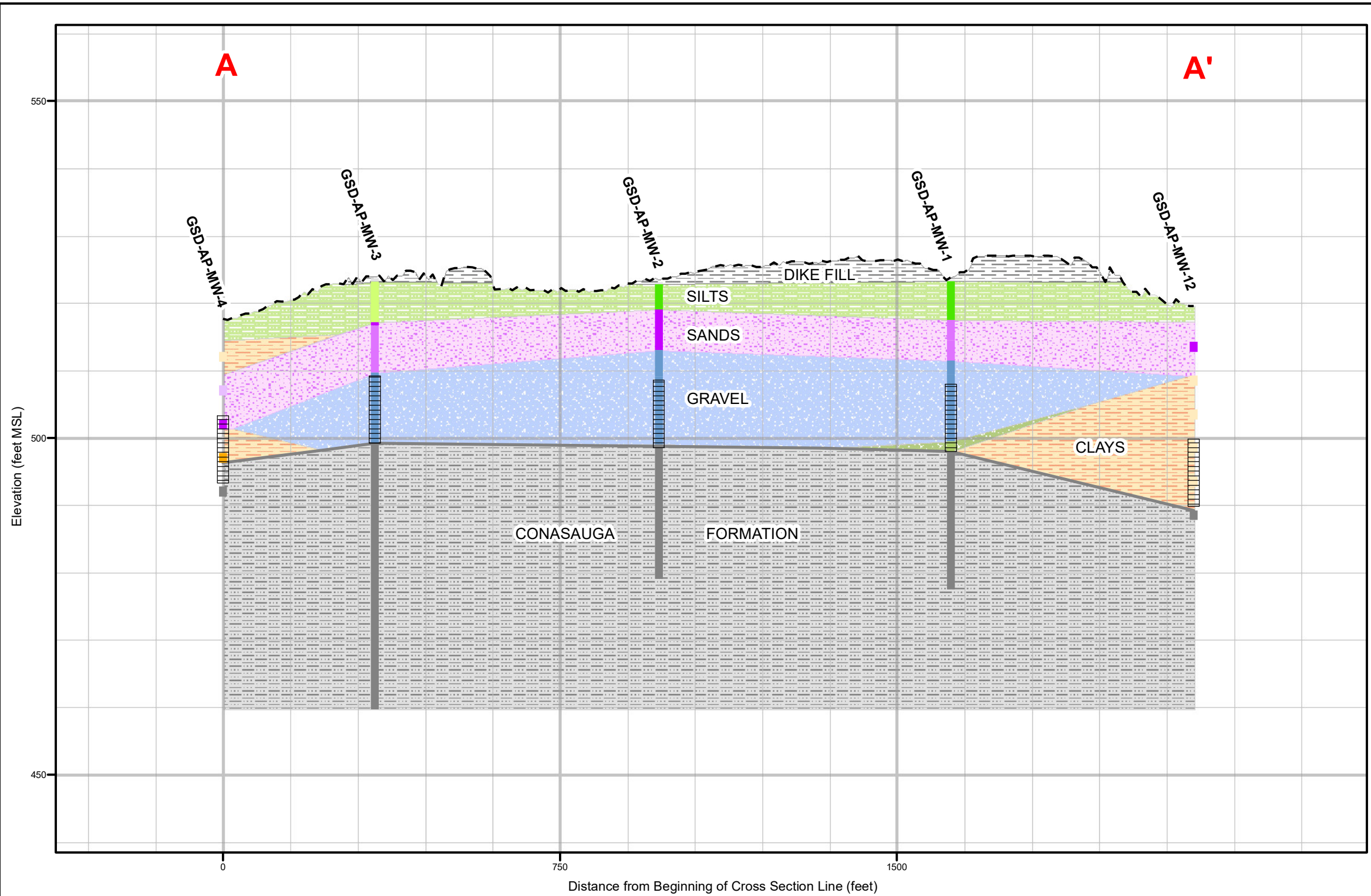
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**SITE GEOLOGIC MAP
PLANT GADSDEN ASH POND**

FIGURE NO

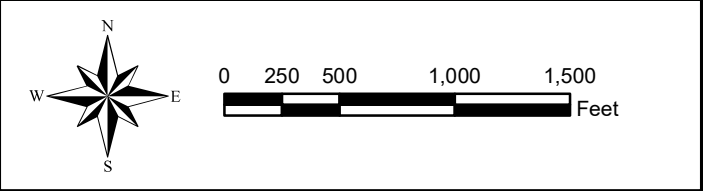
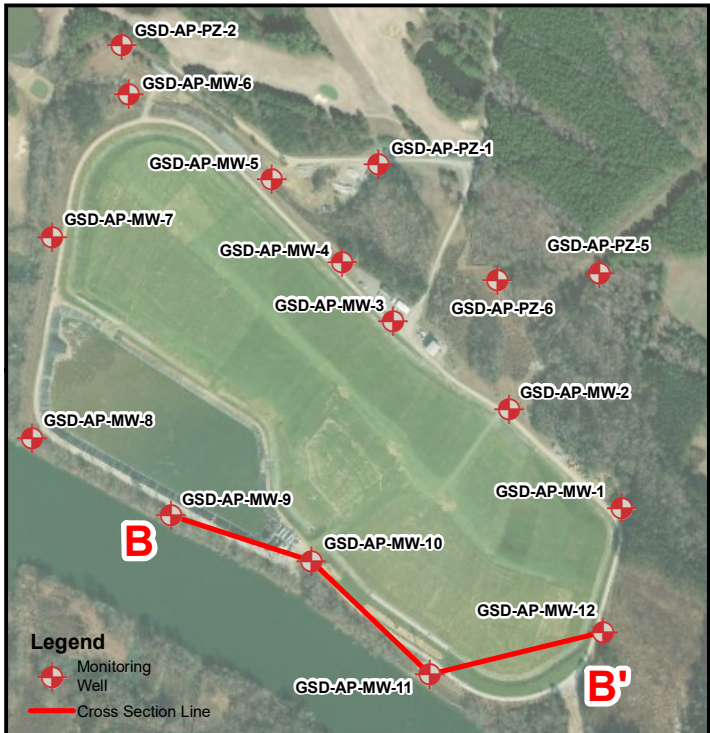
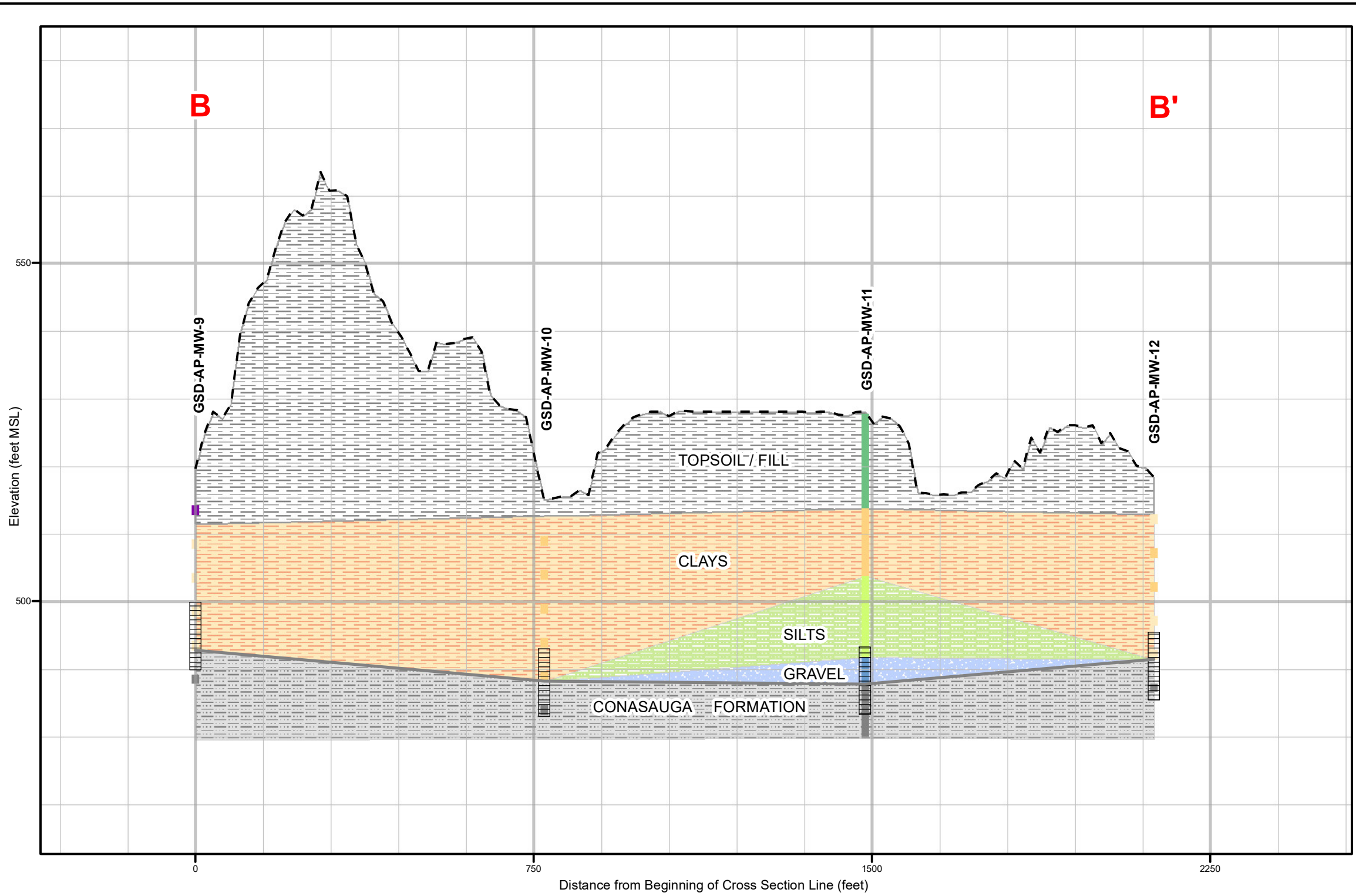
FIGURE 3





Notes: 1. Stratigraphic layers were correlated using boring data.
 2. Elevation data are reported using feet above Mean Sea Level (MSL).
 3. Vertical exaggeration is 15x.

Legend 	Borehole Descriptions 		Geologic Units 		HORIZONTAL SCALE 1:3011	DRAWING TITLE GEOLOGIC CROSS-SECTION A - A' PLANT GADSDEN ASH POND	
					DATE 1/8/2020		
					DRAWN BY KAR		
					CHECKED BY CTL		

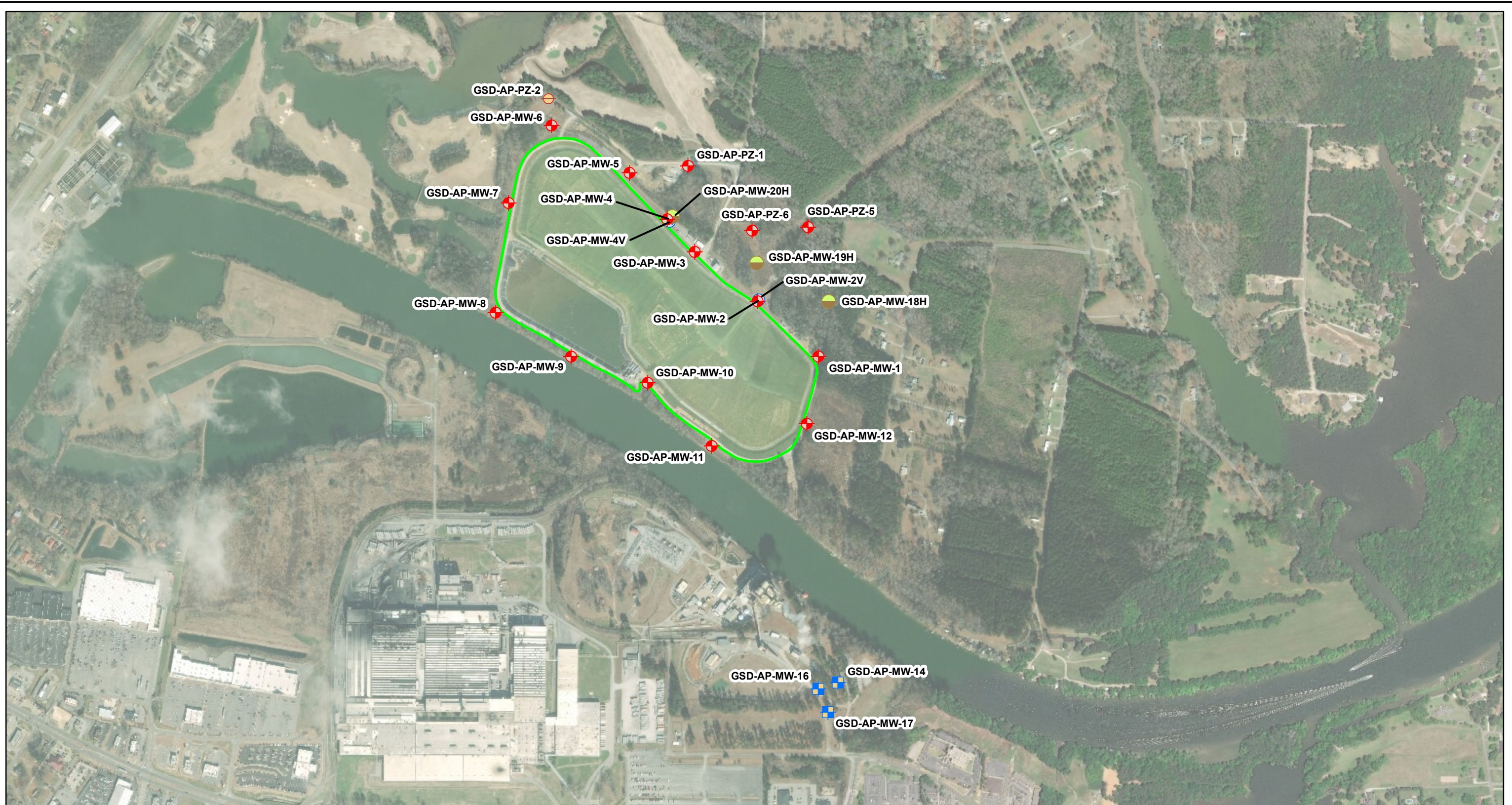








Notes: 1. Stratigraphic layers were correlated using boring data.
 2. Elevation data are reported using feet above Mean Sea Level (MSL).
 3. Vertical exaggeration is 15x.

Legend	Borehole Descriptions	Geologic Units
Screen Interval	Clay, Silt, and Gravel Fill	Topsoil/Fill
Ground Surface Elevation	Lean Clays	Clays
Unit Boundary	Fat and Silty Clays	Silts
	Silt	Gravel
	Poorly-graded Gravelly Sand	Siltstone/Shale
	Well-graded Gravel	
	Shale/Siltstone	

HORIZONTAL SCALE	1:3000
DATE	1/8/2020
DRAWN BY	KAR
CHECKED BY	CTL


DRAWING TITLE	
GEOLOGIC CROSS-SECTION B - B' PLANT GADSDEN ASH POND	
FIGURE NO	FIGURE 4B
Southern Company	

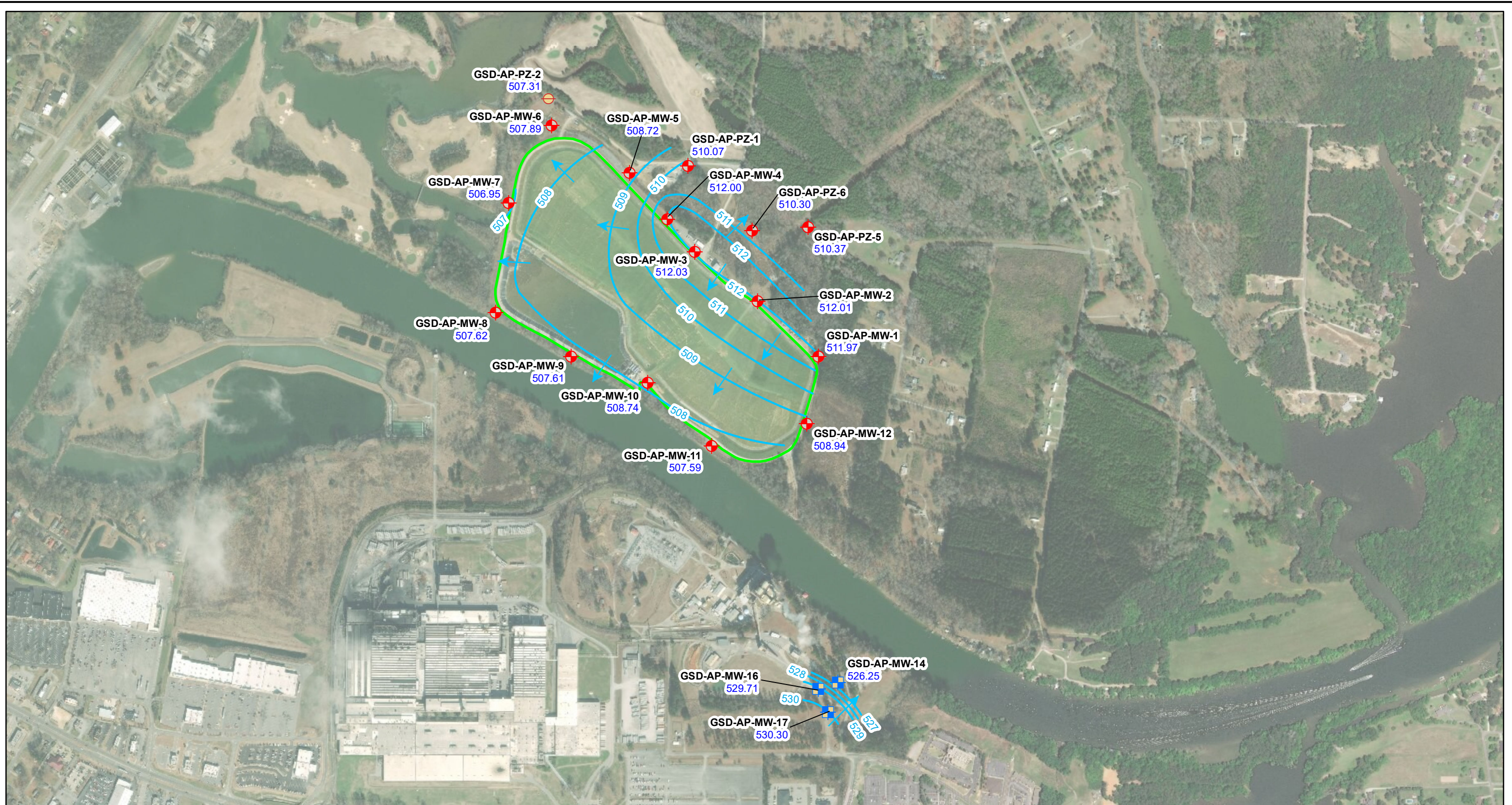


- Legend**
-  Downgradient Monitoring Well
 -  Upgradient Monitoring Well
 -  Piezometer
 -  Horizontal Delineation Well
 -  Vertical Delineation Well
 -  Ash Pond Boundary









SCALE	1:9000
DATE	1/16/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE	
MONITORING WELL LOCATION MAP PLANT GADSDEN ASH POND	
FIGURE NO	FIGURE 5
	




Legend

-  Downgradient Monitoring Well
 -  Upgradient Monitoring Well
 -  Piezometer
 -  Potentiometric Surface Contour (ft NAVD88)
 -  Approximate Groundwater Flow Direction
 -  Ash Pond Boundary
- GN-AP-MW-1** Well ID
511.97 Groundwater Elevation



NOTE: NAVD88 indicates North American Vertical Datum of 1988.

SCALE	1:9000
DATE	1/16/2020
DRAWN BY	KWR
CHECKED BY	GBD

DRAWING TITLE	
POTENTIOMETRIC SURFACE CONTOUR MAP AUGUST 19, 2019 PLANT GADSDEN ASH POND	
FIGURE NO	FIGURE 6
 Southern Company	

Tables

Table 1.
Groundwater Monitoring Well Network Details

Well Name	Purpose	Installation Completion Date	Northing	Easting	Ground Elevation	Top of Casing Elevation	Well Depth (ft.) Below Top of Casing	Top of Screen Elevation (ft MSL)	Bottom of Screen Elevation (ft MSL)	Screen Length
GSD-AP-MW-1	Downgradient	8/8/2017	1279914.40	615079.93	523.48	526.37	27.79	509.08	499.08	10
GSD-AP-MW-2	Downgradient	8/10/2017	1280352.80	614599.21	523.04	526.16	28.17	508.49	498.49	10
GSD-AP-MW-3	Downgradient	8/11/2017	1280742.72	614102.00	523.68	526.80	27.45	509.85	499.85	10
GSD-AP-MW-4	Downgradient	7/15/2013	1281001.39	613884.36	517.27	520.60	26.27	504.83	494.83	10
GSD-AP-MW-5	Downgradient	8/15/2017	1281367.84	613584.86	513.26	516.27	26.88	499.89	489.89	10
GSD-AP-MW-6	Downgradient	8/3/2017	1281745.78	612969.64	512.09	515.23	26.25	499.48	489.48	10
GSD-AP-MW-7	Downgradient	7/16/2013	1281131.20	612627.76	517.05	519.86	30.30	500.06	490.06	10
GSD-AP-MW-8	Downgradient	8/2/2017	1280261.79	612527.24	516.02	519.22	32.68	497.04	487.04	10
GSD-AP-MW-9	Downgradient	7/16/2013	1279916.88	613123.38	517.41	520.36	35.19	495.67	485.67	10
GSD-AP-MW-10	Downgradient	8/3/2017	1279709.35	613729.63	527.70	530.91	48.42	492.99	482.99	10
GSD-AP-MW-11	Downgradient	7/17/2013	1279209.03	614235.25	514.18	517.01	34.00	492.51	482.51	10
GSD-AP-MW-12	Downgradient	7/17/2013	1279381.38	614989.08	518.73	521.82	31.75	500.57	490.57	10
GSD-AP-MW-14	Upgradient	3/27/2018	1277336.39	615233.22	545.49	548.34	32.84	525.50	516.00	10
GSD-AP-MW-16	Upgradient	9/20/2018	1277286.36	615079.67	553.08	555.83	36.23	530.10	520.10	10
GSD-AP-MW-17	Upgradient	9/24/2018	1277101.94	615157.25	546.88	550.11	62.78	497.83	487.83	10
GSD-AP-PZ-1	Downgradient	8/14/2017	1281425.06	614048.07	518.80	521.64	27.47	504.67	494.67	10
GSD-AP-PZ-2	Piezometer	8/16/2017	1281957.82	612944.02	513.46	516.49	23.94	503.05	493.05	10
GSD-AP-PZ-5	Downgradient	3/28/2018	1280939.08	614998.03	521.36	524.26	30.77	503.99	493.99	10
GSD-AP-PZ-6	Downgradient	3/28/2018	1280911.35	614555.89	516.69	519.60	22.35	507.75	497.75	10
GSD-AP-MW-2V	Vertical Delineation	10/24/2019	1280364.25	614608.05	522.90	525.31	62.41	472.90	462.90	10
GSD-AP-MW-4V	Vertical Delineation	10/22/2019	1280986.06	613900.64	517.56	520.33	44.75	485.58	475.58	10
GSD-AP-MW-18H	Horizontal Delineation	10/24/2019	1280350.60	615161.03	522.28	524.45	27.60	506.85	496.85	10
GSD-AP-MW-19H	Horizontal Delineation	10/24/2019	1280656.67	614589.91	513.95	517.32	22.08	505.24	495.24	10
GSD-AP-MW-20H	Horizontal Delineation	10/24/2019	1281024.09	613927.12	514.28	516.68	20.29	506.39	496.39	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. Vertical delineation well GSD-AP-MW-2V did not produce sufficient groundwater for development and will be replaced

**Table 2.
Monitoring Parameters and Reporting Limits**

Parameter	Analytical Method	Reporting Limit (Mg/L)
Appendix III Parameters		
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		
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	EPA 9315/9320	1 pCi/L

Notes:

1. mg/L - Milligrams per liter
2. pCi/L - Picocuries per liter

**Table 3.
Groundwater Elevations Summary**

Well Name	Top of Casing Elevation	Groundwater Elevation (ft AMSL)																										
		12/4/2017	2/6/2018	2/9/2018	3/19/2018	3/28/2018	4/9/2018	4/23/2018	5/9/2018	5/16/2018	5/21/2018	5/23/2018	5/25/2018	5/31/2018	6/4/2018	6/7/2018	6/11/2018	6/14/2018	6/18/2018	6/21/2018	6/25/2018	6/28/2018	7/2/2018	7/5/2018	7/9/2018	7/12/2018	7/18/2018	7/19/2018
		GSD-AP-MW-1	526.37	513.72	514.90	515.77	517.56	517.24	516.72	517.40	516.17	515.59	515.20	515.13	515.05	514.81	514.65	514.49	514.27	514.14	513.94	513.83	513.69	513.61	513.51	513.44	513.30	513.21
GSD-AP-MW-2	526.16	513.78	514.70	515.20	516.58	516.30	515.95	516.38	515.53	515.11	514.82	514.82	514.73	514.60	514.46	514.32	514.12	514.00	513.83	513.73	513.63	513.55	513.49	513.40	513.30	513.21	--	513.05
GSD-AP-MW-3	526.80	513.81	514.75	515.11	515.92	515.73	515.41	516.19	514.95	514.64	514.43	514.61	514.46	514.50	514.26	514.11	513.91	513.86	513.67	513.61	513.55	513.51	513.48	513.37	513.26	513.17	--	513.05
GSD-AP-MW-4	520.60	513.76	514.69	515.01	515.76	515.59	515.27	516.05	514.83	514.51	514.32	514.55	514.38	514.45	514.18	514.02	513.85	513.71	513.60	513.56	513.46	513.45	513.41	513.29	513.17	513.09	--	512.98
GSD-AP-MW-5	516.27	510.81	511.80	512.14	512.25	512.09	511.85	512.49	511.46	511.22	511.12	511.32	511.24	511.24	511.09	510.88	510.66	510.41	510.52	510.60	510.60	510.83	510.81	510.49	510.18	509.95	--	510.06
GSD-AP-MW-6	515.23	509.89	510.60	510.88	510.72	510.59	510.36	511.08	510.16	510.02	509.97	510.15	510.06	510.10	509.98	509.85	509.61	509.46	509.72	509.73	509.72	509.90	509.89	509.67	509.32	509.13	--	509.27
GSD-AP-MW-7	519.86	507.66	508.62	509.44	509.33	509.14	508.62	509.52	508.85	508.67	508.49	508.61	508.55	508.34	508.39	508.33	508.18	508.05	507.92	508.01	507.90	507.87	507.97	507.82	507.71	507.65	--	507.58
GSD-AP-MW-8	519.22	506.85	506.90	508.22	506.94	507.09	506.60	508.02	507.99	507.84	507.96	508.03	507.85	507.70	508.20	507.69	507.68	507.86	507.84	507.88	507.55	507.79	507.81	507.43	507.69	--	507.54	
GSD-AP-MW-9	520.36	505.87	506.86	508.09	506.98	507.04	506.60	507.85	507.99	507.88	508.01	508.01	507.88	507.74	508.20	507.91	507.70	507.72	507.90	507.88	507.90	507.60	507.83	507.83	507.48	507.73	--	507.59
GSD-AP-MW-10	530.91	509.82	509.68	510.06	509.78	509.25	509.14	509.75	509.61	509.55	509.56	509.64	509.52	509.56	509.52	509.44	509.31	509.26	509.43	509.51	509.56	509.41	509.51	509.41	509.26	509.24	--	509.23
GSD-AP-MW-11	517.01	507.46	507.93	508.88	507.96	507.98	507.59	508.66	508.43	508.24	508.27	508.35	508.21	508.07	508.39	508.19	507.98	507.95	508.03	508.09	508.09	507.86	508.03	507.99	507.73	507.85	--	507.74
GSD-AP-MW-12	521.82	511.62	513.11	513.83	513.99	513.71	513.20	514.13	512.81	512.33	511.87	512.12	511.94	512.73	511.60	511.43	511.20	511.06	510.92	510.89	510.80	510.75	510.75	510.61	510.47	510.35	--	510.24
GSD-AP-MW-14	548.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	526.24
GSD-AP-MW-16	555.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GSD-AP-MW-17	550.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GSD-AP-PZ-1	521.64	512.46	514.59	516.13	517.26	517.01	516.42	517.21	515.69	514.88	514.30	514.40	514.26	514.01	513.76	513.50	513.23	513.00	512.73	512.65	512.43	512.40	512.24	512.08	511.89	511.73	511.47	511.49
GSD-AP-PZ-2	516.49	506.92	507.81	508.83	507.87	507.96	507.47	508.58	508.37	508.15	508.25	508.35	508.19	508.04	508.29	508.08	507.92	507.81	507.88	508.00	507.98	507.79	508.00	507.91	507.61	507.67	--	507.62
GSD-AP-PZ-5	524.26	--	--	--	--	--	516.71	--	515.97	515.11	514.46	514.59	514.43	514.16	513.87	513.61	513.38	513.18	512.91	512.85	512.60	512.52	512.39	512.24	512.06	511.92	511.72	511.67
GSD-AP-PZ-6	519.60	--	--	--	--	516.57	--	515.86	515.03	514.45	514.58	514.42	514.18	513.88	513.61	513.35	513.16	512.90	512.80	512.57	512.51	512.39	512.28	512.02	511.90	511.70	511.65	
GSD-AP-MW-4V	520.33	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GSD-AP-MW-18H	524.45	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GSD-AP-MW-19H	517.32	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
GSD-AP-MW-20H	516.68	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--

Notes:
1. ft. AMSL - feet above mean sea level
2. -- Not Measured

Well Name	Top of Casing Elevation	Groundwater Elevation (ft AMSL)																										
		7/23/2018	7/26/2018	8/2/2018	8/6/2018	8/20/2018	8/23/2018	8/27/2018	8/30/2018	9/6/2018	9/10/2018	9/13/2018	9/20/2018	9/24/2018	9/27/2018	10/1/2018	10/4/2018	10/15/2018	10/22/2018	11/4/2018	11/28/2018	12/3/2018	12/18/2018	1/3/2019	2/4/2019	2/25/2019	6/10/2019	8/19/2019
GSD-AP-MW-1	526.37	512.90	512.81	512.90	512.90	512.69	512.63	512.54	512.48	512.27	512.17	512.08	511.88	511.81	512.02	511.94	511.70	511.57	--	--	513.12	--	--	517.76	519.26	514.50	511.97	
GSD-AP-MW-2	526.16	512.93	512.85	513.01	513.03	512.78	512.71	512.61	512.54	512.36	512.25	512.16	511.97	512.05	512.23	512.12	511.84	511.73	--	--	513.15	--	--	516.64	518.15	514.30	512.01	
GSD-AP-MW-3	526.80	512.92	512.83	513.38	513.09	512.88	512.82	512.67	512.60	512.42	512.30	512.23	512.05	512.53	512.55	512.39	512.03	511.90	--	--	513.50	--	--	515.98	517.38	514.21	512.03	
GSD-AP-MW-4	520.60	512.85	512.77	513.42	513.08	512.86	512.79	514.66	512.57	512.38	512.28	512.19	512.01	512.63	512.58	512.40	512.03	511.89	--	--	513.54	--	--	515.78	517.13	514.13	512.00	
GSD-AP-MW-5	516.27	509.68	509.48	510.79	510.60	510.62	510.32	510.00	509.79	509.37	509.25	509.21	508.88	510.63	510.63	510.40	509.76	509.64	--	--	511.52	--	--	512.09	513.01	511.13	508.72	
GSD-AP-MW-6	515.23	508.86	508.68	510.15	509.85	509.81	509.61	509.26	509.11	508.68	508.56	508.56	508.21	510.16	509.95	509.78	509.17	509.05	--	--	510.58	--	--	510.70	511.64	510.02	507.89	
GSD-AP-MW-7	519.86	507.42	507.33	507.82	507.96	507.92	507.85	507.68	507.54	507.24	507.15	507.11	506.97	507.68	507.98	507.94	507.76	507.54	--	--	509.41	--	--	509.82	513.85	508.34	506.95	
GSD-AP-MW-8	519.22	507.39	507.48	508.25	507.98	507.76	507.78	507.70	507.79	507.77	507.61	507.74	507.75	508.30	507.81	507.90	507.62	507.37	--	--	508.98	--	--	508.46	511.45	507.78	507.62	
GSD-AP-MW-9	520.36	507.45	507.54	508.25	508.06	507.76	507.82	507.70	507.84	507.79	507.66	507.79	507.82	508.28	507.86	507.93	507.63	507.39	--	--	508.69	--	--	508.46	511.42	507.83	507.61	
GSD-AP-MW-10	530.91	509.10	509.04	509.96	509.81	509.35	509.32	509.19	509.18	509.09	509.05	509.10	509.09	509.54	509.55	509.39	509.03	508.97	--	--	509.66	--	--	509.93	511.87	509.34	508.74	
GSD-AP-MW-11	517.01	507.62	507.64	508.55	508.26	507.93	507.95	507.89	507.92	507.88	507.74	507.82	507.84	508.48	508.14	508.07	507.77	507.53	--	--	509.29	--	--	509.06	511.67	508.12	507.59	
GSD-AP-MW-12	521.82	510.07	509.93	511.43	510.99	510.70	510.54	510.35	510.24	510.00	509.79	509.69	509.68	510.31	510.57	510.38	509.87	509.64	--	--	512.76	--	--	514.11	515.43	511.29	508.94	
GSD-AP-MW-14	548.34	--	--	--	526.24	--	--	--	--	--	526.00	--	--	525.80	--	--	--	525.80	--	--	526.19	--	--	527.65	528.71	527.07	526.25	
GSD-AP-MW-16	555.83	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	529.67	529.34	529.51	529.98	530.52	531.32	531.98	530.55	529.71		
GSD-AP-MW-17	550.11	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	531.30	530.47	530.50	530.77	531.44	532.49	532.25	534.03	531.23	530.30	
GSD-AP-PZ-1	521.64	511.26	511.10	511.48	511.38	511.18	511.11	510.87	510.74	510.46	510.29	510.18	509.86	509.63	510.16	510.48	512.40	510.01	509.86	--	--	512.99	--	--	512.29	519.05	513.54	510.14
GSD-AP-PZ-2	516.49	507.41	507.39	508.46	508.19	508.03	507.96	507.81	507.83	507.70	507.56	507.62	507.50	--	508.50	508.22	508.16	507.79	507.51	--	--	509.29	--	--	509.02	511.33	508.15	507.31
GSD-AP-PZ-5	524.26	511.46	511.31	511.54	511.42	511.24	511.11	510.98	510.88	510.62	510.44	510.36	510.07	509.95	510.12	510.38	509.87	510.25	510.02	509.93	--	--	512.73	--	--	51		

**Table 4.
Horizontal Groundwater Flow Velocity Calculations**

SA02 2019								
Source	PZ-6	MW-10	Distance	Hydraulic Gradient	Hydraulic Conductivity	Effective Porosity	Calculated Groundwater Flow Velocity (ft/d)	Calculated Groundwater Flow Velocity (ft/yr)
8/19/2019	h ₁ (ft)	h ₂ (ft)	Δl (ft)	Δh/Δl (ft/ft)	K	n		
Slug Testing	510.3	508.74	1455.00	0.00107	12.33	0.2	0.066	83.0

Notes:

ft=feet

ft/d = feet/day

ft/ft = feet per foot

ft/yr = feet per year

**Table 5.
Relative Percent Difference Calculations**

2nd Semi-Annual Monitoring Event				
Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		GSD-AP-MW-14	GSD-AP-MW-14 DUP	
Calcium	mg/L	14.4	14.4	0.0
Chloride	mg/L	3.27	3.23	1.2
Cobalt	mg/L	0.0391	0.041	4.7
Sulfate	mg/L	106	107	0.9
TDS	mg/L	265	177	39.8

Parameter	Units	Monitoring Point Identification		Relative Percent Difference (RPD %)
		GSD-AP-MW-1	GSD-AP-MW-1 DUP	
Barium	mg/L	0.037	0.0373	0.8
Boron	mg/L	1.24	1.24	0.0
Calcium	mg/L	272	276	1.5
Chloride	mg/L	5.26	5.25	0.2
Cobalt	mg/L	0.0242	0.0244	0.8
Sulfate	mg/L	708	700	1.1
TDS	mg/L	1200	1210	0.8

Table 6.
Summary of Background Levels and Groundwater Protection Standards

Analyte	Units	Background	Federal GWPS	State GWPS
Antimony	mg/L	0.003	0.006	0.006
Arsenic	mg/L	0.005	0.01	0.01
Barium	mg/L	0.259	2	2
Beryllium	mg/L	0.003	0.004	0.004
Cadmium	mg/L	0.00101	0.005	0.005
Chromium	mg/L	0.01	0.1	0.1
Cobalt	mg/L	0.0538	0.006	0.0538
Combined Radium-226/228	pCi/L	1.213	5	5
Fluoride	mg/L	0.23	4	4
Lead	mg/L	0.005	0.015	0.015
Lithium	mg/L	0.02	0.04	0.04
Mercury	mg/L	0.000664	0.002	0.002
Molybdenum	mg/L	0.01	0.1	0.1
Selenium	mg/L	0.01	0.05	0.05
Thallium	mg/L	0.001	0.002	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)(i)
4. Where two numbers are present, they denote the different background levels for each of the two semiannual monitoring events in the order that they were determined.

**Table 7.
Second Semi-Annual Monitoring Event Analytical Summary**

		APPENDIX III						
WELL	SAMPLE DATE	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
GWPS		N/R	N/R	N/R	4	N/R	N/R	N/R
UNITS		mg/L	mg/L	mg/L	mg/L	SU	mg/L	mg/L
GSD-AP-MW-1	8/21/2019	1.24	272	5.26	Non-Detect	6.01	708	1200
GSD-AP-MW-2	8/20/2019	0.566	92.3	2.24	0.252	6.3	110	369
GSD-AP-MW-3	8/20/2019	1.06	74.1	6.07	0.0592(J)	5.73	222	416
GSD-AP-MW-4	8/20/2019	0.399	23.5	9.62	0.197	6.33	7.34	164
GSD-AP-MW-5	8/20/2019	0.378	33.7	6.53	0.0567(J)	6.11	21.3	174
GSD-AP-MW-6	8/20/2019	0.0608(J)	15.1	9.55	Non-Detect	5.4	12.3	98.7
GSD-AP-MW-7	8/21/2019	0.091(J)	23.5	7.35	0.068(J)	5.97	11.8	133
GSD-AP-MW-8	8/21/2019	0.0569(J)	71.5	5.89	0.0648(J)	6.16	10.8	226
GSD-AP-MW-9	8/21/2019	0.0524(J)	50.9	6.16	0.0984(J)	6.61	11.3	200
GSD-AP-MW-10	8/22/2019	0.0951(J)	38.5	5.66	0.084(J)	6.37	6.74	194
GSD-AP-MW-11	8/22/2019	0.272	133	4.64	Non-Detect	6.26	305	555
GSD-AP-MW-12	8/22/2019	0.0625(J)	89.4	6.31	Non-Detect	5.35	339	501
GSD-AP-MW-14	8/20/2019	Non-Detect	14.4	3.27	Non-Detect	4	106	265 (+) J
GSD-AP-MW-16	8/19/2019	Non-Detect	12.8	3.42	Non-Detect	4.57	66.6	121
GSD-AP-MW-17	8/19/2019	0.0341(J)	25.3	2.8	0.187	7.93	8.74	240
GSD-AP-PZ-1	8/20/2019	Non-Detect	38.3	3.52	0.0889(J)	6.3	3.73	141
GSD-AP-PZ-5	8/21/2019	Non-Detect	3.04	3.85	Non-Detect	5.13	1.21	46
GSD-AP-PZ-6	8/21/2019	Non-Detect	3.71	4	Non-Detect	5.44	1.62	42.7

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
3. (+) J indicates trace or estimated concentration applied when field duplication precision limits are exceeded
4. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
5. TDS - Total Dissolved Solids
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.

**Table 7.
Second Semi-Annual Monitoring Event Analytical Summary**

		APPENDIX IV						
WELL	SAMPLE DATE	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt
GWPS		0.006	0.01	2	0.004	0.005	0.1	0.0538
UNITS		mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
GSD-AP-MW-1	8/21/2019	Non-Detect	0.00444(J)	0.037	Non-Detect	Non-Detect	Non-Detect	0.0242
GSD-AP-MW-2	8/20/2019	Non-Detect	0.825	0.0685	Non-Detect	Non-Detect	Non-Detect	0.0366
GSD-AP-MW-3	8/20/2019	Non-Detect	Non-Detect	0.0405	Non-Detect	Non-Detect	Non-Detect	0.0257
GSD-AP-MW-4	8/20/2019	Non-Detect	0.0141	0.188	Non-Detect	Non-Detect	Non-Detect	0.0293
GSD-AP-MW-5	8/20/2019	Non-Detect	Non-Detect	0.238	Non-Detect	Non-Detect	Non-Detect	0.00223(J)
GSD-AP-MW-6	8/20/2019	Non-Detect	Non-Detect	0.0731	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-7	8/21/2019	Non-Detect	Non-Detect	0.0946	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-8	8/21/2019	Non-Detect	0.00302(J)	0.194	Non-Detect	Non-Detect	Non-Detect	0.00303(J)
GSD-AP-MW-9	8/21/2019	Non-Detect	Non-Detect	0.183	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-10	8/22/2019	Non-Detect	0.00394(J)	0.302	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-11	8/22/2019	Non-Detect	0.00229(J)	0.214	Non-Detect	Non-Detect	Non-Detect	0.00756
GSD-AP-MW-12	8/22/2019	Non-Detect	Non-Detect	0.0455	Non-Detect	0.000755(J)	Non-Detect	0.00658
GSD-AP-MW-14	8/20/2019	Non-Detect	0.00216(J)	0.0274	0.00129(J)	0.000622(J)	Non-Detect	0.0391
GSD-AP-MW-16	8/19/2019	Non-Detect	0.00228(J)	0.0314	Non-Detect	0.000499(J)	Non-Detect	0.0247
GSD-AP-MW-17	8/19/2019	Non-Detect	Non-Detect	0.259	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-PZ-1	8/20/2019	Non-Detect	Non-Detect	0.097	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-PZ-5	8/21/2019	Non-Detect	Non-Detect	0.085	Non-Detect	Non-Detect	Non-Detect	0.00225(J)
GSD-AP-PZ-6	8/21/2019	Non-Detect	Non-Detect	0.0312	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
3. (+) J indicates trace or estimated concentration applied when field duplication precision limits are exceeded
4. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
5. TDS - Total Dissolved Solids
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.

**Table 7.
Second Semi-Annual Monitoring Event Analytical Summary**

		APPENDIX IV							
WELL	SAMPLE DATE	Combined Radium 226 + 228	Fluoride	Lead	Lithium	Mercury	Molybdenum	Selenium	Thallium
GWPS		5	4	0.015	0.04	0.002	0.1	0.05	0.002
UNITS		pCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
GSD-AP-MW-1	8/21/2019	0.643(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-2	8/20/2019	0.553(U)	0.252	Non-Detect	0.0583	Non-Detect	0.027	Non-Detect	0.000322 (J)
GSD-AP-MW-3	8/20/2019	0.709(U)	0.0592(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-4	8/20/2019	0.814	0.197	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-5	8/20/2019	0.206(U)	0.0567(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-6	8/20/2019	- 0.086(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-7	8/21/2019	- 0.0134(U)	0.068(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-8	8/21/2019	0.552(U)	0.0648(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-9	8/21/2019	1.53(U)	0.0984(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-10	8/22/2019	- 0.021(U)	0.084(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-11	8/22/2019	1.34(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-12	8/22/2019	0.145(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-14	8/20/2019	0.774	Non-Detect	0.00176(J)	Non-Detect	0.000301(J)	Non-Detect	0.00328(J)	Non-Detect
GSD-AP-MW-16	8/19/2019	0.377(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00316 (J)	Non-Detect
GSD-AP-MW-17	8/19/2019	0.683	0.187	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-PZ-1	8/20/2019	0.663	0.0889(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-PZ-5	8/21/2019	0.442(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-PZ-6	8/21/2019	-0.00256(U)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect

Notes:

1. J value indicates the result is greater than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL). Values are displayed as less than the PQL with a J.
2. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
3. (+) J indicates trace or estimated concentration applied when field duplication precision limits are exceeded
4. U - Radium data is a combination of radium isotopes 226 and 228. When results are reported below the MDC (Minimum Detectable Concentration), data is displayed with an accompanying U. The MDC varies depending upon the sample amount and elapsed time of the measurement.
5. TDS - Total Dissolved Solids
6. N/R indicates a substance does not have an MCL or SMCL, but will be further evaluated statistically at the conclusion of all the background sampling events, as required by EPA's CCR rule.

Appendix A

Appendix A

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 than or equal to the Method Detection Limit (MDL) and less than the Practical Quantitation Limit (PQL).
Values are displayed as less than the PQL with a J.
5. Non-Detect indicates the result was not detected above the MDL and is considered a non-detect.
6. GWPS is the Groundwater Protection Standard.
7. 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.
8. Annual sampling for Appendix IV constituents only was completed following initiation of assessment monitoring. Appendix III constituents were not required during this monitoring event.

Analytical Data Summary Plant Gadsden 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
GWPS		N/R	N/R	N/R	4	N/R	N/R	N/R	0.006	0.01	2	0.004	0.005	0.1	0.0538	5	4	0.015	0.04	0.002	0.1	0.05	0.002
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	µCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
GSD-AP-MW-2	12/6/2017	0.758	128	4.1	0.3	6.61	210	574	Non-Detect	0.809	0.0842	Non-Detect	Non-Detect	Non-Detect	0.772	0.0246	0.3	Non-Detect	0.092	Non-Detect	0.0254	Non-Detect	Non-Detect
GSD-AP-MW-2	2/6/2018	0.733	130	3.1	0.27	6.66	190	572	Non-Detect	0.774	0.0716	Non-Detect	Non-Detect	Non-Detect	0.679	0.0243	0.27	Non-Detect	0.0817	Non-Detect	0.0239	Non-Detect	Non-Detect
GSD-AP-MW-2	4/23/2018	0.608	95.9	3.7	0.19	6.54	140	414	Non-Detect	0.643	0.0518	Non-Detect	Non-Detect	Non-Detect	0.447(U)	0.0258	0.19	Non-Detect	0.051	Non-Detect	0.0165	Non-Detect	Non-Detect
GSD-AP-MW-2	6/27/2018	0.619	99.4	2.2	0.28	6.63	130	440	Non-Detect	1.01	0.0578	Non-Detect	Non-Detect	Non-Detect	0.117(U)	0.0362	0.28	Non-Detect	0.0734	Non-Detect	0.0302	Non-Detect	Non-Detect
GSD-AP-MW-2	8/7/2018	0.697	107	2.6	0.24	6.57	150	485	Non-Detect	0.988	0.0566	Non-Detect	Non-Detect	Non-Detect	1.22	0.0332	0.24	Non-Detect	0.0764	Non-Detect	0.0209	Non-Detect	Non-Detect
GSD-AP-MW-2	10/22/2018	0.754	107	2.8	0.24	6.55	160	484	Non-Detect	1.01	0.0536	Non-Detect	Non-Detect	Non-Detect	0.996	0.0438	0.24	Non-Detect	0.0804	Non-Detect	0.0198	Non-Detect	0.000213(J)
GSD-AP-MW-2	12/4/2018	0.737	120	4.1	0.15	6.52	170	504	Non-Detect	0.553	0.0589	Non-Detect	Non-Detect	Non-Detect	0.739	0.0252	0.15	Non-Detect	0.0474	Non-Detect	0.0118	Non-Detect	Non-Detect
GSD-AP-MW-2	2/5/2019	0.575	80.6	2.56	0.207	6.47	145	366	Non-Detect	0.74	0.0418	Non-Detect	Non-Detect	Non-Detect	1.09	0.0362	0.207	Non-Detect	0.0545	Non-Detect	0.0196	Non-Detect	0.000256(J)
GSD-AP-MW-2	2/26/2019	0.566	79.6	3.03	0.264	6.54	148	372	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.264	n/a	n/a	n/a	n/a	n/a	n/a
GSD-AP-MW-2	8/20/2019	0.566	92.3	2.24	0.252	6.3	110	369	Non-Detect	0.825	0.0685	Non-Detect	Non-Detect	Non-Detect	0.553(U)	0.0366	0.252	Non-Detect	0.0583	Non-Detect	0.027	Non-Detect	0.000322(J)

Analytical Data Summary

Plant Gadsden 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
GWPS		N/R	N/R	N/R	4	N/R	N/R	N/R	0.006	0.01	2	0.004	0.005	0.1	0.0538	5	4	0.015	0.04	0.002	0.1	0.05	0.002
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
GSD-AP-MW-14	6/27/2018	Non-Detect	16.6	3.1	0.18	3.95	120	219	Non-Detect	0.00165(J)	0.0338	0.00134(J)	0.00064(J)	Non-Detect	0.616	0.0382	0.18	0.00158(J)	Non-Detect	0.000661	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-14	7/18/2018	Non-Detect	15.3	3.4	0.23	4.02	120	195	Non-Detect	0.00117(J)	0.03	0.00133(J)	0.000679(J)	Non-Detect	0.859	0.0366	0.23	0.00152(J)	Non-Detect	0.000398(J)	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-14	8/6/2018	Non-Detect	13.8	2.8	0.23	4.07	110	175	Non-Detect	Non-Detect	0.0274	0.00129(J)	0.000536(J)	Non-Detect	0.654	0.0308	0.23	0.00143(J)	Non-Detect	0.00042(J)	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-14	9/5/2018	Non-Detect	12.1	2.8	0.22	4.07	86	153	Non-Detect	Non-Detect	0.0275	0.00106(J)	0.000479(J)	Non-Detect	0.855	0.0291	0.22	0.00118(J)	Non-Detect	0.00037(J)	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-14	9/24/2018	Non-Detect	11.8	3.1	0.2	4.07	80	127	Non-Detect	0.00148(J)	0.0264	0.000991(J)	0.00039(J)	Non-Detect	0.787	0.0286	0.2	0.00156(J)	Non-Detect	0.000329(J)	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-14	10/24/2018	Non-Detect	10.2	2.8	0.14	4.1	68	125	Non-Detect	Non-Detect	0.0276	0.00082(J)	0.000436(J)	Non-Detect	1.14	0.0269	0.14	0.00121(J)	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-14	12/5/2018	Non-Detect	9.14	2.2	0.07(J)	4.1	54	101	Non-Detect	Non-Detect	0.0256	0.00141(J)	0.000307(J)	Non-Detect	0.64	0.0215	0.07(J)	0.00117(J)	Non-Detect	0.000253(J)	Non-Detect	0.00208(J)	Non-Detect
GSD-AP-MW-14	2/5/2019	Non-Detect	15.1	3.12	Non-Detect	4.02	126	180	Non-Detect	0.00119(J)	0.0314	0.0011(J)	0.000515(J)	Non-Detect	0.873	0.0359	Non-Detect	0.00156(J)	Non-Detect	0.000664	Non-Detect	0.00387(J)	Non-Detect
GSD-AP-MW-14	2/28/2019	Non-Detect	21.4	3.45	Non-Detect	3.94(E)	207	287	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
GSD-AP-MW-14	8/20/2019	Non-Detect	14.4	3.27	Non-Detect	4	106	265	Non-Detect	0.00216(J)	0.0274	0.00129(J)	0.000622(J)	Non-Detect	0.0391	0.774	Non-Detect	0.00176(J)	Non-Detect	0.000301(J)	Non-Detect	0.00328(J)	Non-Detect

Analytical Data Summary Plant Gadsden 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	
GWPS		N/R	N/R	N/R	4	N/R	N/R	N/R	0.006	0.01	2	0.004	0.005	0.1	0.0538	5	4	0.015	0.04	0.002	0.1	0.05	0.002	
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	µCi/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	
GSD-AP-MW-16	10/24/2018	0.0261(J)	18	3.3	0.11	5.27	44	107	Non-Detect	Non-Detect	0.0499	Non-Detect	0.000307(J)	Non-Detect	0.564	0.0129	0.11	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-16	11/14/2018	0.0209(J)	14.9	3.6	0.1	4.99	44	96.7	Non-Detect	Non-Detect	0.0458	Non-Detect	0.000417(J)	Non-Detect	-0.0027(U)	0.0114	0.1	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-16	11/28/2018	0.0209(J)	14.8	3.5	0.1	4.74	46	102	Non-Detect	0.00124(J)	0.0476	0.00133(J)	0.000387(J)	Non-Detect	0.222(U)	0.0168	0.1	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect
GSD-AP-MW-16	12/5/2018	Non-Detect	14.8	3.3	0.11	4.76	51	103	Non-Detect	0.00113(J)	0.0475	Non-Detect	0.000317(J)	Non-Detect	0.288(U)	0.0161	0.11	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00349(J)	Non-Detect
GSD-AP-MW-16	12/18/2018	Non-Detect	16.4	3.6	0.14	4.57	76	126	Non-Detect	0.00113(J)	0.0461	0.000761(J)	0.000438(J)	Non-Detect	n/a	0.0234	0.14	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00395(J)	Non-Detect
GSD-AP-MW-16	1/3/2019	0.0209(J)	19.7	3.4	0.16	4.56	94	191	Non-Detect	0.00175(J)	0.0426	0.000677(J)	0.000703(J)	Non-Detect	n/a	0.038	0.16	0.001(J)	Non-Detect	Non-Detect	Non-Detect	0.00488(J)	Non-Detect	
GSD-AP-MW-16	1/24/2019	0.0271(J)	19.6	3.91	Non-Detect	4.45	135	212	0.000922(J)	0.00257(J)	0.0485	0.000703(J)	0.000736(J)	Non-Detect	n/a	0.04	Non-Detect	0.00114(J)	Non-Detect	0.000411(J)	Non-Detect	0.00707(J)	Non-Detect	
GSD-AP-MW-16	2/5/2019	0.0245(J)	20.8	3.94	Non-Detect	4.3	183	269	Non-Detect	0.00355(J)	0.0354	0.000711(J)	0.00101	Non-Detect	0.431(U)	0.0538	Non-Detect	0.00135(J)	Non-Detect	0.000473(J)	Non-Detect	0.00938(J)	Non-Detect	
GSD-AP-MW-16	2/28/2019	Non-Detect	21.5	4.15	Non-Detect	4.35	192	261	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	
GSD-AP-MW-16	8/19/2019	Non-Detect	12.8	3.42	Non-Detect	4.57	66.6	121	Non-Detect	0.00228(J)	0.0314	Non-Detect	0.000499(J)	Non-Detect	0.377(U)	0.0247	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	Non-Detect	0.00316(J)	Non-Detect

Appendix B

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

Field Case Narrative



Plant Gadsden Ash Pond

2019 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).

Possible iron bacteria observed while pumping well 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



Sample Group : WMWGADAP_1236

Project/Site : Gadsden Ash Pond
Gadsden, AL 35903

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

Attention : Dustin Brooks, Greg Dyer, & Corey Ladner

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

October 30, 2019

Dear Dustin Brooks,

Enclosed are the analytical results for sample(s) received by the laboratory on August 22, 2019. 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=lmidkiff@southernco.com, c=US
Date: 2019.10.30 16:14:18 -0500

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: 2019.10.31 12:14:15 -0500



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.



Metals ICP

Gadsden Ash Pond

WMWGADAP_1236

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ19081	654499	WMWGADAP_1236
AZ19082	654499	WMWGADAP_1236
AZ19083	654499	WMWGADAP_1236
AZ19084	654499	WMWGADAP_1236
AZ19085	654499	WMWGADAP_1236
AZ19086	654499	WMWGADAP_1236
AZ19087	654499	WMWGADAP_1236
AZ19088	654499	WMWGADAP_1236
AZ19089	654499	WMWGADAP_1236
AZ19090	654499	WMWGADAP_1236
AZ19091	654500	WMWGADAP_1236
AZ19092	654500	WMWGADAP_1236
AZ19093	654500	WMWGADAP_1236
AZ19094	654500	WMWGADAP_1236
AZ19095	654500	WMWGADAP_1236
AZ19096	654500	WMWGADAP_1236
AZ19097	654500	WMWGADAP_1236
AZ19098	654500	WMWGADAP_1236
AZ19099	654500	WMWGADAP_1236
AZ19100	654500	WMWGADAP_1236
AZ19101	654501	WMWGADAP_1236
AZ19102	654501	WMWGADAP_1236
AZ19103	654501	WMWGADAP_1236

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, except for the following:
 - AZ19100 MS/MSD spike level for calcium was less than 30% of the sample nominal concentration.
- 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:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AZ19089	Calcium	x10.15
AZ19091	Calcium	x10.15
AZ19092	Calcium	x10.15
AZ19093	Calcium	x10.15
AZ19097	Calcium	x10.15
AZ19099	Calcium	x10.15
AZ19100	Calcium	x10.15
AZ19101	Calcium	x10.15

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

Metals ICPMS

Gadsden Ash Pond

WMWGADAP_1236

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ19081	655116	WMWGADAP_1236
AZ19082	655116	WMWGADAP_1236
AZ19083	655116	WMWGADAP_1236
AZ19084	655116	WMWGADAP_1236
AZ19085	655116	WMWGADAP_1236
AZ19086	655116	WMWGADAP_1236
AZ19087	655116	WMWGADAP_1236
AZ19088	655116	WMWGADAP_1236
AZ19089	655116	WMWGADAP_1236
AZ19090	655116	WMWGADAP_1236
AZ19091	655117	WMWGADAP_1236
AZ19092	655117	WMWGADAP_1236
AZ19093	655117	WMWGADAP_1236
AZ19094	655117	WMWGADAP_1236
AZ19095	655117	WMWGADAP_1236
AZ19096	655117	WMWGADAP_1236
AZ19097	655117	WMWGADAP_1236
AZ19098	655117	WMWGADAP_1236
AZ19099	655117	WMWGADAP_1236
AZ19100	655117	WMWGADAP_1236
AZ19101	655118	WMWGADAP_1236
AZ19102	655118	WMWGADAP_1236
AZ19103	655118	WMWGADAP_1236

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

Mercury

Gadsden Ash Pond

WMWGADAP_1236

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ19081	654308	WMWGADAP_1236
AZ19082	654308	WMWGADAP_1236
AZ19083	654308	WMWGADAP_1236
AZ19084	654308	WMWGADAP_1236
AZ19085	654308	WMWGADAP_1236
AZ19086	654308	WMWGADAP_1236
AZ19087	654308	WMWGADAP_1236
AZ19088	654308	WMWGADAP_1236
AZ19089	654308	WMWGADAP_1236
AZ19090	654308	WMWGADAP_1236
AZ19091	654309	WMWGADAP_1236
AZ19092	654309	WMWGADAP_1236
AZ19093	654309	WMWGADAP_1236
AZ19094	654309	WMWGADAP_1236
AZ19095	654309	WMWGADAP_1236
AZ19096	654309	WMWGADAP_1236
AZ19097	654309	WMWGADAP_1236
AZ19098	654309	WMWGADAP_1236
AZ19099	654309	WMWGADAP_1236
AZ19100	654309	WMWGADAP_1236
AZ19101	654310	WMWGADAP_1236
AZ19102	654310	WMWGADAP_1236
AZ19103	654310	WMWGADAP_1236

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.

TDS

Gadsden Ash Pond

WMWGADAP_1236

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ19081	654054	WMWGADAP_1236
AZ19082	654054	WMWGADAP_1236
AZ19083	654054	WMWGADAP_1236
AZ19084	654273	WMWGADAP_1236
AZ19085	654273	WMWGADAP_1236
AZ19086	654273	WMWGADAP_1236
AZ19087	654273	WMWGADAP_1236
AZ19088	654273	WMWGADAP_1236
AZ19089	654273	WMWGADAP_1236
AZ19090	654273	WMWGADAP_1236
AZ19091	654273	WMWGADAP_1236
AZ19092	654273	WMWGADAP_1236
AZ19093	654273	WMWGADAP_1236
AZ19094	654274	WMWGADAP_1236
AZ19095	654274	WMWGADAP_1236
AZ19096	654274	WMWGADAP_1236
AZ19097	654274	WMWGADAP_1236
AZ19098	654274	WMWGADAP_1236
AZ19099	654274	WMWGADAP_1236
AZ19100	654274	WMWGADAP_1236
AZ19101	654274	WMWGADAP_1236
AZ19102	654274	WMWGADAP_1236
AZ19103	654274	WMWGADAP_1236

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:
 - AZ19088
 - AZ19096
 - AZ19103

Anions

Gadsden Ash Pond

WMWGADAP_1236

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.

<u>Sample ID</u>	<u>Batch ID</u>	<u>Project ID</u>
AZ19081	654366, 654391, & 654558	WMWGADAP_1236
AZ19082	654366, 654391, & 654558	WMWGADAP_1236
AZ19083	654366, 654391, & 654558	WMWGADAP_1236
AZ19084	654366, 654391, & 654558	WMWGADAP_1236
AZ19085	654366, 654391, & 654558	WMWGADAP_1236
AZ19086	654366, 654391, & 654558	WMWGADAP_1236
AZ19087	654366, 654391, & 654558	WMWGADAP_1236
AZ19088	654366, 654391, & 654558	WMWGADAP_1236
AZ19089	654366, 654391, & 654558	WMWGADAP_1236
AZ19090	654367, 654392, & 654559	WMWGADAP_1236
AZ19091	654367, 654392, & 654560	WMWGADAP_1236
AZ19092	654367, 654392, & 654560	WMWGADAP_1236
AZ19093	654367, 654392, & 654560	WMWGADAP_1236
AZ19094	654367, 654392, & 654559	WMWGADAP_1236
AZ19095	654367, 654392, & 654559	WMWGADAP_1236
AZ19096	654367, 654392, & 654559	WMWGADAP_1236
AZ19097	654367, 654392, & 654559	WMWGADAP_1236
AZ19098	654367, 654392, & 654559	WMWGADAP_1236
AZ19099	654367, 654392, & 654559	WMWGADAP_1236
AZ19100	654368, 654393, & 654560	WMWGADAP_1236
AZ19101	654368, 654393, & 654560	WMWGADAP_1236
AZ19102	654368, 654393, & 654560	WMWGADAP_1236
AZ19103	654368, 654393, & 654560	WMWGADAP_1236

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:

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AZ19081	Sulfate	x4
AZ19083	Sulfate	x10
AZ19084	Sulfate	x10
AZ19089	Sulfate	x40
AZ19091	Sulfate	x5
AZ19092	Sulfate	x80
AZ19093	Sulfate	x80
AZ19100	Sulfate	x20
AZ19101	Sulfate	x20

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

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-16

Location Code: WMWGADAP
Collected: 8/19/19 13:30
Customer ID:
Submittal Date: 8/22/19 16:02

Laboratory ID Number: AZ19081

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 09:18		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	8/28/19 15:45	8/29/19 09:18		1.015	12.8	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 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	8/23/19 14:25	9/3/19 10:25		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 10:25		1.015	0.00228	mg/L	0.001	0.005	J
* Barium, Total	8/23/19 14:25	9/3/19 10:25		1.015	0.0314	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 10:25		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 10:25		1.015	0.000499	mg/L	0.0003	0.001	J
* Chromium, Total	8/23/19 14:25	9/3/19 10:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 10:25		1.015	0.0247	mg/L	0.002	0.005	
* Lead, Total	8/23/19 14:25	9/3/19 10:25		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 10:25		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 10:25		1.015	0.00316	mg/L	0.002	0.01	J
* Thallium, Total	8/23/19 14:25	9/3/19 10:25		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 09:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	8/22/19 16:55	8/27/19 11:40		1	121	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	8/27/19 09:58	8/27/19 09:58		1	3.42	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/27/19 15:26	8/27/19 15:26		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	8/29/19 15:38	8/29/19 15:38		4	66.6	mg/L	2.00	4	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	8/19/19 13:23	8/19/19 13:23			184.34	uS/cm			FA
pH	8/19/19 13:23	8/19/19 13:23			4.57	SU			FA
Temperature	8/19/19 13:23	8/19/19 13:23			20.14	C			FA
Turbidity	8/19/19 13:23	8/19/19 13:23			4.4	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/19/19 13:30
Customer ID:
Delivery Date: 8/22/19 16:02

Description: Gadsden Ash Pond - MW-16

Laboratory ID Number: AZ19081

Sample	Analysis	Units	MB					Standard		Rec		Prec	Limit
			MB	Limit	Spike	MS	MSD	Standard	Limit	Rec	Limit		
AZ19090	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.101	0.102	0.106	0.085 to 0.115	101	70 to 130	1.60	20
AZ19090	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.116	0.114	0.105	0.085 to 0.115	102	70 to 130	1.73	20
AZ19090	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.41	1.41	0.992	0.85 to 1.15	101	70 to 130	0.0533	20
AZ19090	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.135	0.135	0.107	0.085 to 0.115	106	70 to 130	0.0156	20
AZ19090	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.109	0.104	0.105	0.085 to 0.115	109	70 to 130	4.29	20
AZ19090	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0990	0.0987	0.103	0.085 to 0.115	99.0	70 to 130	0.251	20
AZ19090	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.566	20
AZ19090	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.205	0.205	0.197	0.17 to 0.23	102	70 to 130	0.183	20
AZ19090	Calcium, Total	mg/L	0.00698	0.1518	5.00	28.4	28.5	5.17	4.25 to 5.75	98.2	70 to 130	0.343	20
AZ19090	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.54	20
AZ19090	Mercury, Total by CVAA	mg/L	0.0000631	0.0005	0.004	0.00386	0.00379	0.00387	0.0034 to 0.0046	96.4	70 to 130	1.72	20
AZ19090	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.106	0.110	0.085 to 0.115	104	70 to 130	1.91	20
AZ19090	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.290	0.285	0.101	0.085 to 0.115	103	70 to 130	2.01	20
AZ19090	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.101	0.103	0.085 to 0.115	100	70 to 130	0.686	20
AZ19090	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.109	0.106	0.102	0.085 to 0.115	109	70 to 130	2.63	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/19/19 13:30
Customer ID:
Delivery Date: 8/22/19 16:02

Description: Gadsden Ash Pond - MW-16

Laboratory ID Number: AZ19081

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19089	Chloride	mg/L	0.122	0.50	10.0	16.3	6.17	9.99	9 to 11	102	80 to 120	1.63	20
AZ19089	Sulfate	mg/L	-0.414	0.50	800	1000	224	19.8	18 to 22	97.2	80 to 120	0.897	20
AZ19083	Solids, Dissolved	mg/L	-1.00	25			263	53.0	40 to 60			0.379	5
AZ19089	Fluoride	mg/L	0.0172	0.05	2.50	2.50	0.0588	2.49	2.25 to 2.75	97.6	80 to 120	0.678	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-17

Location Code: WMWGADAP
Collected: 8/19/19 15:15
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19082

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 09:20		1.015	0.0341	mg/L	0.03	0.1	J
* Calcium, Total	8/28/19 15:45	8/29/19 09:20		1.015	25.3	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 09:20		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 10:28		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 10:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 10:28		1.015	0.259	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 10:28		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 10:28		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 10:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 10:28		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	8/23/19 14:25	9/3/19 10:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 10:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 10:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 10:28		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 09:47		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	8/22/19 16:55	8/27/19 11:40		1	240	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	8/27/19 09:59	8/27/19 09:59		1	2.80	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/27/19 15:27	8/27/19 15:27		1	0.187	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	8/29/19 15:39	8/29/19 15:39		1	8.74	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	8/19/19 15:10	8/19/19 15:10			239.74	uS/cm			FA
pH	8/19/19 15:10	8/19/19 15:10			7.93	SU			FA
Temperature	8/19/19 15:10	8/19/19 15:10			22.25	C			FA
Turbidity	8/19/19 15:10	8/19/19 15:10			0.92	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/19/19 15:15
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-17

Laboratory ID Number: AZ19082

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19090	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.101	0.102	0.106	0.085 to 0.115	101	70 to 130	1.60	20
AZ19090	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.290	0.285	0.101	0.085 to 0.115	103	70 to 130	2.01	20
AZ19090	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.101	0.103	0.085 to 0.115	100	70 to 130	0.686	20
AZ19090	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.109	0.106	0.102	0.085 to 0.115	109	70 to 130	2.63	20
AZ19090	Calcium, Total	mg/L	0.00698	0.1518	5.00	28.4	28.5	5.17	4.25 to 5.75	98.2	70 to 130	0.343	20
AZ19090	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.54	20
AZ19090	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.116	0.114	0.105	0.085 to 0.115	102	70 to 130	1.73	20
AZ19090	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.41	1.41	0.992	0.85 to 1.15	101	70 to 130	0.0533	20
AZ19090	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.135	0.135	0.107	0.085 to 0.115	106	70 to 130	0.0156	20
AZ19090	Mercury, Total by CVAA	mg/L	0.0000631	0.0005	0.004	0.00386	0.00379	0.00387	0.0034 to 0.0046	96.4	70 to 130	1.72	20
AZ19090	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.106	0.110	0.085 to 0.115	104	70 to 130	1.91	20
AZ19090	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.109	0.104	0.105	0.085 to 0.115	109	70 to 130	4.29	20
AZ19090	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0990	0.0987	0.103	0.085 to 0.115	99.0	70 to 130	0.251	20
AZ19090	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.566	20
AZ19090	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.205	0.205	0.197	0.17 to 0.23	102	70 to 130	0.183	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/19/19 15:15
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-17

Laboratory ID Number: AZ19082

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ19089	Sulfate	mg/L	-0.414	0.50	800	1000	224	19.8	18 to 22	97.2	80 to 120	0.897	20
AZ19089	Chloride	mg/L	0.122	0.50	10.0	16.3	6.17	9.99	9 to 11	102	80 to 120	1.63	20
AZ19083	Solids, Dissolved	mg/L	-1.00	25			263	53.0	40 to 60			0.379	5
AZ19089	Fluoride	mg/L	0.0172	0.05	2.50	2.50	0.0588	2.49	2.25 to 2.75	97.6	80 to 120	0.678	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-14

Location Code: WMWGADAP
Collected: 8/20/19 08:55
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19083

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 09:23		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	8/28/19 15:45	8/29/19 09:23		1.015	14.4	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 09:23		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 10:30		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 10:30		1.015	0.00216	mg/L	0.001	0.005	J
* Barium, Total	8/23/19 14:25	9/3/19 10:30		1.015	0.0274	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 10:30		1.015	0.00129	mg/L	0.0006	0.003	J
* Cadmium, Total	8/23/19 14:25	9/3/19 10:30		1.015	0.000622	mg/L	0.0003	0.001	J
* Chromium, Total	8/23/19 14:25	9/3/19 10:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 10:30		1.015	0.0391	mg/L	0.002	0.005	
* Lead, Total	8/23/19 14:25	9/3/19 10:30		1.015	0.00176	mg/L	0.001	0.005	J
* Molybdenum, Total	8/23/19 14:25	9/3/19 10:30		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 10:30		1.015	0.00328	mg/L	0.002	0.01	J
* Thallium, Total	8/23/19 14:25	9/3/19 10:30		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 09:49		1	0.000301	mg/L	0.0003	0.0005	J
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	8/22/19 16:55	8/27/19 11:40		1	265	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	8/27/19 10:00	8/27/19 10:00		1	3.27	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/27/19 15:28	8/27/19 15:28		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	8/29/19 15:40	8/29/19 15:40		10	106	mg/L	5.00	10	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	8/20/19 08:52	8/20/19 08:52			270.34	uS/cm			FA
pH	8/20/19 08:52	8/20/19 08:52			4.00	SU			FA
Temperature	8/20/19 08:52	8/20/19 08:52			19.14	C			FA
Turbidity	8/20/19 08:52	8/20/19 08:52			3.53	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 08:55
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-14

Laboratory ID Number: AZ19083

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19090	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.101	0.102	0.106	0.085 to 0.115	101	70 to 130	1.60	20
AZ19090	Calcium, Total	mg/L	0.00698	0.1518	5.00	28.4	28.5	5.17	4.25 to 5.75	98.2	70 to 130	0.343	20
AZ19090	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.54	20
AZ19090	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.116	0.114	0.105	0.085 to 0.115	102	70 to 130	1.73	20
AZ19090	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.41	1.41	0.992	0.85 to 1.15	101	70 to 130	0.0533	20
AZ19090	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.135	0.135	0.107	0.085 to 0.115	106	70 to 130	0.0156	20
AZ19090	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.290	0.285	0.101	0.085 to 0.115	103	70 to 130	2.01	20
AZ19090	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.101	0.103	0.085 to 0.115	100	70 to 130	0.686	20
AZ19090	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.109	0.106	0.102	0.085 to 0.115	109	70 to 130	2.63	20
AZ19090	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.566	20
AZ19090	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.205	0.205	0.197	0.17 to 0.23	102	70 to 130	0.183	20
AZ19090	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.109	0.104	0.105	0.085 to 0.115	109	70 to 130	4.29	20
AZ19090	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0990	0.0987	0.103	0.085 to 0.115	99.0	70 to 130	0.251	20
AZ19090	Mercury, Total by CVAA	mg/L	0.0000631	0.0005	0.004	0.00386	0.00379	0.00387	0.0034 to 0.0046	96.4	70 to 130	1.72	20
AZ19090	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.106	0.110	0.085 to 0.115	104	70 to 130	1.91	20

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.

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 08:55
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-14

Laboratory ID Number: AZ19083

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19089	Sulfate	mg/L	-0.414	0.50	800	1000	224	19.8	18 to 22	97.2	80 to 120	0.897	20
AZ19089	Chloride	mg/L	0.122	0.50	10.0	16.3	6.17	9.99	9 to 11	102	80 to 120	1.63	20
AZ19083	Solids, Dissolved	mg/L	-1.00	25			263	53.0	40 to 60			0.379	5
AZ19089	Fluoride	mg/L	0.0172	0.05	2.50	2.50	0.0588	2.49	2.25 to 2.75	97.6	80 to 120	0.678	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-14 DUP

Location Code: WMWGADAP
Collected: 8/20/19 08:55
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19084

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 09:26		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	8/28/19 15:45	8/29/19 09:26		1.015	14.4	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 09:26		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 10:33		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 10:33		1.015	0.00228	mg/L	0.001	0.005	J
* Barium, Total	8/23/19 14:25	9/3/19 10:33		1.015	0.0299	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 10:33		1.015	0.00130	mg/L	0.0006	0.003	J
* Cadmium, Total	8/23/19 14:25	9/3/19 10:33		1.015	0.000644	mg/L	0.0003	0.001	J
* Chromium, Total	8/23/19 14:25	9/3/19 10:33		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 10:33		1.015	0.0401	mg/L	0.002	0.005	
* Lead, Total	8/23/19 14:25	9/3/19 10:33		1.015	0.00179	mg/L	0.001	0.005	J
* Molybdenum, Total	8/23/19 14:25	9/3/19 10:33		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 10:33		1.015	0.00320	mg/L	0.002	0.01	J
* Thallium, Total	8/23/19 14:25	9/3/19 10:33		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 09:52		1	0.000332	mg/L	0.0003	0.0005	J
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	177	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:01	8/27/19 10:01		1	3.23	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:30	8/27/19 15:30		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 15:42	8/29/19 15:42		10	107	mg/L	5.00	10	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/20/19 08:52	8/20/19 08:52			270.34	uS/cm			FA
pH	8/20/19 08:52	8/20/19 08:52			4.00	SU			FA
Temperature	8/20/19 08:52	8/20/19 08:52			19.14	C			FA
Turbidity	8/20/19 08:52	8/20/19 08:52			3.53	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 08:55
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-14 DUP

Laboratory ID Number: AZ19084

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19090	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.101	0.102	0.106	0.085 to 0.115	101	70 to 130	1.60	20
AZ19090	Calcium, Total	mg/L	0.00698	0.1518	5.00	28.4	28.5	5.17	4.25 to 5.75	98.2	70 to 130	0.343	20
AZ19090	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.54	20
AZ19090	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.116	0.114	0.105	0.085 to 0.115	102	70 to 130	1.73	20
AZ19090	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.41	1.41	0.992	0.85 to 1.15	101	70 to 130	0.0533	20
AZ19090	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.135	0.135	0.107	0.085 to 0.115	106	70 to 130	0.0156	20
AZ19090	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.109	0.104	0.105	0.085 to 0.115	109	70 to 130	4.29	20
AZ19090	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0990	0.0987	0.103	0.085 to 0.115	99.0	70 to 130	0.251	20
AZ19090	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.290	0.285	0.101	0.085 to 0.115	103	70 to 130	2.01	20
AZ19090	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.101	0.103	0.085 to 0.115	100	70 to 130	0.686	20
AZ19090	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.109	0.106	0.102	0.085 to 0.115	109	70 to 130	2.63	20
AZ19090	Mercury, Total by CVAA	mg/L	0.0000631	0.0005	0.004	0.00386	0.00379	0.00387	0.0034 to 0.0046	96.4	70 to 130	1.72	20
AZ19090	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.106	0.110	0.085 to 0.115	104	70 to 130	1.91	20
AZ19090	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.566	20
AZ19090	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.205	0.205	0.197	0.17 to 0.23	102	70 to 130	0.183	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 08:55
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-14 DUP

Laboratory ID Number: AZ19084

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ19089	Sulfate	mg/L	-0.414	0.50	800	1000	224	19.8	18 to 22	97.2	80 to 120	0.897	20
AZ19089	Chloride	mg/L	0.122	0.50	10.0	16.3	6.17	9.99	9 to 11	102	80 to 120	1.63	20
AZ19089	Fluoride	mg/L	0.0172	0.05	2.50	2.50	0.0588	2.49	2.25 to 2.75	97.6	80 to 120	0.678	20
AZ19091	Solids, Dissolved	mg/L	2.00	25			371	54.0	40 to 60			0.270	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - PZ-1

Location Code: WMWGADAP
Collected: 8/20/19 10:40
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19085

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 09:29		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	8/28/19 15:45	8/29/19 09:29		1.015	38.3	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 09:29		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 10:36		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 10:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 10:36		1.015	0.0970	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 10:36		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 10:36		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 10:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 10:36		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	8/23/19 14:25	9/3/19 10:36		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 10:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 10:36		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 10:36		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 09:54		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	141	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	8/27/19 10:02	8/27/19 10:02		1	3.52	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/27/19 15:31	8/27/19 15:31		1	0.0889	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	8/29/19 15:43	8/29/19 15:43		1	3.73	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	8/20/19 10:37	8/20/19 10:37			231.64	uS/cm			FA
pH	8/20/19 10:37	8/20/19 10:37			6.30	SU			FA
Temperature	8/20/19 10:37	8/20/19 10:37			19.30	C			FA
Turbidity	8/20/19 10:37	8/20/19 10:37			0.25	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 10:40
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - PZ-1

Laboratory ID Number: AZ19085

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19090	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.101	0.102	0.106	0.085 to 0.115	101	70 to 130	1.60	20
AZ19090	Calcium, Total	mg/L	0.00698	0.1518	5.00	28.4	28.5	5.17	4.25 to 5.75	98.2	70 to 130	0.343	20
AZ19090	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.54	20
AZ19090	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.290	0.285	0.101	0.085 to 0.115	103	70 to 130	2.01	20
AZ19090	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.101	0.103	0.085 to 0.115	100	70 to 130	0.686	20
AZ19090	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.109	0.106	0.102	0.085 to 0.115	109	70 to 130	2.63	20
AZ19090	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.109	0.104	0.105	0.085 to 0.115	109	70 to 130	4.29	20
AZ19090	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0990	0.0987	0.103	0.085 to 0.115	99.0	70 to 130	0.251	20
AZ19090	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.116	0.114	0.105	0.085 to 0.115	102	70 to 130	1.73	20
AZ19090	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.41	1.41	0.992	0.85 to 1.15	101	70 to 130	0.0533	20
AZ19090	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.135	0.135	0.107	0.085 to 0.115	106	70 to 130	0.0156	20
AZ19090	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.566	20
AZ19090	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.205	0.205	0.197	0.17 to 0.23	102	70 to 130	0.183	20
AZ19090	Mercury, Total by CVAA	mg/L	0.0000631	0.0005	0.004	0.00386	0.00379	0.00387	0.0034 to 0.0046	96.4	70 to 130	1.72	20
AZ19090	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.106	0.110	0.085 to 0.115	104	70 to 130	1.91	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 10:40
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - PZ-1

Laboratory ID Number: AZ19085

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ19089	Sulfate	mg/L	-0.414	0.50	800	1000	224	19.8	18 to 22	97.2	80 to 120	0.897	20
AZ19089	Chloride	mg/L	0.122	0.50	10.0	16.3	6.17	9.99	9 to 11	102	80 to 120	1.63	20
AZ19089	Fluoride	mg/L	0.0172	0.05	2.50	2.50	0.0588	2.49	2.25 to 2.75	97.6	80 to 120	0.678	20
AZ19091	Solids, Dissolved	mg/L	2.00	25			371	54.0	40 to 60			0.270	5

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-5

Location Code: WMWGADAP
Collected: 8/20/19 11:50
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19086

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 09:32		1.015	0.378	mg/L	0.03	0.1	
* Calcium, Total	8/28/19 15:45	8/29/19 09:32		1.015	33.7	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 09:32		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 10:38		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 10:38		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 10:38		1.015	0.238	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 10:38		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 10:38		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 10:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 10:38		1.015	0.00223	mg/L	0.002	0.005	J
* Lead, Total	8/23/19 14:25	9/3/19 10:38		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 10:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 10:38		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 10:38		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 09:56		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	174	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:04	8/27/19 10:04		1	6.53	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:32	8/27/19 15:32		1	0.0567	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 15:44	8/29/19 15:44		1	21.3	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/20/19 11:47	8/20/19 11:47			264.57	uS/cm			FA
pH	8/20/19 11:47	8/20/19 11:47			6.11	SU			FA
Temperature	8/20/19 11:47	8/20/19 11:47			21.12	C			FA
Turbidity	8/20/19 11:47	8/20/19 11:47			1.37	NTU			FA

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Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 11:50
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-5

Laboratory ID Number: AZ19086

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19090	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.101	0.102	0.106	0.085 to 0.115	101	70 to 130	1.60	20
AZ19090	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.116	0.114	0.105	0.085 to 0.115	102	70 to 130	1.73	20
AZ19090	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.41	1.41	0.992	0.85 to 1.15	101	70 to 130	0.0533	20
AZ19090	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.135	0.135	0.107	0.085 to 0.115	106	70 to 130	0.0156	20
AZ19090	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.566	20
AZ19090	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.205	0.205	0.197	0.17 to 0.23	102	70 to 130	0.183	20
AZ19090	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.109	0.104	0.105	0.085 to 0.115	109	70 to 130	4.29	20
AZ19090	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0990	0.0987	0.103	0.085 to 0.115	99.0	70 to 130	0.251	20
AZ19090	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.290	0.285	0.101	0.085 to 0.115	103	70 to 130	2.01	20
AZ19090	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.101	0.103	0.085 to 0.115	100	70 to 130	0.686	20
AZ19090	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.109	0.106	0.102	0.085 to 0.115	109	70 to 130	2.63	20
AZ19090	Calcium, Total	mg/L	0.00698	0.1518	5.00	28.4	28.5	5.17	4.25 to 5.75	98.2	70 to 130	0.343	20
AZ19090	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.54	20
AZ19090	Mercury, Total by CVAA	mg/L	0.0000631	0.0005	0.004	0.00386	0.00379	0.00387	0.0034 to 0.0046	96.4	70 to 130	1.72	20
AZ19090	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.106	0.110	0.085 to 0.115	104	70 to 130	1.91	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 11:50
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-5

Laboratory ID Number: AZ19086

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19089	Chloride	mg/L	0.122	0.50	10.0	16.3	6.17	9.99	9 to 11	102	80 to 120	1.63	20
AZ19089	Sulfate	mg/L	-0.414	0.50	800	1000	224	19.8	18 to 22	97.2	80 to 120	0.897	20
AZ19089	Fluoride	mg/L	0.0172	0.05	2.50	2.50	0.0588	2.49	2.25 to 2.75	97.6	80 to 120	0.678	20
AZ19091	Solids, Dissolved	mg/L	2.00	25			371	54.0	40 to 60			0.270	5

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 Expiration: June 30, 2017

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Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-6

Location Code: WMWGADAP
Collected: 8/20/19 13:22
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19087

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 09:35		1.015	0.0608	mg/L	0.03	0.1	J
* Calcium, Total	8/28/19 15:45	8/29/19 09:35		1.015	15.1	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 09:35		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 10:41		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 10:41		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 10:41		1.015	0.0731	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 10:41		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 10:41		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 10:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 10:41		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	8/23/19 14:25	9/3/19 10:41		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 10:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 10:41		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 10:41		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 09:59		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	98.7	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	8/27/19 10:05	8/27/19 10:05		1	9.55	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/27/19 15:33	8/27/19 15:33		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	8/29/19 15:45	8/29/19 15:45		1	12.3	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	8/20/19 13:18	8/20/19 13:18			156.66	uS/cm			FA
pH	8/20/19 13:18	8/20/19 13:18			5.40	SU			FA
Temperature	8/20/19 13:18	8/20/19 13:18			19.69	C			FA
Turbidity	8/20/19 13:18	8/20/19 13:18			0.35	NTU			FA

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Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 13:22
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-6

Laboratory ID Number: AZ19087

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19090	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.101	0.102	0.106	0.085 to 0.115	101	70 to 130	1.60	20
AZ19090	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.566	20
AZ19090	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.205	0.205	0.197	0.17 to 0.23	102	70 to 130	0.183	20
AZ19090	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.116	0.114	0.105	0.085 to 0.115	102	70 to 130	1.73	20
AZ19090	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.41	1.41	0.992	0.85 to 1.15	101	70 to 130	0.0533	20
AZ19090	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.135	0.135	0.107	0.085 to 0.115	106	70 to 130	0.0156	20
AZ19090	Calcium, Total	mg/L	0.00698	0.1518	5.00	28.4	28.5	5.17	4.25 to 5.75	98.2	70 to 130	0.343	20
AZ19090	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.54	20
AZ19090	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.109	0.104	0.105	0.085 to 0.115	109	70 to 130	4.29	20
AZ19090	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0990	0.0987	0.103	0.085 to 0.115	99.0	70 to 130	0.251	20
AZ19090	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.290	0.285	0.101	0.085 to 0.115	103	70 to 130	2.01	20
AZ19090	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.101	0.103	0.085 to 0.115	100	70 to 130	0.686	20
AZ19090	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.109	0.106	0.102	0.085 to 0.115	109	70 to 130	2.63	20
AZ19090	Mercury, Total by CVAA	mg/L	0.0000631	0.0005	0.004	0.00386	0.00379	0.00387	0.0034 to 0.0046	96.4	70 to 130	1.72	20
AZ19090	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.106	0.110	0.085 to 0.115	104	70 to 130	1.91	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 13:22
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-6

Laboratory ID Number: AZ19087

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19089	Sulfate	mg/L	-0.414	0.50	800	1000	224	19.8	18 to 22	97.2	80 to 120	0.897	20
AZ19089	Chloride	mg/L	0.122	0.50	10.0	16.3	6.17	9.99	9 to 11	102	80 to 120	1.63	20
AZ19089	Fluoride	mg/L	0.0172	0.05	2.50	2.50	0.0588	2.49	2.25 to 2.75	97.6	80 to 120	0.678	20
AZ19091	Solids, Dissolved	mg/L	2.00	25			371	54.0	40 to 60			0.270	5

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond Field Blank

Location Code: WMWGADAPFB
Collected: 8/20/19 13:40
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19088

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 09:38		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	8/28/19 15:45	8/29/19 09:38		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	8/28/19 15:45	8/29/19 09:38		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 10:44		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:01		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/27/19 10:06	8/27/19 10:06		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:34	8/27/19 15:34		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 15:47	8/29/19 15:47		1	Not Detected	mg/L	0.50	1	U

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAPFB
Sample Date: 8/20/19 13:40
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond Field Blank

Laboratory ID Number: AZ19088

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19090	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.101	0.102	0.106	0.085 to 0.115	101	70 to 130	1.60	20
AZ19090	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.109	0.104	0.105	0.085 to 0.115	109	70 to 130	4.29	20
AZ19090	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0990	0.0987	0.103	0.085 to 0.115	99.0	70 to 130	0.251	20
AZ19090	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.116	0.114	0.105	0.085 to 0.115	102	70 to 130	1.73	20
AZ19090	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.41	1.41	0.992	0.85 to 1.15	101	70 to 130	0.0533	20
AZ19090	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.135	0.135	0.107	0.085 to 0.115	106	70 to 130	0.0156	20
AZ19090	Calcium, Total	mg/L	0.00698	0.1518	5.00	28.4	28.5	5.17	4.25 to 5.75	98.2	70 to 130	0.343	20
AZ19090	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.54	20
AZ19090	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.290	0.285	0.101	0.085 to 0.115	103	70 to 130	2.01	20
AZ19090	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.101	0.103	0.085 to 0.115	100	70 to 130	0.686	20
AZ19090	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.109	0.106	0.102	0.085 to 0.115	109	70 to 130	2.63	20
AZ19090	Mercury, Total by CVAA	mg/L	0.0000631	0.0005	0.004	0.00386	0.00379	0.00387	0.0034 to 0.0046	96.4	70 to 130	1.72	20
AZ19090	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.106	0.110	0.085 to 0.115	104	70 to 130	1.91	20
AZ19090	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.566	20
AZ19090	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.205	0.205	0.197	0.17 to 0.23	102	70 to 130	0.183	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAPFB

Sample Date: 8/20/19 13:40

Customer ID:

Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond Field Blank

Laboratory ID Number: AZ19088

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ19089	Sulfate	mg/L	-0.414	0.50	800	1000	224	19.8	18 to 22	97.2	80 to 120	0.897	20
AZ19089	Chloride	mg/L	0.122	0.50	10.0	16.3	6.17	9.99	9 to 11	102	80 to 120	1.63	20
AZ19089	Fluoride	mg/L	0.0172	0.05	2.50	2.50	0.0588	2.49	2.25 to 2.75	97.6	80 to 120	0.678	20
AZ19091	Solids, Dissolved	mg/L	2.00	25			371	54.0	40 to 60			0.270	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-3

Location Code: WMWGADAP
Collected: 8/20/19 15:34
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19089

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 09:41		1.015	1.06	mg/L	0.03	0.1	
* Calcium, Total	8/28/19 15:45	8/29/19 11:28		10.15	74.1	mg/L	1.015	5.075	
* Lithium, Total	8/28/19 15:45	8/29/19 09:41		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 10:46		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 10:46		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 10:46		1.015	0.0405	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 10:46		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 10:46		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 10:46		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 10:46		1.015	0.0257	mg/L	0.002	0.005	
* Lead, Total	8/23/19 14:25	9/3/19 10:46		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 10:46		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 10:46		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 10:46		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:03		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	416	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:07	8/27/19 10:07		1	6.07	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:36	8/27/19 15:36		1	0.0592	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 15:48	8/29/19 15:48		40	222	mg/L	20.00	40	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/20/19 15:27	8/20/19 15:27			611.83	uS/cm			FA
pH	8/20/19 15:27	8/20/19 15:27			5.73	SU			FA
Temperature	8/20/19 15:27	8/20/19 15:27			21.25	C			FA
Turbidity	8/20/19 15:27	8/20/19 15:27			0.29	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 15:34
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-3

Laboratory ID Number: AZ19089

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19090	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.101	0.102	0.106	0.085 to 0.115	101	70 to 130	1.60	20
AZ19090	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.566	20
AZ19090	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.205	0.205	0.197	0.17 to 0.23	102	70 to 130	0.183	20
AZ19090	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.116	0.114	0.105	0.085 to 0.115	102	70 to 130	1.73	20
AZ19090	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.41	1.41	0.992	0.85 to 1.15	101	70 to 130	0.0533	20
AZ19090	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.135	0.135	0.107	0.085 to 0.115	106	70 to 130	0.0156	20
AZ19090	Calcium, Total	mg/L	0.00698	0.1518	5.00	28.4	28.5	5.17	4.25 to 5.75	98.2	70 to 130	0.343	20
AZ19090	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.54	20
AZ19090	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.290	0.285	0.101	0.085 to 0.115	103	70 to 130	2.01	20
AZ19090	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.101	0.103	0.085 to 0.115	100	70 to 130	0.686	20
AZ19090	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.109	0.106	0.102	0.085 to 0.115	109	70 to 130	2.63	20
AZ19090	Mercury, Total by CVAA	mg/L	0.0000631	0.0005	0.004	0.00386	0.00379	0.00387	0.0034 to 0.0046	96.4	70 to 130	1.72	20
AZ19090	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.106	0.110	0.085 to 0.115	104	70 to 130	1.91	20
AZ19090	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.109	0.104	0.105	0.085 to 0.115	109	70 to 130	4.29	20
AZ19090	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0990	0.0987	0.103	0.085 to 0.115	99.0	70 to 130	0.251	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 15:34
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-3

Laboratory ID Number: AZ19089

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19089	Chloride	mg/L	0.122	0.50	10.0	16.3	6.17	9.99	9 to 11	102	80 to 120	1.63	20
AZ19089	Sulfate	mg/L	-0.414	0.50	800	1000	224	19.8	18 to 22	97.2	80 to 120	0.897	20
AZ19089	Fluoride	mg/L	0.0172	0.05	2.50	2.50	0.0588	2.49	2.25 to 2.75	97.6	80 to 120	0.678	20
AZ19091	Solids, Dissolved	mg/L	2.00	25			371	54.0	40 to 60			0.270	5

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-4

Location Code: WMWGADAP
Collected: 8/20/19 17:25
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19090

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA		Preparation Method: EPA 1638					
* Boron, Total	8/28/19 15:45	8/29/19 09:44		1.015	0.399	mg/L	0.03	0.1	
* Calcium, Total	8/28/19 15:45	8/29/19 09:44		1.015	23.5	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 09:44		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ		Preparation Method: EPA 1638					
* Antimony, Total	8/23/19 14:25	9/3/19 10:49		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 10:49		1.015	0.0141	mg/L	0.001	0.005	
* Barium, Total	8/23/19 14:25	9/3/19 10:49		1.015	0.188	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 10:49		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 10:49		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 10:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 10:49		1.015	0.0293	mg/L	0.002	0.005	
* Lead, Total	8/23/19 14:25	9/3/19 10:49		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 10:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 10:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 10:49		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:06		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	164	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:25	8/27/19 10:25		1	9.62	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:49	8/27/19 15:49		1	0.197	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 16:02	8/29/19 16:02		1	7.34	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/20/19 17:21	8/20/19 17:21			373.85	uS/cm			FA
pH	8/20/19 17:21	8/20/19 17:21			6.33	SU			FA
Temperature	8/20/19 17:21	8/20/19 17:21			20.19	C			FA
Turbidity	8/20/19 17:21	8/20/19 17:21			0.58	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 17:25
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-4

Laboratory ID Number: AZ19090

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19090	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.101	0.102	0.106	0.085 to 0.115	101	70 to 130	1.60	20
AZ19090	Calcium, Total	mg/L	0.00698	0.1518	5.00	28.4	28.5	5.17	4.25 to 5.75	98.2	70 to 130	0.343	20
AZ19090	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.0999	0.102	0.101	0.085 to 0.115	99.9	70 to 130	2.54	20
AZ19090	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.106	0.106	0.106	0.085 to 0.115	106	70 to 130	0.566	20
AZ19090	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.205	0.205	0.197	0.17 to 0.23	102	70 to 130	0.183	20
AZ19090	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.109	0.104	0.105	0.085 to 0.115	109	70 to 130	4.29	20
AZ19090	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0990	0.0987	0.103	0.085 to 0.115	99.0	70 to 130	0.251	20
AZ19090	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.116	0.114	0.105	0.085 to 0.115	102	70 to 130	1.73	20
AZ19090	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.41	1.41	0.992	0.85 to 1.15	101	70 to 130	0.0533	20
AZ19090	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.135	0.135	0.107	0.085 to 0.115	106	70 to 130	0.0156	20
AZ19090	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.290	0.285	0.101	0.085 to 0.115	103	70 to 130	2.01	20
AZ19090	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.101	0.103	0.085 to 0.115	100	70 to 130	0.686	20
AZ19090	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.109	0.106	0.102	0.085 to 0.115	109	70 to 130	2.63	20
AZ19090	Mercury, Total by CVAA	mg/L	0.0000631	0.0005	0.004	0.00386	0.00379	0.00387	0.0034 to 0.0046	96.4	70 to 130	1.72	20
AZ19090	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.106	0.110	0.085 to 0.115	104	70 to 130	1.91	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 17:25
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-4

Laboratory ID Number: AZ19090

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19091	Solids, Dissolved	mg/L	2.00	25			371	54.0	40 to 60			0.270	5
AZ19099	Chloride	mg/L	0.0911	0.50	10.0	16.2	6.16	9.96	9 to 11	100	80 to 120	0.00	20
AZ19099	Fluoride	mg/L	-0.00727	0.05	2.50	2.63	0.10	2.54	2.25 to 2.75	101	80 to 120	1.61	20
AZ19099	Sulfate	mg/L	-0.233	0.50	20.0	30.2	11.3	19.7	18 to 22	94.5	80 to 120	0.00	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-2

Location Code: WMWGADAP
Collected: 8/20/19 18:35
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19091

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 09:59		1.015	0.566	mg/L	0.03	0.1	
* Calcium, Total	8/28/19 15:45	8/29/19 11:31		10.15	92.3	mg/L	1.015	5.075	
* Lithium, Total	8/28/19 15:45	8/29/19 09:59		1.015	0.0583	mg/L	0.01	0.02	
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 11:05		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/5/19 11:06		1.015	0.825	mg/L	0.001	0.005	
* Barium, Total	8/23/19 14:25	9/3/19 11:05		1.015	0.0685	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:05		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:05		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:05		1.015	0.0366	mg/L	0.002	0.005	
* Lead, Total	8/23/19 14:25	9/3/19 11:05		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:05		1.015	0.0270	mg/L	0.002	0.01	
* Selenium, Total	8/23/19 14:25	9/3/19 11:05		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:05		1.015	0.000322	mg/L	0.0002	0.001	J
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:22		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	369	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:24	8/27/19 10:24		1	2.24	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:50	8/27/19 15:50		1	0.252	mg/L	0.05	0.1	
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 17:32	8/29/19 17:32		5	110	mg/L	2.50	5	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/20/19 18:32	8/20/19 18:32			537.08	uS/cm			FA
pH	8/20/19 18:32	8/20/19 18:32			6.30	SU			FA
Temperature	8/20/19 18:32	8/20/19 18:32			20.54	C			FA
Turbidity	8/20/19 18:32	8/20/19 18:32			4.97	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 18:35
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-2

Laboratory ID Number: AZ19091

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ19100	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.08	1.08	0.992	0.85 to 1.15	102	70 to 130	0.151	20
AZ19100	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.102	0.103	0.085 to 0.115	100	70 to 130	2.03	20
AZ19100	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	3.01	20
AZ19100	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.111	0.111	0.107	0.085 to 0.115	105	70 to 130	0.340	20
AZ19100	Calcium, Total	mg/L	0.00698	0.1518	5.00	88.5	83.3	5.17	4.25 to 5.75	-18.4	70 to 130	6.11	20
AZ19100	Mercury, Total by CVAA	mg/L	0.0000538	0.0005	0.004	0.00390	0.00392	0.00385	0.0034 to 0.0046	97.6	70 to 130	0.575	20
AZ19100	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.105	0.107	0.106	0.085 to 0.115	105	70 to 130	1.29	20
AZ19100	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.147	0.147	0.101	0.085 to 0.115	101	70 to 130	0.0321	20
AZ19100	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.220	0.221	0.197	0.17 to 0.23	110	70 to 130	0.412	20
AZ19100	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	104	70 to 130	1.66	20
AZ19100	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0981	0.101	0.103	0.085 to 0.115	98.1	70 to 130	3.31	20
AZ19100	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.103	0.110	0.085 to 0.115	104	70 to 130	0.880	20
AZ19100	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.102	0.103	0.105	0.085 to 0.115	102	70 to 130	1.33	20
AZ19100	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.100	0.100	0.101	0.085 to 0.115	100	70 to 130	0.225	20
AZ19100	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	3.06	20

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.

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/20/19 18:35
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-2

Laboratory ID Number: AZ19091

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Rec Limit	Prec	Prec Limit
AZ19099	Chloride	mg/L	0.0911	0.50	10.0	16.2	6.16	9.96	9 to 11	100	80 to 120	0.00	20
AZ19099	Fluoride	mg/L	-0.00727	0.05	2.50	2.63	0.10	2.54	2.25 to 2.75	101	80 to 120	1.61	20
AZ19091	Solids, Dissolved	mg/L	2.00	25			371	54.0	40 to 60			0.270	5
AZ19103	Sulfate	mg/L	-0.293	0.50	20.0	19.8	-0.239	19.9	18 to 22	99.0	80 to 120	0.00	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-1

Location Code: WMWGADAP
Collected: 8/21/19 08:57
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19092

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 10:02		1.015	1.24	mg/L	0.03	0.1	
* Calcium, Total	8/28/19 15:45	8/29/19 11:34		10.15	272	mg/L	1.015	5.075	
* Lithium, Total	8/28/19 15:45	8/29/19 10:02		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 11:07		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:07		1.015	0.00444	mg/L	0.001	0.005	J
* Barium, Total	8/23/19 14:25	9/3/19 11:07		1.015	0.0370	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:07		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:07		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:07		1.015	0.0242	mg/L	0.002	0.005	
* Lead, Total	8/23/19 14:25	9/3/19 11:07		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:07		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:07		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:25		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	1200	mg/L		71.4	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:27	8/27/19 10:27		1	5.26	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:51	8/27/19 15:51		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 17:34	8/29/19 17:34		80	708	mg/L	40.00	80	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/21/19 08:54	8/21/19 08:54			1473.69	uS/cm			FA
pH	8/21/19 08:54	8/21/19 08:54			6.01	SU			FA
Temperature	8/21/19 08:54	8/21/19 08:54			18.34	C			FA
Turbidity	8/21/19 08:54	8/21/19 08:54			4.88	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 08:57
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-1

Laboratory ID Number: AZ19092

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ19100	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.08	1.08	0.992	0.85 to 1.15	102	70 to 130	0.151	20
AZ19100	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.102	0.103	0.085 to 0.115	100	70 to 130	2.03	20
AZ19100	Calcium, Total	mg/L	0.00698	0.1518	5.00	88.5	83.3	5.17	4.25 to 5.75	-18.4	70 to 130	6.11	20
AZ19100	Mercury, Total by CVAA	mg/L	0.0000538	0.0005	0.004	0.00390	0.00392	0.00385	0.0034 to 0.0046	97.6	70 to 130	0.575	20
AZ19100	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.105	0.107	0.106	0.085 to 0.115	105	70 to 130	1.29	20
AZ19100	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	104	70 to 130	1.66	20
AZ19100	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0981	0.101	0.103	0.085 to 0.115	98.1	70 to 130	3.31	20
AZ19100	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.103	0.110	0.085 to 0.115	104	70 to 130	0.880	20
AZ19100	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.147	0.147	0.101	0.085 to 0.115	101	70 to 130	0.0321	20
AZ19100	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.220	0.221	0.197	0.17 to 0.23	110	70 to 130	0.412	20
AZ19100	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	3.01	20
AZ19100	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.111	0.111	0.107	0.085 to 0.115	105	70 to 130	0.340	20
AZ19100	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.102	0.103	0.105	0.085 to 0.115	102	70 to 130	1.33	20
AZ19100	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.100	0.100	0.101	0.085 to 0.115	100	70 to 130	0.225	20
AZ19100	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	3.06	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 08:57
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-1

Laboratory ID Number: AZ19092

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Limit
AZ19099	Fluoride	mg/L	-0.00727	0.05	2.50	2.63	0.10	2.54	2.25 to 2.75	101	80 to 120	1.61	20
AZ19099	Chloride	mg/L	0.0911	0.50	10.0	16.2	6.16	9.96	9 to 11	100	80 to 120	0.00	20
AZ19091	Solids, Dissolved	mg/L	2.00	25			371	54.0	40 to 60			0.270	5
AZ19103	Sulfate	mg/L	-0.293	0.50	20.0	19.8	-0.239	19.9	18 to 22	99.0	80 to 120	0.00	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-1 DUP

Location Code: WMWGADAP
Collected: 8/21/19 08:57
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19093

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA		Preparation Method: EPA 1638					
* Boron, Total	8/28/19 15:45	8/29/19 10:05		1.015	1.24	mg/L	0.03	0.1	
* Calcium, Total	8/28/19 15:45	8/29/19 11:37		10.15	276	mg/L	1.015	5.075	
* Lithium, Total	8/28/19 15:45	8/29/19 10:05		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ		Preparation Method: EPA 1638					
* Antimony, Total	8/23/19 14:25	9/3/19 11:10		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:10		1.015	0.00447	mg/L	0.001	0.005	J
* Barium, Total	8/23/19 14:25	9/3/19 11:10		1.015	0.0373	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:10		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:10		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:10		1.015	0.0244	mg/L	0.002	0.005	
* Lead, Total	8/23/19 14:25	9/3/19 11:10		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:10		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:10		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:27		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	1210	mg/L		71.4	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:28	8/27/19 10:28		1	5.25	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:52	8/27/19 15:52		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 17:35	8/29/19 17:35		80	700	mg/L	40.00	80	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/21/19 08:54	8/21/19 08:54			1473.69	uS/cm			FA
pH	8/21/19 08:54	8/21/19 08:54			6.01	SU			FA
Temperature	8/21/19 08:54	8/21/19 08:54			18.34	C			FA
Turbidity	8/21/19 08:54	8/21/19 08:54			4.88	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 08:57
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-1 DUP

Laboratory ID Number: AZ19093

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Limit		
AZ19100	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.08	1.08	0.992	0.85 to 1.15	102	70 to 130	0.151	20
AZ19100	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.102	0.103	0.085 to 0.115	100	70 to 130	2.03	20
AZ19100	Calcium, Total	mg/L	0.00698	0.1518	5.00	88.5	83.3	5.17	4.25 to 5.75	-18.4	70 to 130	6.11	20
AZ19100	Mercury, Total by CVAA	mg/L	0.0000538	0.0005	0.004	0.00390	0.00392	0.00385	0.0034 to 0.0046	97.6	70 to 130	0.575	20
AZ19100	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.105	0.107	0.106	0.085 to 0.115	105	70 to 130	1.29	20
AZ19100	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	104	70 to 130	1.66	20
AZ19100	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0981	0.101	0.103	0.085 to 0.115	98.1	70 to 130	3.31	20
AZ19100	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.103	0.110	0.085 to 0.115	104	70 to 130	0.880	20
AZ19100	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.147	0.147	0.101	0.085 to 0.115	101	70 to 130	0.0321	20
AZ19100	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.220	0.221	0.197	0.17 to 0.23	110	70 to 130	0.412	20
AZ19100	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	3.01	20
AZ19100	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.111	0.111	0.107	0.085 to 0.115	105	70 to 130	0.340	20
AZ19100	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.102	0.103	0.105	0.085 to 0.115	102	70 to 130	1.33	20
AZ19100	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.100	0.100	0.101	0.085 to 0.115	100	70 to 130	0.225	20
AZ19100	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	3.06	20

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.

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 08:57
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-1 DUP

Laboratory ID Number: AZ19093

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19099	Chloride	mg/L	0.0911	0.50	10.0	16.2	6.16	9.96	9 to 11	100	80 to 120	0.00	20
AZ19099	Fluoride	mg/L	-0.00727	0.05	2.50	2.63	0.10	2.54	2.25 to 2.75	101	80 to 120	1.61	20
AZ19091	Solids, Dissolved	mg/L	2.00	25			371	54.0	40 to 60			0.270	5
AZ19103	Sulfate	mg/L	-0.293	0.50	20.0	19.8	-0.239	19.9	18 to 22	99.0	80 to 120	0.00	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - PZ-5

Location Code: WMWGADAP
Collected: 8/21/19 10:17
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19094

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA		Preparation Method: EPA 1638					
* Boron, Total	8/28/19 15:45	8/29/19 10:08		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	8/28/19 15:45	8/29/19 10:08		1.015	3.04	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 10:08		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ		Preparation Method: EPA 1638					
* Antimony, Total	8/23/19 14:25	9/3/19 11:12		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 11:12		1.015	0.0850	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:12		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:12		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:12		1.015	0.00225	mg/L	0.002	0.005	J
* Lead, Total	8/23/19 14:25	9/3/19 11:12		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:12		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:12		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:29		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	46.0	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:29	8/27/19 10:29		1	3.85	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:53	8/27/19 15:53		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 16:07	8/29/19 16:07		1	1.21	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/21/19 10:15	8/21/19 10:15			45.16	uS/cm			FA
pH	8/21/19 10:15	8/21/19 10:15			5.13	SU			FA
Temperature	8/21/19 10:15	8/21/19 10:15			17.26	C			FA
Turbidity	8/21/19 10:15	8/21/19 10:15			4.62	NTU			FA

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Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 10:17
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - PZ-5

Laboratory ID Number: AZ19094

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19100	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.102	0.103	0.085 to 0.115	100	70 to 130	2.03	20
AZ19100	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.08	1.08	0.992	0.85 to 1.15	102	70 to 130	0.151	20
AZ19100	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.147	0.147	0.101	0.085 to 0.115	101	70 to 130	0.0321	20
AZ19100	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.220	0.221	0.197	0.17 to 0.23	110	70 to 130	0.412	20
AZ19100	Calcium, Total	mg/L	0.00698	0.1518	5.00	88.5	83.3	5.17	4.25 to 5.75	-18.4	70 to 130	6.11	20
AZ19100	Mercury, Total by CVAA	mg/L	0.0000538	0.0005	0.004	0.00390	0.00392	0.00385	0.0034 to 0.0046	97.6	70 to 130	0.575	20
AZ19100	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.105	0.107	0.106	0.085 to 0.115	105	70 to 130	1.29	20
AZ19100	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	3.01	20
AZ19100	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.111	0.111	0.107	0.085 to 0.115	105	70 to 130	0.340	20
AZ19100	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	104	70 to 130	1.66	20
AZ19100	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0981	0.101	0.103	0.085 to 0.115	98.1	70 to 130	3.31	20
AZ19100	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.103	0.110	0.085 to 0.115	104	70 to 130	0.880	20
AZ19100	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.102	0.103	0.105	0.085 to 0.115	102	70 to 130	1.33	20
AZ19100	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.100	0.100	0.101	0.085 to 0.115	100	70 to 130	0.225	20
AZ19100	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	3.06	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 10:17
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - PZ-5

Laboratory ID Number: AZ19094

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19100	Solids, Dissolved	mg/L	2.00	25			501	54.0	40 to 60			0.00	5
AZ19099	Chloride	mg/L	0.0911	0.50	10.0	16.2	6.16	9.96	9 to 11	100	80 to 120	0.00	20
AZ19099	Fluoride	mg/L	-0.00727	0.05	2.50	2.63	0.10	2.54	2.25 to 2.75	101	80 to 120	1.61	20
AZ19099	Sulfate	mg/L	-0.233	0.50	20.0	30.2	11.3	19.7	18 to 22	94.5	80 to 120	0.00	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - PZ-6

Location Code: WMWGADAP
Collected: 8/21/19 11:45
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19095

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 10:11		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	8/28/19 15:45	8/29/19 10:11		1.015	3.71	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 10:11		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 11:15		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 11:15		1.015	0.0312	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:15		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:15		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:15		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	8/23/19 14:25	9/3/19 11:15		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:15		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:15		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:32		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	42.7	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:30	8/27/19 10:30		1	4.00	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:55	8/27/19 15:55		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 16:08	8/29/19 16:08		1	1.62	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/21/19 11:40	8/21/19 11:40			49.74	uS/cm			FA
pH	8/21/19 11:40	8/21/19 11:40			5.44	SU			FA
Temperature	8/21/19 11:40	8/21/19 11:40			18.83	C			FA
Turbidity	8/21/19 11:40	8/21/19 11:40			4.84	NTU			FA

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Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 11:45
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - PZ-6

Laboratory ID Number: AZ19095

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ19100	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.08	1.08	0.992	0.85 to 1.15	102	70 to 130	0.151	20
AZ19100	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.102	0.103	0.085 to 0.115	100	70 to 130	2.03	20
AZ19100	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.147	0.147	0.101	0.085 to 0.115	101	70 to 130	0.0321	20
AZ19100	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.220	0.221	0.197	0.17 to 0.23	110	70 to 130	0.412	20
AZ19100	Calcium, Total	mg/L	0.00698	0.1518	5.00	88.5	83.3	5.17	4.25 to 5.75	-18.4	70 to 130	6.11	20
AZ19100	Mercury, Total by CVAA	mg/L	0.0000538	0.0005	0.004	0.00390	0.00392	0.00385	0.0034 to 0.0046	97.6	70 to 130	0.575	20
AZ19100	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.105	0.107	0.106	0.085 to 0.115	105	70 to 130	1.29	20
AZ19100	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	104	70 to 130	1.66	20
AZ19100	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0981	0.101	0.103	0.085 to 0.115	98.1	70 to 130	3.31	20
AZ19100	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.103	0.110	0.085 to 0.115	104	70 to 130	0.880	20
AZ19100	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	3.01	20
AZ19100	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.111	0.111	0.107	0.085 to 0.115	105	70 to 130	0.340	20
AZ19100	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.102	0.103	0.105	0.085 to 0.115	102	70 to 130	1.33	20
AZ19100	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.100	0.100	0.101	0.085 to 0.115	100	70 to 130	0.225	20
AZ19100	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	3.06	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 11:45
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - PZ-6

Laboratory ID Number: AZ19095

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19100	Solids, Dissolved	mg/L	2.00	25			501	54.0	40 to 60			0.00	5
AZ19099	Chloride	mg/L	0.0911	0.50	10.0	16.2	6.16	9.96	9 to 11	100	80 to 120	0.00	20
AZ19099	Fluoride	mg/L	-0.00727	0.05	2.50	2.63	0.10	2.54	2.25 to 2.75	101	80 to 120	1.61	20
AZ19099	Sulfate	mg/L	-0.233	0.50	20.0	30.2	11.3	19.7	18 to 22	94.5	80 to 120	0.00	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond Field Blank

Location Code: WMWGADAPFB
Collected: 8/21/19 12:00
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19096

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 10:14		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	8/28/19 15:45	8/29/19 10:14		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	8/28/19 15:45	8/29/19 10:14		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:18		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:34		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	Not Detected	mg/L		25	U
Analytical Method: SM4500CI E		Analyst: JCC							
* Chloride	8/27/19 10:31	8/27/19 10:31		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:56	8/27/19 15:56		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 16:09	8/29/19 16:09		1	Not Detected	mg/L	0.50	1	U

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAPFB
Sample Date: 8/21/19 12:00
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond Field Blank

Laboratory ID Number: AZ19096

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19100	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.102	0.103	0.085 to 0.115	100	70 to 130	2.03	20
AZ19100	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.08	1.08	0.992	0.85 to 1.15	102	70 to 130	0.151	20
AZ19100	Calcium, Total	mg/L	0.00698	0.1518	5.00	88.5	83.3	5.17	4.25 to 5.75	-18.4	70 to 130	6.11	20
AZ19100	Mercury, Total by CVAA	mg/L	0.0000538	0.0005	0.004	0.00390	0.00392	0.00385	0.0034 to 0.0046	97.6	70 to 130	0.575	20
AZ19100	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.105	0.107	0.106	0.085 to 0.115	105	70 to 130	1.29	20
AZ19100	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	3.01	20
AZ19100	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.111	0.111	0.107	0.085 to 0.115	105	70 to 130	0.340	20
AZ19100	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	104	70 to 130	1.66	20
AZ19100	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0981	0.101	0.103	0.085 to 0.115	98.1	70 to 130	3.31	20
AZ19100	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.103	0.110	0.085 to 0.115	104	70 to 130	0.880	20
AZ19100	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.102	0.103	0.105	0.085 to 0.115	102	70 to 130	1.33	20
AZ19100	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.100	0.100	0.101	0.085 to 0.115	100	70 to 130	0.225	20
AZ19100	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	3.06	20
AZ19100	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.147	0.147	0.101	0.085 to 0.115	101	70 to 130	0.0321	20
AZ19100	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.220	0.221	0.197	0.17 to 0.23	110	70 to 130	0.412	20

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.

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAPFB
Sample Date: 8/21/19 12:00
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond Field Blank

Laboratory ID Number: AZ19096

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19100	Solids, Dissolved	mg/L	2.00	25			501	54.0	40 to 60			0.00	5
AZ19099	Chloride	mg/L	0.0911	0.50	10.0	16.2	6.16	9.96	9 to 11	100	80 to 120	0.00	20
AZ19099	Fluoride	mg/L	-0.00727	0.05	2.50	2.63	0.10	2.54	2.25 to 2.75	101	80 to 120	1.61	20
AZ19099	Sulfate	mg/L	-0.233	0.50	20.0	30.2	11.3	19.7	18 to 22	94.5	80 to 120	0.00	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-8

Location Code: WMWGADAP
Collected: 8/21/19 14:00
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19097

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 10:17		1.015	0.0569	mg/L	0.03	0.1	J
* Calcium, Total	8/28/19 15:45	8/29/19 11:40		10.15	71.5	mg/L	1.015	5.075	
* Lithium, Total	8/28/19 15:45	8/29/19 10:17		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 11:20		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:20		1.015	0.00302	mg/L	0.001	0.005	J
* Barium, Total	8/23/19 14:25	9/3/19 11:20		1.015	0.194	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:20		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:20		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:20		1.015	0.00303	mg/L	0.002	0.005	J
* Lead, Total	8/23/19 14:25	9/3/19 11:20		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:20		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:20		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:36		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	226	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:33	8/27/19 10:33		1	5.89	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:57	8/27/19 15:57		1	0.0648	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 16:10	8/29/19 16:10		1	10.8	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/21/19 13:55	8/21/19 13:55			370.94	uS/cm			FA
pH	8/21/19 13:55	8/21/19 13:55			6.16	SU			FA
Temperature	8/21/19 13:55	8/21/19 13:55			18.31	C			FA
Turbidity	8/21/19 13:55	8/21/19 13:55			3.47	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 14:00
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-8

Laboratory ID Number: AZ19097

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ19100	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.08	1.08	0.992	0.85 to 1.15	102	70 to 130	0.151	20
AZ19100	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.102	0.103	0.085 to 0.115	100	70 to 130	2.03	20
AZ19100	Calcium, Total	mg/L	0.00698	0.1518	5.00	88.5	83.3	5.17	4.25 to 5.75	-18.4	70 to 130	6.11	20
AZ19100	Mercury, Total by CVAA	mg/L	0.0000538	0.0005	0.004	0.00390	0.00392	0.00385	0.0034 to 0.0046	97.6	70 to 130	0.575	20
AZ19100	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.105	0.107	0.106	0.085 to 0.115	105	70 to 130	1.29	20
AZ19100	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	3.01	20
AZ19100	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.111	0.111	0.107	0.085 to 0.115	105	70 to 130	0.340	20
AZ19100	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.147	0.147	0.101	0.085 to 0.115	101	70 to 130	0.0321	20
AZ19100	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.220	0.221	0.197	0.17 to 0.23	110	70 to 130	0.412	20
AZ19100	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	104	70 to 130	1.66	20
AZ19100	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0981	0.101	0.103	0.085 to 0.115	98.1	70 to 130	3.31	20
AZ19100	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.103	0.110	0.085 to 0.115	104	70 to 130	0.880	20
AZ19100	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.102	0.103	0.105	0.085 to 0.115	102	70 to 130	1.33	20
AZ19100	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.100	0.100	0.101	0.085 to 0.115	100	70 to 130	0.225	20
AZ19100	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	3.06	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 14:00
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-8

Laboratory ID Number: AZ19097

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19100	Solids, Dissolved	mg/L	2.00	25			501	54.0	40 to 60			0.00	5
AZ19099	Chloride	mg/L	0.0911	0.50	10.0	16.2	6.16	9.96	9 to 11	100	80 to 120	0.00	20
AZ19099	Fluoride	mg/L	-0.00727	0.05	2.50	2.63	0.10	2.54	2.25 to 2.75	101	80 to 120	1.61	20
AZ19099	Sulfate	mg/L	-0.233	0.50	20.0	30.2	11.3	19.7	18 to 22	94.5	80 to 120	0.00	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-7

Location Code: WMWGADAP
Collected: 8/21/19 15:52
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19098

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 10:20		1.015	0.0910	mg/L	0.03	0.1	J
* Calcium, Total	8/28/19 15:45	8/29/19 10:20		1.015	23.5	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 10:20		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 11:23		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:23		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 11:23		1.015	0.0946	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:23		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:23		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:23		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	8/23/19 14:25	9/3/19 11:23		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:23		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:23		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:39		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	133	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	8/27/19 10:34	8/27/19 10:34		1	7.35	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/27/19 15:58	8/27/19 15:58		1	0.068	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	8/29/19 16:12	8/29/19 16:12		1	11.8	mg/L	0.50	1	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	8/21/19 15:49	8/21/19 15:49			220.14	uS/cm			FA
pH	8/21/19 15:49	8/21/19 15:49			5.97	SU			FA
Temperature	8/21/19 15:49	8/21/19 15:49			19.28	C			FA
Turbidity	8/21/19 15:49	8/21/19 15:49			3.47	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 15:52
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-7

Laboratory ID Number: AZ19098

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ19100	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.08	1.08	0.992	0.85 to 1.15	102	70 to 130	0.151	20
AZ19100	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.102	0.103	0.085 to 0.115	100	70 to 130	2.03	20
AZ19100	Calcium, Total	mg/L	0.00698	0.1518	5.00	88.5	83.3	5.17	4.25 to 5.75	-18.4	70 to 130	6.11	20
AZ19100	Mercury, Total by CVAA	mg/L	0.0000538	0.0005	0.004	0.00390	0.00392	0.00385	0.0034 to 0.0046	97.6	70 to 130	0.575	20
AZ19100	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.105	0.107	0.106	0.085 to 0.115	105	70 to 130	1.29	20
AZ19100	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.147	0.147	0.101	0.085 to 0.115	101	70 to 130	0.0321	20
AZ19100	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.220	0.221	0.197	0.17 to 0.23	110	70 to 130	0.412	20
AZ19100	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	3.01	20
AZ19100	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.111	0.111	0.107	0.085 to 0.115	105	70 to 130	0.340	20
AZ19100	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	104	70 to 130	1.66	20
AZ19100	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0981	0.101	0.103	0.085 to 0.115	98.1	70 to 130	3.31	20
AZ19100	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.103	0.110	0.085 to 0.115	104	70 to 130	0.880	20
AZ19100	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.102	0.103	0.105	0.085 to 0.115	102	70 to 130	1.33	20
AZ19100	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.100	0.100	0.101	0.085 to 0.115	100	70 to 130	0.225	20
AZ19100	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	3.06	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 15:52
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-7

Laboratory ID Number: AZ19098

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19100	Solids, Dissolved	mg/L	2.00	25			501	54.0	40 to 60			0.00	5
AZ19099	Chloride	mg/L	0.0911	0.50	10.0	16.2	6.16	9.96	9 to 11	100	80 to 120	0.00	20
AZ19099	Fluoride	mg/L	-0.00727	0.05	2.50	2.63	0.10	2.54	2.25 to 2.75	101	80 to 120	1.61	20
AZ19099	Sulfate	mg/L	-0.233	0.50	20.0	30.2	11.3	19.7	18 to 22	94.5	80 to 120	0.00	20

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 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-9

Location Code: WMWGADAP
Collected: 8/21/19 16:56
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19099

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 10:23		1.015	0.0524	mg/L	0.03	0.1	J
* Calcium, Total	8/28/19 15:45	8/29/19 11:43		10.15	50.9	mg/L	1.015	5.075	
* Lithium, Total	8/28/19 15:45	8/29/19 10:23		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8		Analyst: DLJ			Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 11:26		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:26		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 11:26		1.015	0.183	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:26		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:26		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:26		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	8/23/19 14:25	9/3/19 11:26		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:26		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:26		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:41		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	200	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:35	8/27/19 10:35		1	6.16	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 15:59	8/27/19 15:59		1	0.0984	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 16:13	8/29/19 16:13		1	11.3	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/21/19 16:52	8/21/19 16:52			325.17	uS/cm			FA
pH	8/21/19 16:52	8/21/19 16:52			6.61	SU			FA
Temperature	8/21/19 16:52	8/21/19 16:52			19.13	C			FA
Turbidity	8/21/19 16:52	8/21/19 16:52			3.17	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 16:56
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-9

Laboratory ID Number: AZ19099

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ19100	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.08	1.08	0.992	0.85 to 1.15	102	70 to 130	0.151	20
AZ19100	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.102	0.103	0.085 to 0.115	100	70 to 130	2.03	20
AZ19100	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	3.01	20
AZ19100	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.111	0.111	0.107	0.085 to 0.115	105	70 to 130	0.340	20
AZ19100	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	104	70 to 130	1.66	20
AZ19100	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0981	0.101	0.103	0.085 to 0.115	98.1	70 to 130	3.31	20
AZ19100	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.103	0.110	0.085 to 0.115	104	70 to 130	0.880	20
AZ19100	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.147	0.147	0.101	0.085 to 0.115	101	70 to 130	0.0321	20
AZ19100	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.220	0.221	0.197	0.17 to 0.23	110	70 to 130	0.412	20
AZ19100	Calcium, Total	mg/L	0.00698	0.1518	5.00	88.5	83.3	5.17	4.25 to 5.75	-18.4	70 to 130	6.11	20
AZ19100	Mercury, Total by CVAA	mg/L	0.0000538	0.0005	0.004	0.00390	0.00392	0.00385	0.0034 to 0.0046	97.6	70 to 130	0.575	20
AZ19100	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.105	0.107	0.106	0.085 to 0.115	105	70 to 130	1.29	20
AZ19100	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.102	0.103	0.105	0.085 to 0.115	102	70 to 130	1.33	20
AZ19100	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.100	0.100	0.101	0.085 to 0.115	100	70 to 130	0.225	20
AZ19100	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	3.06	20

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.

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/21/19 16:56
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-9

Laboratory ID Number: AZ19099

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19100	Solids, Dissolved	mg/L	2.00	25			501	54.0	40 to 60			0.00	5
AZ19099	Chloride	mg/L	0.0911	0.50	10.0	16.2	6.16	9.96	9 to 11	100	80 to 120	0.00	20
AZ19099	Fluoride	mg/L	-0.00727	0.05	2.50	2.63	0.10	2.54	2.25 to 2.75	101	80 to 120	1.61	20
AZ19099	Sulfate	mg/L	-0.233	0.50	20.0	30.2	11.3	19.7	18 to 22	94.5	80 to 120	0.00	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-12

Location Code: WMWGADAP
Collected: 8/22/19 08:27
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19100

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 10:26		1.015	0.0625	mg/L	0.03	0.1	J
* Calcium, Total	8/28/19 15:45	8/29/19 11:46		10.15	89.4	mg/L	1.015	5.075	RA
* Lithium, Total	8/28/19 15:45	8/29/19 10:26		1.015	Not Detected	mg/L	0.01	0.02	U
Analytical Method: EPA 200.8			Analyst: DLJ		Preparation Method: EPA 1638				
* Antimony, Total	8/23/19 14:25	9/3/19 11:28		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 11:28		1.015	0.0455	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:28		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:28		1.015	0.000755	mg/L	0.0003	0.001	J
* Chromium, Total	8/23/19 14:25	9/3/19 11:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:28		1.015	0.00658	mg/L	0.002	0.005	
* Lead, Total	8/23/19 14:25	9/3/19 11:28		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:28		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:28		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 10:44		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	501	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	8/27/19 10:52	8/27/19 10:52		1	6.31	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/27/19 16:13	8/27/19 16:13		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	8/29/19 17:36	8/29/19 17:36		20	339	mg/L	10.00	20	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	8/22/19 08:24	8/22/19 08:24			675.04	uS/cm			FA
pH	8/22/19 08:24	8/22/19 08:24			5.35	SU			FA
Temperature	8/22/19 08:24	8/22/19 08:24			18.35	C			FA
Turbidity	8/22/19 08:24	8/22/19 08:24			3.48	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19
 Recoveries for Calcium are out of spec. Spike amount is less than 30% of the sample amount. LBM 9/24/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/22/19 08:27
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-12

Laboratory ID Number: AZ19100

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard		Rec		Prec	Limit
			MB	Limit				Standard	Limit	Rec	Prec		
AZ19100	Boron, Total	mg/L	0.000935	0.0650254	1.00	1.08	1.08	0.992	0.85 to 1.15	102	70 to 130	0.151	20
AZ19100	Lead, Total	mg/L	0.00000097	0.0001474	0.10	0.100	0.102	0.103	0.085 to 0.115	100	70 to 130	2.03	20
AZ19100	Beryllium, Total	mg/L	0.00000748	0.00088	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	3.01	20
AZ19100	Cobalt, Total	mg/L	-0.00000474	0.0001474	0.10	0.111	0.111	0.107	0.085 to 0.115	105	70 to 130	0.340	20
AZ19100	Calcium, Total	mg/L	0.00698	0.1518	5.00	88.5	83.3	5.17	4.25 to 5.75	-18.4	70 to 130	6.11	20
AZ19100	Mercury, Total by CVAA	mg/L	0.0000538	0.0005	0.004	0.00390	0.00392	0.00385	0.0034 to 0.0046	97.6	70 to 130	0.575	20
AZ19100	Thallium, Total	mg/L	0.00000028	0.0001474	0.10	0.105	0.107	0.106	0.085 to 0.115	105	70 to 130	1.29	20
AZ19100	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.105	0.106	0.105	0.085 to 0.115	104	70 to 130	1.66	20
AZ19100	Chromium, Total	mg/L	0.0000390	0.00044	0.10	0.0981	0.101	0.103	0.085 to 0.115	98.1	70 to 130	3.31	20
AZ19100	Selenium, Total	mg/L	0.0000827	0.00066	0.10	0.104	0.103	0.110	0.085 to 0.115	104	70 to 130	0.880	20
AZ19100	Barium, Total	mg/L	-0.0000188	0.0002	0.10	0.147	0.147	0.101	0.085 to 0.115	101	70 to 130	0.0321	20
AZ19100	Lithium, Total	mg/L	-0.0000724	0.0154	0.20	0.220	0.221	0.197	0.17 to 0.23	110	70 to 130	0.412	20
AZ19100	Arsenic, Total	mg/L	0.00000217	0.0001474	0.10	0.102	0.103	0.105	0.085 to 0.115	102	70 to 130	1.33	20
AZ19100	Molybdenum, Total	mg/L	0.0000267	0.0001474	0.10	0.100	0.100	0.101	0.085 to 0.115	100	70 to 130	0.225	20
AZ19100	Antimony, Total	mg/L	0.000231	0.00066	0.10	0.102	0.105	0.102	0.085 to 0.115	102	70 to 130	3.06	20

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

* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19
 Recoveries for Calcium are out of spec. Spike amount is less than 30% of the sample amount. LBM 9/24/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/22/19 08:27
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-12

Laboratory ID Number: AZ19100

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19103	Chloride	mg/L	0.116	0.50	10.0	9.89	0.252	10.0	9 to 11	98.9	80 to 120	0.00	20
AZ19103	Fluoride	mg/L	-0.000681	0.05	2.50	2.51	0.000659	2.51	2.25 to 2.75	100	80 to 120	0.00	20
AZ19100	Solids, Dissolved	mg/L	2.00	25			501	54.0	40 to 60			0.00	5
AZ19103	Sulfate	mg/L	-0.293	0.50	20.0	19.8	-0.239	19.9	18 to 22	99.0	80 to 120	0.00	20

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* Test results for these accredited parameters meet all 2003 NELAC and 2009 TNI requirements, with exceptions noted on this report

Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2017

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19
 Recoveries for Calcium are out of spec. Spike amount is less than 30% of the sample amount. LBM 9/24/19

Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-11

Location Code: WMWGADAP
Collected: 8/22/19 09:30
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19101

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7			Analyst: RDA		Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 10:46		1.015	0.272	mg/L	0.03	0.1	
* Calcium, Total	8/28/19 15:45	8/29/19 11:55		10.15	133	mg/L	1.015	5.075	
* Lithium, Total	8/28/19 15:45	8/29/19 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	8/23/19 14:25	9/3/19 11:49		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:49		1.015	0.00229	mg/L	0.001	0.005	J
* Barium, Total	8/23/19 14:25	9/3/19 11:49		1.015	0.214	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:49		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:49		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:49		1.015	0.00756	mg/L	0.002	0.005	
* Lead, Total	8/23/19 14:25	9/3/19 11:49		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:49		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:49		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1			Analyst: ABB						
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 11:00		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C			Analyst: TJW						
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	555	mg/L		25	
Analytical Method: SM4500Cl E			Analyst: JCC						
* Chloride	8/27/19 10:53	8/27/19 10:53		1	4.64	mg/L	0.50	1	
Analytical Method: SM4500F G 2017			Analyst: JCC						
* Fluoride	8/27/19 16:14	8/27/19 16:14		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E			Analyst: JCC						
* Sulfate	8/29/19 17:37	8/29/19 17:37		20	305	mg/L	10.00	20	
Analytical Method: Field Measurements			Analyst: TJD						
Conductivity	8/22/19 09:25	8/22/19 09:25			762.76	uS/cm			FA
pH	8/22/19 09:25	8/22/19 09:25			6.26	SU			FA
Temperature	8/22/19 09:25	8/22/19 09:25			20.14	C			FA
Turbidity	8/22/19 09:25	8/22/19 09:25			4.53	NTU			FA

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

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/22/19 09:30
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-11

Laboratory ID Number: AZ19101

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19103	Chromium, Total	mg/L	-0.0000446	0.00044	0.10	0.106	0.104	0.106	0.085 to 0.115	106	70 to 130	1.11	20
AZ19103	Lithium, Total	mg/L	-0.0000727	0.0154	0.20	0.194	0.193	0.196	0.17 to 0.23	97.1	70 to 130	0.691	20
AZ19103	Beryllium, Total	mg/L	0.00000549	0.00088	0.10	0.104	0.107	0.103	0.085 to 0.115	104	70 to 130	2.66	20
AZ19103	Cobalt, Total	mg/L	-0.00000570	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	1.69	20
AZ19103	Molybdenum, Total	mg/L	0.00000915	0.0001474	0.10	0.103	0.105	0.104	0.085 to 0.115	103	70 to 130	1.94	20
AZ19103	Lead, Total	mg/L	0.00000074	0.0001474	0.10	0.102	0.106	0.104	0.085 to 0.115	102	70 to 130	3.30	20
AZ19103	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.106	0.110	0.106	0.085 to 0.115	106	70 to 130	3.46	20
AZ19103	Barium, Total	mg/L	-0.00000493	0.0002	0.10	0.105	0.106	0.102	0.085 to 0.115	105	70 to 130	1.40	20
AZ19103	Calcium, Total	mg/L	0.00311	0.1518	5.00	5.24	5.14	5.26	4.25 to 5.75	105	70 to 130	1.88	20
AZ19103	Selenium, Total	mg/L	0.000112	0.00066	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	2.87	20
AZ19103	Arsenic, Total	mg/L	0.0000148	0.0001474	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	0.884	20
AZ19103	Boron, Total	mg/L	0.000581	0.0650254	1.00	0.985	0.972	0.982	0.85 to 1.15	98.5	70 to 130	1.34	20
AZ19103	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.112	0.108	0.109	0.085 to 0.115	112	70 to 130	3.39	20
AZ19103	Mercury, Total by CVAA	mg/L	0.0000606	0.0005	0.004	0.00393	0.00386	0.00386	0.0034 to 0.0046	98.2	70 to 130	1.87	20
AZ19103	Antimony, Total	mg/L	0.000301	0.00066	0.10	0.109	0.106	0.107	0.085 to 0.115	109	70 to 130	2.57	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/22/19 09:30
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-11

Laboratory ID Number: AZ19101

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19103	Chloride	mg/L	0.116	0.50	10.0	9.89	0.252	10.0	9 to 11	98.9	80 to 120	0.00	20
AZ19103	Fluoride	mg/L	-0.000681	0.05	2.50	2.51	0.000659	2.51	2.25 to 2.75	100	80 to 120	0.00	20
AZ19100	Solids, Dissolved	mg/L	2.00	25			501	54.0	40 to 60			0.00	5
AZ19103	Sulfate	mg/L	-0.293	0.50	20.0	19.8	-0.239	19.9	18 to 22	99.0	80 to 120	0.00	20

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Certificate Of Analysis

Revised Copy

Description: Gadsden Ash Pond - MW-10

Location Code: WMWGADAP
Collected: 8/22/19 11:47
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19102

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA			Preparation Method: EPA 1638				
* Boron, Total	8/28/19 15:45	8/29/19 10:49		1.015	0.0951	mg/L	0.03	0.1	J
* Calcium, Total	8/28/19 15:45	8/29/19 10:49		1.015	38.5	mg/L	0.1	0.5	
* Lithium, Total	8/28/19 15:45	8/29/19 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	8/23/19 14:25	9/3/19 11:52		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:52		1.015	0.00394	mg/L	0.001	0.005	J
* Barium, Total	8/23/19 14:25	9/3/19 11:52		1.015	0.302	mg/L	0.002	0.01	
* Beryllium, Total	8/23/19 14:25	9/3/19 11:52		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:52		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:52		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	8/23/19 14:25	9/3/19 11:52		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:52		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:52		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 11:02		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	194	mg/L		25	
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:55	8/27/19 10:55		1	5.66	mg/L	0.50	1	
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 16:15	8/27/19 16:15		1	0.0840	mg/L	0.05	0.1	J
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 17:31	8/29/19 17:31		1	6.74	mg/L	0.50	1	
Analytical Method: Field Measurements		Analyst: TJD							
Conductivity	8/22/19 11:43	8/22/19 11:43			333.07	uS/cm			FA
pH	8/22/19 11:43	8/22/19 11:43			6.37	SU			FA
Temperature	8/22/19 11:43	8/22/19 11:43			19.99	C			FA
Turbidity	8/22/19 11:43	8/22/19 11:43			4.95	NTU			FA

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Comments: Revised Copy: Revising QC Batch Summary pages for TDS recovery information. Also, updating "LCS" and "LCS Limit" columns to "Standard" and "Standard Limit". LBM 10/30/19

Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/22/19 11:47
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-10

Laboratory ID Number: AZ19102

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19103	Chromium, Total	mg/L	-0.0000446	0.00044	0.10	0.106	0.104	0.106	0.085 to 0.115	106	70 to 130	1.11	20
AZ19103	Lithium, Total	mg/L	-0.0000727	0.0154	0.20	0.194	0.193	0.196	0.17 to 0.23	97.1	70 to 130	0.691	20
AZ19103	Beryllium, Total	mg/L	0.00000549	0.00088	0.10	0.104	0.107	0.103	0.085 to 0.115	104	70 to 130	2.66	20
AZ19103	Cobalt, Total	mg/L	-0.00000570	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	1.69	20
AZ19103	Molybdenum, Total	mg/L	0.00000915	0.0001474	0.10	0.103	0.105	0.104	0.085 to 0.115	103	70 to 130	1.94	20
AZ19103	Barium, Total	mg/L	-0.00000493	0.0002	0.10	0.105	0.106	0.102	0.085 to 0.115	105	70 to 130	1.40	20
AZ19103	Calcium, Total	mg/L	0.00311	0.1518	5.00	5.24	5.14	5.26	4.25 to 5.75	105	70 to 130	1.88	20
AZ19103	Selenium, Total	mg/L	0.000112	0.00066	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	2.87	20
AZ19103	Lead, Total	mg/L	0.00000074	0.0001474	0.10	0.102	0.106	0.104	0.085 to 0.115	102	70 to 130	3.30	20
AZ19103	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.106	0.110	0.106	0.085 to 0.115	106	70 to 130	3.46	20
AZ19103	Arsenic, Total	mg/L	0.0000148	0.0001474	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	0.884	20
AZ19103	Boron, Total	mg/L	0.000581	0.0650254	1.00	0.985	0.972	0.982	0.85 to 1.15	98.5	70 to 130	1.34	20
AZ19103	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.112	0.108	0.109	0.085 to 0.115	112	70 to 130	3.39	20
AZ19103	Mercury, Total by CVAA	mg/L	0.0000606	0.0005	0.004	0.00393	0.00386	0.00386	0.0034 to 0.0046	98.2	70 to 130	1.87	20
AZ19103	Antimony, Total	mg/L	0.000301	0.00066	0.10	0.109	0.106	0.107	0.085 to 0.115	109	70 to 130	2.57	20

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Laboratory certification ID: E571114
 Issued By: State of Florida, Department of Health
 Expiration: June 30, 2018

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Batch QC Summary

Revised Copy

Customer Account: WMWGADAP
Sample Date: 8/22/19 11:47
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond - MW-10

Laboratory ID Number: AZ19102

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19103	Chloride	mg/L	0.116	0.50	10.0	9.89	0.252	10.0	9 to 11	98.9	80 to 120	0.00	20
AZ19103	Fluoride	mg/L	-0.000681	0.05	2.50	2.51	0.000659	2.51	2.25 to 2.75	100	80 to 120	0.00	20
AZ19100	Solids, Dissolved	mg/L	2.00	25			501	54.0	40 to 60			0.00	5
AZ19103	Sulfate	mg/L	-0.293	0.50	20.0	19.8	-0.239	19.9	18 to 22	99.0	80 to 120	0.00	20

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Revised Copy

Description: Gadsden Ash Pond Equipment Blank

Location Code: WMWGADAPEB
Collected: 8/22/19 12:00
Customer ID:
Submittal Date: 8/22/19 16:03

Laboratory ID Number: AZ19103

Name	Prepared	Analyzed	Vio Spec	DF	Results	Units	MDL	RL	Q
Analytical Method: EPA 200.7		Analyst: RDA		Preparation Method: EPA 1638					
* Boron, Total	8/28/19 15:45	8/29/19 10:52		1.015	Not Detected	mg/L	0.03	0.1	U
* Calcium, Total	8/28/19 15:45	8/29/19 10:52		1.015	Not Detected	mg/L	0.1	0.5	U
* Lithium, Total	8/28/19 15:45	8/29/19 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	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.0008	0.003	U
* Arsenic, Total	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.001	0.005	U
* Barium, Total	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.002	0.01	U
* Beryllium, Total	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.0006	0.003	U
* Cadmium, Total	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.0003	0.001	U
* Chromium, Total	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.002	0.01	U
* Cobalt, Total	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.002	0.005	U
* Lead, Total	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.001	0.005	U
* Molybdenum, Total	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.002	0.01	U
* Selenium, Total	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.002	0.01	U
* Thallium, Total	8/23/19 14:25	9/3/19 11:54		1.015	Not Detected	mg/L	0.0002	0.001	U
Analytical Method: EPA 245.1		Analyst: ABB							
* Mercury, Total by CVAA	8/27/19 09:58	8/28/19 11:05		1	Not Detected	mg/L	0.0003	0.0005	U
Analytical Method: SM 2540C		Analyst: TJW							
* Solids, Dissolved	8/26/19 14:50	8/27/19 15:55		1	Not Detected	mg/L		25	U
Analytical Method: SM4500Cl E		Analyst: JCC							
* Chloride	8/27/19 10:56	8/27/19 10:56		1	Not Detected	mg/L	0.50	1	U
Analytical Method: SM4500F G 2017		Analyst: JCC							
* Fluoride	8/27/19 16:16	8/27/19 16:16		1	Not Detected	mg/L	0.05	0.1	U
Analytical Method: SM4500SO4 E		Analyst: JCC							
* Sulfate	8/29/19 17:38	8/29/19 17:38		1	Not Detected	mg/L	0.50	1	U

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Batch QC Summary

Revised Copy

Customer Account: WMWGADAPEB

Sample Date: 8/22/19 12:00

Customer ID:

Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond Equipment Blank

Laboratory ID Number: AZ19103

Sample	Analysis	Units	MB		Spike	MS	MSD	Standard	Standard Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AZ19103	Chromium, Total	mg/L	-0.0000446	0.00044	0.10	0.106	0.104	0.106	0.085 to 0.115	106	70 to 130	1.11	20
AZ19103	Lithium, Total	mg/L	-0.0000727	0.0154	0.20	0.194	0.193	0.196	0.17 to 0.23	97.1	70 to 130	0.691	20
AZ19103	Beryllium, Total	mg/L	0.00000549	0.00088	0.10	0.104	0.107	0.103	0.085 to 0.115	104	70 to 130	2.66	20
AZ19103	Barium, Total	mg/L	-0.00000493	0.0002	0.10	0.105	0.106	0.102	0.085 to 0.115	105	70 to 130	1.40	20
AZ19103	Calcium, Total	mg/L	0.00311	0.1518	5.00	5.24	5.14	5.26	4.25 to 5.75	105	70 to 130	1.88	20
AZ19103	Selenium, Total	mg/L	0.000112	0.00066	0.10	0.104	0.107	0.106	0.085 to 0.115	104	70 to 130	2.87	20
AZ19103	Cobalt, Total	mg/L	-0.00000570	0.0001474	0.10	0.108	0.109	0.109	0.085 to 0.115	108	70 to 130	1.69	20
AZ19103	Molybdenum, Total	mg/L	0.00000915	0.0001474	0.10	0.103	0.105	0.104	0.085 to 0.115	103	70 to 130	1.94	20
AZ19103	Lead, Total	mg/L	0.00000074	0.0001474	0.10	0.102	0.106	0.104	0.085 to 0.115	102	70 to 130	3.30	20
AZ19103	Thallium, Total	mg/L	0.00000002	0.0001474	0.10	0.106	0.110	0.106	0.085 to 0.115	106	70 to 130	3.46	20
AZ19103	Arsenic, Total	mg/L	0.0000148	0.0001474	0.10	0.104	0.103	0.104	0.085 to 0.115	104	70 to 130	0.884	20
AZ19103	Boron, Total	mg/L	0.000581	0.0650254	1.00	0.985	0.972	0.982	0.85 to 1.15	98.5	70 to 130	1.34	20
AZ19103	Cadmium, Total	mg/L	0.00000000	0.0001474	0.10	0.112	0.108	0.109	0.085 to 0.115	112	70 to 130	3.39	20
AZ19103	Mercury, Total by CVAA	mg/L	0.0000606	0.0005	0.004	0.00393	0.00386	0.00386	0.0034 to 0.0046	98.2	70 to 130	1.87	20
AZ19103	Antimony, Total	mg/L	0.000301	0.00066	0.10	0.109	0.106	0.107	0.085 to 0.115	109	70 to 130	2.57	20

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Batch QC Summary

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Sample Date: 8/22/19 12:00
Customer ID:
Delivery Date: 8/22/19 16:03

Description: Gadsden Ash Pond Equipment Blank

Laboratory ID Number: AZ19103

Sample	Analysis	Units	MB	MB Limit	Spike	MS	Sample Duplicate	Standard	Standard Limit	Rec	Limit	Prec	Prec Limit
AZ19103	Chloride	mg/L	0.116	0.50	10.0	9.89	0.252	10.0	9 to 11	98.9	80 to 120	0.00	20
AZ19103	Fluoride	mg/L	-0.000681	0.05	2.50	2.51	0.000659	2.51	2.25 to 2.75	100	80 to 120	0.00	20
AZ19100	Solids, Dissolved	mg/L	2.00	25			501	54.0	40 to 60			0.00	5
AZ19103	Sulfate	mg/L	-0.293	0.50	20.0	19.8	-0.239	19.9	18 to 22	99.0	80 to 120	0.00	20

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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.
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
 Lab Complete

Outside Lab

Lab ETA **08/22/2019 15:30**

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Corey Ladner
Site Representative	Gerson Pickett	Requested By	Corey Ladner
Collector	TJ Daugherty	Location	Gadsden 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-16	8/19/19	13:30	4	Groundwater		AZ19081
MW-17	08/19/2019	15:15	4	Groundwater		AZ19082
MW-14	08/20/2019	08:55	4	Groundwater		AZ19083
MW-14 Dup	08/20/2019	08:55	4	Sample Duplicate		AZ19084
PZ-1	08/20/2019	10:40	4	Groundwater		AZ19085
MW-5	08/20/2019	11:50	4	Groundwater		AZ19086
MW-6	08/20/2019	13:22	4	Groundwater		AZ19087
FB-1	08/20/2019	13:40	4	Field Blank		AZ19088
MW-3	08/20/2019	15:34	4	Groundwater		AZ19089
MW-4	08/20/2019	17:25	4	Groundwater		AZ19090
MW-2	08/20/2019	18:35	4	Groundwater		AZ19091
MW-1	08/21/2019	08:57	4	Groundwater		AZ19092
MW-1 Dup	08/21/2019	08:57	4	Sample Duplicate		AZ19093
PZ-5	08/21/2019	10:17	4	Groundwater		AZ19094
PZ-6	08/21/2019	11:45	4	Groundwater		AZ19095
FB-2	08/21/2019	12:00	4	Field Blank		AZ19096
MW-8	08/21/2019	14:00	4	Groundwater		AZ19097
MW-7	08/21/2019	15:52	4	Groundwater		AZ19098
MW-9	08/21/2019	16:56	4	Groundwater		AZ19099
MW-12	08/22/2019	08:27	4	Groundwater		AZ19100
MW-11	08/22/2019	09:30	4	Groundwater		AZ19101

Relinquished By	Received By	Date/Time
<i>H. AB</i>	<i>Ryan M. Kelly</i>	08/22/2019 15:31

SmarTroll ID	7586-41445-5-4
Turbidity ID	4677-23342-4-1
Sample Event	1236

All metals and radiological bottles have pH < 2

Cooler Temp	0.7 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	7267-39374-6-6



Chain of Custody

Groundwater

APC General Testing Laboratory

Field Complete
 Lab Complete

Outside Lab

Lab ETA **08/22/2019 15:30**

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer, Corey Ladner
Site Representative	Gerson Pickett	Requested By	Corey Ladner
Collector	TJ Daugherty	Location	Gadsden Ash Pond

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

Comments Rad dup collected @ MW-5 and PZ-5

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-16	8/19/19	13:30	1	Groundwater		AZ19104
MW-17	08/19/2019	15:15	1	Groundwater		AZ19105
MW-14	08/20/2019	08:55	1	Groundwater		AZ19106
MW-14 Dup	08/20/2019	08:55	1	Sample Duplicate		AZ19107
PZ-1	08/20/2019	10:40	1	Groundwater		AZ19108
MW-5	08/20/2019	11:50	3	Groundwater		AZ19109
MW-6	08/20/2019	13:22	1	Groundwater		AZ19110
FB-1	08/20/2019	13:40	1	Field Blank		AZ19111
MW-3	08/20/2019	15:34	1	Groundwater		AZ19112
MW-4	08/20/2019	17:25	1	Groundwater		AZ19113
MW-2	08/20/2019	18:35	1	Groundwater		AZ19114
MW-1	08/21/2019	08:57	1	Groundwater		AZ19115
MW-1 Dup	08/21/2019	08:57	1	Sample Duplicate		AZ19116
PZ-5	08/21/2019	10:17	3	Groundwater		AZ19117
PZ-6	08/21/2019	11:45	1	Groundwater		AZ19118
FB-2	08/21/2019	12:00	1	Field Blank		AZ19119
MW-8	08/21/2019	14:00	1	Groundwater		AZ19120
MW-7	08/21/2019	15:52	1	Groundwater		AZ19121
MW-9	08/21/2019	16:56	1	Groundwater		AZ19122
MW-12	08/22/2019	08:27	1	Groundwater		AZ19123
MW-11	08/22/2019	09:30	1	Groundwater		AZ19124

Relinquished By	Received By	Date/Time
<i>HAB</i>	<i>Ryan Miley</i>	08/22/2019 15:31

SmarTroll ID	7586-41445-5-4
Turbidity ID	4677-23342-4-1
Sample Event	1236

All metals and radiological bottles have pH < 2

Cooler Temp	N/A
Thermometer ID	N/A
pH Strip ID	7267-39374-6-6

ANALYTICAL REPORT

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

Laboratory Job ID: 400-175280-1
Laboratory Sample Delivery Group: Gadsden Ash Pond 1236
Client Project/Site: CCR Plant Gadsden

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

Attn: Laura Midkiff



Authorized for release by:
10/10/2019 6:29:05 PM

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

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

Job ID: 400-175280-1
SDG: Gadsden Ash Pond 1236

Job ID: 400-175280-1

Laboratory: Eurofins TestAmerica, Pensacola

Narrative

Job Narrative 400-175280-1

RAD

Method(s) 9315: Radium-226 prep batch 160-441327. 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. AZ19104 MW-16 (400-175280-1), AZ19105 MW-17 (400-175280-2), AZ19106 MW-14 (400-175280-3), AZ19107 MW-14 DUP (400-175280-4), AZ19108 PZ-1 (400-175280-5), AZ19109 MW-5 (400-175280-6), AZ19109 MW-5 (400-175280-6[DUJ]), AZ19110 MW-6 (400-175280-7), AZ19111 FB-1 (400-175280-8), AZ19112 MW-3 (400-175280-9), AZ19113 MW-4 (400-175280-10), AZ19114 MW-2 (400-175280-11), AZ19115 MW-1 (400-175280-12), AZ19116 MW-1 DUP (400-175280-13), AZ19117 PZ-5 (400-175280-14), AZ19117 PZ-5 (400-175280-14[DUJ]), AZ19118 PZ-6 (400-175280-15), AZ19119 FB-2 (400-175280-16), AZ19120 MW-8 (400-175280-17), AZ19121 MW-7 (400-175280-18), (LCS 160-441327/1-A) and (MB 160-441327/22-A)

Method(s) 9315: Radium-226 Prep Batch: 160-441327. 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. AZ19104 MW-16 (400-175280-1), AZ19105 MW-17 (400-175280-2), AZ19106 MW-14 (400-175280-3), AZ19107 MW-14 DUP (400-175280-4), AZ19108 PZ-1 (400-175280-5), AZ19109 MW-5 (400-175280-6), AZ19109 MW-5 (400-175280-6[DUJ]), AZ19110 MW-6 (400-175280-7), AZ19111 FB-1 (400-175280-8), AZ19112 MW-3 (400-175280-9), AZ19113 MW-4 (400-175280-10), AZ19114 MW-2 (400-175280-11), AZ19115 MW-1 (400-175280-12), AZ19116 MW-1 DUP (400-175280-13), AZ19117 PZ-5 (400-175280-14), AZ19117 PZ-5 (400-175280-14[DUJ]), AZ19118 PZ-6 (400-175280-15), AZ19119 FB-2 (400-175280-16), AZ19120 MW-8 (400-175280-17), AZ19121 MW-7 (400-175280-18), (LCS 160-441327/1-A) and (MB 160-441327/22-A)

Method(s) 9315: Radium-226 Prep Batch 160-441499. The LCS (73%) and the LCSD (72%) recovery is outside of the acceptable limit of 75%-125%. The method blank results are acceptable and all samples MDCs are well below the client requested limit (RL). Data reported with this narrative. AZ19122 MW-9 (400-175280-19), AZ19123 MW-12 (400-175280-20), AZ19124 MW-11 (400-175280-21), AZ19125 MW-10 (400-175280-22), AZ19126 EB-1 (400-175280-23), (LCS 160-441499/1-A), (LCSD 160-441499/2-A) and (MB 160-441499/15-A)

Method(s) 9315: Radium-226 Prep Batch 160-441499. 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. AZ19122 MW-9 (400-175280-19), AZ19123 MW-12 (400-175280-20), AZ19124 MW-11 (400-175280-21), AZ19125 MW-10 (400-175280-22), AZ19126 EB-1 (400-175280-23), (LCS 160-441499/1-A), (LCSD 160-441499/2-A) and (MB 160-441499/15-A)

Method(s) 9320: Radium-228 Prep Batch 160-441330. 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. AZ19104 MW-16 (400-175280-1), AZ19105 MW-17 (400-175280-2), AZ19106 MW-14 (400-175280-3), AZ19107 MW-14 DUP (400-175280-4), AZ19108 PZ-1 (400-175280-5), AZ19109 MW-5 (400-175280-6), AZ19109 MW-5 (400-175280-6[DUJ]), AZ19110 MW-6 (400-175280-7), AZ19111 FB-1 (400-175280-8), AZ19112 MW-3 (400-175280-9), AZ19113 MW-4 (400-175280-10), AZ19114 MW-2 (400-175280-11), AZ19115 MW-1 (400-175280-12), AZ19116 MW-1 DUP (400-175280-13), AZ19117 PZ-5 (400-175280-14), AZ19117 PZ-5 (400-175280-14[DUJ]), AZ19118 PZ-6 (400-175280-15), AZ19119 FB-2 (400-175280-16), AZ19120 MW-8 (400-175280-17), AZ19121 MW-7 (400-175280-18), (LCS 160-441330/1-A) and (MB 160-441330/22-A)

Method(s) 9320: Radium-228 Prep Batch 160-444565. The detection goal was not met for the following samples due to re-analysis and insufficient sample available for analysis: See prep NCM 160-179005 AZ19122 MW-9 (400-175280-19), AZ19123 MW-12 (400-175280-20), AZ19124 MW-11 (400-175280-21), AZ19125 MW-10 (400-175280-22), AZ19126 EB-1 (400-175280-23) and (MB 160-444565/8-A). Analytical results are reported with the detection limit achieved.

Method(s) 9320: Radium-228 Prep Batch 160-444565. 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. AZ19122 MW-9 (400-175280-19), AZ19123 MW-12 (400-175280-20), AZ19124 MW-11 (400-175280-21), AZ19125 MW-10 (400-175280-22), AZ19126 EB-1 (400-175280-23), (LCS 160-444565/1-A), (LCSD 160-444565/2-A) and (MB 160-444565/8-A)

Case Narrative

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

Job ID: 400-175280-1
SDG: Gadsden Ash Pond 1236

Job ID: 400-175280-1 (Continued)

Laboratory: Eurofins TestAmerica, Pensacola (Continued)

Method(s) PrecSep_0: Radium 228 Prep Batch 160-441330. The following samples were prepared at a reduced aliquot due to limited volume: AZ19104 MW-16 (400-175280-1), AZ19105 MW-17 (400-175280-2), AZ19106 MW-14 (400-175280-3), AZ19107 MW-14 DUP (400-175280-4), AZ19108 PZ-1 (400-175280-5), AZ19109 MW-5 (400-175280-6), AZ19109 MW-5 (400-175280-6[DUJ]), AZ19110 MW-6 (400-175280-7), AZ19111 FB-1 (400-175280-8), AZ19112 MW-3 (400-175280-9), AZ19113 MW-4 (400-175280-10), AZ19114 MW-2 (400-175280-11), AZ19115 MW-1 (400-175280-12), AZ19116 MW-1 DUP (400-175280-13), AZ19117 PZ-5 (400-175280-14), AZ19117 PZ-5 (400-175280-14[DUJ]), AZ19118 PZ-6 (400-175280-15), AZ19119 FB-2 (400-175280-16), AZ19120 MW-8 (400-175280-17) and AZ19121 MW-7 (400-175280-18). Samples 400-175280-A-14 and 400-175280-A-14DU had yellow discoloration.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-441501. The following samples were prepared at a reduced aliquot due to limited volume: AZ19122 MW-9 (400-175280-19), AZ19123 MW-12 (400-175280-20), AZ19124 MW-11 (400-175280-21), AZ19125 MW-10 (400-175280-22) and AZ19126 EB-1 (400-175280-23).

Method(s) PrecSep_0: Radium 228 Prep Batch 160-441501. Insufficient sample volume was available to perform a sample duplicate for the following samples: AZ19122 MW-9 (400-175280-19), AZ19123 MW-12 (400-175280-20), AZ19124 MW-11 (400-175280-21), AZ19125 MW-10 (400-175280-22) and AZ19126 EB-1 (400-175280-23). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep_0: Radium 228 Prep Batch 160-444595. Due to re-analysis and insufficient volume, the following samples were prepared at a reduced aliquot: AZ19122 MW-9 (400-175280-19), AZ19123 MW-12 (400-175280-20), AZ19124 MW-11 (400-175280-21), AZ19125 MW-10 (400-175280-22) and AZ19126 EB-1 (400-175280-23).

Method(s) PrecSep_0: Radium 228 Prep Batch 160-444565. Insufficient sample volume was available to perform a sample duplicate for the following samples: AZ19122 MW-9 (400-175280-19), AZ19123 MW-12 (400-175280-20), AZ19124 MW-11 (400-175280-21), AZ19125 MW-10 (400-175280-22) and AZ19126 EB-1 (400-175280-23). A laboratory control sample/ laboratory control sample duplicate (LCS/LCSD) were prepared instead to demonstrate batch precision.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-441327. The following samples were prepared at a reduced aliquot due to limited volume: AZ19104 MW-16 (400-175280-1), AZ19105 MW-17 (400-175280-2), AZ19106 MW-14 (400-175280-3), AZ19107 MW-14 DUP (400-175280-4), AZ19108 PZ-1 (400-175280-5), AZ19109 MW-5 (400-175280-6), AZ19109 MW-5 (400-175280-6[DUJ]), AZ19110 MW-6 (400-175280-7), AZ19111 FB-1 (400-175280-8), AZ19112 MW-3 (400-175280-9), AZ19113 MW-4 (400-175280-10), AZ19114 MW-2 (400-175280-11), AZ19115 MW-1 (400-175280-12), AZ19116 MW-1 DUP (400-175280-13), AZ19117 PZ-5 (400-175280-14), AZ19117 PZ-5 (400-175280-14[DUJ]), AZ19118 PZ-6 (400-175280-15), AZ19119 FB-2 (400-175280-16), AZ19120 MW-8 (400-175280-17) and AZ19121 MW-7 (400-175280-18). Samples 400-175280-A-14 and 400-175280-A-14DU had yellow discoloration.

Method(s) PrecSep-21: Radium 226 Prep Batch 160-441499. The following samples were prepared at a reduced aliquot due to limited volume: AZ19122 MW-9 (400-175280-19), AZ19123 MW-12 (400-175280-20), AZ19124 MW-11 (400-175280-21), AZ19125 MW-10 (400-175280-22) and AZ19126 EB-1 (400-175280-23).

Method(s) PrecSep-21: Radium 226 Prep Batch 160-441499. Insufficient sample volume was available to perform a sample duplicate for the following samples: AZ19122 MW-9 (400-175280-19), AZ19123 MW-12 (400-175280-20), AZ19124 MW-11 (400-175280-21), AZ19125 MW-10 (400-175280-22) and AZ19126 EB-1 (400-175280-23). 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 Gadsden

Job ID: 400-175280-1
SDG: Gadsden Ash Pond 1236

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 Gadsden

Job ID: 400-175280-1
SDG: Gadsden Ash Pond 1236

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	Asset ID
400-175280-1	AZ19104 MW-16	Water	08/19/19 13:30	08/26/19 13:31	
400-175280-2	AZ19105 MW-17	Water	08/19/19 15:15	08/26/19 13:31	
400-175280-3	AZ19106 MW-14	Water	08/20/19 08:55	08/26/19 13:31	
400-175280-4	AZ19107 MW-14 DUP	Water	08/20/19 08:55	08/26/19 13:31	
400-175280-5	AZ19108 PZ-1	Water	08/20/19 10:40	08/26/19 13:31	
400-175280-6	AZ19109 MW-5	Water	08/20/19 11:50	08/26/19 13:31	
400-175280-7	AZ19110 MW-6	Water	08/20/19 13:22	08/26/19 13:31	
400-175280-8	AZ19111 FB-1	Water	08/20/19 13:40	08/26/19 13:31	
400-175280-9	AZ19112 MW-3	Water	08/20/19 15:34	08/26/19 13:31	
400-175280-10	AZ19113 MW-4	Water	08/20/19 17:25	08/26/19 13:31	
400-175280-11	AZ19114 MW-2	Water	08/20/19 18:35	08/26/19 13:31	
400-175280-12	AZ19115 MW-1	Water	08/21/19 08:57	08/26/19 13:31	
400-175280-13	AZ19116 MW-1 DUP	Water	08/21/19 08:57	08/26/19 13:31	
400-175280-14	AZ19117 PZ-5	Water	08/21/19 10:17	08/26/19 13:31	
400-175280-15	AZ19118 PZ-6	Water	08/21/19 11:45	08/26/19 13:31	
400-175280-16	AZ19119 FB-2	Water	08/21/19 12:00	08/26/19 13:31	
400-175280-17	AZ19120 MW-8	Water	08/21/19 14:00	08/26/19 13:31	
400-175280-18	AZ19121 MW-7	Water	08/21/19 15:52	08/26/19 13:31	
400-175280-19	AZ19122 MW-9	Water	08/21/19 16:56	08/26/19 13:31	
400-175280-20	AZ19123 MW-12	Water	08/22/19 08:27	08/26/19 13:31	
400-175280-21	AZ19124 MW-11	Water	08/22/19 09:30	08/26/19 13:31	
400-175280-22	AZ19125 MW-10	Water	08/22/19 11:47	08/26/19 13:31	
400-175280-23	AZ19126 EB-1	Water	08/22/19 12:00	08/26/19 13:31	

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19104 MW-16

Lab Sample ID: 400-175280-1

Date Collected: 08/19/19 13:30

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0739	U	0.207	0.207	1.00	0.374	pCi/L	08/29/19 16:51	09/18/19 16:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		40 - 110					08/29/19 16:51	09/18/19 16:22	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.303	U	0.338	0.339	1.00	0.555	pCi/L	08/29/19 17:29	09/17/19 09:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.5		40 - 110					08/29/19 17:29	09/17/19 09:23	1
Y Carrier	85.2		40 - 110					08/29/19 17:29	09/17/19 09:23	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	0.377	U	0.396	0.397	5.00	0.555	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19105 MW-17

Lab Sample ID: 400-175280-2

Date Collected: 08/19/19 15:15

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0177	U	0.192	0.192	1.00	0.389	pCi/L	08/29/19 16:51	09/18/19 16:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.1		40 - 110					08/29/19 16:51	09/18/19 16:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.701		0.399	0.404	1.00	0.596	pCi/L	08/29/19 17:29	09/17/19 09:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.1		40 - 110					08/29/19 17:29	09/17/19 09:23	1
Y Carrier	82.2		40 - 110					08/29/19 17:29	09/17/19 09:23	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	0.683		0.443	0.447	5.00	0.596	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19106 MW-14

Lab Sample ID: 400-175280-3

Date Collected: 08/20/19 08:55

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.192	U	0.215	0.216	1.00	0.348	pCi/L	08/29/19 16:51	09/18/19 16:25	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					08/29/19 16:51	09/18/19 16:25	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.582	U	0.391	0.394	1.00	0.605	pCi/L	08/29/19 17:29	09/17/19 09:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.6		40 - 110					08/29/19 17:29	09/17/19 09:24	1
Y Carrier	84.1		40 - 110					08/29/19 17:29	09/17/19 09:24	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	0.774		0.446	0.449	5.00	0.605	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19107 MW-14 DUP

Lab Sample ID: 400-175280-4

Date Collected: 08/20/19 08:55

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.276	U	0.240	0.241	1.00	0.365	pCi/L	08/29/19 16:51	09/18/19 16:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.1		40 - 110					08/29/19 16:51	09/18/19 16:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.352	U	0.405	0.406	1.00	0.666	pCi/L	08/29/19 17:29	09/17/19 09:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	81.1		40 - 110					08/29/19 17:29	09/17/19 09:24	1
Y Carrier	85.2		40 - 110					08/29/19 17:29	09/17/19 09:24	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	0.629	U	0.471	0.472	5.00	0.666	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19108 PZ-1

Lab Sample ID: 400-175280-5

Date Collected: 08/20/19 10:40

Matrix: Water

Date Received: 08/26/19 13:31

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	U	0.152	0.154	1.00	0.424	pCi/L	08/29/19 16:51	09/18/19 16:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.5		40 - 110					08/29/19 16:51	09/18/19 16:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.920		0.437	0.445	1.00	0.625	pCi/L	08/29/19 17:29	09/17/19 09:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	78.5		40 - 110					08/29/19 17:29	09/17/19 09:24	1
Y Carrier	83.0		40 - 110					08/29/19 17:29	09/17/19 09:24	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	0.663		0.463	0.471	5.00	0.625	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19109 MW-5

Lab Sample ID: 400-175280-6

Date Collected: 08/20/19 11:50

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.113	U	0.185	0.185	1.00	0.321	pCi/L	08/29/19 16:51	09/18/19 16:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		40 - 110					08/29/19 16:51	09/18/19 16:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0932	U	0.328	0.328	1.00	0.573	pCi/L	08/29/19 17:29	09/17/19 09:24	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.0		40 - 110					08/29/19 17:29	09/17/19 09:24	1
Y Carrier	86.7		40 - 110					08/29/19 17:29	09/17/19 09:24	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	0.206	U	0.377	0.377	5.00	0.573	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19110 MW-6

Lab Sample ID: 400-175280-7

Date Collected: 08/20/19 13:22

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0491	U	0.118	0.118	1.00	0.278	pCi/L	08/29/19 16:51	09/18/19 16:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					08/29/19 16:51	09/18/19 16:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0370	U	0.316	0.316	1.00	0.571	pCi/L	08/29/19 17:29	09/17/19 09:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					08/29/19 17:29	09/17/19 09:23	1
Y Carrier	86.0		40 - 110					08/29/19 17:29	09/17/19 09:23	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	-0.0860	U	0.337	0.337	5.00	0.571	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19111 FB-1

Lab Sample ID: 400-175280-8

Date Collected: 08/20/19 13:40

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.206	U	0.0977	0.0995	1.00	0.333	pCi/L	08/29/19 16:51	09/18/19 16:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					08/29/19 16:51	09/18/19 16:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.269	U	0.283	0.284	1.00	0.556	pCi/L	08/29/19 17:29	09/17/19 09:23	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					08/29/19 17:29	09/17/19 09:23	1
Y Carrier	87.1		40 - 110					08/29/19 17:29	09/17/19 09:23	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	-0.475	U	0.299	0.301	5.00	0.556	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19112 MW-3

Lab Sample ID: 400-175280-9

Date Collected: 08/20/19 15:34

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.00817	U	0.172	0.172	1.00	0.347	pCi/L	08/29/19 16:51	09/18/19 16:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		40 - 110					08/29/19 16:51	09/18/19 16:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.717	U	0.501	0.505	1.00	0.789	pCi/L	08/29/19 17:29	09/17/19 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.6		40 - 110					08/29/19 17:29	09/17/19 09:27	1
Y Carrier	82.2		40 - 110					08/29/19 17:29	09/17/19 09:27	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	0.709	U	0.530	0.533	5.00	0.789	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19113 MW-4

Lab Sample ID: 400-175280-10

Date Collected: 08/20/19 17:25

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.311	U	0.236	0.238	1.00	0.335	pCi/L	08/29/19 16:51	09/18/19 16:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.4		40 - 110					08/29/19 16:51	09/18/19 16:27	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	0.468	0.470	1.00	0.757	pCi/L	08/29/19 17:29	09/17/19 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	77.4		40 - 110					08/29/19 17:29	09/17/19 09:27	1
Y Carrier	86.4		40 - 110					08/29/19 17:29	09/17/19 09:27	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	0.814		0.524	0.527	5.00	0.757	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19114 MW-2

Lab Sample ID: 400-175280-11

Date Collected: 08/20/19 18:35

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.169	U	0.187	0.188	1.00	0.301	pCi/L	08/29/19 16:51	09/18/19 16:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					08/29/19 16:51	09/18/19 16:27	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	0.412	0.413	1.00	0.675	pCi/L	08/29/19 17:29	09/17/19 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					08/29/19 17:29	09/17/19 09:27	1
Y Carrier	85.2		40 - 110					08/29/19 17:29	09/17/19 09:27	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	0.553	U	0.452	0.454	5.00	0.675	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19115 MW-1

Lab Sample ID: 400-175280-12

Date Collected: 08/21/19 08:57

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0549	U	0.164	0.164	1.00	0.301	pCi/L	08/29/19 16:51	09/19/19 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					08/29/19 16:51	09/19/19 14:51	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.588	U	0.530	0.533	1.00	0.856	pCi/L	08/29/19 17:29	09/17/19 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.0		40 - 110					08/29/19 17:29	09/17/19 09:27	1
Y Carrier	75.1		40 - 110					08/29/19 17:29	09/17/19 09:27	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	0.643	U	0.555	0.558	5.00	0.856	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19116 MW-1 DUP

Lab Sample ID: 400-175280-13

Date Collected: 08/21/19 08:57

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.147	U	0.151	0.152	1.00	0.360	pCi/L	08/29/19 16:51	09/18/19 18:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					08/29/19 16:51	09/18/19 18:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.252	U	0.340	0.341	1.00	0.566	pCi/L	08/29/19 17:29	09/17/19 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.9		40 - 110					08/29/19 17:29	09/17/19 09:27	1
Y Carrier	88.2		40 - 110					08/29/19 17:29	09/17/19 09:27	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	0.105	U	0.372	0.373	5.00	0.566	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19117 PZ-5

Lab Sample ID: 400-175280-14

Date Collected: 08/21/19 10:17

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0524	U	0.246	0.246	1.00	0.511	pCi/L	08/29/19 16:51	09/18/19 18:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					08/29/19 16:51	09/18/19 18:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.494	U	0.557	0.559	1.00	0.916	pCi/L	08/29/19 17:29	09/17/19 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	92.7		40 - 110					08/29/19 17:29	09/17/19 09:27	1
Y Carrier	85.2		40 - 110					08/29/19 17:29	09/17/19 09:27	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	0.442	U	0.609	0.611	5.00	0.916	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19118 PZ-6

Lab Sample ID: 400-175280-15

Date Collected: 08/21/19 11:45

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0447	U	0.167	0.167	1.00	0.315	pCi/L	08/29/19 16:51	09/18/19 18:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					08/29/19 16:51	09/18/19 18:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0472	U	0.326	0.326	1.00	0.591	pCi/L	08/29/19 17:29	09/17/19 09:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					08/29/19 17:29	09/17/19 09:27	1
Y Carrier	86.7		40 - 110					08/29/19 17:29	09/17/19 09:27	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	-0.00256	U	0.366	0.366	5.00	0.591	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19119 FB-2

Lab Sample ID: 400-175280-16

Date Collected: 08/21/19 12:00

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.151	U	0.163	0.163	1.00	0.389	pCi/L	08/29/19 16:51	09/18/19 18:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					08/29/19 16:51	09/18/19 18:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.228	U	0.383	0.383	1.00	0.647	pCi/L	08/29/19 17:29	09/17/19 09:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					08/29/19 17:29	09/17/19 09:28	1
Y Carrier	84.5		40 - 110					08/29/19 17:29	09/17/19 09:28	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	0.0771	U	0.416	0.416	5.00	0.647	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19120 MW-8

Lab Sample ID: 400-175280-17

Date Collected: 08/21/19 14:00

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0107	U	0.167	0.167	1.00	0.334	pCi/L	08/29/19 16:51	09/18/19 18:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.8		40 - 110					08/29/19 16:51	09/18/19 18:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.541	U	0.412	0.415	1.00	0.650	pCi/L	08/29/19 17:29	09/17/19 09:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.8		40 - 110					08/29/19 17:29	09/17/19 09:28	1
Y Carrier	85.6		40 - 110					08/29/19 17:29	09/17/19 09:28	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	0.552	U	0.445	0.447	5.00	0.650	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19121 MW-7

Lab Sample ID: 400-175280-18

Date Collected: 08/21/19 15:52

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0981	U	0.132	0.132	1.00	0.323	pCi/L	08/29/19 16:51	09/18/19 18:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		40 - 110					08/29/19 16:51	09/18/19 18:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0847	U	0.395	0.395	1.00	0.690	pCi/L	08/29/19 17:29	09/17/19 09:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	88.1		40 - 110					08/29/19 17:29	09/17/19 09:28	1
Y Carrier	82.6		40 - 110					08/29/19 17:29	09/17/19 09:28	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	-0.0134	U	0.416	0.416	5.00	0.690	pCi/L		10/01/19 07:30	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19122 MW-9

Lab Sample ID: 400-175280-19

Date Collected: 08/21/19 16:56

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0881	U *	0.0950	0.0954	1.00	0.153	pCi/L	08/30/19 13:20	09/27/19 10:28	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					08/30/19 13:20	09/27/19 10:28	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.45	U G	0.990	0.999	1.00	1.55	pCi/L	09/30/19 13:27	10/08/19 12:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	85.0		40 - 110					09/30/19 13:27	10/08/19 12:59	1
Y Carrier	86.7		40 - 110					09/30/19 13:27	10/08/19 12:59	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	1.53	U	0.995	1.00	5.00	1.55	pCi/L		10/10/19 10:27	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19123 MW-12

Lab Sample ID: 400-175280-20

Date Collected: 08/22/19 08:27

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.124	U *	0.101	0.101	1.00	0.152	pCi/L	08/30/19 13:20	09/27/19 10:26	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					08/30/19 13:20	09/27/19 10:26	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0207	U G	0.895	0.895	1.00	1.57	pCi/L	09/30/19 13:27	10/08/19 12:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	89.3		40 - 110					09/30/19 13:27	10/08/19 12:59	1
Y Carrier	86.4		40 - 110					09/30/19 13:27	10/08/19 12:59	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	0.145	U	0.901	0.901	5.00	1.57	pCi/L		10/10/19 10:27	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19124 MW-11

Lab Sample ID: 400-175280-21

Date Collected: 08/22/19 09:30

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.199	*	0.120	0.121	1.00	0.168	pCi/L	08/30/19 13:20	09/27/19 10:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					08/30/19 13:20	09/27/19 10:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.14	U G	0.878	0.884	1.00	1.39	pCi/L	09/30/19 13:27	10/08/19 12:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	87.9		40 - 110					09/30/19 13:27	10/08/19 12:59	1
Y Carrier	86.7		40 - 110					09/30/19 13:27	10/08/19 12:59	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	1.34	U	0.886	0.892	5.00	1.39	pCi/L		10/10/19 10:27	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19125 MW-10

Lab Sample ID: 400-175280-22

Date Collected: 08/22/19 11:47

Matrix: Water

Date Received: 08/26/19 13:31

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	*	0.119	0.120	1.00	0.171	pCi/L	08/30/19 13:20	09/27/19 12:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.5		40 - 110					08/30/19 13:20	09/27/19 12:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.202	U G	0.748	0.748	1.00	1.36	pCi/L	09/30/19 13:27	10/08/19 12:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	90.4		40 - 110					09/30/19 13:27	10/08/19 12:59	1
Y Carrier	88.2		40 - 110					09/30/19 13:27	10/08/19 12:59	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	-0.0210	U	0.757	0.758	5.00	1.36	pCi/L		10/10/19 10:27	1

Client Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19126 EB-1

Lab Sample ID: 400-175280-23

Date Collected: 08/22/19 12:00

Matrix: Water

Date Received: 08/26/19 13:31

Method: 9315 - Radium-226 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	-0.0421	U *	0.0674	0.0675	1.00	0.154	pCi/L	08/30/19 13:20	09/27/19 12:27	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					08/30/19 13:20	09/27/19 12:27	1

Method: 9320 - Radium-228 (GFPC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.518	U G	0.969	0.970	1.00	1.80	pCi/L	09/30/19 13:27	10/08/19 12:59	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	80.5		40 - 110					09/30/19 13:27	10/08/19 12:59	1
Y Carrier	80.7		40 - 110					09/30/19 13:27	10/08/19 12:59	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	-0.560	U	0.971	0.972	5.00	1.80	pCi/L		10/10/19 10:27	1

Definitions/Glossary

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

Job ID: 400-175280-1
SDG: Gadsden Ash Pond 1236

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
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 Gadsden

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19104 MW-16

Lab Sample ID: 400-175280-1

Date Collected: 08/19/19 13:30

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443231	09/18/19 16:22	KRR	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443188	09/17/19 09:23	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19105 MW-17

Lab Sample ID: 400-175280-2

Date Collected: 08/19/19 15:15

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 16:25	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443188	09/17/19 09:23	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19106 MW-14

Lab Sample ID: 400-175280-3

Date Collected: 08/20/19 08:55

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 16:25	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443188	09/17/19 09:24	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19107 MW-14 DUP

Lab Sample ID: 400-175280-4

Date Collected: 08/20/19 08:55

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 16:26	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443188	09/17/19 09:24	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Lab Chronicle

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19108 PZ-1

Lab Sample ID: 400-175280-5

Date Collected: 08/20/19 10:40

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 16:26	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443188	09/17/19 09:24	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19109 MW-5

Lab Sample ID: 400-175280-6

Date Collected: 08/20/19 11:50

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 16:26	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443188	09/17/19 09:24	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19110 MW-6

Lab Sample ID: 400-175280-7

Date Collected: 08/20/19 13:22

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 16:26	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443188	09/17/19 09:23	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19111 FB-1

Lab Sample ID: 400-175280-8

Date Collected: 08/20/19 13:40

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 16:26	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443188	09/17/19 09:23	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Lab Chronicle

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19112 MW-3

Lab Sample ID: 400-175280-9

Date Collected: 08/20/19 15:34

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 16:26	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443160	09/17/19 09:27	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19113 MW-4

Lab Sample ID: 400-175280-10

Date Collected: 08/20/19 17:25

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 16:27	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443160	09/17/19 09:27	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19114 MW-2

Lab Sample ID: 400-175280-11

Date Collected: 08/20/19 18:35

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 16:27	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443160	09/17/19 09:27	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19115 MW-1

Lab Sample ID: 400-175280-12

Date Collected: 08/21/19 08:57

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443365	09/19/19 14:51	KLS	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443160	09/17/19 09:27	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Lab Chronicle

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19116 MW-1 DUP

Lab Sample ID: 400-175280-13

Date Collected: 08/21/19 08:57

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 18:27	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443160	09/17/19 09:27	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19117 PZ-5

Lab Sample ID: 400-175280-14

Date Collected: 08/21/19 10:17

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 18:28	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443160	09/17/19 09:27	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19118 PZ-6

Lab Sample ID: 400-175280-15

Date Collected: 08/21/19 11:45

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 18:28	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443160	09/17/19 09:27	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19119 FB-2

Lab Sample ID: 400-175280-16

Date Collected: 08/21/19 12:00

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 18:28	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443160	09/17/19 09:28	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Lab Chronicle

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19120 MW-8

Lab Sample ID: 400-175280-17

Date Collected: 08/21/19 14:00

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 18:28	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443160	09/17/19 09:28	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19121 MW-7

Lab Sample ID: 400-175280-18

Date Collected: 08/21/19 15:52

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441327	08/29/19 16:51	ORM	TAL SL
Total/NA	Analysis	9315		1	443206	09/18/19 18:28	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			441330	08/29/19 17:29	ORM	TAL SL
Total/NA	Analysis	9320		1	443160	09/17/19 09:28	CJQ	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	444600	10/01/19 07:30	SMP	TAL SL

Client Sample ID: AZ19122 MW-9

Lab Sample ID: 400-175280-19

Date Collected: 08/21/19 16:56

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441499	08/30/19 13:20	ORM	TAL SL
Total/NA	Analysis	9315		1	444388	09/27/19 10:28	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			444565	09/30/19 13:27	ORM	TAL SL
Total/NA	Analysis	9320		1	445365	10/08/19 12:59	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	445700	10/10/19 10:27	SMP	TAL SL

Client Sample ID: AZ19123 MW-12

Lab Sample ID: 400-175280-20

Date Collected: 08/22/19 08:27

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441499	08/30/19 13:20	ORM	TAL SL
Total/NA	Analysis	9315		1	444469	09/27/19 10:26	KLS	TAL SL
Total/NA	Prep	PrecSep_0			444565	09/30/19 13:27	ORM	TAL SL
Total/NA	Analysis	9320		1	445365	10/08/19 12:59	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	445700	10/10/19 10:27	SMP	TAL SL

Lab Chronicle

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

Job ID: 400-175280-1
SDG: Gadsden Ash Pond 1236

Client Sample ID: AZ19124 MW-11

Lab Sample ID: 400-175280-21

Date Collected: 08/22/19 09:30

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441499	08/30/19 13:20	ORM	TAL SL
Total/NA	Analysis	9315		1	444469	09/27/19 10:27	KLS	TAL SL
Total/NA	Prep	PrecSep_0			444565	09/30/19 13:27	ORM	TAL SL
Total/NA	Analysis	9320		1	445365	10/08/19 12:59	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	445700	10/10/19 10:27	SMP	TAL SL

Client Sample ID: AZ19125 MW-10

Lab Sample ID: 400-175280-22

Date Collected: 08/22/19 11:47

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441499	08/30/19 13:20	ORM	TAL SL
Total/NA	Analysis	9315		1	444388	09/27/19 12:27	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			444565	09/30/19 13:27	ORM	TAL SL
Total/NA	Analysis	9320		1	445365	10/08/19 12:59	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	445700	10/10/19 10:27	SMP	TAL SL

Client Sample ID: AZ19126 EB-1

Lab Sample ID: 400-175280-23

Date Collected: 08/22/19 12:00

Matrix: Water

Date Received: 08/26/19 13:31

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			441499	08/30/19 13:20	ORM	TAL SL
Total/NA	Analysis	9315		1	444388	09/27/19 12:27	CJQ	TAL SL
Total/NA	Prep	PrecSep_0			444565	09/30/19 13:27	ORM	TAL SL
Total/NA	Analysis	9320		1	445365	10/08/19 12:59	KLS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	445700	10/10/19 10:27	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 Gadsden

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Rad

Prep Batch: 441327

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-175280-1	AZ19104 MW-16	Total/NA	Water	PrecSep-21	
400-175280-2	AZ19105 MW-17	Total/NA	Water	PrecSep-21	
400-175280-3	AZ19106 MW-14	Total/NA	Water	PrecSep-21	
400-175280-4	AZ19107 MW-14 DUP	Total/NA	Water	PrecSep-21	
400-175280-5	AZ19108 PZ-1	Total/NA	Water	PrecSep-21	
400-175280-6	AZ19109 MW-5	Total/NA	Water	PrecSep-21	
400-175280-7	AZ19110 MW-6	Total/NA	Water	PrecSep-21	
400-175280-8	AZ19111 FB-1	Total/NA	Water	PrecSep-21	
400-175280-9	AZ19112 MW-3	Total/NA	Water	PrecSep-21	
400-175280-10	AZ19113 MW-4	Total/NA	Water	PrecSep-21	
400-175280-11	AZ19114 MW-2	Total/NA	Water	PrecSep-21	
400-175280-12	AZ19115 MW-1	Total/NA	Water	PrecSep-21	
400-175280-13	AZ19116 MW-1 DUP	Total/NA	Water	PrecSep-21	
400-175280-14	AZ19117 PZ-5	Total/NA	Water	PrecSep-21	
400-175280-15	AZ19118 PZ-6	Total/NA	Water	PrecSep-21	
400-175280-16	AZ19119 FB-2	Total/NA	Water	PrecSep-21	
400-175280-17	AZ19120 MW-8	Total/NA	Water	PrecSep-21	
400-175280-18	AZ19121 MW-7	Total/NA	Water	PrecSep-21	
MB 160-441327/22-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-441327/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-175280-6 DU	AZ19109 MW-5	Total/NA	Water	PrecSep-21	
400-175280-14 DU	AZ19117 PZ-5	Total/NA	Water	PrecSep-21	

Prep Batch: 441330

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-175280-1	AZ19104 MW-16	Total/NA	Water	PrecSep_0	
400-175280-2	AZ19105 MW-17	Total/NA	Water	PrecSep_0	
400-175280-3	AZ19106 MW-14	Total/NA	Water	PrecSep_0	
400-175280-4	AZ19107 MW-14 DUP	Total/NA	Water	PrecSep_0	
400-175280-5	AZ19108 PZ-1	Total/NA	Water	PrecSep_0	
400-175280-6	AZ19109 MW-5	Total/NA	Water	PrecSep_0	
400-175280-7	AZ19110 MW-6	Total/NA	Water	PrecSep_0	
400-175280-8	AZ19111 FB-1	Total/NA	Water	PrecSep_0	
400-175280-9	AZ19112 MW-3	Total/NA	Water	PrecSep_0	
400-175280-10	AZ19113 MW-4	Total/NA	Water	PrecSep_0	
400-175280-11	AZ19114 MW-2	Total/NA	Water	PrecSep_0	
400-175280-12	AZ19115 MW-1	Total/NA	Water	PrecSep_0	
400-175280-13	AZ19116 MW-1 DUP	Total/NA	Water	PrecSep_0	
400-175280-14	AZ19117 PZ-5	Total/NA	Water	PrecSep_0	
400-175280-15	AZ19118 PZ-6	Total/NA	Water	PrecSep_0	
400-175280-16	AZ19119 FB-2	Total/NA	Water	PrecSep_0	
400-175280-17	AZ19120 MW-8	Total/NA	Water	PrecSep_0	
400-175280-18	AZ19121 MW-7	Total/NA	Water	PrecSep_0	
MB 160-441330/22-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-441330/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-175280-6 DU	AZ19109 MW-5	Total/NA	Water	PrecSep_0	
400-175280-14 DU	AZ19117 PZ-5	Total/NA	Water	PrecSep_0	

Prep Batch: 441499

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-175280-19	AZ19122 MW-9	Total/NA	Water	PrecSep-21	

QC Association Summary

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

Job ID: 400-175280-1
SDG: Gadsden Ash Pond 1236

Rad (Continued)

Prep Batch: 441499 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-175280-20	AZ19123 MW-12	Total/NA	Water	PrecSep-21	
400-175280-21	AZ19124 MW-11	Total/NA	Water	PrecSep-21	
400-175280-22	AZ19125 MW-10	Total/NA	Water	PrecSep-21	
400-175280-23	AZ19126 EB-1	Total/NA	Water	PrecSep-21	
MB 160-441499/15-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-441499/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-441499/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

Prep Batch: 444565

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-175280-19	AZ19122 MW-9	Total/NA	Water	PrecSep_0	
400-175280-20	AZ19123 MW-12	Total/NA	Water	PrecSep_0	
400-175280-21	AZ19124 MW-11	Total/NA	Water	PrecSep_0	
400-175280-22	AZ19125 MW-10	Total/NA	Water	PrecSep_0	
400-175280-23	AZ19126 EB-1	Total/NA	Water	PrecSep_0	
MB 160-444565/8-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-444565/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-444565/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	

QC Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

Method: 9315 - Radium-226 (GFPC)

Lab Sample ID: MB 160-441327/22-A
Matrix: Water
Analysis Batch: 443206

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 441327

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.06697	U	0.109	0.109	1.00	0.271	pCi/L	08/29/19 16:51	09/18/19 18:28	1
Carrier	MB MB		Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	%Yield	Qualifier	40 - 110					08/29/19 16:51	09/18/19 18:28	1
	93.2									

Lab Sample ID: LCS 160-441327/1-A
Matrix: Water
Analysis Batch: 443231

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 441327

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	12.65		1.54	1.00	0.361	pCi/L	84	75 - 125
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	86.7		40 - 110						

Lab Sample ID: 400-175280-6 DU
Matrix: Water
Analysis Batch: 443206

Client Sample ID: AZ19109 MW-5
Prep Type: Total/NA
Prep Batch: 441327

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.113	U	0.1005	U	0.175	1.00	0.306	pCi/L	0.03	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	96.9		40 - 110							

Lab Sample ID: 400-175280-14 DU
Matrix: Water
Analysis Batch: 443206

Client Sample ID: AZ19117 PZ-5
Prep Type: Total/NA
Prep Batch: 441327

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	-0.0524	U	0.08534	U	0.251	1.00	0.466	pCi/L	0.28	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	98.3		40 - 110							

Lab Sample ID: MB 160-441499/15-A
Matrix: Water
Analysis Batch: 444388

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 441499

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	-0.02570	U	0.0375	0.0376	1.00	0.0948	pCi/L	08/30/19 13:20	09/27/19 12:29	1

Eurofins TestAmerica, Pensacola

QC Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

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

Lab Sample ID: MB 160-441499/15-A
 Matrix: Water
 Analysis Batch: 444388

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 441499

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110	08/30/19 13:20	09/27/19 12:29	1

Lab Sample ID: LCS 160-441499/1-A
 Matrix: Water
 Analysis Batch: 444388

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 441499

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	11.4	8.280	*	0.875	1.00	0.106	pCi/L	73	75 - 125

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	104		40 - 110

Lab Sample ID: LCSD 160-441499/2-A
 Matrix: Water
 Analysis Batch: 444388

Client Sample ID: Lab Control Sample Dup
 Prep Type: Total/NA
 Prep Batch: 441499

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	11.4	8.117	*	0.877	1.00	0.103	pCi/L	72	75 - 125	0.09	1

Carrier	LCSD %Yield	LCSD Qualifier	Limits
Ba Carrier	97.7		40 - 110

Method: 9320 - Radium-228 (GFPC)

Lab Sample ID: MB 160-441330/22-A
 Matrix: Water
 Analysis Batch: 443160

Client Sample ID: Method Blank
 Prep Type: Total/NA
 Prep Batch: 441330

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2698	U	0.364	0.365	1.00	0.607	pCi/L	08/29/19 17:29	09/17/19 09:28	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	93.2		40 - 110	08/29/19 17:29	09/17/19 09:28	1
Y Carrier	88.2		40 - 110	08/29/19 17:29	09/17/19 09:28	1

Lab Sample ID: LCS 160-441330/1-A
 Matrix: Water
 Analysis Batch: 443188

Client Sample ID: Lab Control Sample
 Prep Type: Total/NA
 Prep Batch: 441330

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	12.8	13.83		1.62	1.00	0.587	pCi/L	108	75 - 125

QC Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

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

Lab Sample ID: LCS 160-441330/1-A
Matrix: Water
Analysis Batch: 443188

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 441330

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	86.7		40 - 110
Y Carrier	85.2		40 - 110

Lab Sample ID: 400-175280-6 DU
Matrix: Water
Analysis Batch: 443188

Client Sample ID: AZ19109 MW-5
Prep Type: Total/NA
Prep Batch: 441330

Analyte	Sample		DU		Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	Limit
	Result	Qual	Result	Qual						
Radium-228	0.0932	U	0.2236	U	0.335	1.00	0.560	pCi/L	0.20	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	96.9		40 - 110
Y Carrier	86.4		40 - 110

Lab Sample ID: 400-175280-14 DU
Matrix: Water
Analysis Batch: 443160

Client Sample ID: AZ19117 PZ-5
Prep Type: Total/NA
Prep Batch: 441330

Analyte	Sample		DU		Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	Limit
	Result	Qual	Result	Qual						
Radium-228	0.494	U	0.5777	U	0.564	1.00	0.911	pCi/L	0.07	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	98.3		40 - 110
Y Carrier	86.7		40 - 110

Lab Sample ID: MB 160-444565/8-A
Matrix: Water
Analysis Batch: 445365

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 444565

Analyte	MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	1.176	U G	0.943	0.949	1.00	1.50	pCi/L	09/30/19 13:27	10/08/19 12:59	1

	MB	MB		Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits			
Ba Carrier	93.5		40 - 110	09/30/19 13:27	10/08/19 12:59	1
Y Carrier	80.4		40 - 110	09/30/19 13:27	10/08/19 12:59	1

Lab Sample ID: LCS 160-444565/1-A
Matrix: Water
Analysis Batch: 445365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 444565

Analyte	Spike Added	LCS		Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
		Result	Qual						
Radium-228	31.7	34.26		4.02	1.00	1.70	pCi/L	108	75 - 125

QC Sample Results

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

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

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

Lab Sample ID: LCS 160-444565/1-A
Matrix: Water
Analysis Batch: 445365

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 444565

Carrier	LCS		Limits
	%Yield	Qualifier	
Ba Carrier	91.0		40 - 110
Y Carrier	84.9		40 - 110

Lab Sample ID: LCSD 160-444565/2-A
Matrix: Water
Analysis Batch: 445365

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 444565

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
									75 - 125	0.77	1	
Radium-228	31.7	28.52		3.42	1.00	1.50	pCi/L	90	75 - 125	0.77	1	

Carrier	LCSD		Limits
	%Yield	Qualifier	
Ba Carrier	99.2		40 - 110
Y Carrier	84.1		40 - 110

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

Lab Sample ID: 400-175280-6 DU
Matrix: Water
Analysis Batch: 444600

Client Sample ID: AZ19109 MW-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
										0.16
Combined Radium 226 + 228	0.206	U	0.3241	U	0.378	5.00	0.560	pCi/L	0.16	

Lab Sample ID: 400-175280-14 DU
Matrix: Water
Analysis Batch: 444600

Client Sample ID: AZ19117 PZ-5
Prep Type: Total/NA

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
										0.18
Combined Radium 226 + 228	0.442	U	0.6630	U	0.617	5.00	0.911	pCi/L	0.18	

TestAmerica Pensacola

3355 McLemore Drive
Pensacola, FL 32514
Phone (850) 474-1001 Fax (850) 478-2571

Chain of Custody Record



THE LABORATORY CHAIN OF CUSTODY FORM TEST-760

Client Information (Sub Contract Lab)		Lab POC		Carrier Tracking No(s)		COC No.	
Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC88 City: Calera State, Zip: AL, 35040 Phone: 205-664-6197 Email: lbmicki@alpower.com Project Name: CCR Site: Gadsden Ash Pond 1236		Sampler: TJ Daugherty Phone: E-Mail: cheyenne.whitmore@testamericainc.com		Whitmore, Cheyenne R State of Origin: Alabama		400-56525-24537.1 Page: 1 of 2 Job #:	
Due Date Requested:		Analysis Requested		Preservation Codes:		Special Instructions/Note:	
TAT Requested (days): Routine		8315 Ra226, 9320 Ra228, Ra226Ra228 GPPC SM 4500 SO4.F SM 4500 Cl.F SM 4500 F.C Perform MS/MSD (Yes or No)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NH4SO4 F - NaOH G - H2SO4 H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:		M - Hexane N - None O - Afltox2 P - Afltox1 Q - NIS203 R - NIS203 S - H2SO4 T - TSP Dodecylsulfate U - Acetone V - MCAA W - pH 4.5 X - other (specify)	
Sample Identification - Client ID (Lab ID)	Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix (Water, Other, etc.)	Preservation Code	Field Filtered Sample (Yes or No)	Total Number of Containers
AZ19104	8/19/19	13:30	G	Water			1 MW-16
AZ19105	8/19/19	15:15	G	Water			1 MW-17
AZ19106	8/20/19	08:55	G	Water			1 MW-14
AZ19107	8/20/19	08:55	G	Water			1 MW-14 DUP (Sample Duplicate)
AZ19108	8/20/19	10:40	G	Water			1 PZ-1
AZ19109	8/20/19	11:50	G	Water	X		3 MW-5
AZ19110	8/20/19	13:22	G	Water			1 MW-6
AZ19111	8/20/19	13:40	G	Water			1 FB-1 (Field Blank)
AZ19112	8/20/19	15:34	G	Water			1 MW-3
AZ19113	8/20/19	17:25	G	Water			1 MW-4
AZ19114	8/20/19	18:35	G	Water			1 MW-2
AZ19115	8/21/19	08:57	G	Water			1 MW-1
AZ19116	8/21/19	08:57	G	Water			1 MW-1 DUP (Sample Duplicate)
AZ19117	8/21/19	10:17	G	Water	X		3 PZ-5
AZ19118	8/21/19	11:45	G	Water			1 PZ-6
AZ19119	8/21/19	12:00	G	Water			1 FB-2 (Field Blank)
AZ19120	8/21/19	14:00	G	Water			1 MW-8
AZ19121	8/21/19	15:52	G	Water			1 MW-7
AZ19122	8/21/19	16:56	G	Water			1 MW-9
AZ19123	8/22/19	08:27	G	Water			1 MW-12

Note: Since laboratory accreditations are subject to change, TestAmerica Laboratories, Inc. places the ownership of method, analyte & accreditation compliance upon our 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/assessment 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 compliance to TestAmerica Laboratories, Inc.

Possible Hazard Identification
 Unconfirmed
 Deliverable Requested: I, II, III, IV, Other (Specify) 43599 Special Instructions/OC Requirements

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

Empty Kit Relinquished by: _____ Date: 08/23/2019 08:00
 Relinquished by: Laura Mickitt
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____

Custody Seal Intact: _____ Custody Seal No.: _____
 Cooler Temperature(s): 29.6°C, 29.3°C
 Other Remarks: 18-7
 Ver: 09/20/2016



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-175280-1
SDG Number: Gadsden Ash Pond 1236

Login Number: 175280

List Number: 1

Creator: Brown, Nathan

List Source: Eurofins TestAmerica, Pensacola

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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	29.6°C, 29.3°C IR7
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 <math><6\text{mm}</math> (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	True	



Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-175280-1
SDG Number: Gadsden Ash Pond 1236

Login Number: 175280

List Number: 2

Creator: Hellm, Michael

List Source: Eurofins TestAmerica, St. Louis

List Creation: 08/28/19 10:20 AM

Question	Answer	Comment
Radioactivity wasn't checked or is \leq 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	18.0
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?	N/A	
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 <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	N/A	
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 Gadsden

Job ID: 400-175280-1
SDG: Gadsden Ash Pond 1236

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	02-22-20
Arizona	State	AZ0710	01-12-20
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
Iowa	State	367	08-01-20
Iowa	State Program	367	08-01-20
Kansas	NELAP	E-10253	08-16-20
Kentucky (UST)	State Program	53	06-30-20
Kentucky (WW)	State	KY98030	12-30-19
Louisiana	NELAP	30976	06-30-20
Louisiana (DW)	NELAP	LA017	12-31-19
Maryland	State	233	09-30-20
Massachusetts	State	M-FL094	06-30-20
Michigan	State	9912	05-06-20
Minnesota	NELAP	012-999-481	12-31-19
New Jersey	NELAP	FL006	07-30-20
North Carolina (WW/SW)	State Program	314	12-31-19
Oklahoma	State	9810-186	08-31-20
Pennsylvania	NELAP	68-00467	01-31-20
Rhode Island	State Program	LAO00307	12-30-19
South Carolina	State Program	96026	06-30-20
Tennessee	State	TN02907	06-30-20
Texas	NELAP	T104704286	09-30-20
US Fish & Wildlife	Federal	LE058448-0	07-31-20
USDA	Federal	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 Gadsden

Job ID: 400-175280-1
 SDG: Gadsden Ash Pond 1236

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	12-08-19
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	11-30-19
Iowa	State Program	373	12-01-20
Kansas	NELAP	E-10236	10-31-19 *
Kentucky (DW)	State	KY90125	12-31-19
Louisiana	NELAP	04080	06-30-20
Louisiana (DW)	State	LA011	12-31-19
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	04-01-20
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	02-28-20
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	02-02-20
Utah	NELAP	MO000542019-11	07-31-20
Virginia	NELAP	10310	06-14-20
Washington	State	C592	08-30-20
Washington	State Program	C592	08-30-19 *
West Virginia DEP	State Program	381	10-31-19 *

* Accreditation/Certification renewal pending - accreditation/certification considered valid.

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-1	8/21/2019 8:34	Conductivity	1485.58	uS/cm
APCO-GSD-AP-MW-1	8/21/2019 8:34	DO	0.23	mg/L
APCO-GSD-AP-MW-1	8/21/2019 8:34	Depth to Water Detail	14.48	ft
APCO-GSD-AP-MW-1	8/21/2019 8:34	Oxidation Reduction Potention	88.95	mv
APCO-GSD-AP-MW-1	8/21/2019 8:34	pH	6.08	pH
APCO-GSD-AP-MW-1	8/21/2019 8:34	Temperature	18.41	C
APCO-GSD-AP-MW-1	8/21/2019 8:34	Turbidity	20.3	NTU
APCO-GSD-AP-MW-1	8/21/2019 8:39	Conductivity	1484.18	uS/cm
APCO-GSD-AP-MW-1	8/21/2019 8:39	DO	0.19	mg/L
APCO-GSD-AP-MW-1	8/21/2019 8:39	Depth to Water Detail	14.48	ft
APCO-GSD-AP-MW-1	8/21/2019 8:39	Oxidation Reduction Potention	86.11	mv
APCO-GSD-AP-MW-1	8/21/2019 8:39	pH	6.04	pH
APCO-GSD-AP-MW-1	8/21/2019 8:39	Temperature	18.31	C
APCO-GSD-AP-MW-1	8/21/2019 8:39	Turbidity	11.1	NTU
APCO-GSD-AP-MW-1	8/21/2019 8:44	Conductivity	1481.09	uS/cm
APCO-GSD-AP-MW-1	8/21/2019 8:44	DO	0.17	mg/L
APCO-GSD-AP-MW-1	8/21/2019 8:44	Depth to Water Detail	14.48	ft
APCO-GSD-AP-MW-1	8/21/2019 8:44	Oxidation Reduction Potention	84.9	mv
APCO-GSD-AP-MW-1	8/21/2019 8:44	pH	6.01	pH
APCO-GSD-AP-MW-1	8/21/2019 8:44	Temperature	18.34	C
APCO-GSD-AP-MW-1	8/21/2019 8:44	Turbidity	9.8	NTU
APCO-GSD-AP-MW-1	8/21/2019 8:49	Conductivity	1476.76	uS/cm
APCO-GSD-AP-MW-1	8/21/2019 8:49	DO	0.16	mg/L
APCO-GSD-AP-MW-1	8/21/2019 8:49	Depth to Water Detail	14.48	ft
APCO-GSD-AP-MW-1	8/21/2019 8:49	Oxidation Reduction Potention	83.19	mv
APCO-GSD-AP-MW-1	8/21/2019 8:49	pH	6.01	pH
APCO-GSD-AP-MW-1	8/21/2019 8:49	Temperature	18.28	C
APCO-GSD-AP-MW-1	8/21/2019 8:49	Turbidity	6.6	NTU
APCO-GSD-AP-MW-1	8/21/2019 8:54	Conductivity	1473.69	uS/cm
APCO-GSD-AP-MW-1	8/21/2019 8:54	DO	0.17	mg/L
APCO-GSD-AP-MW-1	8/21/2019 8:54	Depth to Water Detail	14.48	ft
APCO-GSD-AP-MW-1	8/21/2019 8:54	Oxidation Reduction Potention	81.63	mv
APCO-GSD-AP-MW-1	8/21/2019 8:54	pH	6.01	pH
APCO-GSD-AP-MW-1	8/21/2019 8:54	Temperature	18.34	C
APCO-GSD-AP-MW-1	8/21/2019 8:54	Turbidity	4.88	NTU

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-10	8/22/2019 10:38	Conductivity	328.9	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 10:38	DO	0.13	mg/L
APCO-GSD-AP-MW-10	8/22/2019 10:38	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 10:38	Oxidation Reduction Potention	-74.31	mv
APCO-GSD-AP-MW-10	8/22/2019 10:38	pH	6.47	pH
APCO-GSD-AP-MW-10	8/22/2019 10:38	Temperature	20.37	C
APCO-GSD-AP-MW-10	8/22/2019 10:38	Turbidity	54.2	NTU
APCO-GSD-AP-MW-10	8/22/2019 10:43	Conductivity	329.12	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 10:43	DO	0.11	mg/L
APCO-GSD-AP-MW-10	8/22/2019 10:43	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 10:43	Oxidation Reduction Potention	-73.94	mv
APCO-GSD-AP-MW-10	8/22/2019 10:43	pH	6.19	pH
APCO-GSD-AP-MW-10	8/22/2019 10:43	Temperature	20.19	C
APCO-GSD-AP-MW-10	8/22/2019 10:43	Turbidity	12.8	NTU
APCO-GSD-AP-MW-10	8/22/2019 10:48	Conductivity	329.76	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 10:48	DO	0.1	mg/L
APCO-GSD-AP-MW-10	8/22/2019 10:48	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 10:48	Oxidation Reduction Potention	-83.75	mv
APCO-GSD-AP-MW-10	8/22/2019 10:48	pH	6.26	pH
APCO-GSD-AP-MW-10	8/22/2019 10:48	Temperature	20.02	C
APCO-GSD-AP-MW-10	8/22/2019 10:48	Turbidity	10.09	NTU
APCO-GSD-AP-MW-10	8/22/2019 10:53	Conductivity	329.36	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 10:53	DO	0.1	mg/L
APCO-GSD-AP-MW-10	8/22/2019 10:53	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 10:53	Oxidation Reduction Potention	-88.24	mv
APCO-GSD-AP-MW-10	8/22/2019 10:53	pH	6.29	pH
APCO-GSD-AP-MW-10	8/22/2019 10:53	Temperature	20.13	C
APCO-GSD-AP-MW-10	8/22/2019 10:53	Turbidity	10.94	NTU
APCO-GSD-AP-MW-10	8/22/2019 10:58	Conductivity	329.37	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 10:58	DO	0.1	mg/L
APCO-GSD-AP-MW-10	8/22/2019 10:58	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 10:58	Oxidation Reduction Potention	-91.74	mv
APCO-GSD-AP-MW-10	8/22/2019 10:58	pH	6.32	pH
APCO-GSD-AP-MW-10	8/22/2019 10:58	Temperature	20.16	C
APCO-GSD-AP-MW-10	8/22/2019 10:58	Turbidity	8.59	NTU
APCO-GSD-AP-MW-10	8/22/2019 11:03	Conductivity	329.44	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 11:03	DO	0.09	mg/L
APCO-GSD-AP-MW-10	8/22/2019 11:03	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 11:03	Oxidation Reduction Potention	-93.44	mv
APCO-GSD-AP-MW-10	8/22/2019 11:03	pH	6.33	pH
APCO-GSD-AP-MW-10	8/22/2019 11:03	Temperature	20.11	C
APCO-GSD-AP-MW-10	8/22/2019 11:03	Turbidity	6.89	NTU
APCO-GSD-AP-MW-10	8/22/2019 11:08	Conductivity	330.29	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 11:08	DO	0.1	mg/L

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-10	8/22/2019 11:08	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 11:08	Oxidation Reduction Potention	-94	mv
APCO-GSD-AP-MW-10	8/22/2019 11:08	pH	6.33	pH
APCO-GSD-AP-MW-10	8/22/2019 11:08	Temperature	20.04	C
APCO-GSD-AP-MW-10	8/22/2019 11:08	Turbidity	6.65	NTU
APCO-GSD-AP-MW-10	8/22/2019 11:13	Conductivity	330.13	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 11:13	DO	0.1	mg/L
APCO-GSD-AP-MW-10	8/22/2019 11:13	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 11:13	Oxidation Reduction Potention	-94.18	mv
APCO-GSD-AP-MW-10	8/22/2019 11:13	pH	6.32	pH
APCO-GSD-AP-MW-10	8/22/2019 11:13	Temperature	19.96	C
APCO-GSD-AP-MW-10	8/22/2019 11:13	Turbidity	6.5	NTU
APCO-GSD-AP-MW-10	8/22/2019 11:18	Conductivity	330.98	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 11:18	DO	0.1	mg/L
APCO-GSD-AP-MW-10	8/22/2019 11:18	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 11:18	Oxidation Reduction Potention	-94.83	mv
APCO-GSD-AP-MW-10	8/22/2019 11:18	pH	6.32	pH
APCO-GSD-AP-MW-10	8/22/2019 11:18	Temperature	19.96	C
APCO-GSD-AP-MW-10	8/22/2019 11:18	Turbidity	6.03	NTU
APCO-GSD-AP-MW-10	8/22/2019 11:23	Conductivity	331.58	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 11:23	DO	0.09	mg/L
APCO-GSD-AP-MW-10	8/22/2019 11:23	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 11:23	Oxidation Reduction Potention	-95.42	mv
APCO-GSD-AP-MW-10	8/22/2019 11:23	pH	6.33	pH
APCO-GSD-AP-MW-10	8/22/2019 11:23	Temperature	19.96	C
APCO-GSD-AP-MW-10	8/22/2019 11:23	Turbidity	6.22	NTU
APCO-GSD-AP-MW-10	8/22/2019 11:28	Conductivity	331.97	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 11:28	DO	0.09	mg/L
APCO-GSD-AP-MW-10	8/22/2019 11:28	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 11:28	Oxidation Reduction Potention	-96.3	mv
APCO-GSD-AP-MW-10	8/22/2019 11:28	pH	6.33	pH
APCO-GSD-AP-MW-10	8/22/2019 11:28	Temperature	20.14	C
APCO-GSD-AP-MW-10	8/22/2019 11:28	Turbidity	5.72	NTU
APCO-GSD-AP-MW-10	8/22/2019 11:33	Conductivity	332.63	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 11:33	DO	0.09	mg/L
APCO-GSD-AP-MW-10	8/22/2019 11:33	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 11:33	Oxidation Reduction Potention	-97.65	mv
APCO-GSD-AP-MW-10	8/22/2019 11:33	pH	6.35	pH
APCO-GSD-AP-MW-10	8/22/2019 11:33	Temperature	20.18	C
APCO-GSD-AP-MW-10	8/22/2019 11:33	Turbidity	5.4	NTU
APCO-GSD-AP-MW-10	8/22/2019 11:38	Conductivity	333.31	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 11:38	DO	0.09	mg/L
APCO-GSD-AP-MW-10	8/22/2019 11:38	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 11:38	Oxidation Reduction Potention	-98.6	mv

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-10	8/22/2019 11:38	pH	6.36	pH
APCO-GSD-AP-MW-10	8/22/2019 11:38	Temperature	20.07	C
APCO-GSD-AP-MW-10	8/22/2019 11:38	Turbidity	5.21	NTU
APCO-GSD-AP-MW-10	8/22/2019 11:43	Conductivity	333.07	uS/cm
APCO-GSD-AP-MW-10	8/22/2019 11:43	DO	0.09	mg/L
APCO-GSD-AP-MW-10	8/22/2019 11:43	Depth to Water Detail	22.14	ft
APCO-GSD-AP-MW-10	8/22/2019 11:43	Oxidation Reduction Potention	-99.51	mv
APCO-GSD-AP-MW-10	8/22/2019 11:43	pH	6.37	pH
APCO-GSD-AP-MW-10	8/22/2019 11:43	Temperature	19.99	C
APCO-GSD-AP-MW-10	8/22/2019 11:43	Turbidity	4.95	NTU

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-11	8/22/2019 9:10	Conductivity	769.67	uS/cm
APCO-GSD-AP-MW-11	8/22/2019 9:10	DO	0.25	mg/L
APCO-GSD-AP-MW-11	8/22/2019 9:10	Depth to Water Detail	9.71	ft
APCO-GSD-AP-MW-11	8/22/2019 9:10	Oxidation Reduction Potention	53.13	mv
APCO-GSD-AP-MW-11	8/22/2019 9:10	pH	6.26	pH
APCO-GSD-AP-MW-11	8/22/2019 9:10	Temperature	20.38	C
APCO-GSD-AP-MW-11	8/22/2019 9:10	Turbidity	4.02	NTU
APCO-GSD-AP-MW-11	8/22/2019 9:15	Conductivity	755.17	uS/cm
APCO-GSD-AP-MW-11	8/22/2019 9:15	DO	0.2	mg/L
APCO-GSD-AP-MW-11	8/22/2019 9:15	Depth to Water Detail	9.73	ft
APCO-GSD-AP-MW-11	8/22/2019 9:15	Oxidation Reduction Potention	46.56	mv
APCO-GSD-AP-MW-11	8/22/2019 9:15	pH	6.25	pH
APCO-GSD-AP-MW-11	8/22/2019 9:15	Temperature	20.31	C
APCO-GSD-AP-MW-11	8/22/2019 9:15	Turbidity	4.46	NTU
APCO-GSD-AP-MW-11	8/22/2019 9:20	Conductivity	762.4	uS/cm
APCO-GSD-AP-MW-11	8/22/2019 9:20	DO	0.19	mg/L
APCO-GSD-AP-MW-11	8/22/2019 9:20	Depth to Water Detail	9.73	ft
APCO-GSD-AP-MW-11	8/22/2019 9:20	Oxidation Reduction Potention	41.98	mv
APCO-GSD-AP-MW-11	8/22/2019 9:20	pH	6.25	pH
APCO-GSD-AP-MW-11	8/22/2019 9:20	Temperature	20.28	C
APCO-GSD-AP-MW-11	8/22/2019 9:20	Turbidity	4.28	NTU
APCO-GSD-AP-MW-11	8/22/2019 9:25	Conductivity	762.76	uS/cm
APCO-GSD-AP-MW-11	8/22/2019 9:25	DO	0.18	mg/L
APCO-GSD-AP-MW-11	8/22/2019 9:25	Depth to Water Detail	9.73	ft
APCO-GSD-AP-MW-11	8/22/2019 9:25	Oxidation Reduction Potention	37.57	mv
APCO-GSD-AP-MW-11	8/22/2019 9:25	pH	6.26	pH
APCO-GSD-AP-MW-11	8/22/2019 9:25	Temperature	20.14	C
APCO-GSD-AP-MW-11	8/22/2019 9:25	Turbidity	4.53	NTU

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-12	8/22/2019 8:04	Conductivity	615.98	uS/cm
APCO-GSD-AP-MW-12	8/22/2019 8:04	DO	0.2	mg/L
APCO-GSD-AP-MW-12	8/22/2019 8:04	Depth to Water Detail	13.04	ft
APCO-GSD-AP-MW-12	8/22/2019 8:04	Oxidation Reduction Potention	99.96	mv
APCO-GSD-AP-MW-12	8/22/2019 8:04	pH	5.37	pH
APCO-GSD-AP-MW-12	8/22/2019 8:04	Temperature	18.42	C
APCO-GSD-AP-MW-12	8/22/2019 8:04	Turbidity	4.35	NTU
APCO-GSD-AP-MW-12	8/22/2019 8:09	Conductivity	694.47	uS/cm
APCO-GSD-AP-MW-12	8/22/2019 8:09	DO	0.17	mg/L
APCO-GSD-AP-MW-12	8/22/2019 8:09	Depth to Water Detail	13.04	ft
APCO-GSD-AP-MW-12	8/22/2019 8:09	Oxidation Reduction Potention	94.81	mv
APCO-GSD-AP-MW-12	8/22/2019 8:09	pH	5.36	pH
APCO-GSD-AP-MW-12	8/22/2019 8:09	Temperature	18.43	C
APCO-GSD-AP-MW-12	8/22/2019 8:09	Turbidity	3.81	NTU
APCO-GSD-AP-MW-12	8/22/2019 8:14	Conductivity	687.58	uS/cm
APCO-GSD-AP-MW-12	8/22/2019 8:14	DO	0.16	mg/L
APCO-GSD-AP-MW-12	8/22/2019 8:14	Depth to Water Detail	13.04	ft
APCO-GSD-AP-MW-12	8/22/2019 8:14	Oxidation Reduction Potention	95.38	mv
APCO-GSD-AP-MW-12	8/22/2019 8:14	pH	5.34	pH
APCO-GSD-AP-MW-12	8/22/2019 8:14	Temperature	18.41	C
APCO-GSD-AP-MW-12	8/22/2019 8:14	Turbidity	3.66	NTU
APCO-GSD-AP-MW-12	8/22/2019 8:19	Conductivity	680.62	uS/cm
APCO-GSD-AP-MW-12	8/22/2019 8:19	DO	0.15	mg/L
APCO-GSD-AP-MW-12	8/22/2019 8:19	Depth to Water Detail	13.04	ft
APCO-GSD-AP-MW-12	8/22/2019 8:19	Oxidation Reduction Potention	97.93	mv
APCO-GSD-AP-MW-12	8/22/2019 8:19	pH	5.34	pH
APCO-GSD-AP-MW-12	8/22/2019 8:19	Temperature	18.4	C
APCO-GSD-AP-MW-12	8/22/2019 8:19	Turbidity	3.39	NTU
APCO-GSD-AP-MW-12	8/22/2019 8:24	Conductivity	675.04	uS/cm
APCO-GSD-AP-MW-12	8/22/2019 8:24	DO	0.15	mg/L
APCO-GSD-AP-MW-12	8/22/2019 8:24	Depth to Water Detail	13.04	ft
APCO-GSD-AP-MW-12	8/22/2019 8:24	Oxidation Reduction Potention	99.01	mv
APCO-GSD-AP-MW-12	8/22/2019 8:24	pH	5.35	pH
APCO-GSD-AP-MW-12	8/22/2019 8:24	Temperature	18.35	C
APCO-GSD-AP-MW-12	8/22/2019 8:24	Turbidity	3.48	NTU

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Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-14	8/20/2019 8:27	Conductivity	264.24	uS/cm
APCO-GSD-AP-MW-14	8/20/2019 8:27	DO	4.19	mg/L
APCO-GSD-AP-MW-14	8/20/2019 8:27	Depth to Water Detail	22.63	ft
APCO-GSD-AP-MW-14	8/20/2019 8:27	Oxidation Reduction Potention	371.06	mv
APCO-GSD-AP-MW-14	8/20/2019 8:27	pH	3.96	pH
APCO-GSD-AP-MW-14	8/20/2019 8:27	Temperature	19.17	C
APCO-GSD-AP-MW-14	8/20/2019 8:27	Turbidity	33.3	NTU
APCO-GSD-AP-MW-14	8/20/2019 8:32	Conductivity	272.75	uS/cm
APCO-GSD-AP-MW-14	8/20/2019 8:32	DO	4.13	mg/L
APCO-GSD-AP-MW-14	8/20/2019 8:32	Depth to Water Detail	22.63	ft
APCO-GSD-AP-MW-14	8/20/2019 8:32	Oxidation Reduction Potention	408.1	mv
APCO-GSD-AP-MW-14	8/20/2019 8:32	pH	3.97	pH
APCO-GSD-AP-MW-14	8/20/2019 8:32	Temperature	19.13	C
APCO-GSD-AP-MW-14	8/20/2019 8:32	Turbidity	17.9	NTU
APCO-GSD-AP-MW-14	8/20/2019 8:37	Conductivity	273.35	uS/cm
APCO-GSD-AP-MW-14	8/20/2019 8:37	DO	4.14	mg/L
APCO-GSD-AP-MW-14	8/20/2019 8:37	Depth to Water Detail	22.63	ft
APCO-GSD-AP-MW-14	8/20/2019 8:37	Oxidation Reduction Potention	435.98	mv
APCO-GSD-AP-MW-14	8/20/2019 8:37	pH	3.99	pH
APCO-GSD-AP-MW-14	8/20/2019 8:37	Temperature	19.03	C
APCO-GSD-AP-MW-14	8/20/2019 8:37	Turbidity	9.75	NTU
APCO-GSD-AP-MW-14	8/20/2019 8:42	Conductivity	272.4	uS/cm
APCO-GSD-AP-MW-14	8/20/2019 8:42	DO	4.13	mg/L
APCO-GSD-AP-MW-14	8/20/2019 8:42	Depth to Water Detail	22.63	ft
APCO-GSD-AP-MW-14	8/20/2019 8:42	Oxidation Reduction Potention	461.03	mv
APCO-GSD-AP-MW-14	8/20/2019 8:42	pH	4	pH
APCO-GSD-AP-MW-14	8/20/2019 8:42	Temperature	19.1	C
APCO-GSD-AP-MW-14	8/20/2019 8:42	Turbidity	6.39	NTU
APCO-GSD-AP-MW-14	8/20/2019 8:47	Conductivity	271.28	uS/cm
APCO-GSD-AP-MW-14	8/20/2019 8:47	DO	4.13	mg/L
APCO-GSD-AP-MW-14	8/20/2019 8:47	Depth to Water Detail	22.63	ft
APCO-GSD-AP-MW-14	8/20/2019 8:47	Oxidation Reduction Potention	481.5	mv
APCO-GSD-AP-MW-14	8/20/2019 8:47	pH	4.01	pH
APCO-GSD-AP-MW-14	8/20/2019 8:47	Temperature	19.14	C
APCO-GSD-AP-MW-14	8/20/2019 8:47	Turbidity	5.57	NTU
APCO-GSD-AP-MW-14	8/20/2019 8:52	Conductivity	270.34	uS/cm
APCO-GSD-AP-MW-14	8/20/2019 8:52	DO	4.14	mg/L
APCO-GSD-AP-MW-14	8/20/2019 8:52	Depth to Water Detail	22.63	ft
APCO-GSD-AP-MW-14	8/20/2019 8:52	Oxidation Reduction Potention	499.28	mv
APCO-GSD-AP-MW-14	8/20/2019 8:52	pH	4	pH
APCO-GSD-AP-MW-14	8/20/2019 8:52	Temperature	19.14	C
APCO-GSD-AP-MW-14	8/20/2019 8:52	Turbidity	3.53	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-16	8/19/2019 12:28	Conductivity	211.65	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 12:28	DO	4.33	mg/L
APCO-GSD-AP-MW-16	8/19/2019 12:28	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 12:28	Oxidation Reduction Potention	401.26	mv
APCO-GSD-AP-MW-16	8/19/2019 12:28	pH	4.25	pH
APCO-GSD-AP-MW-16	8/19/2019 12:28	Temperature	19.71	C
APCO-GSD-AP-MW-16	8/19/2019 12:28	Turbidity	157	NTU
APCO-GSD-AP-MW-16	8/19/2019 12:33	Conductivity	206.65	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 12:33	DO	4.32	mg/L
APCO-GSD-AP-MW-16	8/19/2019 12:33	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 12:33	Oxidation Reduction Potention	403.57	mv
APCO-GSD-AP-MW-16	8/19/2019 12:33	pH	4.34	pH
APCO-GSD-AP-MW-16	8/19/2019 12:33	Temperature	19.77	C
APCO-GSD-AP-MW-16	8/19/2019 12:33	Turbidity	85.3	NTU
APCO-GSD-AP-MW-16	8/19/2019 12:38	Conductivity	203.58	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 12:38	DO	4.34	mg/L
APCO-GSD-AP-MW-16	8/19/2019 12:38	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 12:38	Oxidation Reduction Potention	406.49	mv
APCO-GSD-AP-MW-16	8/19/2019 12:38	pH	4.4	pH
APCO-GSD-AP-MW-16	8/19/2019 12:38	Temperature	19.86	C
APCO-GSD-AP-MW-16	8/19/2019 12:38	Turbidity	48.4	NTU
APCO-GSD-AP-MW-16	8/19/2019 12:43	Conductivity	198.57	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 12:43	DO	4.33	mg/L
APCO-GSD-AP-MW-16	8/19/2019 12:43	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 12:43	Oxidation Reduction Potention	408.78	mv
APCO-GSD-AP-MW-16	8/19/2019 12:43	pH	4.45	pH
APCO-GSD-AP-MW-16	8/19/2019 12:43	Temperature	19.87	C
APCO-GSD-AP-MW-16	8/19/2019 12:43	Turbidity	30.2	NTU
APCO-GSD-AP-MW-16	8/19/2019 12:48	Conductivity	199.08	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 12:48	DO	4.39	mg/L
APCO-GSD-AP-MW-16	8/19/2019 12:48	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 12:48	Oxidation Reduction Potention	412.16	mv
APCO-GSD-AP-MW-16	8/19/2019 12:48	pH	4.46	pH
APCO-GSD-AP-MW-16	8/19/2019 12:48	Temperature	20.05	C
APCO-GSD-AP-MW-16	8/19/2019 12:48	Turbidity	17.5	NTU
APCO-GSD-AP-MW-16	8/19/2019 12:53	Conductivity	191.14	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 12:53	DO	4.31	mg/L
APCO-GSD-AP-MW-16	8/19/2019 12:53	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 12:53	Oxidation Reduction Potention	413.9	mv
APCO-GSD-AP-MW-16	8/19/2019 12:53	pH	4.5	pH
APCO-GSD-AP-MW-16	8/19/2019 12:53	Temperature	20.05	C
APCO-GSD-AP-MW-16	8/19/2019 12:53	Turbidity	12.2	NTU
APCO-GSD-AP-MW-16	8/19/2019 12:58	Conductivity	188.48	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 12:58	DO	4.35	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-16	8/19/2019 12:58	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 12:58	Oxidation Reduction Potention	415.29	mv
APCO-GSD-AP-MW-16	8/19/2019 12:58	pH	4.53	pH
APCO-GSD-AP-MW-16	8/19/2019 12:58	Temperature	19.81	C
APCO-GSD-AP-MW-16	8/19/2019 12:58	Turbidity	9.26	NTU
APCO-GSD-AP-MW-16	8/19/2019 13:03	Conductivity	191.29	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 13:03	DO	4.35	mg/L
APCO-GSD-AP-MW-16	8/19/2019 13:03	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 13:03	Oxidation Reduction Potention	417.71	mv
APCO-GSD-AP-MW-16	8/19/2019 13:03	pH	4.52	pH
APCO-GSD-AP-MW-16	8/19/2019 13:03	Temperature	19.87	C
APCO-GSD-AP-MW-16	8/19/2019 13:03	Turbidity	8.27	NTU
APCO-GSD-AP-MW-16	8/19/2019 13:08	Conductivity	190.2	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 13:08	DO	4.34	mg/L
APCO-GSD-AP-MW-16	8/19/2019 13:08	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 13:08	Oxidation Reduction Potention	419.37	mv
APCO-GSD-AP-MW-16	8/19/2019 13:08	pH	4.53	pH
APCO-GSD-AP-MW-16	8/19/2019 13:08	Temperature	19.94	C
APCO-GSD-AP-MW-16	8/19/2019 13:08	Turbidity	6.3	NTU
APCO-GSD-AP-MW-16	8/19/2019 13:13	Conductivity	185.63	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 13:13	DO	4.34	mg/L
APCO-GSD-AP-MW-16	8/19/2019 13:13	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 13:13	Oxidation Reduction Potention	420.07	mv
APCO-GSD-AP-MW-16	8/19/2019 13:13	pH	4.55	pH
APCO-GSD-AP-MW-16	8/19/2019 13:13	Temperature	19.99	C
APCO-GSD-AP-MW-16	8/19/2019 13:13	Turbidity	5.75	NTU
APCO-GSD-AP-MW-16	8/19/2019 13:18	Conductivity	185.86	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 13:18	DO	4.36	mg/L
APCO-GSD-AP-MW-16	8/19/2019 13:18	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 13:18	Oxidation Reduction Potention	421.34	mv
APCO-GSD-AP-MW-16	8/19/2019 13:18	pH	4.56	pH
APCO-GSD-AP-MW-16	8/19/2019 13:18	Temperature	20	C
APCO-GSD-AP-MW-16	8/19/2019 13:18	Turbidity	5.47	NTU
APCO-GSD-AP-MW-16	8/19/2019 13:23	Conductivity	184.34	uS/cm
APCO-GSD-AP-MW-16	8/19/2019 13:23	DO	4.28	mg/L
APCO-GSD-AP-MW-16	8/19/2019 13:23	Depth to Water Detail	26.32	ft
APCO-GSD-AP-MW-16	8/19/2019 13:23	Oxidation Reduction Potention	421.07	mv
APCO-GSD-AP-MW-16	8/19/2019 13:23	pH	4.57	pH
APCO-GSD-AP-MW-16	8/19/2019 13:23	Temperature	20.14	C
APCO-GSD-AP-MW-16	8/19/2019 13:23	Turbidity	4.4	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-17	8/19/2019 14:30	Conductivity	267.7	uS/cm
APCO-GSD-AP-MW-17	8/19/2019 14:30	DO	2.09	mg/L
APCO-GSD-AP-MW-17	8/19/2019 14:30	Depth to Water Detail	21.8	ft
APCO-GSD-AP-MW-17	8/19/2019 14:30	Oxidation Reduction Potention	-19.86	mv
APCO-GSD-AP-MW-17	8/19/2019 14:30	pH	7.83	pH
APCO-GSD-AP-MW-17	8/19/2019 14:30	Temperature	25.26	C
APCO-GSD-AP-MW-17	8/19/2019 14:30	Turbidity	1.44	NTU
APCO-GSD-AP-MW-17	8/19/2019 14:35	Conductivity	261.66	uS/cm
APCO-GSD-AP-MW-17	8/19/2019 14:35	DO	1.8	mg/L
APCO-GSD-AP-MW-17	8/19/2019 14:35	Depth to Water Detail	22.03	ft
APCO-GSD-AP-MW-17	8/19/2019 14:35	Oxidation Reduction Potention	-34.46	mv
APCO-GSD-AP-MW-17	8/19/2019 14:35	pH	7.81	pH
APCO-GSD-AP-MW-17	8/19/2019 14:35	Temperature	24.75	C
APCO-GSD-AP-MW-17	8/19/2019 14:35	Turbidity	0.75	NTU
APCO-GSD-AP-MW-17	8/19/2019 14:40	Conductivity	259	uS/cm
APCO-GSD-AP-MW-17	8/19/2019 14:40	DO	1.53	mg/L
APCO-GSD-AP-MW-17	8/19/2019 14:40	Depth to Water Detail	22.52	ft
APCO-GSD-AP-MW-17	8/19/2019 14:40	Oxidation Reduction Potention	-48.25	mv
APCO-GSD-AP-MW-17	8/19/2019 14:40	pH	7.85	pH
APCO-GSD-AP-MW-17	8/19/2019 14:40	Temperature	24.24	C
APCO-GSD-AP-MW-17	8/19/2019 14:40	Turbidity	1.04	NTU
APCO-GSD-AP-MW-17	8/19/2019 14:45	Conductivity	254.26	uS/cm
APCO-GSD-AP-MW-17	8/19/2019 14:45	DO	1.31	mg/L
APCO-GSD-AP-MW-17	8/19/2019 14:45	Depth to Water Detail	22.86	ft
APCO-GSD-AP-MW-17	8/19/2019 14:45	Oxidation Reduction Potention	-55.89	mv
APCO-GSD-AP-MW-17	8/19/2019 14:45	pH	7.88	pH
APCO-GSD-AP-MW-17	8/19/2019 14:45	Temperature	24.41	C
APCO-GSD-AP-MW-17	8/19/2019 14:45	Turbidity	1.5	NTU
APCO-GSD-AP-MW-17	8/19/2019 14:50	Conductivity	250.48	uS/cm
APCO-GSD-AP-MW-17	8/19/2019 14:50	DO	1.18	mg/L
APCO-GSD-AP-MW-17	8/19/2019 14:50	Depth to Water Detail	23.06	ft
APCO-GSD-AP-MW-17	8/19/2019 14:50	Oxidation Reduction Potention	-65.67	mv
APCO-GSD-AP-MW-17	8/19/2019 14:50	pH	7.93	pH
APCO-GSD-AP-MW-17	8/19/2019 14:50	Temperature	23.98	C
APCO-GSD-AP-MW-17	8/19/2019 14:50	Turbidity	1.8	NTU
APCO-GSD-AP-MW-17	8/19/2019 14:55	Conductivity	249.89	uS/cm
APCO-GSD-AP-MW-17	8/19/2019 14:55	DO	1.04	mg/L
APCO-GSD-AP-MW-17	8/19/2019 14:55	Depth to Water Detail	23.35	ft
APCO-GSD-AP-MW-17	8/19/2019 14:55	Oxidation Reduction Potention	-73.12	mv
APCO-GSD-AP-MW-17	8/19/2019 14:55	pH	7.96	pH
APCO-GSD-AP-MW-17	8/19/2019 14:55	Temperature	23.44	C
APCO-GSD-AP-MW-17	8/19/2019 14:55	Turbidity	1.09	NTU
APCO-GSD-AP-MW-17	8/19/2019 15:00	Conductivity	247.59	uS/cm
APCO-GSD-AP-MW-17	8/19/2019 15:00	DO	0.92	mg/L

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-17	8/19/2019 15:00	Depth to Water Detail	23.81	ft
APCO-GSD-AP-MW-17	8/19/2019 15:00	Oxidation Reduction Potention	-78.47	mv
APCO-GSD-AP-MW-17	8/19/2019 15:00	pH	7.96	pH
APCO-GSD-AP-MW-17	8/19/2019 15:00	Temperature	23.18	C
APCO-GSD-AP-MW-17	8/19/2019 15:00	Turbidity	1.08	NTU
APCO-GSD-AP-MW-17	8/19/2019 15:05	Conductivity	243.41	uS/cm
APCO-GSD-AP-MW-17	8/19/2019 15:05	DO	0.84	mg/L
APCO-GSD-AP-MW-17	8/19/2019 15:05	Depth to Water Detail	23.81	ft
APCO-GSD-AP-MW-17	8/19/2019 15:05	Oxidation Reduction Potention	-81.58	mv
APCO-GSD-AP-MW-17	8/19/2019 15:05	pH	7.96	pH
APCO-GSD-AP-MW-17	8/19/2019 15:05	Temperature	22.77	C
APCO-GSD-AP-MW-17	8/19/2019 15:05	Turbidity	0.85	NTU
APCO-GSD-AP-MW-17	8/19/2019 15:10	Conductivity	239.74	uS/cm
APCO-GSD-AP-MW-17	8/19/2019 15:10	DO	0.75	mg/L
APCO-GSD-AP-MW-17	8/19/2019 15:10	Depth to Water Detail	23.91	ft
APCO-GSD-AP-MW-17	8/19/2019 15:10	Oxidation Reduction Potention	-83.92	mv
APCO-GSD-AP-MW-17	8/19/2019 15:10	pH	7.93	pH
APCO-GSD-AP-MW-17	8/19/2019 15:10	Temperature	22.25	C
APCO-GSD-AP-MW-17	8/19/2019 15:10	Turbidity	0.92	NTU

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-2	8/20/2019 18:17	Conductivity	525.13	uS/cm
APCO-GSD-AP-MW-2	8/20/2019 18:17	DO	0.21	mg/L
APCO-GSD-AP-MW-2	8/20/2019 18:17	Depth to Water Detail	14.23	ft
APCO-GSD-AP-MW-2	8/20/2019 18:17	Oxidation Reduction Potention	-76.42	mv
APCO-GSD-AP-MW-2	8/20/2019 18:17	pH	6.62	pH
APCO-GSD-AP-MW-2	8/20/2019 18:17	Temperature	20.93	C
APCO-GSD-AP-MW-2	8/20/2019 18:17	Turbidity	19.7	NTU
APCO-GSD-AP-MW-2	8/20/2019 18:22	Conductivity	530.08	uS/cm
APCO-GSD-AP-MW-2	8/20/2019 18:22	DO	0.18	mg/L
APCO-GSD-AP-MW-2	8/20/2019 18:22	Depth to Water Detail	14.23	ft
APCO-GSD-AP-MW-2	8/20/2019 18:22	Oxidation Reduction Potention	-58.9	mv
APCO-GSD-AP-MW-2	8/20/2019 18:22	pH	6.3	pH
APCO-GSD-AP-MW-2	8/20/2019 18:22	Temperature	20.84	C
APCO-GSD-AP-MW-2	8/20/2019 18:22	Turbidity	10.36	NTU
APCO-GSD-AP-MW-2	8/20/2019 18:27	Conductivity	538.34	uS/cm
APCO-GSD-AP-MW-2	8/20/2019 18:27	DO	0.17	mg/L
APCO-GSD-AP-MW-2	8/20/2019 18:27	Depth to Water Detail	14.23	ft
APCO-GSD-AP-MW-2	8/20/2019 18:27	Oxidation Reduction Potention	-57.58	mv
APCO-GSD-AP-MW-2	8/20/2019 18:27	pH	6.28	pH
APCO-GSD-AP-MW-2	8/20/2019 18:27	Temperature	20.65	C
APCO-GSD-AP-MW-2	8/20/2019 18:27	Turbidity	6.52	NTU
APCO-GSD-AP-MW-2	8/20/2019 18:32	Conductivity	537.08	uS/cm
APCO-GSD-AP-MW-2	8/20/2019 18:32	DO	0.17	mg/L
APCO-GSD-AP-MW-2	8/20/2019 18:32	Depth to Water Detail	14.23	ft
APCO-GSD-AP-MW-2	8/20/2019 18:32	Oxidation Reduction Potention	-58.21	mv
APCO-GSD-AP-MW-2	8/20/2019 18:32	pH	6.3	pH
APCO-GSD-AP-MW-2	8/20/2019 18:32	Temperature	20.54	C
APCO-GSD-AP-MW-2	8/20/2019 18:32	Turbidity	4.97	NTU

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-3	8/20/2019 14:47	Conductivity	0.05	uS/cm
APCO-GSD-AP-MW-3	8/20/2019 14:47	DO	8.02	mg/L
APCO-GSD-AP-MW-3	8/20/2019 14:47	Depth to Water Detail	14.86	ft
APCO-GSD-AP-MW-3	8/20/2019 14:47	Oxidation Reduction Potention	231.7	mv
APCO-GSD-AP-MW-3	8/20/2019 14:47	pH	6.01	pH
APCO-GSD-AP-MW-3	8/20/2019 14:47	Temperature	26.55	C
APCO-GSD-AP-MW-3	8/20/2019 14:47	Turbidity	2.21	NTU
APCO-GSD-AP-MW-3	8/20/2019 14:52	Conductivity	0.05	uS/cm
APCO-GSD-AP-MW-3	8/20/2019 14:52	DO	8.18	mg/L
APCO-GSD-AP-MW-3	8/20/2019 14:52	Depth to Water Detail	14.86	ft
APCO-GSD-AP-MW-3	8/20/2019 14:52	Oxidation Reduction Potention	244.43	mv
APCO-GSD-AP-MW-3	8/20/2019 14:52	pH	5.98	pH
APCO-GSD-AP-MW-3	8/20/2019 14:52	Temperature	24.98	C
APCO-GSD-AP-MW-3	8/20/2019 14:52	Turbidity	1.67	NTU
APCO-GSD-AP-MW-3	8/20/2019 14:57	Conductivity	459.41	uS/cm
APCO-GSD-AP-MW-3	8/20/2019 14:57	DO	8.72	mg/L
APCO-GSD-AP-MW-3	8/20/2019 14:57	Depth to Water Detail	14.86	ft
APCO-GSD-AP-MW-3	8/20/2019 14:57	Oxidation Reduction Potention	193.71	mv
APCO-GSD-AP-MW-3	8/20/2019 14:57	pH	5.95	pH
APCO-GSD-AP-MW-3	8/20/2019 14:57	Temperature	21.43	C
APCO-GSD-AP-MW-3	8/20/2019 14:57	Turbidity	1.17	NTU
APCO-GSD-AP-MW-3	8/20/2019 15:02	Conductivity	111.22	uS/cm
APCO-GSD-AP-MW-3	8/20/2019 15:02	DO	8.54	mg/L
APCO-GSD-AP-MW-3	8/20/2019 15:02	Depth to Water Detail	14.86	ft
APCO-GSD-AP-MW-3	8/20/2019 15:02	Oxidation Reduction Potention	157.72	mv
APCO-GSD-AP-MW-3	8/20/2019 15:02	pH	5.86	pH
APCO-GSD-AP-MW-3	8/20/2019 15:02	Temperature	21.16	C
APCO-GSD-AP-MW-3	8/20/2019 15:02	Turbidity	0.7	NTU
APCO-GSD-AP-MW-3	8/20/2019 15:07	Conductivity	280.81	uS/cm
APCO-GSD-AP-MW-3	8/20/2019 15:07	DO	8.29	mg/L
APCO-GSD-AP-MW-3	8/20/2019 15:07	Depth to Water Detail	14.86	ft
APCO-GSD-AP-MW-3	8/20/2019 15:07	Oxidation Reduction Potention	143.57	mv
APCO-GSD-AP-MW-3	8/20/2019 15:07	pH	5.84	pH
APCO-GSD-AP-MW-3	8/20/2019 15:07	Temperature	21.26	C
APCO-GSD-AP-MW-3	8/20/2019 15:07	Turbidity	0.59	NTU
APCO-GSD-AP-MW-3	8/20/2019 15:12	Conductivity	602.88	uS/cm
APCO-GSD-AP-MW-3	8/20/2019 15:12	DO	0.15	mg/L
APCO-GSD-AP-MW-3	8/20/2019 15:12	Depth to Water Detail	14.86	ft
APCO-GSD-AP-MW-3	8/20/2019 15:12	Oxidation Reduction Potention	140.1	mv
APCO-GSD-AP-MW-3	8/20/2019 15:12	pH	5.81	pH
APCO-GSD-AP-MW-3	8/20/2019 15:12	Temperature	21.1	C
APCO-GSD-AP-MW-3	8/20/2019 15:12	Turbidity	0.78	NTU
APCO-GSD-AP-MW-3	8/20/2019 15:17	Conductivity	605.01	uS/cm
APCO-GSD-AP-MW-3	8/20/2019 15:17	DO	0.14	mg/L

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-3	8/20/2019 15:17	Depth to Water Detail	14.86	ft
APCO-GSD-AP-MW-3	8/20/2019 15:17	Oxidation Reduction Potention	139.08	mv
APCO-GSD-AP-MW-3	8/20/2019 15:17	pH	5.74	pH
APCO-GSD-AP-MW-3	8/20/2019 15:17	Temperature	21.13	C
APCO-GSD-AP-MW-3	8/20/2019 15:17	Turbidity	0.68	NTU
APCO-GSD-AP-MW-3	8/20/2019 15:22	Conductivity	605.42	uS/cm
APCO-GSD-AP-MW-3	8/20/2019 15:22	DO	0.14	mg/L
APCO-GSD-AP-MW-3	8/20/2019 15:22	Depth to Water Detail	14.86	ft
APCO-GSD-AP-MW-3	8/20/2019 15:22	Oxidation Reduction Potention	136.17	mv
APCO-GSD-AP-MW-3	8/20/2019 15:22	pH	5.73	pH
APCO-GSD-AP-MW-3	8/20/2019 15:22	Temperature	21.16	C
APCO-GSD-AP-MW-3	8/20/2019 15:22	Turbidity	0.34	NTU
APCO-GSD-AP-MW-3	8/20/2019 15:27	Conductivity	611.83	uS/cm
APCO-GSD-AP-MW-3	8/20/2019 15:27	DO	0.14	mg/L
APCO-GSD-AP-MW-3	8/20/2019 15:27	Depth to Water Detail	14.86	ft
APCO-GSD-AP-MW-3	8/20/2019 15:27	Oxidation Reduction Potention	134.29	mv
APCO-GSD-AP-MW-3	8/20/2019 15:27	pH	5.73	pH
APCO-GSD-AP-MW-3	8/20/2019 15:27	Temperature	21.25	C
APCO-GSD-AP-MW-3	8/20/2019 15:27	Turbidity	0.29	NTU

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Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-4	8/20/2019 17:06	Conductivity	373.89	uS/cm
APCO-GSD-AP-MW-4	8/20/2019 17:06	DO	0.15	mg/L
APCO-GSD-AP-MW-4	8/20/2019 17:06	Depth to Water Detail	8.71	ft
APCO-GSD-AP-MW-4	8/20/2019 17:06	Oxidation Reduction Potention	-84.23	mv
APCO-GSD-AP-MW-4	8/20/2019 17:06	pH	6.28	pH
APCO-GSD-AP-MW-4	8/20/2019 17:06	Temperature	20.51	C
APCO-GSD-AP-MW-4	8/20/2019 17:06	Turbidity	0.9	NTU
APCO-GSD-AP-MW-4	8/20/2019 17:11	Conductivity	373.88	uS/cm
APCO-GSD-AP-MW-4	8/20/2019 17:11	DO	0.15	mg/L
APCO-GSD-AP-MW-4	8/20/2019 17:11	Depth to Water Detail	8.71	ft
APCO-GSD-AP-MW-4	8/20/2019 17:11	Oxidation Reduction Potention	-84.76	mv
APCO-GSD-AP-MW-4	8/20/2019 17:11	pH	6.29	pH
APCO-GSD-AP-MW-4	8/20/2019 17:11	Temperature	20.51	C
APCO-GSD-AP-MW-4	8/20/2019 17:11	Turbidity	0.76	NTU
APCO-GSD-AP-MW-4	8/20/2019 17:16	Conductivity	373.95	uS/cm
APCO-GSD-AP-MW-4	8/20/2019 17:16	DO	0.14	mg/L
APCO-GSD-AP-MW-4	8/20/2019 17:16	Depth to Water Detail	8.71	ft
APCO-GSD-AP-MW-4	8/20/2019 17:16	Oxidation Reduction Potention	-85.8	mv
APCO-GSD-AP-MW-4	8/20/2019 17:16	pH	6.31	pH
APCO-GSD-AP-MW-4	8/20/2019 17:16	Temperature	20.19	C
APCO-GSD-AP-MW-4	8/20/2019 17:16	Turbidity	0.61	NTU
APCO-GSD-AP-MW-4	8/20/2019 17:21	Conductivity	373.85	uS/cm
APCO-GSD-AP-MW-4	8/20/2019 17:21	DO	0.13	mg/L
APCO-GSD-AP-MW-4	8/20/2019 17:21	Depth to Water Detail	8.71	ft
APCO-GSD-AP-MW-4	8/20/2019 17:21	Oxidation Reduction Potention	-86.64	mv
APCO-GSD-AP-MW-4	8/20/2019 17:21	pH	6.33	pH
APCO-GSD-AP-MW-4	8/20/2019 17:21	Temperature	20.19	C
APCO-GSD-AP-MW-4	8/20/2019 17:21	Turbidity	0.58	NTU

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Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-5	8/20/2019 11:32	Conductivity	259.41	uS/cm
APCO-GSD-AP-MW-5	8/20/2019 11:32	DO	0.26	mg/L
APCO-GSD-AP-MW-5	8/20/2019 11:32	Depth to Water Detail	7.69	ft
APCO-GSD-AP-MW-5	8/20/2019 11:32	Oxidation Reduction Potention	100.48	mv
APCO-GSD-AP-MW-5	8/20/2019 11:32	pH	6.05	pH
APCO-GSD-AP-MW-5	8/20/2019 11:32	Temperature	21.2	C
APCO-GSD-AP-MW-5	8/20/2019 11:32	Turbidity	3.16	NTU
APCO-GSD-AP-MW-5	8/20/2019 11:37	Conductivity	261.02	uS/cm
APCO-GSD-AP-MW-5	8/20/2019 11:37	DO	0.19	mg/L
APCO-GSD-AP-MW-5	8/20/2019 11:37	Depth to Water Detail	7.69	ft
APCO-GSD-AP-MW-5	8/20/2019 11:37	Oxidation Reduction Potention	103.78	mv
APCO-GSD-AP-MW-5	8/20/2019 11:37	pH	6.05	pH
APCO-GSD-AP-MW-5	8/20/2019 11:37	Temperature	21.12	C
APCO-GSD-AP-MW-5	8/20/2019 11:37	Turbidity	2.23	NTU
APCO-GSD-AP-MW-5	8/20/2019 11:42	Conductivity	263.25	uS/cm
APCO-GSD-AP-MW-5	8/20/2019 11:42	DO	0.17	mg/L
APCO-GSD-AP-MW-5	8/20/2019 11:42	Depth to Water Detail	7.69	ft
APCO-GSD-AP-MW-5	8/20/2019 11:42	Oxidation Reduction Potention	87.44	mv
APCO-GSD-AP-MW-5	8/20/2019 11:42	pH	6.09	pH
APCO-GSD-AP-MW-5	8/20/2019 11:42	Temperature	21.03	C
APCO-GSD-AP-MW-5	8/20/2019 11:42	Turbidity	2.4	NTU
APCO-GSD-AP-MW-5	8/20/2019 11:47	Conductivity	264.57	uS/cm
APCO-GSD-AP-MW-5	8/20/2019 11:47	DO	0.15	mg/L
APCO-GSD-AP-MW-5	8/20/2019 11:47	Depth to Water Detail	7.69	ft
APCO-GSD-AP-MW-5	8/20/2019 11:47	Oxidation Reduction Potention	83.23	mv
APCO-GSD-AP-MW-5	8/20/2019 11:47	pH	6.11	pH
APCO-GSD-AP-MW-5	8/20/2019 11:47	Temperature	21.12	C
APCO-GSD-AP-MW-5	8/20/2019 11:47	Turbidity	1.37	NTU

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-6	8/20/2019 13:03	Conductivity	169.87	uS/cm
APCO-GSD-AP-MW-6	8/20/2019 13:03	DO	0.15	mg/L
APCO-GSD-AP-MW-6	8/20/2019 13:03	Depth to Water Detail	7.44	ft
APCO-GSD-AP-MW-6	8/20/2019 13:03	Oxidation Reduction Potention	159.02	mv
APCO-GSD-AP-MW-6	8/20/2019 13:03	pH	5.6	pH
APCO-GSD-AP-MW-6	8/20/2019 13:03	Temperature	19.8	C
APCO-GSD-AP-MW-6	8/20/2019 13:03	Turbidity	0.74	NTU
APCO-GSD-AP-MW-6	8/20/2019 13:08	Conductivity	164.18	uS/cm
APCO-GSD-AP-MW-6	8/20/2019 13:08	DO	0.13	mg/L
APCO-GSD-AP-MW-6	8/20/2019 13:08	Depth to Water Detail	7.44	ft
APCO-GSD-AP-MW-6	8/20/2019 13:08	Oxidation Reduction Potention	166.59	mv
APCO-GSD-AP-MW-6	8/20/2019 13:08	pH	5.45	pH
APCO-GSD-AP-MW-6	8/20/2019 13:08	Temperature	19.6	C
APCO-GSD-AP-MW-6	8/20/2019 13:08	Turbidity	0.52	NTU
APCO-GSD-AP-MW-6	8/20/2019 13:13	Conductivity	158.99	uS/cm
APCO-GSD-AP-MW-6	8/20/2019 13:13	DO	0.13	mg/L
APCO-GSD-AP-MW-6	8/20/2019 13:13	Depth to Water Detail	7.44	ft
APCO-GSD-AP-MW-6	8/20/2019 13:13	Oxidation Reduction Potention	167.55	mv
APCO-GSD-AP-MW-6	8/20/2019 13:13	pH	5.42	pH
APCO-GSD-AP-MW-6	8/20/2019 13:13	Temperature	19.71	C
APCO-GSD-AP-MW-6	8/20/2019 13:13	Turbidity	0.39	NTU
APCO-GSD-AP-MW-6	8/20/2019 13:18	Conductivity	156.66	uS/cm
APCO-GSD-AP-MW-6	8/20/2019 13:18	DO	0.13	mg/L
APCO-GSD-AP-MW-6	8/20/2019 13:18	Depth to Water Detail	7.44	ft
APCO-GSD-AP-MW-6	8/20/2019 13:18	Oxidation Reduction Potention	168.42	mv
APCO-GSD-AP-MW-6	8/20/2019 13:18	pH	5.4	pH
APCO-GSD-AP-MW-6	8/20/2019 13:18	Temperature	19.69	C
APCO-GSD-AP-MW-6	8/20/2019 13:18	Turbidity	0.35	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-7	8/21/2019 15:34	Conductivity	227.14	uS/cm
APCO-GSD-AP-MW-7	8/21/2019 15:34	DO	0.19	mg/L
APCO-GSD-AP-MW-7	8/21/2019 15:34	Depth to Water Detail	12.91	ft
APCO-GSD-AP-MW-7	8/21/2019 15:34	Oxidation Reduction Potention	62.11	mv
APCO-GSD-AP-MW-7	8/21/2019 15:34	pH	6.33	pH
APCO-GSD-AP-MW-7	8/21/2019 15:34	Temperature	19.65	C
APCO-GSD-AP-MW-7	8/21/2019 15:34	Turbidity	4.3	NTU
APCO-GSD-AP-MW-7	8/21/2019 15:39	Conductivity	223.21	uS/cm
APCO-GSD-AP-MW-7	8/21/2019 15:39	DO	0.16	mg/L
APCO-GSD-AP-MW-7	8/21/2019 15:39	Depth to Water Detail	12.91	ft
APCO-GSD-AP-MW-7	8/21/2019 15:39	Oxidation Reduction Potention	73.94	mv
APCO-GSD-AP-MW-7	8/21/2019 15:39	pH	6.03	pH
APCO-GSD-AP-MW-7	8/21/2019 15:39	Temperature	19.37	C
APCO-GSD-AP-MW-7	8/21/2019 15:39	Turbidity	4.45	NTU
APCO-GSD-AP-MW-7	8/21/2019 15:44	Conductivity	221.99	uS/cm
APCO-GSD-AP-MW-7	8/21/2019 15:44	DO	0.15	mg/L
APCO-GSD-AP-MW-7	8/21/2019 15:44	Depth to Water Detail	12.91	ft
APCO-GSD-AP-MW-7	8/21/2019 15:44	Oxidation Reduction Potention	75.67	mv
APCO-GSD-AP-MW-7	8/21/2019 15:44	pH	5.98	pH
APCO-GSD-AP-MW-7	8/21/2019 15:44	Temperature	19.26	C
APCO-GSD-AP-MW-7	8/21/2019 15:44	Turbidity	3.32	NTU
APCO-GSD-AP-MW-7	8/21/2019 15:49	Conductivity	220.14	uS/cm
APCO-GSD-AP-MW-7	8/21/2019 15:49	DO	0.14	mg/L
APCO-GSD-AP-MW-7	8/21/2019 15:49	Depth to Water Detail	12.91	ft
APCO-GSD-AP-MW-7	8/21/2019 15:49	Oxidation Reduction Potention	75.31	mv
APCO-GSD-AP-MW-7	8/21/2019 15:49	pH	5.97	pH
APCO-GSD-AP-MW-7	8/21/2019 15:49	Temperature	19.28	C
APCO-GSD-AP-MW-7	8/21/2019 15:49	Turbidity	3.47	NTU

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WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-8	8/21/2019 13:20	Conductivity	250.93	uS/cm
APCO-GSD-AP-MW-8	8/21/2019 13:20	DO	0.18	mg/L
APCO-GSD-AP-MW-8	8/21/2019 13:20	Depth to Water Detail	11.57	ft
APCO-GSD-AP-MW-8	8/21/2019 13:20	Oxidation Reduction Potention	59.84	mv
APCO-GSD-AP-MW-8	8/21/2019 13:20	pH	5.71	pH
APCO-GSD-AP-MW-8	8/21/2019 13:20	Temperature	18.44	C
APCO-GSD-AP-MW-8	8/21/2019 13:20	Turbidity	7.03	NTU
APCO-GSD-AP-MW-8	8/21/2019 13:25	Conductivity	297.17	uS/cm
APCO-GSD-AP-MW-8	8/21/2019 13:25	DO	0.17	mg/L
APCO-GSD-AP-MW-8	8/21/2019 13:25	Depth to Water Detail	11.57	ft
APCO-GSD-AP-MW-8	8/21/2019 13:25	Oxidation Reduction Potention	42.73	mv
APCO-GSD-AP-MW-8	8/21/2019 13:25	pH	5.87	pH
APCO-GSD-AP-MW-8	8/21/2019 13:25	Temperature	18.35	C
APCO-GSD-AP-MW-8	8/21/2019 13:25	Turbidity	5.9	NTU
APCO-GSD-AP-MW-8	8/21/2019 13:30	Conductivity	322.73	uS/cm
APCO-GSD-AP-MW-8	8/21/2019 13:30	DO	0.16	mg/L
APCO-GSD-AP-MW-8	8/21/2019 13:30	Depth to Water Detail	11.57	ft
APCO-GSD-AP-MW-8	8/21/2019 13:30	Oxidation Reduction Potention	28.03	mv
APCO-GSD-AP-MW-8	8/21/2019 13:30	pH	5.96	pH
APCO-GSD-AP-MW-8	8/21/2019 13:30	Temperature	18.34	C
APCO-GSD-AP-MW-8	8/21/2019 13:30	Turbidity	4.81	NTU
APCO-GSD-AP-MW-8	8/21/2019 13:35	Conductivity	339.47	uS/cm
APCO-GSD-AP-MW-8	8/21/2019 13:35	DO	0.15	mg/L
APCO-GSD-AP-MW-8	8/21/2019 13:35	Depth to Water Detail	11.57	ft
APCO-GSD-AP-MW-8	8/21/2019 13:35	Oxidation Reduction Potention	18.32	mv
APCO-GSD-AP-MW-8	8/21/2019 13:35	pH	6.04	pH
APCO-GSD-AP-MW-8	8/21/2019 13:35	Temperature	18.35	C
APCO-GSD-AP-MW-8	8/21/2019 13:35	Turbidity	3.97	NTU
APCO-GSD-AP-MW-8	8/21/2019 13:40	Conductivity	351.87	uS/cm
APCO-GSD-AP-MW-8	8/21/2019 13:40	DO	0.15	mg/L
APCO-GSD-AP-MW-8	8/21/2019 13:40	Depth to Water Detail	11.57	ft
APCO-GSD-AP-MW-8	8/21/2019 13:40	Oxidation Reduction Potention	12.06	mv
APCO-GSD-AP-MW-8	8/21/2019 13:40	pH	6.1	pH
APCO-GSD-AP-MW-8	8/21/2019 13:40	Temperature	18.41	C
APCO-GSD-AP-MW-8	8/21/2019 13:40	Turbidity	3.75	NTU
APCO-GSD-AP-MW-8	8/21/2019 13:45	Conductivity	361.72	uS/cm
APCO-GSD-AP-MW-8	8/21/2019 13:45	DO	0.15	mg/L
APCO-GSD-AP-MW-8	8/21/2019 13:45	Depth to Water Detail	11.57	ft
APCO-GSD-AP-MW-8	8/21/2019 13:45	Oxidation Reduction Potention	7.6	mv
APCO-GSD-AP-MW-8	8/21/2019 13:45	pH	6.13	pH
APCO-GSD-AP-MW-8	8/21/2019 13:45	Temperature	18.34	C
APCO-GSD-AP-MW-8	8/21/2019 13:45	Turbidity	3.3	NTU
APCO-GSD-AP-MW-8	8/21/2019 13:50	Conductivity	370.26	uS/cm
APCO-GSD-AP-MW-8	8/21/2019 13:50	DO	0.15	mg/L

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-8	8/21/2019 13:50	Depth to Water Detail	11.57	ft
APCO-GSD-AP-MW-8	8/21/2019 13:50	Oxidation Reduction Potention	6.15	mv
APCO-GSD-AP-MW-8	8/21/2019 13:50	pH	6.13	pH
APCO-GSD-AP-MW-8	8/21/2019 13:50	Temperature	18.42	C
APCO-GSD-AP-MW-8	8/21/2019 13:50	Turbidity	2.77	NTU
APCO-GSD-AP-MW-8	8/21/2019 13:55	Conductivity	370.94	uS/cm
APCO-GSD-AP-MW-8	8/21/2019 13:55	DO	0.15	mg/L
APCO-GSD-AP-MW-8	8/21/2019 13:55	Depth to Water Detail	11.57	ft
APCO-GSD-AP-MW-8	8/21/2019 13:55	Oxidation Reduction Potention	2.75	mv
APCO-GSD-AP-MW-8	8/21/2019 13:55	pH	6.16	pH
APCO-GSD-AP-MW-8	8/21/2019 13:55	Temperature	18.31	C
APCO-GSD-AP-MW-8	8/21/2019 13:55	Turbidity	3.47	NTU

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-MW-9	8/21/2019 16:37	Conductivity	316.33	uS/cm
APCO-GSD-AP-MW-9	8/21/2019 16:37	DO	0.23	mg/L
APCO-GSD-AP-MW-9	8/21/2019 16:37	Depth to Water Detail	12.7	ft
APCO-GSD-AP-MW-9	8/21/2019 16:37	Oxidation Reduction Potention	31.14	mv
APCO-GSD-AP-MW-9	8/21/2019 16:37	pH	6.78	pH
APCO-GSD-AP-MW-9	8/21/2019 16:37	Temperature	19.36	C
APCO-GSD-AP-MW-9	8/21/2019 16:37	Turbidity	3.4	NTU
APCO-GSD-AP-MW-9	8/21/2019 16:42	Conductivity	317.76	uS/cm
APCO-GSD-AP-MW-9	8/21/2019 16:42	DO	0.19	mg/L
APCO-GSD-AP-MW-9	8/21/2019 16:42	Depth to Water Detail	12.7	ft
APCO-GSD-AP-MW-9	8/21/2019 16:42	Oxidation Reduction Potention	36.5	mv
APCO-GSD-AP-MW-9	8/21/2019 16:42	pH	6.63	pH
APCO-GSD-AP-MW-9	8/21/2019 16:42	Temperature	19.36	C
APCO-GSD-AP-MW-9	8/21/2019 16:42	Turbidity	3.38	NTU
APCO-GSD-AP-MW-9	8/21/2019 16:47	Conductivity	323.94	uS/cm
APCO-GSD-AP-MW-9	8/21/2019 16:47	DO	0.18	mg/L
APCO-GSD-AP-MW-9	8/21/2019 16:47	Depth to Water Detail	12.7	ft
APCO-GSD-AP-MW-9	8/21/2019 16:47	Oxidation Reduction Potention	25.24	mv
APCO-GSD-AP-MW-9	8/21/2019 16:47	pH	6.6	pH
APCO-GSD-AP-MW-9	8/21/2019 16:47	Temperature	19.3	C
APCO-GSD-AP-MW-9	8/21/2019 16:47	Turbidity	3.53	NTU
APCO-GSD-AP-MW-9	8/21/2019 16:52	Conductivity	325.17	uS/cm
APCO-GSD-AP-MW-9	8/21/2019 16:52	DO	0.18	mg/L
APCO-GSD-AP-MW-9	8/21/2019 16:52	Depth to Water Detail	12.7	ft
APCO-GSD-AP-MW-9	8/21/2019 16:52	Oxidation Reduction Potention	8.36	mv
APCO-GSD-AP-MW-9	8/21/2019 16:52	pH	6.61	pH
APCO-GSD-AP-MW-9	8/21/2019 16:52	Temperature	19.13	C
APCO-GSD-AP-MW-9	8/21/2019 16:52	Turbidity	3.17	NTU

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-PZ-1	8/20/2019 10:22	Conductivity	190.77	uS/cm
APCO-GSD-AP-PZ-1	8/20/2019 10:22	DO	0.37	mg/L
APCO-GSD-AP-PZ-1	8/20/2019 10:22	Depth to Water Detail	11.72	ft
APCO-GSD-AP-PZ-1	8/20/2019 10:22	Oxidation Reduction Potention	298.63	mv
APCO-GSD-AP-PZ-1	8/20/2019 10:22	pH	6.19	pH
APCO-GSD-AP-PZ-1	8/20/2019 10:22	Temperature	19.51	C
APCO-GSD-AP-PZ-1	8/20/2019 10:22	Turbidity	0.9	NTU
APCO-GSD-AP-PZ-1	8/20/2019 10:27	Conductivity	234.1	uS/cm
APCO-GSD-AP-PZ-1	8/20/2019 10:27	DO	0.24	mg/L
APCO-GSD-AP-PZ-1	8/20/2019 10:27	Depth to Water Detail	11.72	ft
APCO-GSD-AP-PZ-1	8/20/2019 10:27	Oxidation Reduction Potention	298.56	mv
APCO-GSD-AP-PZ-1	8/20/2019 10:27	pH	6.22	pH
APCO-GSD-AP-PZ-1	8/20/2019 10:27	Temperature	19.35	C
APCO-GSD-AP-PZ-1	8/20/2019 10:27	Turbidity	0.46	NTU
APCO-GSD-AP-PZ-1	8/20/2019 10:32	Conductivity	236	uS/cm
APCO-GSD-AP-PZ-1	8/20/2019 10:32	DO	0.26	mg/L
APCO-GSD-AP-PZ-1	8/20/2019 10:32	Depth to Water Detail	11.72	ft
APCO-GSD-AP-PZ-1	8/20/2019 10:32	Oxidation Reduction Potention	294.51	mv
APCO-GSD-AP-PZ-1	8/20/2019 10:32	pH	6.27	pH
APCO-GSD-AP-PZ-1	8/20/2019 10:32	Temperature	19.36	C
APCO-GSD-AP-PZ-1	8/20/2019 10:32	Turbidity	0.37	NTU
APCO-GSD-AP-PZ-1	8/20/2019 10:37	Conductivity	231.64	uS/cm
APCO-GSD-AP-PZ-1	8/20/2019 10:37	DO	0.3	mg/L
APCO-GSD-AP-PZ-1	8/20/2019 10:37	Depth to Water Detail	11.72	ft
APCO-GSD-AP-PZ-1	8/20/2019 10:37	Oxidation Reduction Potention	290.42	mv
APCO-GSD-AP-PZ-1	8/20/2019 10:37	pH	6.3	pH
APCO-GSD-AP-PZ-1	8/20/2019 10:37	Temperature	19.3	C
APCO-GSD-AP-PZ-1	8/20/2019 10:37	Turbidity	0.25	NTU

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-PZ-5	8/21/2019 9:50	Conductivity	45.44	uS/cm
APCO-GSD-AP-PZ-5	8/21/2019 9:50	DO	4.13	mg/L
APCO-GSD-AP-PZ-5	8/21/2019 9:50	Depth to Water Detail	14.06	ft
APCO-GSD-AP-PZ-5	8/21/2019 9:50	Oxidation Reduction Potention	94.85	mv
APCO-GSD-AP-PZ-5	8/21/2019 9:50	pH	5.33	pH
APCO-GSD-AP-PZ-5	8/21/2019 9:50	Temperature	17.2	C
APCO-GSD-AP-PZ-5	8/21/2019 9:50	Turbidity	19.5	NTU
APCO-GSD-AP-PZ-5	8/21/2019 9:55	Conductivity	45.23	uS/cm
APCO-GSD-AP-PZ-5	8/21/2019 9:55	DO	4.21	mg/L
APCO-GSD-AP-PZ-5	8/21/2019 9:55	Depth to Water Detail	14.06	ft
APCO-GSD-AP-PZ-5	8/21/2019 9:55	Oxidation Reduction Potention	114.05	mv
APCO-GSD-AP-PZ-5	8/21/2019 9:55	pH	5.21	pH
APCO-GSD-AP-PZ-5	8/21/2019 9:55	Temperature	17.13	C
APCO-GSD-AP-PZ-5	8/21/2019 9:55	Turbidity	15.9	NTU
APCO-GSD-AP-PZ-5	8/21/2019 10:00	Conductivity	45.08	uS/cm
APCO-GSD-AP-PZ-5	8/21/2019 10:00	DO	4.19	mg/L
APCO-GSD-AP-PZ-5	8/21/2019 10:00	Depth to Water Detail	14.06	ft
APCO-GSD-AP-PZ-5	8/21/2019 10:00	Oxidation Reduction Potention	127.48	mv
APCO-GSD-AP-PZ-5	8/21/2019 10:00	pH	5.17	pH
APCO-GSD-AP-PZ-5	8/21/2019 10:00	Temperature	17.24	C
APCO-GSD-AP-PZ-5	8/21/2019 10:00	Turbidity	7.52	NTU
APCO-GSD-AP-PZ-5	8/21/2019 10:05	Conductivity	45.3	uS/cm
APCO-GSD-AP-PZ-5	8/21/2019 10:05	DO	4.15	mg/L
APCO-GSD-AP-PZ-5	8/21/2019 10:05	Depth to Water Detail	14.06	ft
APCO-GSD-AP-PZ-5	8/21/2019 10:05	Oxidation Reduction Potention	137.82	mv
APCO-GSD-AP-PZ-5	8/21/2019 10:05	pH	5.16	pH
APCO-GSD-AP-PZ-5	8/21/2019 10:05	Temperature	17.18	C
APCO-GSD-AP-PZ-5	8/21/2019 10:05	Turbidity	6.14	NTU
APCO-GSD-AP-PZ-5	8/21/2019 10:10	Conductivity	45.16	uS/cm
APCO-GSD-AP-PZ-5	8/21/2019 10:10	DO	4.18	mg/L
APCO-GSD-AP-PZ-5	8/21/2019 10:10	Depth to Water Detail	14.06	ft
APCO-GSD-AP-PZ-5	8/21/2019 10:10	Oxidation Reduction Potention	149.76	mv
APCO-GSD-AP-PZ-5	8/21/2019 10:10	pH	5.11	pH
APCO-GSD-AP-PZ-5	8/21/2019 10:10	Temperature	17.24	C
APCO-GSD-AP-PZ-5	8/21/2019 10:10	Turbidity	5.12	NTU
APCO-GSD-AP-PZ-5	8/21/2019 10:15	Conductivity	45.16	uS/cm
APCO-GSD-AP-PZ-5	8/21/2019 10:15	DO	4.16	mg/L
APCO-GSD-AP-PZ-5	8/21/2019 10:15	Depth to Water Detail	14.06	ft
APCO-GSD-AP-PZ-5	8/21/2019 10:15	Oxidation Reduction Potention	157.56	mv
APCO-GSD-AP-PZ-5	8/21/2019 10:15	pH	5.13	pH
APCO-GSD-AP-PZ-5	8/21/2019 10:15	Temperature	17.26	C
APCO-GSD-AP-PZ-5	8/21/2019 10:15	Turbidity	4.62	NTU

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-PZ-6	8/21/2019 11:10	Conductivity	51.15	uS/cm
APCO-GSD-AP-PZ-6	8/21/2019 11:10	DO	4.7	mg/L
APCO-GSD-AP-PZ-6	8/21/2019 11:10	Depth to Water Detail	9.43	ft
APCO-GSD-AP-PZ-6	8/21/2019 11:10	Oxidation Reduction Potention	183.32	mv
APCO-GSD-AP-PZ-6	8/21/2019 11:10	pH	5.46	pH
APCO-GSD-AP-PZ-6	8/21/2019 11:10	Temperature	18.86	C
APCO-GSD-AP-PZ-6	8/21/2019 11:10	Turbidity	32.9	NTU
APCO-GSD-AP-PZ-6	8/21/2019 11:15	Conductivity	51.12	uS/cm
APCO-GSD-AP-PZ-6	8/21/2019 11:15	DO	4.67	mg/L
APCO-GSD-AP-PZ-6	8/21/2019 11:15	Depth to Water Detail	9.43	ft
APCO-GSD-AP-PZ-6	8/21/2019 11:15	Oxidation Reduction Potention	202.42	mv
APCO-GSD-AP-PZ-6	8/21/2019 11:15	pH	5.38	pH
APCO-GSD-AP-PZ-6	8/21/2019 11:15	Temperature	18.84	C
APCO-GSD-AP-PZ-6	8/21/2019 11:15	Turbidity	20.9	NTU
APCO-GSD-AP-PZ-6	8/21/2019 11:20	Conductivity	50.76	uS/cm
APCO-GSD-AP-PZ-6	8/21/2019 11:20	DO	4.67	mg/L
APCO-GSD-AP-PZ-6	8/21/2019 11:20	Depth to Water Detail	9.43	ft
APCO-GSD-AP-PZ-6	8/21/2019 11:20	Oxidation Reduction Potention	214.15	mv
APCO-GSD-AP-PZ-6	8/21/2019 11:20	pH	5.34	pH
APCO-GSD-AP-PZ-6	8/21/2019 11:20	Temperature	18.85	C
APCO-GSD-AP-PZ-6	8/21/2019 11:20	Turbidity	14.4	NTU
APCO-GSD-AP-PZ-6	8/21/2019 11:25	Conductivity	50.68	uS/cm
APCO-GSD-AP-PZ-6	8/21/2019 11:25	DO	4.68	mg/L
APCO-GSD-AP-PZ-6	8/21/2019 11:25	Depth to Water Detail	9.43	ft
APCO-GSD-AP-PZ-6	8/21/2019 11:25	Oxidation Reduction Potention	228.21	mv
APCO-GSD-AP-PZ-6	8/21/2019 11:25	pH	5.24	pH
APCO-GSD-AP-PZ-6	8/21/2019 11:25	Temperature	18.83	C
APCO-GSD-AP-PZ-6	8/21/2019 11:25	Turbidity	13.1	NTU
APCO-GSD-AP-PZ-6	8/21/2019 11:30	Conductivity	50.33	uS/cm
APCO-GSD-AP-PZ-6	8/21/2019 11:30	DO	4.69	mg/L
APCO-GSD-AP-PZ-6	8/21/2019 11:30	Depth to Water Detail	9.43	ft
APCO-GSD-AP-PZ-6	8/21/2019 11:30	Oxidation Reduction Potention	229.69	mv
APCO-GSD-AP-PZ-6	8/21/2019 11:30	pH	5.32	pH
APCO-GSD-AP-PZ-6	8/21/2019 11:30	Temperature	18.79	C
APCO-GSD-AP-PZ-6	8/21/2019 11:30	Turbidity	8.59	NTU
APCO-GSD-AP-PZ-6	8/21/2019 11:35	Conductivity	50.07	uS/cm
APCO-GSD-AP-PZ-6	8/21/2019 11:35	DO	4.71	mg/L
APCO-GSD-AP-PZ-6	8/21/2019 11:35	Depth to Water Detail	9.43	ft
APCO-GSD-AP-PZ-6	8/21/2019 11:35	Oxidation Reduction Potention	232.14	mv
APCO-GSD-AP-PZ-6	8/21/2019 11:35	pH	5.39	pH
APCO-GSD-AP-PZ-6	8/21/2019 11:35	Temperature	18.8	C
APCO-GSD-AP-PZ-6	8/21/2019 11:35	Turbidity	5.75	NTU
APCO-GSD-AP-PZ-6	8/21/2019 11:40	Conductivity	49.74	uS/cm
APCO-GSD-AP-PZ-6	8/21/2019 11:40	DO	4.7	mg/L

**Alabama Power Company
Plant Gadsden Ash Pond**

WELL ID	READING TIME	DESCRIPTION	VALUE	UNIT
APCO-GSD-AP-PZ-6	8/21/2019 11:40	Depth to Water Detail	9.43	ft
APCO-GSD-AP-PZ-6	8/21/2019 11:40	Oxidation Reduction Potention	234.29	mv
APCO-GSD-AP-PZ-6	8/21/2019 11:40	pH	5.44	pH
APCO-GSD-AP-PZ-6	8/21/2019 11:40	Temperature	18.83	C
APCO-GSD-AP-PZ-6	8/21/2019 11:40	Turbidity	4.84	NTU

Appendix C

Interwell Prediction Limit - Significant Results

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GSD-AP-MW-1	0.1	n/a	8/21/2019	1.24	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-2	0.1	n/a	8/20/2019	0.566	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-3	0.1	n/a	8/20/2019	1.06	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-4	0.1	n/a	8/20/2019	0.399	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-5	0.1	n/a	8/20/2019	0.378	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-11	0.1	n/a	8/22/2019	0.272	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Calcium (mg/L)	GSD-AP-MW-1	28.4	n/a	8/21/2019	272	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-2	28.4	n/a	8/20/2019	92.3	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-3	28.4	n/a	8/20/2019	74.1	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-5	28.4	n/a	8/20/2019	33.7	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-8	28.4	n/a	8/21/2019	71.5	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-9	28.4	n/a	8/21/2019	50.9	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-10	28.4	n/a	8/22/2019	38.5	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-11	28.4	n/a	8/22/2019	133	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-12	28.4	n/a	8/22/2019	89.4	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-PZ-1	28.4	n/a	8/20/2019	38.3	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-1	4.212	n/a	8/21/2019	5.26	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-3	4.212	n/a	8/20/2019	6.07	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-4	4.212	n/a	8/20/2019	9.62	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-5	4.212	n/a	8/20/2019	6.53	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-6	4.212	n/a	8/20/2019	9.55	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-7	4.212	n/a	8/21/2019	7.35	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-8	4.212	n/a	8/21/2019	5.89	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-9	4.212	n/a	8/21/2019	6.16	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-10	4.212	n/a	8/22/2019	5.66	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-11	4.212	n/a	8/22/2019	4.64	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-12	4.212	n/a	8/22/2019	6.31	Yes	31	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-1	252	n/a	8/21/2019	708	Yes	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-11	252	n/a	8/22/2019	305	Yes	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-12	252	n/a	8/22/2019	339	Yes	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-1	292	n/a	8/21/2019	1200	Yes	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-2	292	n/a	8/20/2019	369	Yes	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-3	292	n/a	8/20/2019	416	Yes	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-11	292	n/a	8/22/2019	555	Yes	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-12	292	n/a	8/22/2019	501	Yes	31	0	No	0.000...	Param Inter 1 of 2

Interwell Prediction Limit - All Results

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GSD-AP-MW-1	0.1	n/a	8/21/2019	1.24	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-2	0.1	n/a	8/20/2019	0.566	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-3	0.1	n/a	8/20/2019	1.06	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-4	0.1	n/a	8/20/2019	0.399	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-5	0.1	n/a	8/20/2019	0.378	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-6	0.1	n/a	8/20/2019	0.0608	No	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-7	0.1	n/a	8/21/2019	0.091	No	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-8	0.1	n/a	8/21/2019	0.0569	No	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-9	0.1	n/a	8/21/2019	0.0524	No	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-10	0.1	n/a	8/22/2019	0.0951	No	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-11	0.1	n/a	8/22/2019	0.272	Yes	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-MW-12	0.1	n/a	8/22/2019	0.0625	No	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-PZ-1	0.1	n/a	8/20/2019	0.1ND	No	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-PZ-5	0.1	n/a	8/21/2019	0.1ND	No	31	48.39	n/a	0.001719	NP Inter (normality) ...
Boron (mg/L)	GSD-AP-PZ-6	0.1	n/a	8/21/2019	0.1ND	No	31	48.39	n/a	0.001719	NP Inter (normality) ...
Calcium (mg/L)	GSD-AP-MW-1	28.4	n/a	8/21/2019	272	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-2	28.4	n/a	8/20/2019	92.3	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-3	28.4	n/a	8/20/2019	74.1	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-4	28.4	n/a	8/20/2019	23.5	No	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-5	28.4	n/a	8/20/2019	33.7	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-6	28.4	n/a	8/20/2019	15.1	No	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-7	28.4	n/a	8/21/2019	23.5	No	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-8	28.4	n/a	8/21/2019	71.5	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-9	28.4	n/a	8/21/2019	50.9	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-10	28.4	n/a	8/22/2019	38.5	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-11	28.4	n/a	8/22/2019	133	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-MW-12	28.4	n/a	8/22/2019	89.4	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-PZ-1	28.4	n/a	8/20/2019	38.3	Yes	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-PZ-5	28.4	n/a	8/21/2019	3.04	No	31	0	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	GSD-AP-PZ-6	28.4	n/a	8/21/2019	3.71	No	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-1	4.212	n/a	8/21/2019	5.26	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-2	4.212	n/a	8/20/2019	2.24	No	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-3	4.212	n/a	8/20/2019	6.07	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-4	4.212	n/a	8/20/2019	9.62	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-5	4.212	n/a	8/20/2019	6.53	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-6	4.212	n/a	8/20/2019	9.55	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-7	4.212	n/a	8/21/2019	7.35	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-8	4.212	n/a	8/21/2019	5.89	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-9	4.212	n/a	8/21/2019	6.16	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-10	4.212	n/a	8/22/2019	5.66	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-11	4.212	n/a	8/22/2019	4.64	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-MW-12	4.212	n/a	8/22/2019	6.31	Yes	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-PZ-1	4.212	n/a	8/20/2019	3.52	No	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-PZ-5	4.212	n/a	8/21/2019	3.85	No	31	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	GSD-AP-PZ-6	4.212	n/a	8/21/2019	4	No	31	0	No	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-1	252	n/a	8/21/2019	708	Yes	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-2	252	n/a	8/20/2019	110	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-3	252	n/a	8/20/2019	222	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-4	252	n/a	8/20/2019	7.34	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-5	252	n/a	8/20/2019	21.3	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-6	252	n/a	8/20/2019	12.3	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-7	252	n/a	8/21/2019	11.8	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-8	252	n/a	8/21/2019	10.8	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-9	252	n/a	8/21/2019	11.3	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-10	252	n/a	8/22/2019	6.74	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-11	252	n/a	8/22/2019	305	Yes	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-MW-12	252	n/a	8/22/2019	339	Yes	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-PZ-1	252	n/a	8/20/2019	3.73	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-PZ-5	252	n/a	8/21/2019	1.21	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Sulfate (mg/L)	GSD-AP-PZ-6	252	n/a	8/21/2019	1.62	No	31	0	sqrt(x)	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-1	292	n/a	8/21/2019	1200	Yes	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-2	292	n/a	8/20/2019	369	Yes	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-3	292	n/a	8/20/2019	416	Yes	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-4	292	n/a	8/20/2019	164	No	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-5	292	n/a	8/20/2019	174	No	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-6	292	n/a	8/20/2019	98.7	No	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-7	292	n/a	8/21/2019	133	No	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-8	292	n/a	8/21/2019	226	No	31	0	No	0.000...	Param Inter 1 of 2

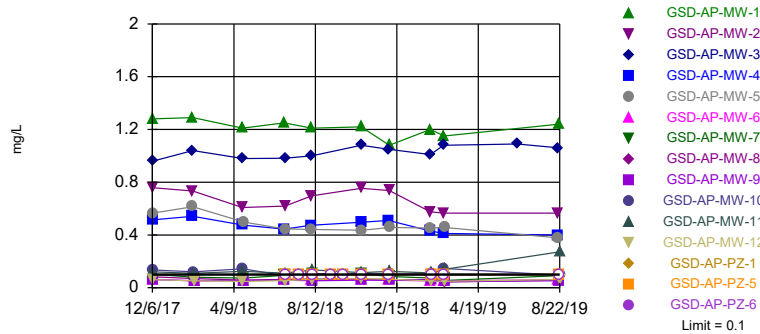
Interwell Prediction Limit - All Results

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:33 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Total Dissolved Solids...	GSD-AP-MW-9	292	n/a	8/21/2019	200	No	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-10	292	n/a	8/22/2019	194	No	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-11	292	n/a	8/22/2019	555	Yes	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-MW-12	292	n/a	8/22/2019	501	Yes	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-PZ-1	292	n/a	8/20/2019	141	No	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-PZ-5	292	n/a	8/21/2019	46	No	31	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids...	GSD-AP-PZ-6	292	n/a	8/21/2019	42.7	No	31	0	No	0.000...	Param Inter 1 of 2

Exceeds Limit: GSD-AP-MW-1, GSD-AP-MW-2, GSD-AP-MW-3, GSD-AP-MW-4, GSD-AP-MW-5, GSD-AP-MW-11

Prediction Limit
Interwell Non-parametric

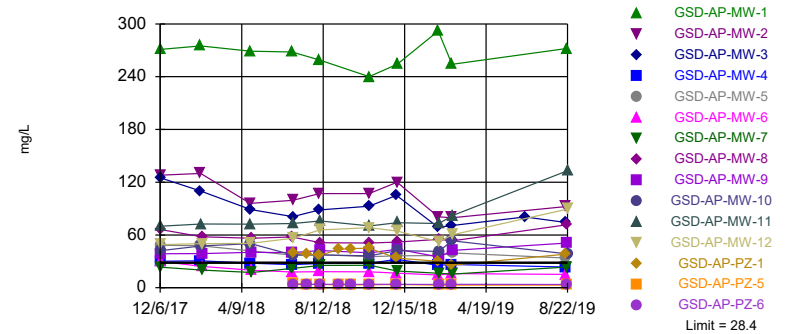


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 31 background values. 48.39% NDs. Annual per-constituent alpha = 0.05031. Individual comparison alpha = 0.001719 (1 of 2). Comparing 15 points to limit.

Constituent: Boron Analysis Run 1/17/2020 1:31 PM View: Interwell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Exceeds Limit: GSD-AP-MW-1, GSD-AP-MW-2, GSD-AP-MW-3, GSD-AP-MW-5, GSD-AP-MW-8, GSD-AP-MW-9, GSD-AP-MW-10 ...

Prediction Limit
Interwell Parametric

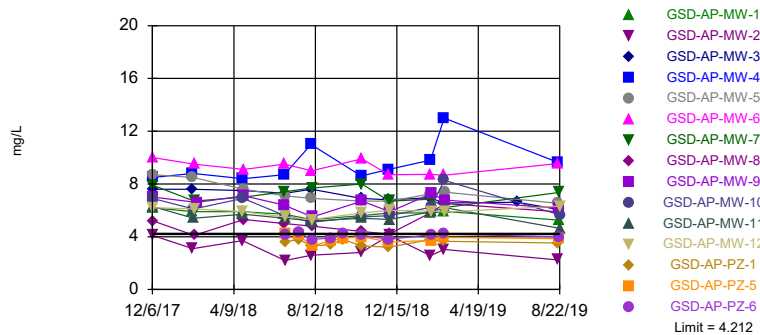


Background Data Summary: Mean=17.77, Std. Dev.=4.751, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9686, critical = 0.902. Kappa = 2.237 (c=7, w=15, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005016. Comparing 15 points to limit.

Constituent: Calcium Analysis Run 1/17/2020 1:31 PM View: Interwell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Exceeds Limit: GSD-AP-MW-1, GSD-AP-MW-3, GSD-AP-MW-4, GSD-AP-MW-5, GSD-AP-MW-6, GSD-AP-MW-7, GSD-AP-MW-8...

Prediction Limit
Interwell Parametric

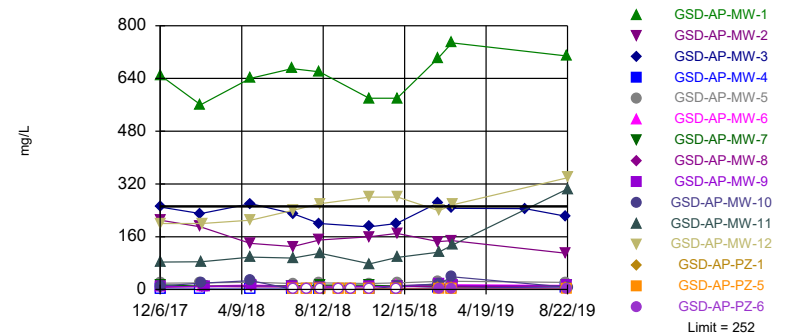


Background Data Summary: Mean=3.303, Std. Dev.=0.406, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9709, critical = 0.902. Kappa = 2.237 (c=7, w=15, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005016. Comparing 15 points to limit.

Constituent: Chloride Analysis Run 1/17/2020 1:31 PM View: Interwell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Exceeds Limit: GSD-AP-MW-1, GSD-AP-MW-11, GSD-AP-MW-12

Prediction Limit
Interwell Parametric



Background Data Summary (based on square root transformation): Mean=7.73, Std. Dev.=3.64, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9087, critical = 0.902. Kappa = 2.237 (c=7, w=15, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005016. Comparing 15 points to limit.

Constituent: Sulfate Analysis Run 1/17/2020 1:32 PM View: Interwell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 1/17/2020 1:33 PM View: Interwell PL

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-3	GSD-AP-MW-2	GSD-AP-MW-12	GSD-AP-MW-11	GSD-AP-MW-1	GSD-AP-MW-10	GSD-AP-MW-4	GSD-AP-MW-5	GSD-AP-MW-6
12/6/2017	0.959	0.758	0.0605 (J)	0.12	1.28	0.135			
12/7/2017							0.515	0.566	0.063 (J)
2/6/2018	1.04	0.733			1.29		0.541	0.614	
2/7/2018				0.109		0.12			
2/8/2018			0.0527 (J)						0.0508 (J)
4/23/2018		0.608			1.21				
4/24/2018	0.979		0.0476 (J)	0.124		0.144	0.475		
4/25/2018								0.498	0.0548 (J)
6/26/2018					1.25		0.444		0.0571 (J)
6/27/2018	0.982	0.619	0.0539 (J)	0.111		0.0903 (J)		0.446	
7/18/2018									
8/6/2018							0.474		
8/7/2018	1	0.697			1.21	0.106		0.442	0.0571 (J)
8/8/2018			0.0637 (J)	0.135					
9/5/2018									
9/24/2018									
10/22/2018	1.08	0.754			1.22	0.107	0.496		
10/23/2018			0.0696 (J)	0.114				0.436	0.0636 (J)
10/24/2018									
11/14/2018									
11/28/2018									
12/3/2018	1.05						0.51		0.0568 (J)
12/4/2018		0.737		0.124	1.08	0.103			
12/5/2018			0.0652 (J)					0.456	
12/18/2018									
1/3/2019									
1/24/2019									
2/5/2019	1.01	0.575			1.2		0.43	0.453	0.0509 (J)
2/6/2019			0.0511 (J)	0.112		0.105			
2/7/2019									
2/25/2019	1.08								
2/26/2019		0.566			1.15	0.146	0.411		0.0527 (J)
2/27/2019			0.0494 (J)	0.14				0.457	
2/28/2019									
6/18/2019	1.09								
6/24/2019									
8/19/2019									
8/20/2019	1.06	0.566					0.399	0.378	0.0608 (J)
8/21/2019					1.24				
8/22/2019			0.0625 (J)	0.272		0.0951 (J)			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 1/17/2020 1:33 PM View: Interwell PL

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-3	GSD-AP-MW-2	GSD-AP-MW-12	GSD-AP-MW-11	GSD-AP-MW-1	GSD-AP-MW-10	GSD-AP-MW-4	GSD-AP-MW-5	GSD-AP-MW-6
12/6/2017	125	128	49	70	271	42			
12/7/2017							30.1	48.2	29.8
2/6/2018	110	130			275		30.6	47.8	
2/7/2018				72.4		47.6			
2/8/2018			50						24.3
4/23/2018		95.9			269				
4/24/2018	88.8		50.5	72.3		50.1	27.8		
4/25/2018								41.8	19.8
6/26/2018					268		26.2		17.8
6/27/2018	80.8	99.4	56.3	73.1		37.1		36.9	
7/18/2018									
8/6/2018							27.5		
8/7/2018	88.5	107			259	37.4		37.6	18.3
8/8/2018			65.7	76					
9/5/2018									
9/24/2018									
10/22/2018	92.7	107			240	36.3	27.7		
10/23/2018			68.3	70.2				35.3	18.1
10/24/2018									
11/14/2018									
11/28/2018									
12/3/2018	105						32.3		16.6
12/4/2018		120		74	254	42.1			
12/5/2018			64.3					36.3	
12/18/2018									
1/3/2019									
1/24/2019									
2/5/2019	68.6	80.6			292		25.5	36.6	14.5
2/6/2019			52.2	73.1		41.3			
2/7/2019									
2/25/2019	70.6								
2/26/2019		79.6			254	53.3	26.4		16
2/27/2019			60.2	82.2				39.6	
2/28/2019									
6/18/2019	80.5								
6/24/2019									
8/19/2019									
8/20/2019	74.1	92.3					23.5	33.7	15.1
8/21/2019					272				
8/22/2019			89.4	133		38.5			

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 1/17/2020 1:33 PM View: Interwell PL

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-3	GSD-AP-MW-2	GSD-AP-MW-12	GSD-AP-MW-11	GSD-AP-MW-1	GSD-AP-MW-10	GSD-AP-MW-4	GSD-AP-MW-5	GSD-AP-MW-6
12/6/2017	7.6	4.1	6.2	6.3	6.2	6.9			
12/7/2017							8.5	8.7	10
2/6/2018	7.6	3.1			5.9		8.8	8.5	
2/7/2018				5.4		6.1			
2/8/2018			6.1						9.5
2/12/2018									
4/23/2018		3.7			5.9				
4/24/2018	7.5		5.9	5.7		6.9	8.4		
4/25/2018								7.6	9.1
6/26/2018					5.7		8.7		9.5
6/27/2018	7.3	2.2	5.5	5.4		5.6		7.1	
7/18/2018									
8/6/2018							11		
8/7/2018	7.6	2.6			5.3	5.1		6.9	9
8/8/2018			5.3	5.2					
9/5/2018									
9/24/2018									
10/22/2018	6.9	2.8			5.6	5.5	8.6		
10/23/2018			5.8	5.4				6.7	9.9
10/24/2018									
11/14/2018									
11/28/2018									
12/3/2018	6.8						9.1		8.7
12/4/2018		4.1		5.3	5.8	5.6			
12/5/2018			6					6.7	
12/18/2018									
1/3/2019									
1/24/2019									
2/5/2019	6.95	2.56			5.8		9.81	7.24	8.73
2/6/2019			5.95	5.89		6.24			
2/7/2019									
2/25/2019	6.55								
2/26/2019		3.03			5.92	8.28	13		8.66
2/27/2019			5.88	6.2				7.38	
2/28/2019									
6/18/2019	6.62								
6/24/2019									
8/19/2019									
8/20/2019	6.07	2.24					9.62	6.53	9.55
8/21/2019					5.26				
8/22/2019			6.31	4.64		5.66			

Prediction Limit

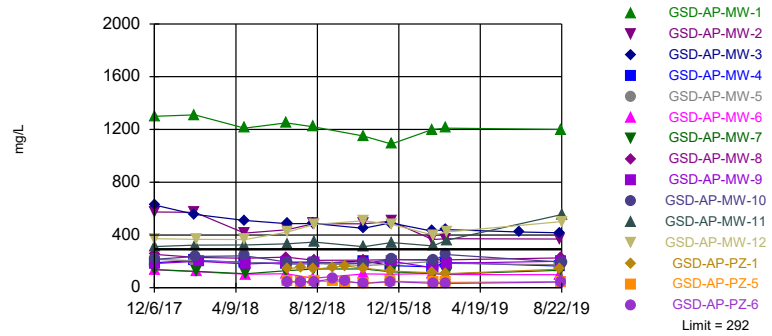
Constituent: Sulfate (mg/L) Analysis Run 1/17/2020 1:33 PM View: Interwell PL

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-3	GSD-AP-MW-2	GSD-AP-MW-12	GSD-AP-MW-11	GSD-AP-MW-1	GSD-AP-MW-10	GSD-AP-MW-4	GSD-AP-MW-5	GSD-AP-MW-6
12/6/2017	250	210	200	83	650	11			
12/7/2017							<1	19	10
2/6/2018	230	190			560		<1	20	
2/7/2018				84		19			
2/8/2018			200						11
2/12/2018									
4/23/2018		140			640				
4/24/2018	260		210	98		27	<1		
4/25/2018								22	13
6/26/2018					670		<1		11
6/27/2018	230	130	240	95		<1		18	
7/18/2018									
8/6/2018							<1		
8/7/2018	200	150			660	<1		20	12
8/8/2018			260	110					
9/5/2018									
9/24/2018									
10/22/2018	190	160			580	<1	<1		
10/23/2018			280	78				18	11
10/24/2018									
11/14/2018									
11/28/2018									
12/3/2018	200						<1		12
12/4/2018		170		97	580	11			
12/5/2018			280					20	
12/18/2018									
1/3/2019									
1/24/2019									
2/5/2019	263	145			702		5.38	24.3	13.9
2/6/2019			239	113		16.8			
2/7/2019									
2/25/2019	246								
2/26/2019		148			748	38.4	5.1		14.1
2/27/2019			257	135				24.7	
2/28/2019									
6/18/2019	245								
6/24/2019									
8/19/2019									
8/20/2019	222	110					7.34	21.3	12.3
8/21/2019					708				
8/22/2019			339	305		6.74			

Exceeds Limit: GSD-AP-MW-1, GSD-AP-MW-2, GSD-AP-MW-3, GSD-AP-MW-11, GSD-AP-MW-12

Prediction Limit
Interwell Parametric



Background Data Summary: Mean=171.3, Std. Dev.=53.95, n=31. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9394, critical = 0.902. Kappa = 2.237 (c=7, w=15, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005016. Comparing 15 points to limit.

Constituent: Total Dissolved Solids Analysis Run 1/17/2020 1:32 PM View: Interwell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 1/17/2020 1:33 PM View: Interwell PL

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-3	GSD-AP-MW-2	GSD-AP-MW-12	GSD-AP-MW-11	GSD-AP-MW-1	GSD-AP-MW-10	GSD-AP-MW-4	GSD-AP-MW-5	GSD-AP-MW-6
12/6/2017	628	574	371	312	1300	215			
12/7/2017							189	215	136
2/6/2018	556	572			1310		206	204	
2/7/2018				323		237			
2/8/2018			367						122
2/12/2018									
4/23/2018		414			1210				
4/24/2018	510		365	324		242	193		
4/25/2018								192	102
6/26/2018					1250		180		106
6/27/2018	486	440	421	333		194		180	
7/18/2018									
8/6/2018							182		
8/7/2018	487	485			1220	195		183	71.3
8/8/2018			479	346					
9/5/2018									
9/24/2018									
10/22/2018	450	484			1150	184	204		
10/23/2018			507	311				169	105
10/24/2018									
11/14/2018									
11/28/2018									
12/3/2018	492						168		102
12/4/2018		504		343	1090	215			
12/5/2018			479					177	
12/18/2018									
1/3/2019									
1/24/2019									
2/5/2019	428	366			1200		158	198	107
2/6/2019			399	317		208			
2/7/2019									
2/25/2019	441								
2/26/2019		372			1210	252	191		99.3
2/27/2019			422	360				185	
2/28/2019									
6/18/2019	422								
6/24/2019									
8/19/2019									
8/20/2019	416	369					164	174	98.7
8/21/2019					1200				
8/22/2019			501	555		194			

Intrawell Prediction Limit - Significant Results

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:31 PM

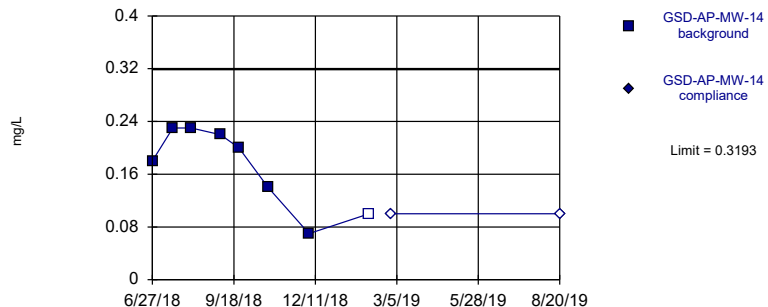
Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
pH (pH)	GSD-AP-MW-2	6.718	6.419	8/20/2019	6.3	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-4	6.796	6.547	8/20/2019	6.33	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-6	6.44	5.885	8/20/2019	5.4	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-8	6.844	6.476	8/21/2019	6.16	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-9	7.055	6.734	8/21/2019	6.61	Yes	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-10	6.889	6.598	8/22/2019	6.37	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-11	6.862	6.515	8/22/2019	6.26	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-PZ-1	6.918	6.531	8/20/2019	6.3	Yes	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-PZ-5	5.917	5.345	8/21/2019	5.13	Yes	9	0	No	0.000...	Param Intra 1 of 3

Intrawell Prediction Limit - All Results

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:31 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	GSD-AP-MW-14	0.3193	n/a	8/20/2019	0.1ND	No	8	12.5	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-16	0.16	n/a	8/19/2019	0.1ND	No	8	25	n/a	0.005912	NP Intra (normality) ...
Fluoride (mg/L)	GSD-AP-MW-17	0.2447	n/a	8/19/2019	0.187	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-1	0.114	n/a	8/21/2019	0.1ND	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-2	0.3552	n/a	8/20/2019	0.252	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-3	0.1417	n/a	8/20/2019	0.0592	No	9	11.11	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-4	0.2778	n/a	8/20/2019	0.197	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-5	0.08006	n/a	8/20/2019	0.0567	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-6	0.1031	n/a	8/20/2019	0.1ND	No	8	12.5	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-7	0.1236	n/a	8/21/2019	0.068	No	8	12.5	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-8	0.1463	n/a	8/21/2019	0.0648	No	8	12.5	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-9	0.1569	n/a	8/21/2019	0.0984	No	8	12.5	x^2	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-10	0.1319	n/a	8/22/2019	0.084	No	8	0	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-11	0.1029	n/a	8/22/2019	0.1ND	No	8	12.5	sqrt(x)	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-MW-12	0.1	n/a	8/22/2019	0.1ND	No	8	87.5	n/a	0.005912	NP Intra (NDs) 1 of 3
Fluoride (mg/L)	GSD-AP-PZ-1	0.1551	n/a	8/20/2019	0.0889	No	9	11.11	No	0.000...	Param Intra 1 of 3
Fluoride (mg/L)	GSD-AP-PZ-5	0.1	n/a	8/21/2019	0.1ND	No	9	33.33	n/a	0.004675	NP Intra (normality) ...
Fluoride (mg/L)	GSD-AP-PZ-6	0.1	n/a	8/21/2019	0.1ND	No	9	33.33	n/a	0.004675	NP Intra (normality) ...
pH (pH)	GSD-AP-MW-14	4.172	3.928	8/20/2019	4	No	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-16	5.451	3.959	8/19/2019	4.57	No	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-17	10.15	7.57	8/19/2019	7.93	No	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-1	6.642	6.005	8/21/2019	6.01	No	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-2	6.718	6.419	8/20/2019	6.3	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-3	6.737	5.65	8/20/2019	5.73	No	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-4	6.796	6.547	8/20/2019	6.33	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-5	6.366	5.994	8/20/2019	6.11	No	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-6	6.44	5.885	8/20/2019	5.4	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-7	6.821	5.959	8/21/2019	5.97	No	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-8	6.844	6.476	8/21/2019	6.16	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-9	7.055	6.734	8/21/2019	6.61	Yes	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-10	6.889	6.598	8/22/2019	6.37	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-11	6.862	6.515	8/22/2019	6.26	Yes	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-MW-12	5.64	5.257	8/22/2019	5.35	No	8	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-PZ-1	6.918	6.531	8/20/2019	6.3	Yes	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-PZ-5	5.917	5.345	8/21/2019	5.13	Yes	9	0	No	0.000...	Param Intra 1 of 3
pH (pH)	GSD-AP-PZ-6	5.65	5.439	8/21/2019	5.44	No	9	0	No	0.000...	Param Intra 1 of 3

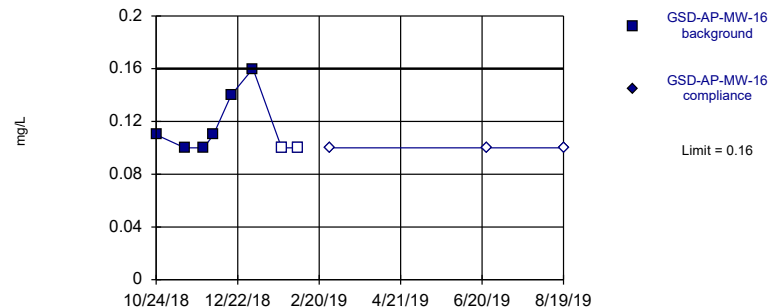
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.1713, Std. Dev.=0.06151, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8841, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

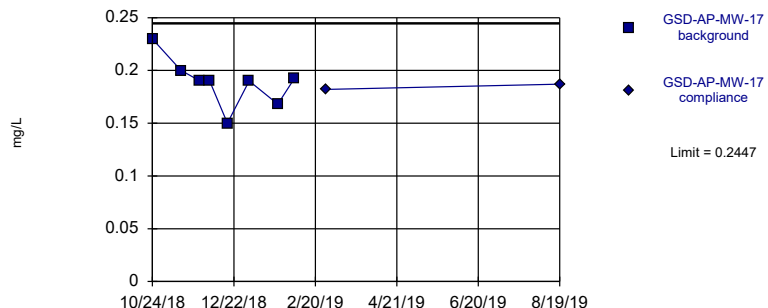
Within Limit Prediction Limit
Intrawell Non-parametric



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 8 background values. 25% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.005912 (1 of 3).

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

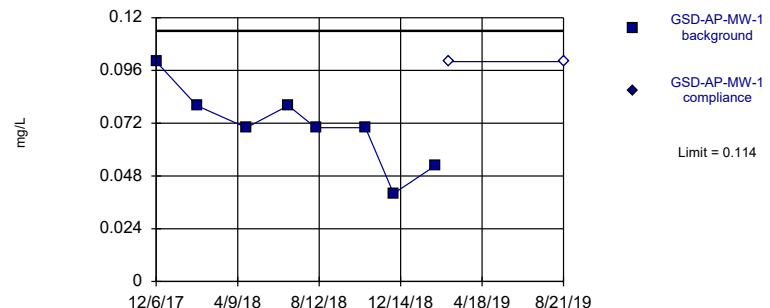
Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.1888, Std. Dev.=0.02322, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9185, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.07031, Std. Dev.=0.01815, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9482, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-14	GSD-AP-MW-14
6/27/2018	0.18	
7/18/2018	0.23	
8/6/2018	0.23	
9/5/2018	0.22	
9/24/2018	0.2	
10/24/2018	0.14	
12/5/2018	0.07 (J)	
2/5/2019	<0.1	
2/28/2019		<0.1
8/20/2019		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-16	GSD-AP-MW-16
10/24/2018	0.11	
11/14/2018	0.1	
11/28/2018	0.1	
12/5/2018	0.11	
12/18/2018	0.14	
1/3/2019	0.16	
1/24/2019	<0.1	
2/5/2019	<0.1	
2/28/2019		<0.1
6/24/2019		<0.1 (D)
8/19/2019		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-17	GSD-AP-MW-17
10/24/2018	0.23	
11/14/2018	0.2	
11/28/2018	0.19	
12/5/2018	0.19	
12/18/2018	0.15	
1/3/2019	0.19	
1/24/2019	0.168	
2/5/2019	0.192	
2/28/2019		0.182
8/19/2019		0.187

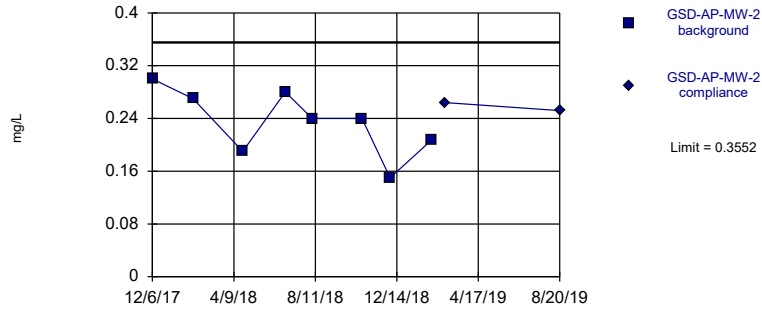
Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-1	GSD-AP-MW-1
12/6/2017	0.1	
2/6/2018	0.08 (J)	
4/23/2018	0.07 (J)	
6/26/2018	0.08 (J)	
8/7/2018	0.07 (J)	
10/22/2018	0.07 (J)	
12/4/2018	0.04 (J)	
2/5/2019	0.0525 (J)	
2/26/2019		<0.1
8/21/2019		<0.1

Within Limit

Prediction Limit
Intrawell Parametric

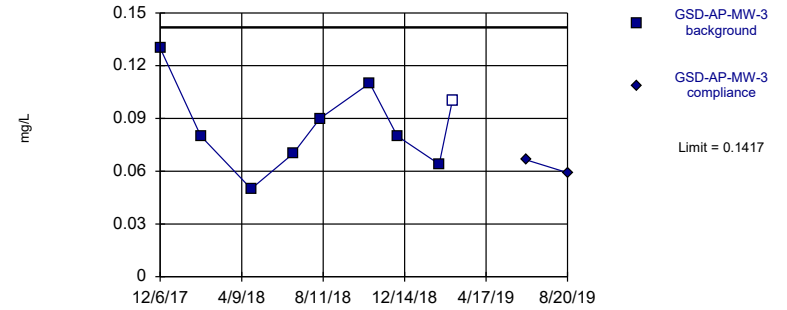


Background Data Summary: Mean=0.2346, Std. Dev.=0.05008, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.966, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit

Prediction Limit
Intrawell Parametric

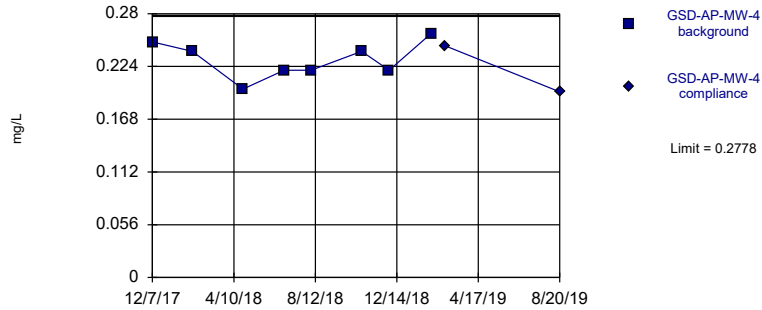


Background Data Summary: Mean=0.086, Std. Dev.=0.02458, n=9, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9825, critical = 0.764. Kappa = 2.268 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit

Prediction Limit
Intrawell Parametric

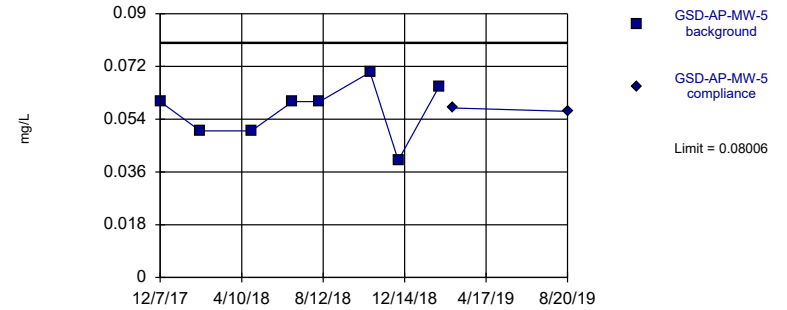


Background Data Summary: Mean=0.2311, Std. Dev.=0.01939, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9429, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.05689, Std. Dev.=0.009625, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.939, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-2	GSD-AP-MW-2
12/6/2017	0.3	
2/6/2018	0.27	
4/23/2018	0.19	
6/27/2018	0.28	
8/7/2018	0.24	
10/22/2018	0.24	
12/4/2018	0.15	
2/5/2019	0.207	
2/26/2019		0.264
8/20/2019		0.252

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-3	GSD-AP-MW-3
12/6/2017	0.13	
2/6/2018	0.08 (J)	
4/24/2018	0.05 (J)	
6/27/2018	0.07 (J)	
8/7/2018	0.09 (J)	
10/22/2018	0.11	
12/3/2018	0.08 (J)	
2/5/2019	0.064 (J)	
2/25/2019	<0.1	
6/18/2019		0.0664 (J)
8/20/2019		0.0592 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-4	GSD-AP-MW-4
12/7/2017	0.25	
2/6/2018	0.24	
4/24/2018	0.2	
6/26/2018	0.22	
8/6/2018	0.22	
10/22/2018	0.24	
12/3/2018	0.22	
2/5/2019	0.259	
2/26/2019		0.246
8/20/2019		0.197

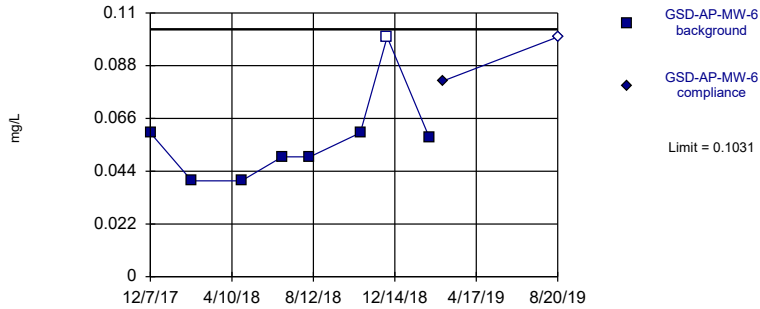
Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-5	GSD-AP-MW-5
12/7/2017	0.06 (J)	
2/6/2018	0.05 (J)	
4/25/2018	0.05 (J)	
6/27/2018	0.06 (J)	
8/7/2018	0.06 (J)	
10/23/2018	0.07 (J)	
12/5/2018	0.04 (J)	
2/5/2019	0.0651 (J)	
2/27/2019		0.0578 (J)
8/20/2019		0.0567 (J)

Within Limit

Prediction Limit
Intrawell Parametric

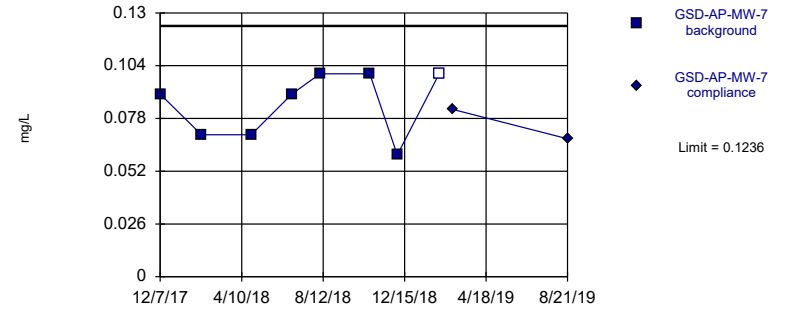


Background Data Summary: Mean=0.05726, Std. Dev.=0.01906, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7904, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit

Prediction Limit
Intrawell Parametric

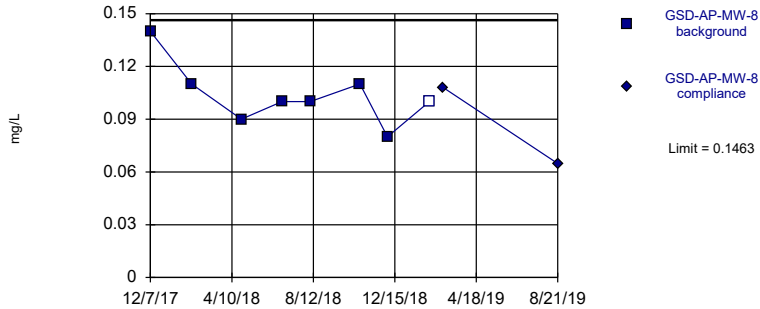


Background Data Summary: Mean=0.085, Std. Dev.=0.01604, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8419, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit

Prediction Limit
Intrawell Parametric

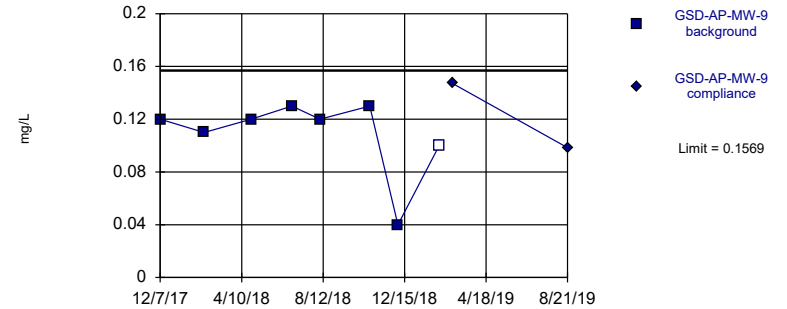


Background Data Summary: Mean=0.1038, Std. Dev.=0.01768, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9005, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary (based on square transformation): Mean=0.01259, Std. Dev.=0.004996, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8029, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-6	GSD-AP-MW-6
12/7/2017	0.06 (J)	
2/8/2018	0.04 (J)	
4/25/2018	0.04 (J)	
6/26/2018	0.05 (J)	
8/7/2018	0.05 (J)	
10/23/2018	0.06 (J)	
12/3/2018	<0.1	
2/5/2019	0.0581 (J)	
2/26/2019		0.0816 (J)
8/20/2019		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-7	GSD-AP-MW-7
12/7/2017	0.09 (J)	
2/8/2018	0.07 (J)	
4/25/2018	0.07 (J)	
6/26/2018	0.09 (J)	
8/8/2018	0.1	
10/23/2018	0.1	
12/4/2018	0.06 (J)	
2/6/2019	<0.1	
2/27/2019		0.0824 (J)
8/21/2019		0.068 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-8	GSD-AP-MW-8
12/7/2017	0.14	
2/8/2018	0.11	
4/25/2018	0.09 (J)	
6/26/2018	0.1	
8/8/2018	0.1	
10/23/2018	0.11	
12/4/2018	0.08 (J)	
2/6/2019	<0.1	
2/27/2019		0.108
8/21/2019		0.0648 (J)

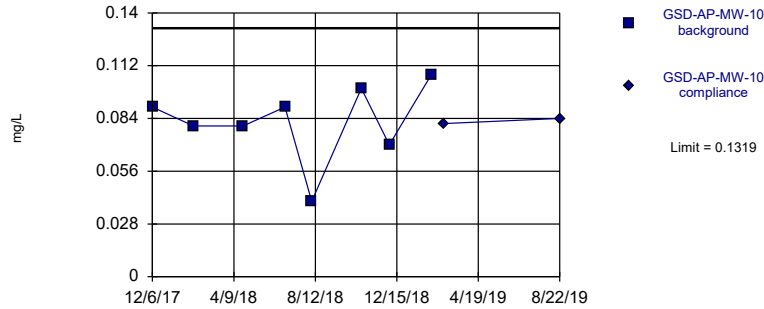
Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-9	GSD-AP-MW-9
12/7/2017	0.12	
2/12/2018	0.11	
4/25/2018	0.12	
6/26/2018	0.13	
8/8/2018	0.12	
10/23/2018	0.13	
12/5/2018	0.04 (J)	
2/6/2019	<0.1	
2/27/2019		0.147
8/21/2019		0.0984 (J)

Within Limit

Prediction Limit
Intrawell Parametric

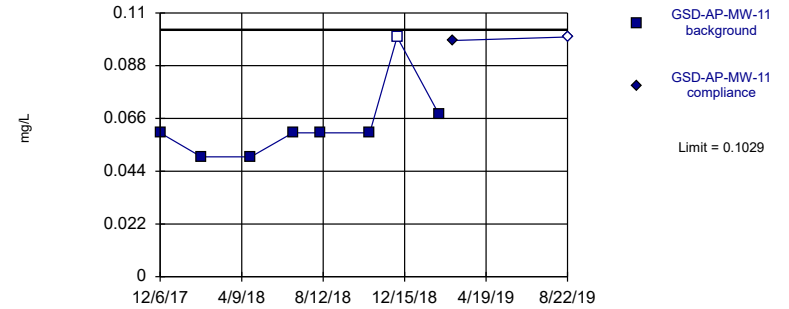


Background Data Summary: Mean=0.08213, Std. Dev.=0.02068, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9155, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit

Prediction Limit
Intrawell Parametric

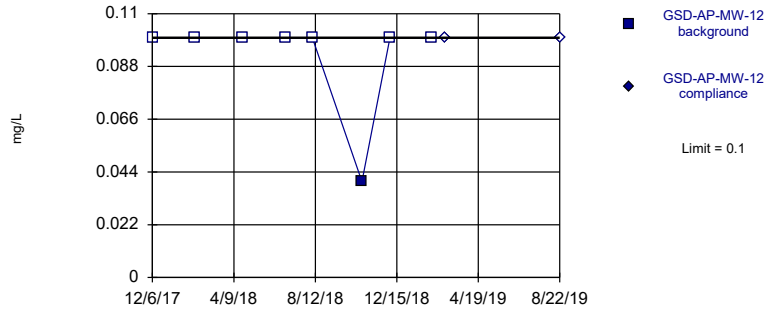


Background Data Summary (based on square root transformation): Mean=0.2505, Std. Dev.=0.02925, n=8, 12.5% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.7653, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

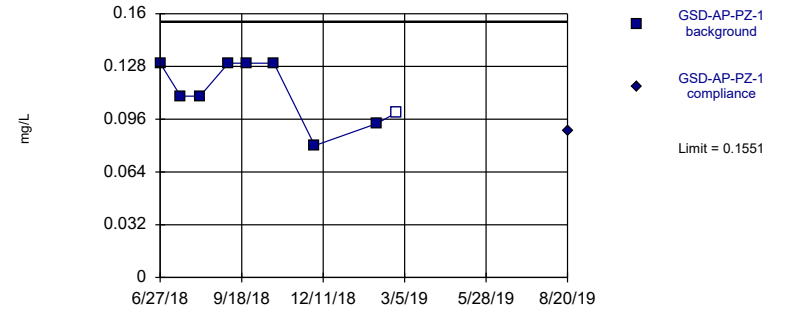


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 8 background values. 87.5% NDs. Well-constituent pair annual alpha = 0.01179. Individual comparison alpha = 0.0005912 (1 of 3).

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=0.1126, Std. Dev.=0.01876, n=9, 11.11% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8577, critical = 0.764. Kappa = 2.268 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: Fluoride Analysis Run 1/17/2020 1:27 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-10	GSD-AP-MW-10
12/6/2017	0.09 (J)	
2/7/2018	0.08 (J)	
4/24/2018	0.08 (J)	
6/27/2018	0.09 (J)	
8/7/2018	0.04 (J)	
10/22/2018	0.1	
12/4/2018	0.07 (J)	
2/6/2019	0.107	
2/26/2019		0.0813 (J)
8/22/2019		0.084 (J)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-11	GSD-AP-MW-11
12/6/2017	0.06 (J)	
2/7/2018	0.05 (J)	
4/24/2018	0.05 (J)	
6/27/2018	0.06 (J)	
8/8/2018	0.06 (J)	
10/23/2018	0.06 (J)	
12/4/2018	<0.1	
2/6/2019	0.0678 (J)	
2/27/2019		0.0985 (J)
8/22/2019		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-12	GSD-AP-MW-12
12/6/2017	<0.1	
2/8/2018	<0.1	
4/24/2018	<0.1	
6/27/2018	<0.1	
8/8/2018	<0.1	
10/23/2018	0.04 (J)	
12/5/2018	<0.1	
2/6/2019	<0.1	
2/27/2019		<0.1
8/22/2019		<0.1

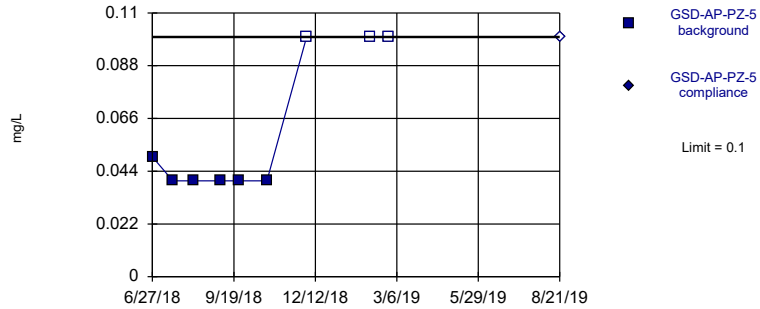
Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-PZ-1	GSD-AP-PZ-1
6/27/2018	0.13	
7/18/2018	0.11	
8/7/2018	0.11	
9/5/2018	0.13	
9/24/2018	0.13	
10/22/2018	0.13	
12/3/2018	0.08 (J)	
2/5/2019	0.0934 (J)	
2/25/2019	<0.1	
8/20/2019		0.0889 (J)

Within Limit

Prediction Limit
Intrawell Non-parametric

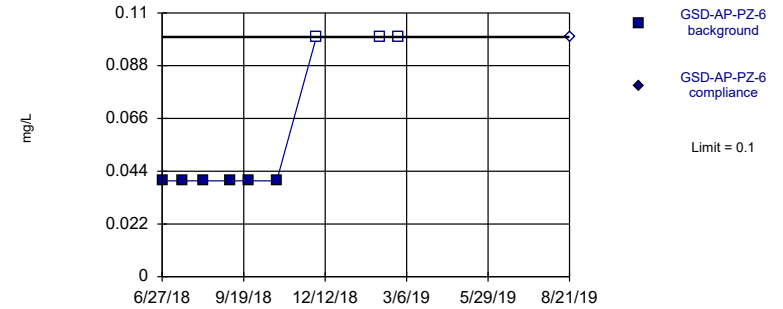


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 9 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Fluoride Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limit

Prediction Limit
Intrawell Non-parametric

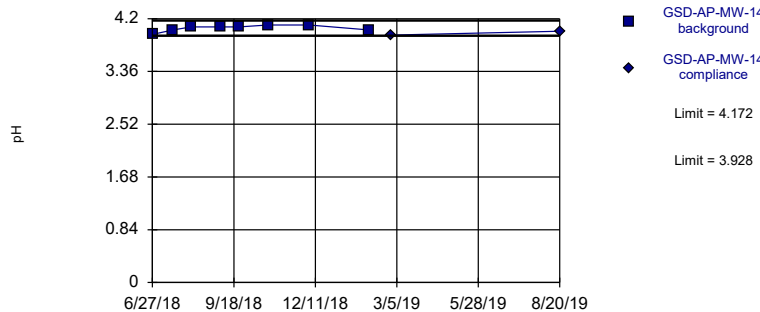


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 9 background values. 33.33% NDs. Well-constituent pair annual alpha = 0.009329. Individual comparison alpha = 0.004675 (1 of 3).

Constituent: Fluoride Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limits

Prediction Limit
Intrawell Parametric

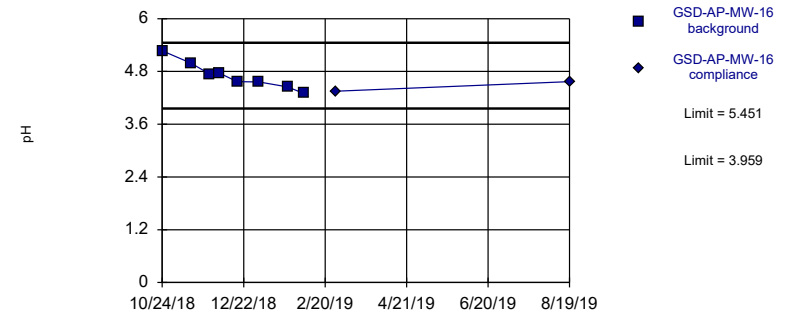


Background Data Summary: Mean=4.05, Std. Dev.=0.05071, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8654, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=4.705, Std. Dev.=0.3101, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9564, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-PZ-5	GSD-AP-PZ-5
6/27/2018	0.05 (J)	
7/18/2018	0.04 (J)	
8/8/2018	0.04 (J)	
9/5/2018	0.04 (J)	
9/24/2018	0.04 (J)	
10/23/2018	0.04 (J)	
12/3/2018	<0.1	
2/7/2019	<0.1	
2/25/2019	<0.1	
8/21/2019		<0.1

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-PZ-6	GSD-AP-PZ-6
6/27/2018	0.04 (J)	
7/18/2018	0.04 (J)	
8/8/2018	0.04 (J)	
9/5/2018	0.04 (J)	
9/24/2018	0.04 (J)	
10/23/2018	0.04 (J)	
12/3/2018	<0.1	
2/7/2019	<0.1	
2/25/2019	<0.1	
8/21/2019		<0.1

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-14	GSD-AP-MW-14
6/27/2018	3.95	
7/18/2018	4.02	
8/6/2018	4.07	
9/5/2018	4.07	
9/24/2018	4.07	
10/24/2018	4.1	
12/5/2018	4.1	
2/5/2019	4.02	
2/28/2019		3.94 (E)
8/20/2019		4

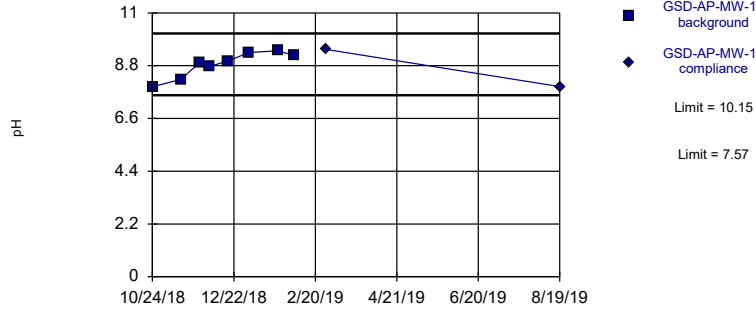
Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-16	GSD-AP-MW-16
10/24/2018	5.27	
11/14/2018	4.99	
11/28/2018	4.74	
12/5/2018	4.76	
12/18/2018	4.57	
1/3/2019	4.56	
1/24/2019	4.45	
2/5/2019	4.3	
2/28/2019		4.35
8/19/2019		4.57

Within Limits

Prediction Limit
Intrawell Parametric

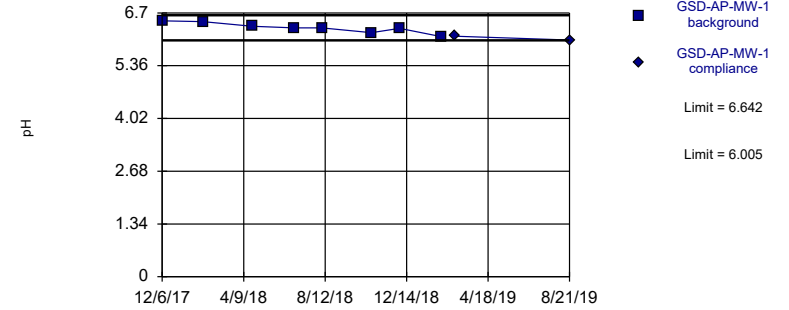


Background Data Summary: Mean=8.858, Std. Dev.=0.5351, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9021, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limits

Prediction Limit
Intrawell Parametric

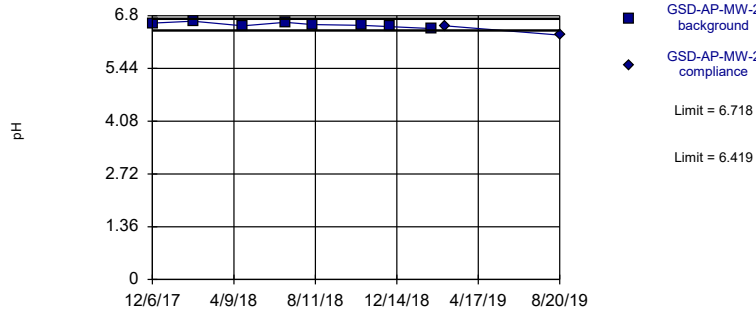


Background Data Summary: Mean=6.324, Std. Dev.=0.1322, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9411, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Exceeds Limits

Prediction Limit
Intrawell Parametric

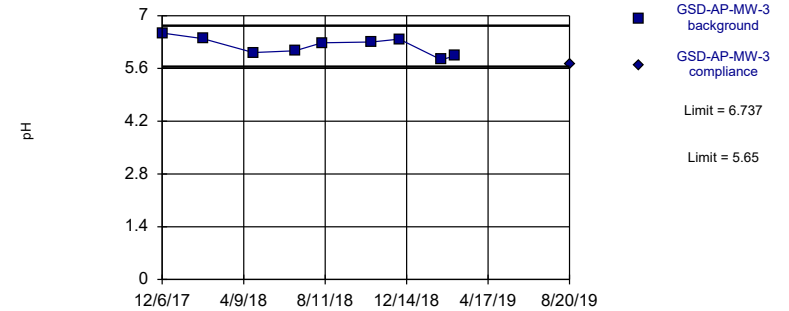


Background Data Summary: Mean=6.569, Std. Dev.=0.06221, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9822, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=6.193, Std. Dev.=0.2396, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9491, critical = 0.764. Kappa = 2.268 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-17	GSD-AP-MW-17
10/24/2018	7.92	
11/14/2018	8.23	
11/28/2018	8.95	
12/5/2018	8.77	
12/18/2018	8.99	
1/3/2019	9.35	
1/24/2019	9.42	
2/5/2019	9.23	
2/28/2019		9.48
8/19/2019		7.93

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-1	GSD-AP-MW-1
12/6/2017	6.5	
2/6/2018	6.48	
4/23/2018	6.36	
6/26/2018	6.32	
8/7/2018	6.32	
10/22/2018	6.2	
12/4/2018	6.31	
2/5/2019	6.1	
2/26/2019		6.11
8/21/2019		6.01

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-2	GSD-AP-MW-2
12/6/2017	6.61	
2/6/2018	6.66	
4/23/2018	6.54	
6/27/2018	6.63	
8/7/2018	6.57	
10/22/2018	6.55	
12/4/2018	6.52	
2/5/2019	6.47	
2/26/2019		6.54
8/20/2019		6.3

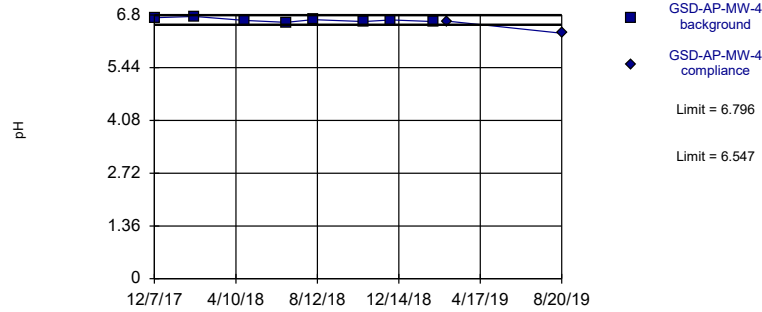
Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-3	GSD-AP-MW-3
12/6/2017	6.54	
2/6/2018	6.39	
4/24/2018	6.02	
6/27/2018	6.07	
8/7/2018	6.28	
10/22/2018	6.3	
12/3/2018	6.38	
2/5/2019	5.83	
2/25/2019	5.93	
8/20/2019		5.73

Exceeds Limits

Prediction Limit
Intrawell Parametric

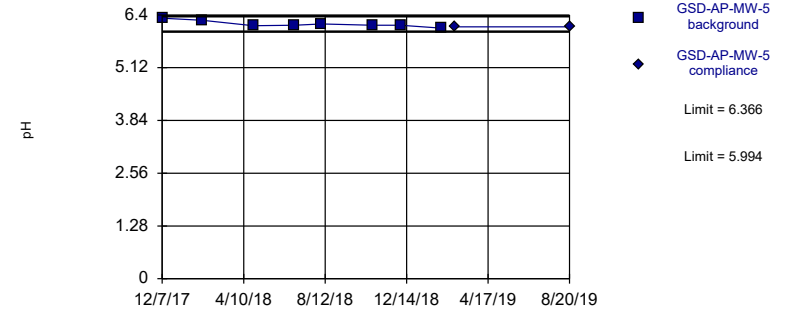


Background Data Summary: Mean=6.671, Std. Dev.=0.05167, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9281, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limits

Prediction Limit
Intrawell Parametric

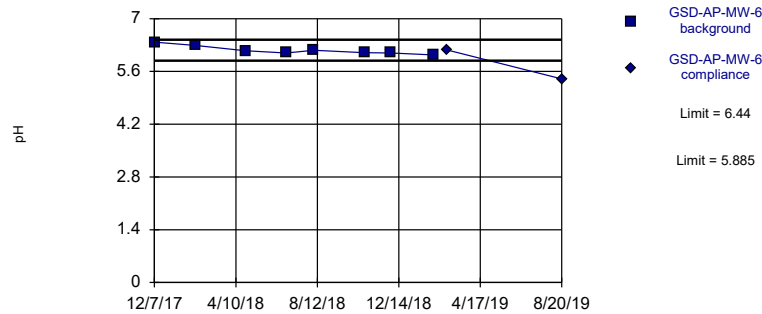


Background Data Summary: Mean=6.18, Std. Dev.=0.07746, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8741, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Exceeds Limits

Prediction Limit
Intrawell Parametric

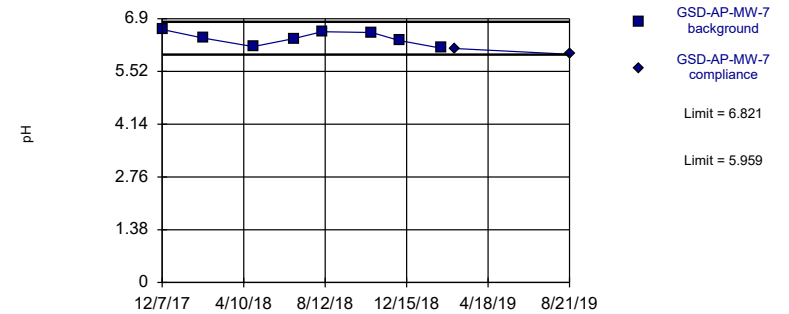


Background Data Summary: Mean=6.163, Std. Dev.=0.1154, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8662, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=6.39, Std. Dev.=0.1789, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9328, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-4	GSD-AP-MW-4
12/7/2017	6.73	
2/6/2018	6.76	
4/24/2018	6.66	
6/26/2018	6.61	
8/6/2018	6.68	
10/22/2018	6.63	
12/3/2018	6.67	
2/5/2019	6.63	
2/26/2019		6.64
8/20/2019		6.33

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-5	GSD-AP-MW-5
12/7/2017	6.32	
2/6/2018	6.27	
4/25/2018	6.14	
6/27/2018	6.15	
8/7/2018	6.18	
10/23/2018	6.15	
12/5/2018	6.15	
2/5/2019	6.08	
2/27/2019		6.11
8/20/2019		6.11

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-6	GSD-AP-MW-6
12/7/2017	6.38	
2/8/2018	6.29	
4/25/2018	6.15	
6/26/2018	6.09	
8/7/2018	6.16	
10/23/2018	6.1	
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2/5/2019	6.04	
2/26/2019		6.17
8/20/2019		5.4

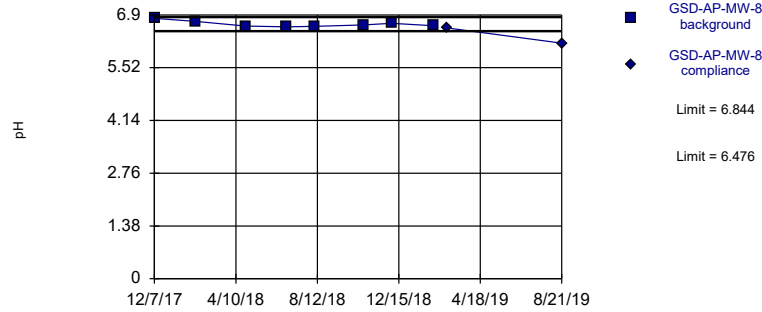
Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-7	GSD-AP-MW-7
12/7/2017	6.62	
2/8/2018	6.39	
4/25/2018	6.17	
6/26/2018	6.38	
8/8/2018	6.56	
10/23/2018	6.54	
12/4/2018	6.33	
2/6/2019	6.13	
2/27/2019		6.12
8/21/2019		5.97

Exceeds Limits

Prediction Limit Intrawell Parametric

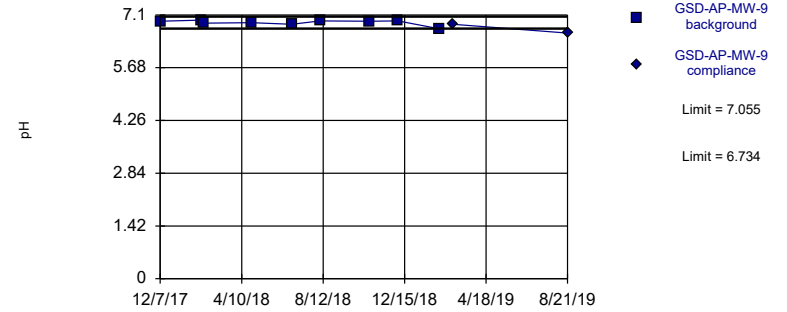


Background Data Summary: Mean=6.66, Std. Dev.=0.07635, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8626, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Exceeds Limits

Prediction Limit Intrawell Parametric

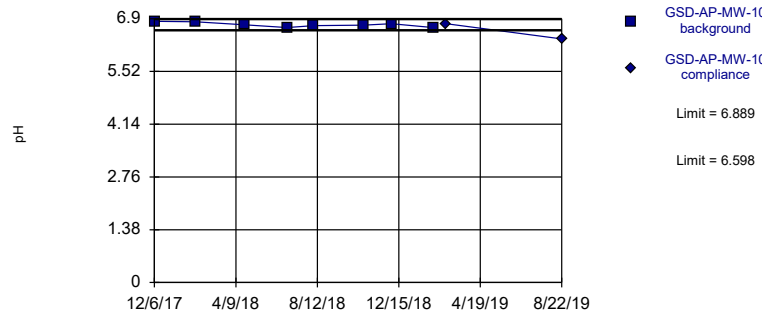


Background Data Summary: Mean=6.894, Std. Dev.=0.07091, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8079, critical = 0.764. Kappa = 2.268 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Exceeds Limits

Prediction Limit Intrawell Parametric

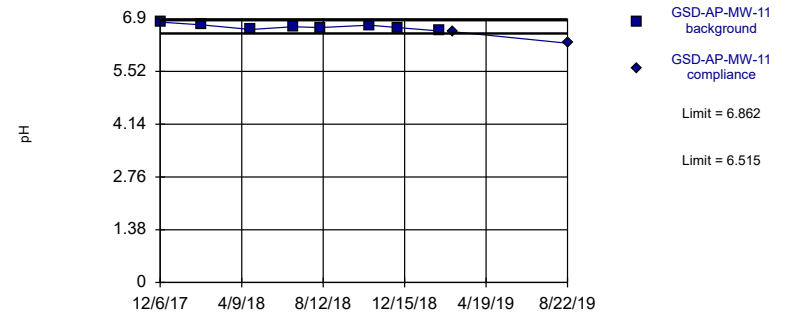


Background Data Summary: Mean=6.744, Std. Dev.=0.06046, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9217, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Exceeds Limits

Prediction Limit Intrawell Parametric



Background Data Summary: Mean=6.689, Std. Dev.=0.072, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9817, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-8	GSD-AP-MW-8
12/7/2017	6.81	
2/8/2018	6.73	
4/25/2018	6.61	
6/26/2018	6.59	
8/8/2018	6.6	
10/23/2018	6.64	
12/4/2018	6.68	
2/6/2019	6.62	
2/27/2019		6.56
8/21/2019		6.16

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-9	GSD-AP-MW-9
12/7/2017	6.93	
2/8/2018	6.96	
2/12/2018	6.88	
4/25/2018	6.89	
6/26/2018	6.85	
8/8/2018	6.94	
10/23/2018	6.93	
12/5/2018	6.94	
2/6/2019	6.73	
2/27/2019		6.85
8/21/2019		6.61

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-10	GSD-AP-MW-10
12/6/2017	6.83	
2/7/2018	6.82	
4/24/2018	6.74	
6/27/2018	6.67	
8/7/2018	6.72	
10/22/2018	6.73	
12/4/2018	6.77	
2/6/2019	6.67	
2/26/2019		6.77
8/22/2019		6.37

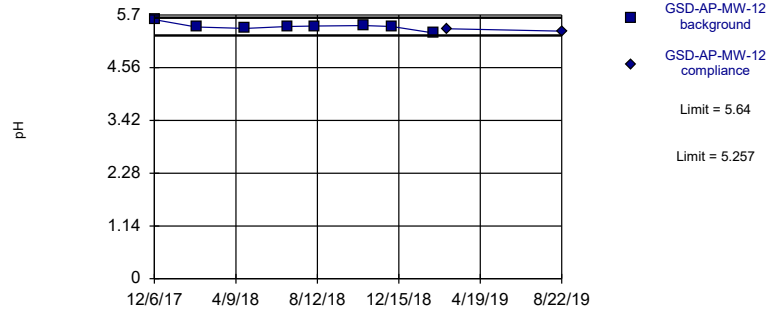
Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-11	GSD-AP-MW-11
12/6/2017	6.81	
2/7/2018	6.74	
4/24/2018	6.62	
6/27/2018	6.69	
8/8/2018	6.67	
10/23/2018	6.73	
12/4/2018	6.67	
2/6/2019	6.58	
2/27/2019		6.56
8/22/2019		6.26

Within Limits

Prediction Limit
Intrawell Parametric

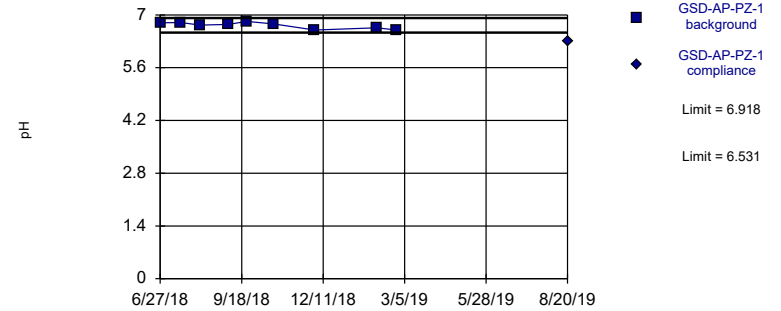


Background Data Summary: Mean=5.449, Std. Dev.=0.07954, n=8. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.885, critical = 0.749. Kappa = 2.407 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Exceeds Limits

Prediction Limit
Intrawell Parametric

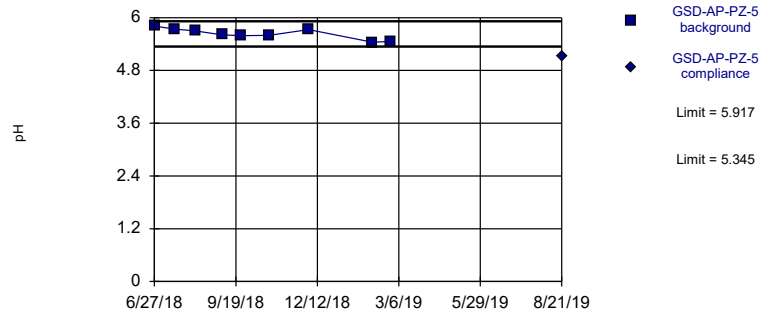


Background Data Summary: Mean=6.724, Std. Dev.=0.08531, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8994, critical = 0.764. Kappa = 2.268 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Exceeds Limits

Prediction Limit
Intrawell Parametric

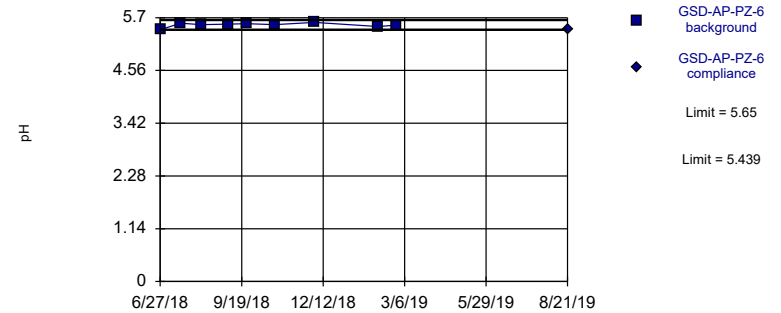


Background Data Summary: Mean=5.631, Std. Dev.=0.1261, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9395, critical = 0.764. Kappa = 2.268 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Within Limits

Prediction Limit
Intrawell Parametric



Background Data Summary: Mean=5.544, Std. Dev.=0.04667, n=9. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.8796, critical = 0.764. Kappa = 2.268 (c=7, w=15, 1 of 3, event alpha = 0.05132). Report alpha = 0.0005016.

Constituent: pH Analysis Run 1/17/2020 1:28 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-MW-12	GSD-AP-MW-12
12/6/2017	5.6	
2/8/2018	5.44	
4/24/2018	5.41	
6/27/2018	5.45	
8/8/2018	5.46	
10/23/2018	5.47	
12/5/2018	5.45	
2/6/2019	5.31	
2/27/2019		5.4
8/22/2019		5.35

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-PZ-1	GSD-AP-PZ-1
6/27/2018	6.79	
7/18/2018	6.8	
8/7/2018	6.73	
9/5/2018	6.75	
9/24/2018	6.83	
10/22/2018	6.76	
12/3/2018	6.6	
2/5/2019	6.66	
2/25/2019	6.6	
8/20/2019		6.3

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: IntraWell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

	GSD-AP-PZ-5	GSD-AP-PZ-5
6/27/2018	5.81	
7/18/2018	5.74	
8/8/2018	5.7	
9/5/2018	5.61	
9/24/2018	5.59	
10/23/2018	5.6	
12/3/2018	5.73	
2/7/2019	5.44	
2/25/2019	5.46	
8/21/2019		5.13

Prediction Limit

Constituent: pH (pH) Analysis Run 1/17/2020 1:31 PM View: Intrawell PL
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

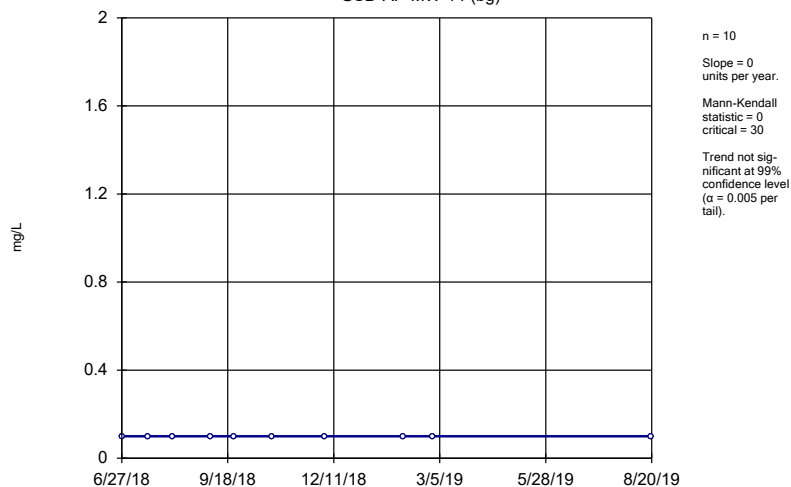
	GSD-AP-PZ-6	GSD-AP-PZ-6
6/27/2018	5.44	
7/18/2018	5.58	
8/8/2018	5.55	
9/5/2018	5.56	
9/24/2018	5.57	
10/23/2018	5.55	
12/3/2018	5.6	
2/7/2019	5.51	
2/25/2019	5.54	
8/21/2019		5.44

Trend Test Summary Table

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:37 PM

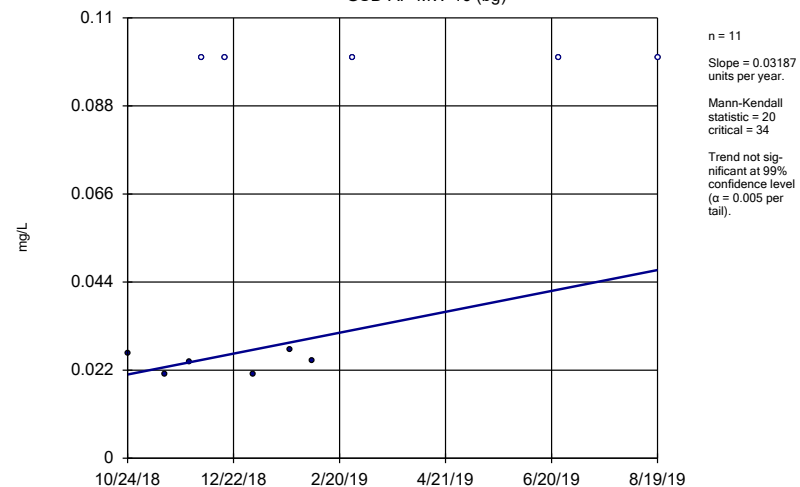
Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GSD-AP-MW-14 (bg)	0	0	30	No	10	100	n/a	n/a	0.01	NP
Boron (mg/L)	GSD-AP-MW-16 (bg)	0.03187	20	34	No	11	45.45	n/a	n/a	0.01	NP
Boron (mg/L)	GSD-AP-MW-17 (bg)	-0.01788	-19	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	GSD-AP-MW-1	-0.07087	-20	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	GSD-AP-MW-2	-0.09125	-22	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	GSD-AP-MW-3	0.05927	34	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	GSD-AP-MW-4	-0.06818	-27	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	GSD-AP-MW-5	-0.089	-21	-30	No	10	0	n/a	n/a	0.01	NP
Boron (mg/L)	GSD-AP-MW-11	0.01825	20	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-14 (bg)	-2.455	-9	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-16 (bg)	6.537	12	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-17 (bg)	-26.07	-20	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-1	-8.99	-10	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-2	-20.95	-20	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-3	-22.48	-29	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-5	-6.636	-27	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-8	-3.437	-9	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-9	4.201	21	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-10	-0.5984	-1	-30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-11	8.939	28	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-MW-12	16.54	27	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GSD-AP-PZ-1	-12.43	-13	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-14 (bg)	0.05448	7	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-16 (bg)	0.5141	15	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-17 (bg)	-2.147	-40	-30	Yes	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-1	-0.3093	-15	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-3	-0.9056	-42	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-4	1.013	23	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-5	-1.197	-26	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-6	-0.6113	-18	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-7	-0.3227	-8	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-8	0.5484	13	30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-9	-0.2894	-5	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-10	0	-1	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-11	-0.3505	-10	-30	No	10	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GSD-AP-MW-12	-0.02362	-1	-30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-MW-14 (bg)	0	0	30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-MW-16 (bg)	-2.204	-32	-30	Yes	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-MW-17 (bg)	3.049	23	30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-MW-2	-0.1556	-30	-30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-MW-4	-0.1095	-22	-30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-MW-6	-0.2636	-26	-30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-MW-8	-0.1628	-23	-30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-MW-9	-0.105	-22	-34	No	11	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-MW-10	-0.09973	-19	-30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-MW-11	-0.1966	-32	-30	Yes	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-PZ-1	-0.3724	-26	-30	No	10	0	n/a	n/a	0.01	NP
pH (pH)	GSD-AP-PZ-5	-0.5268	-33	-30	Yes	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GSD-AP-MW-14 (bg)	-12.84	-6	-30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GSD-AP-MW-16 (bg)	260.7	36	34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GSD-AP-MW-17 (bg)	-8.863	-36	-30	Yes	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GSD-AP-MW-1	51.18	20	30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GSD-AP-MW-11	42.37	29	30	No	10	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GSD-AP-MW-12	80.22	29	30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids...	GSD-AP-MW-14 (bg)	-27.1	-3	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids...	GSD-AP-MW-16 (bg)	314.5	29	34	No	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids...	GSD-AP-MW-17 (bg)	-103.3	-12	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids...	GSD-AP-MW-1	-73.49	-23	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids...	GSD-AP-MW-2	-112	-23	-30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids...	GSD-AP-MW-3	-94.93	-45	-34	Yes	11	0	n/a	n/a	0.01	NP
Total Dissolved Solids...	GSD-AP-MW-11	37.76	23	30	No	10	0	n/a	n/a	0.01	NP
Total Dissolved Solids...	GSD-AP-MW-12	69.36	20	30	No	10	0	n/a	n/a	0.01	NP

Sen's Slope Estimator GSD-AP-MW-14 (bg)



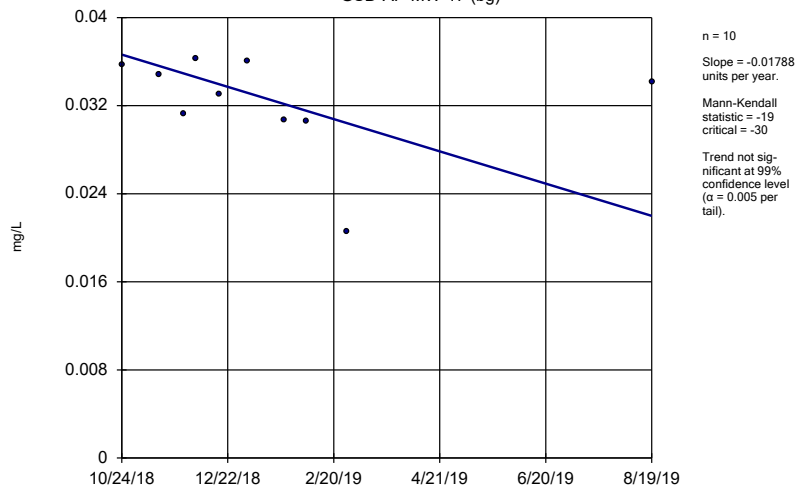
Constituent: Boron Analysis Run 1/17/2020 1:35 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-16 (bg)



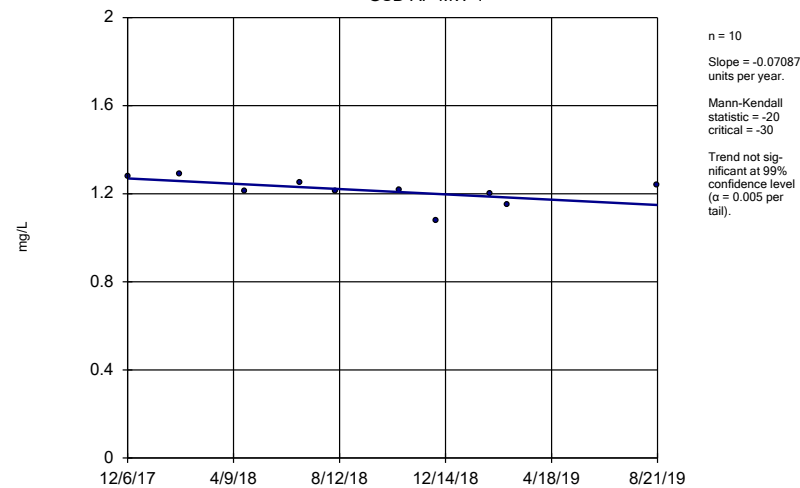
Constituent: Boron Analysis Run 1/17/2020 1:35 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-17 (bg)



Constituent: Boron Analysis Run 1/17/2020 1:35 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

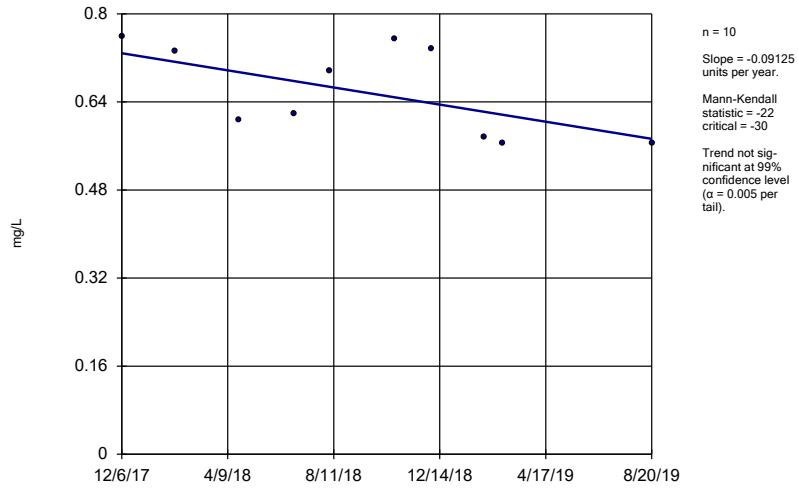
Sen's Slope Estimator GSD-AP-MW-1



Constituent: Boron Analysis Run 1/17/2020 1:35 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

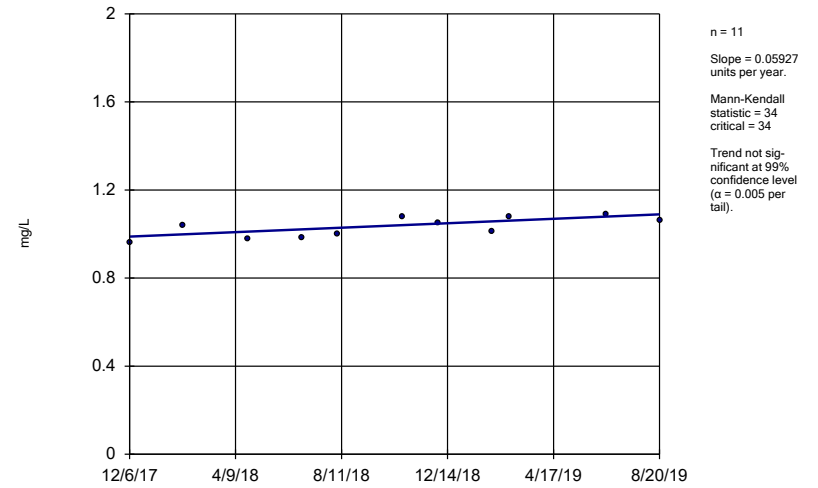
GSD-AP-MW-2



Constituent: Boron Analysis Run 1/17/2020 1:35 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

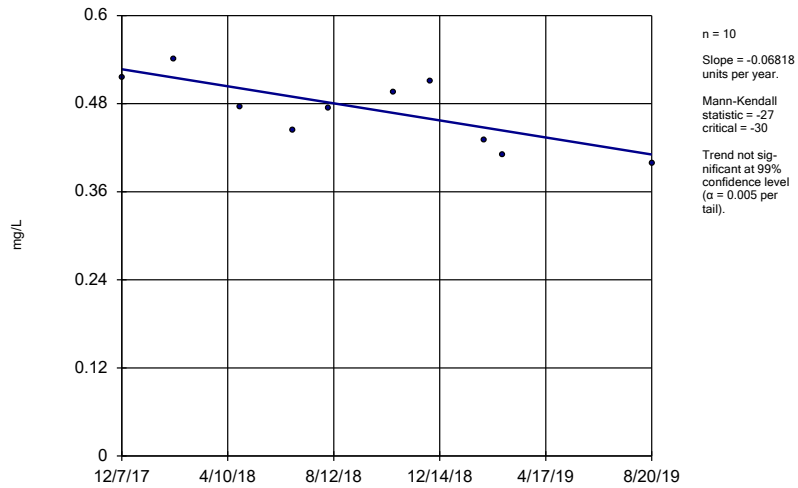
GSD-AP-MW-3



Constituent: Boron Analysis Run 1/17/2020 1:35 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

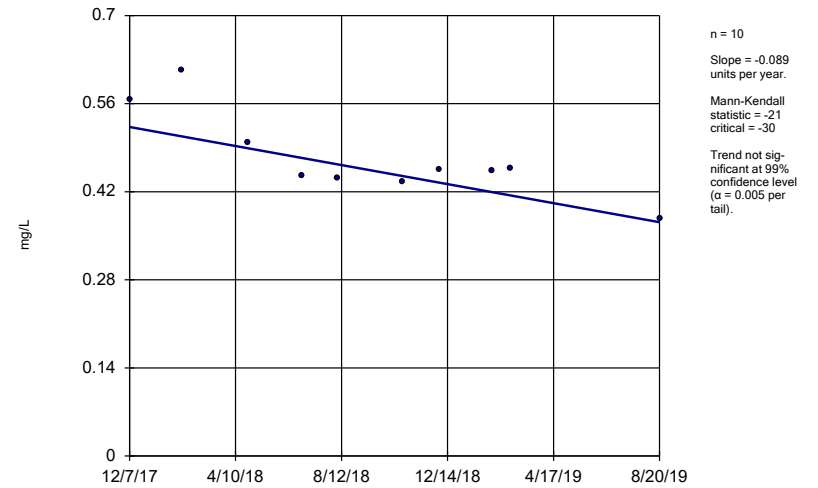
GSD-AP-MW-4



Constituent: Boron Analysis Run 1/17/2020 1:35 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

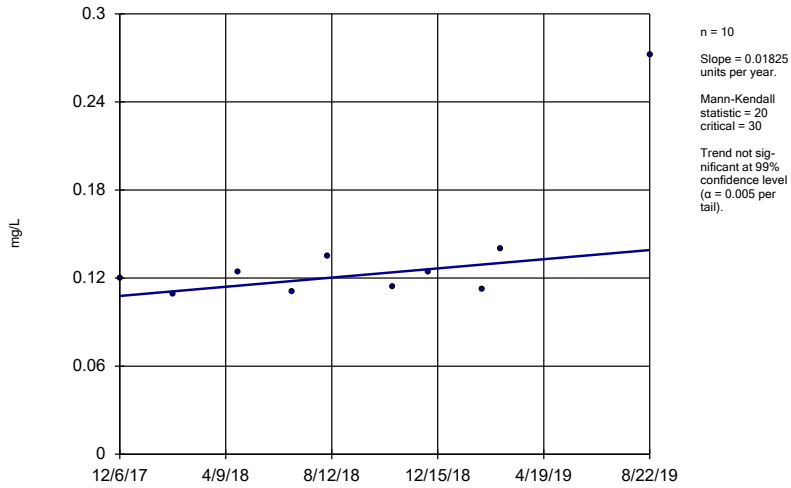
Sen's Slope Estimator

GSD-AP-MW-5



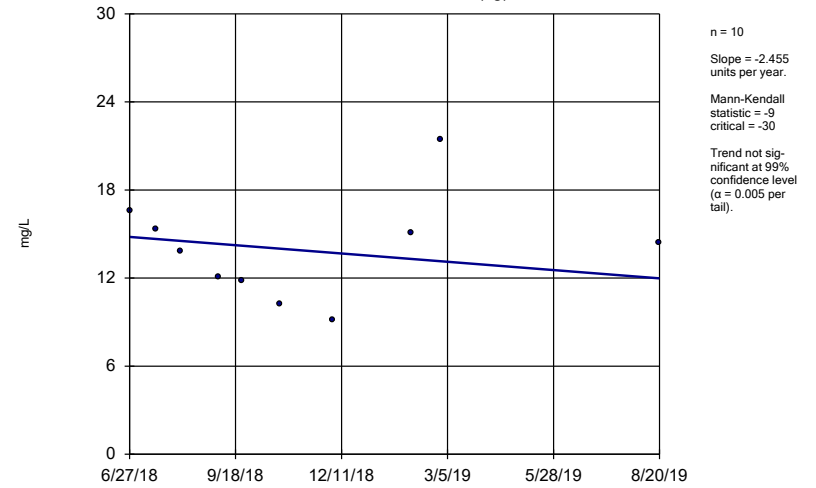
Constituent: Boron Analysis Run 1/17/2020 1:35 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-11



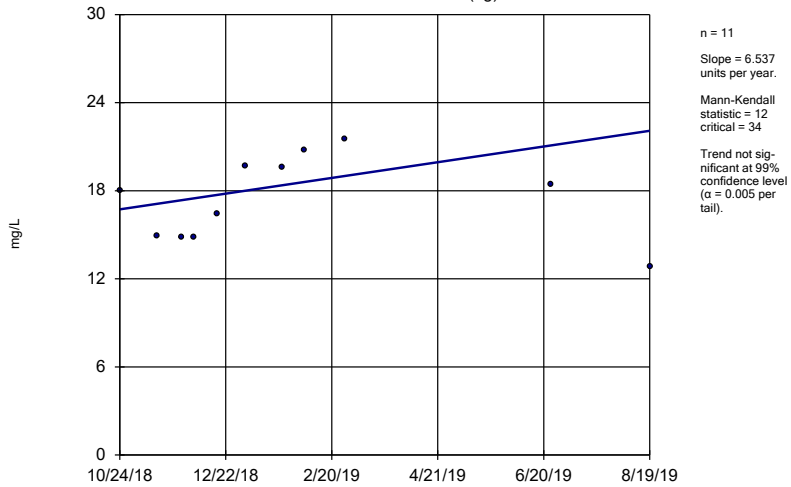
Constituent: Boron Analysis Run 1/17/2020 1:35 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-14 (bg)



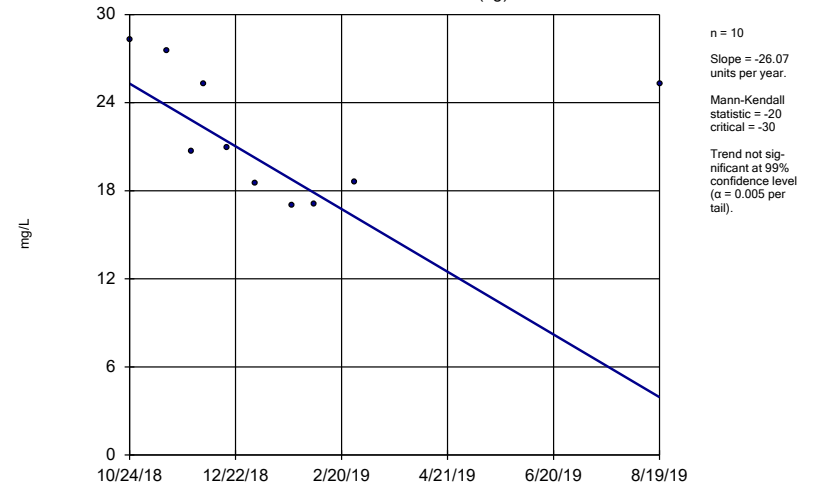
Constituent: Calcium Analysis Run 1/17/2020 1:35 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-16 (bg)



Constituent: Calcium Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

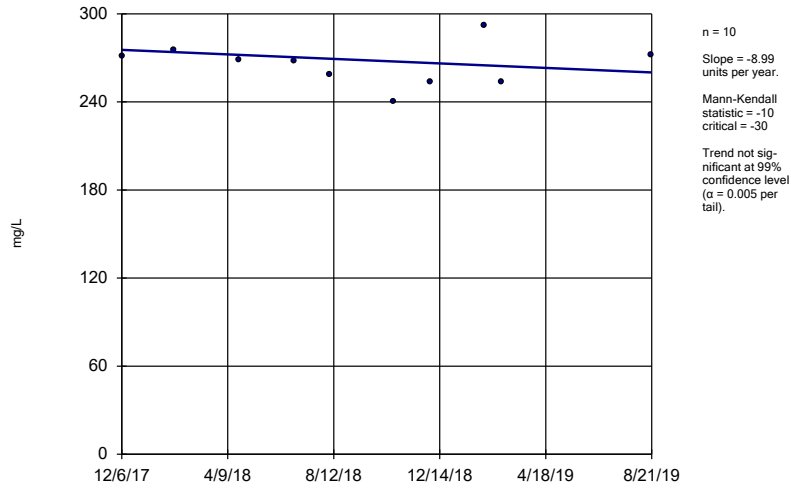
Sen's Slope Estimator GSD-AP-MW-17 (bg)



Constituent: Calcium Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

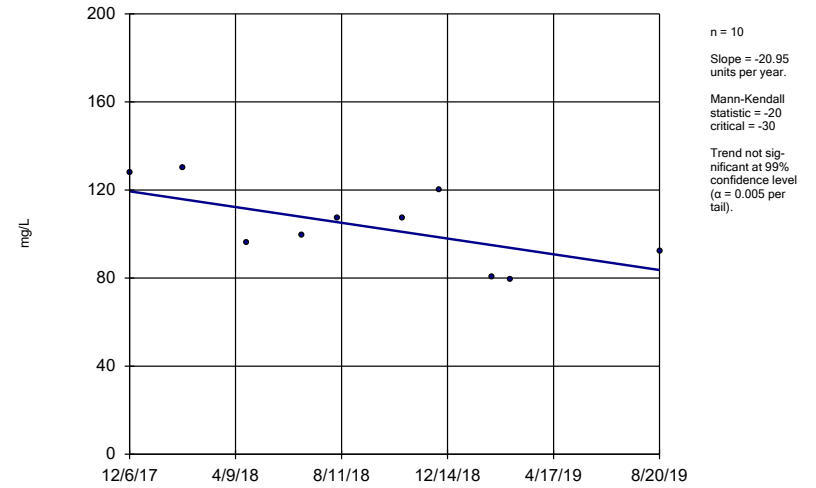
GSD-AP-MW-1



Constituent: Calcium Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

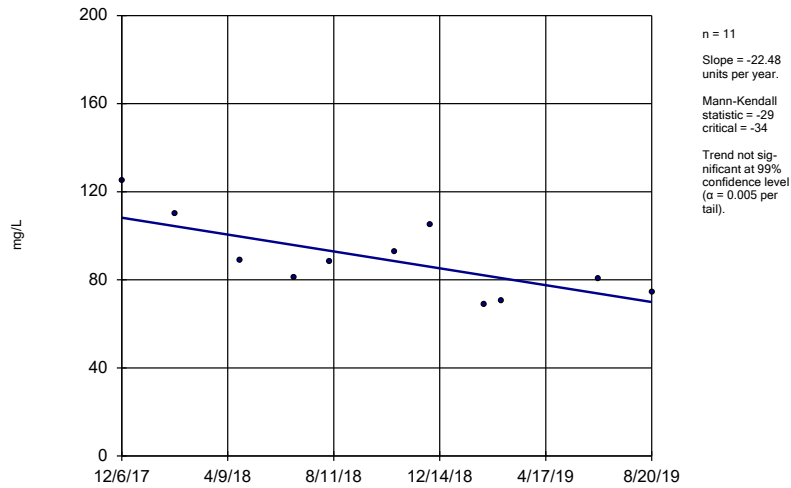
GSD-AP-MW-2



Constituent: Calcium Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

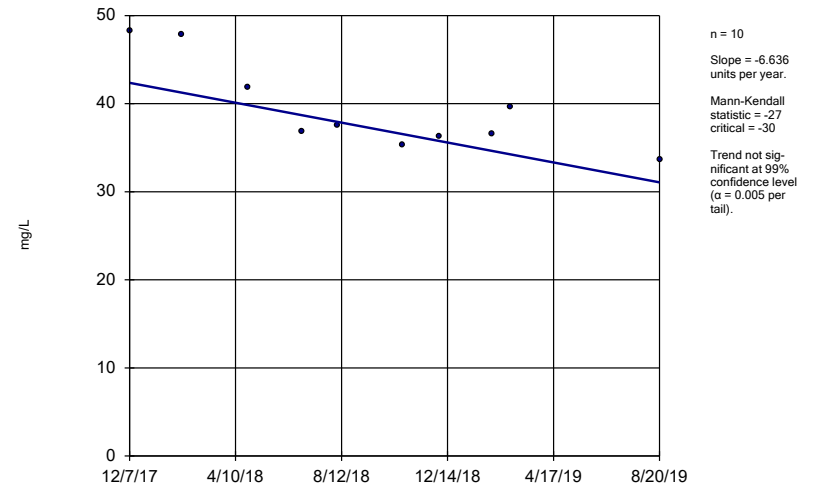
GSD-AP-MW-3



Constituent: Calcium Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

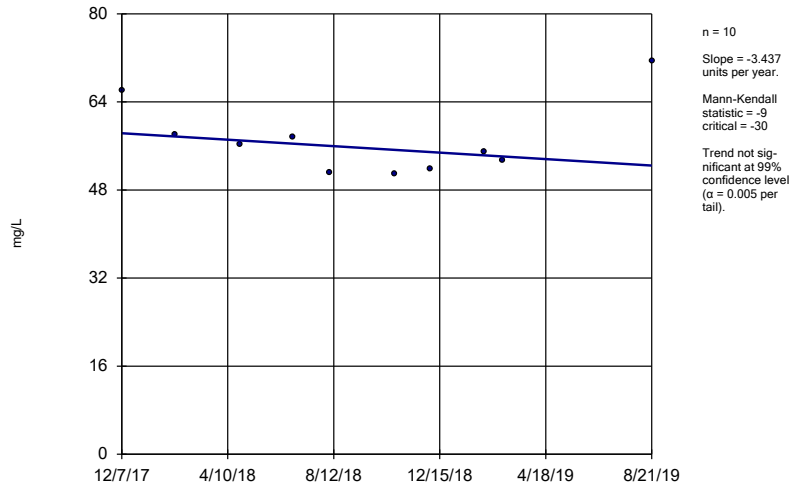
Sen's Slope Estimator

GSD-AP-MW-5



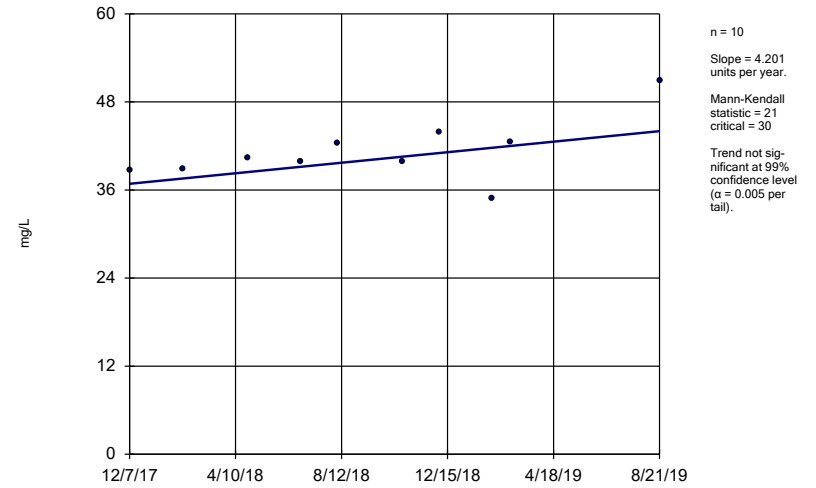
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Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-8



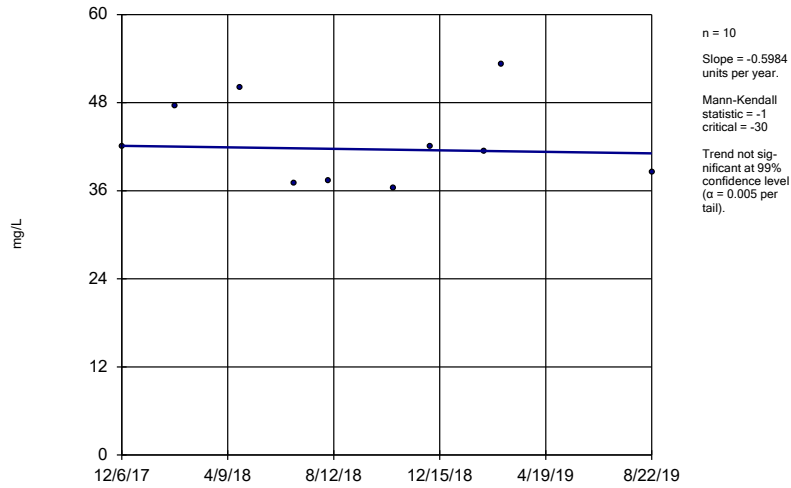
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Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-9



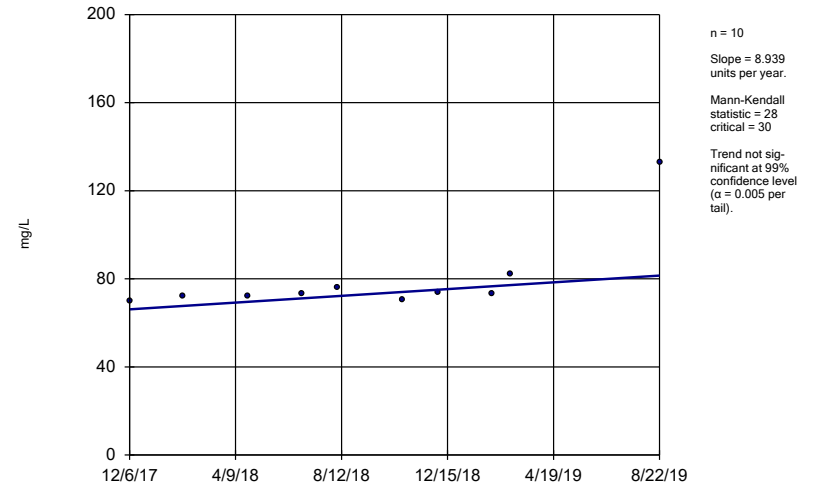
Constituent: Calcium Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-10



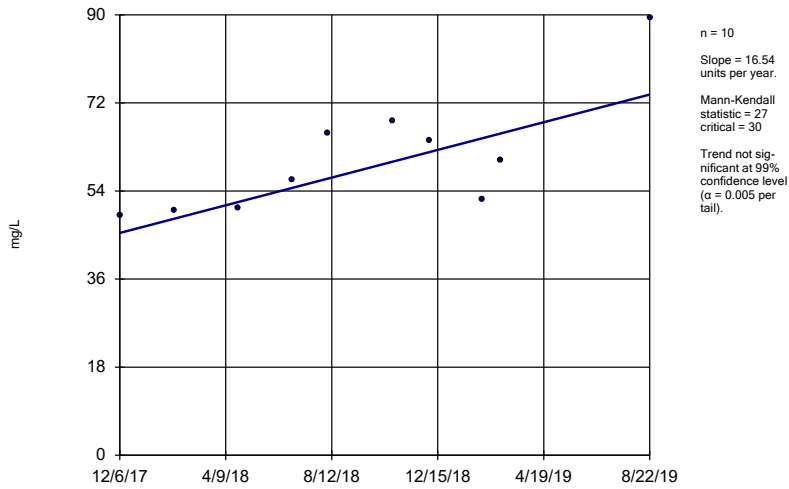
Constituent: Calcium Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-11



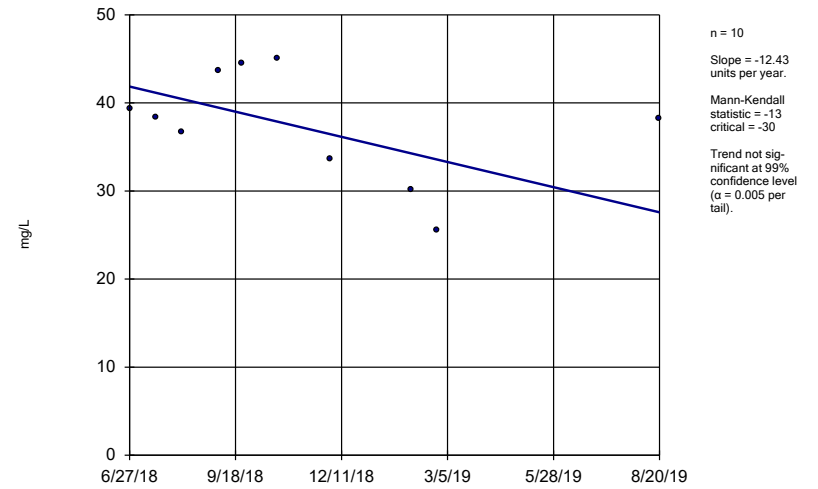
Constituent: Calcium Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-12



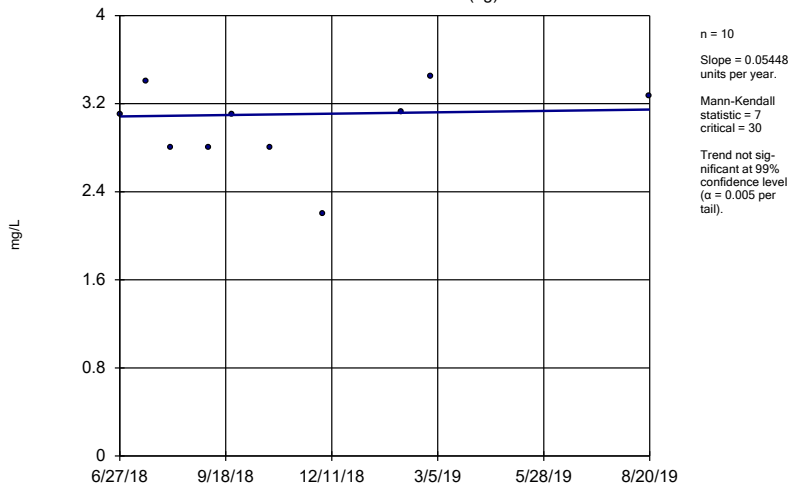
Constituent: Calcium Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-PZ-1



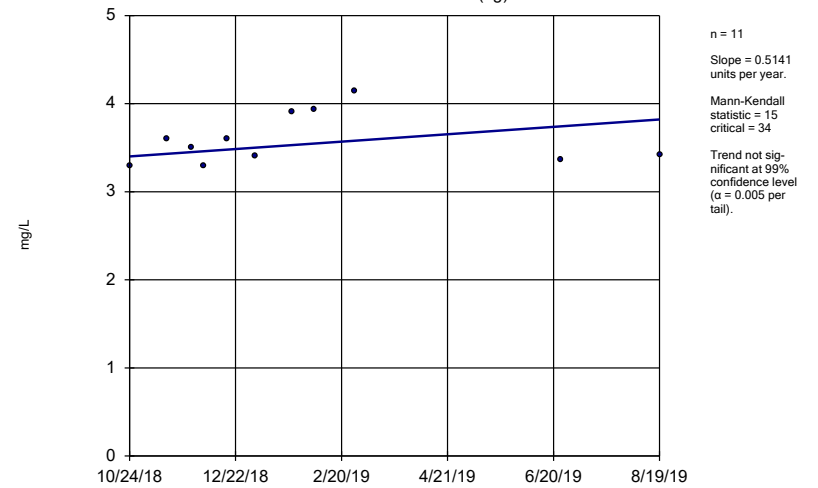
Constituent: Calcium Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-14 (bg)



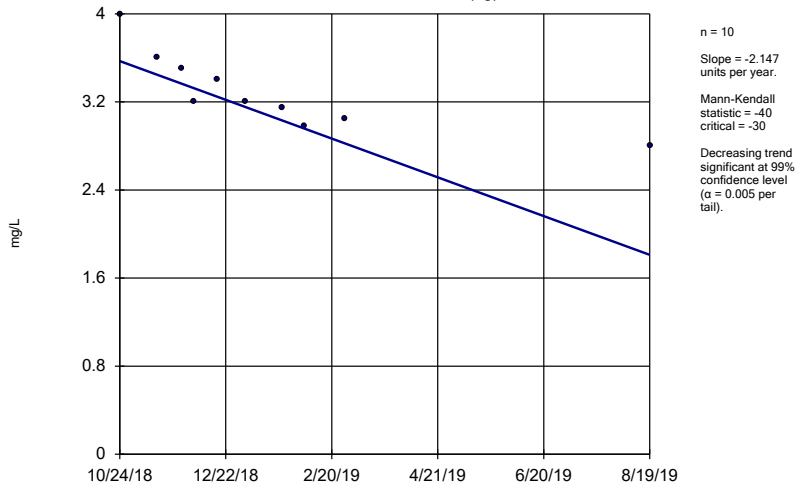
Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-16 (bg)



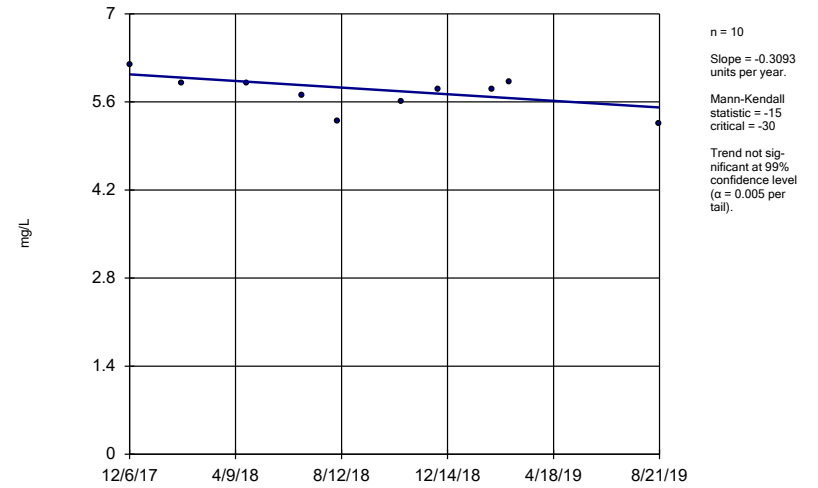
Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-17 (bg)



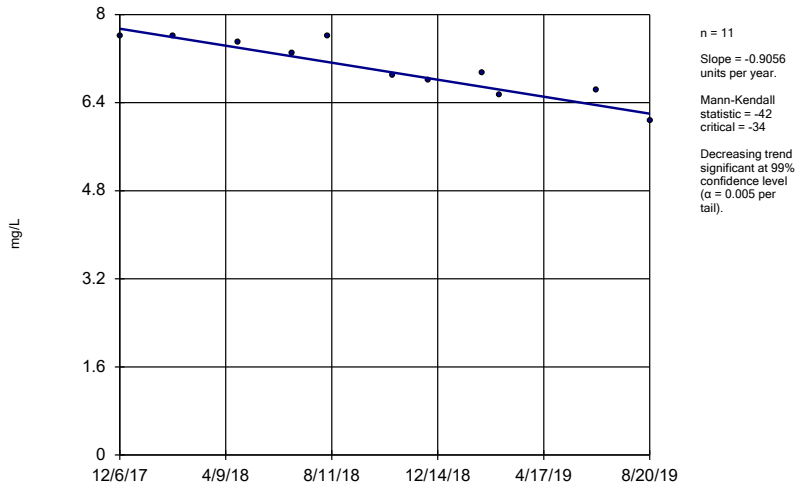
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Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-1



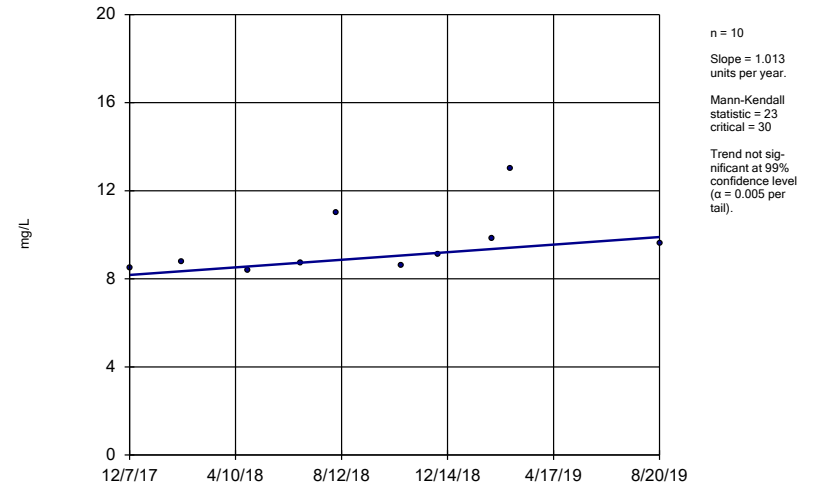
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Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-3



Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

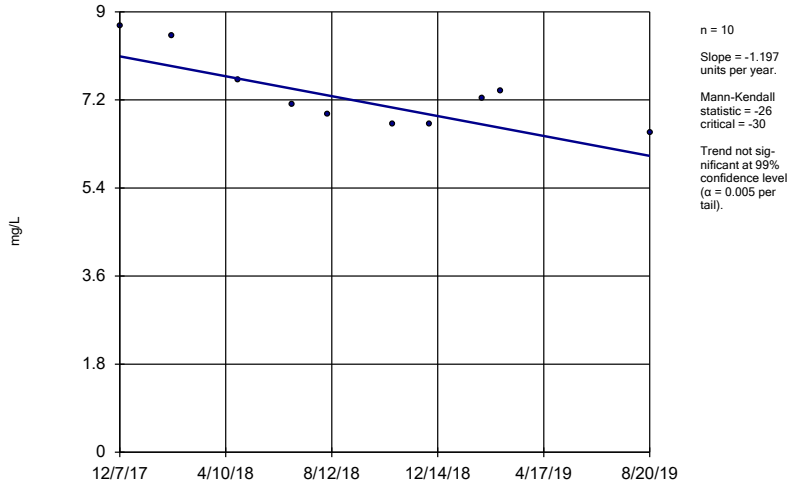
Sen's Slope Estimator GSD-AP-MW-4



Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

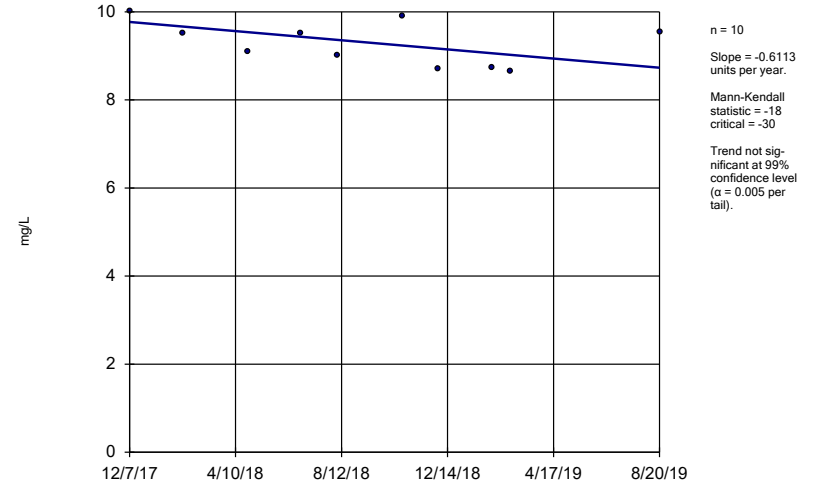
GSD-AP-MW-5



Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

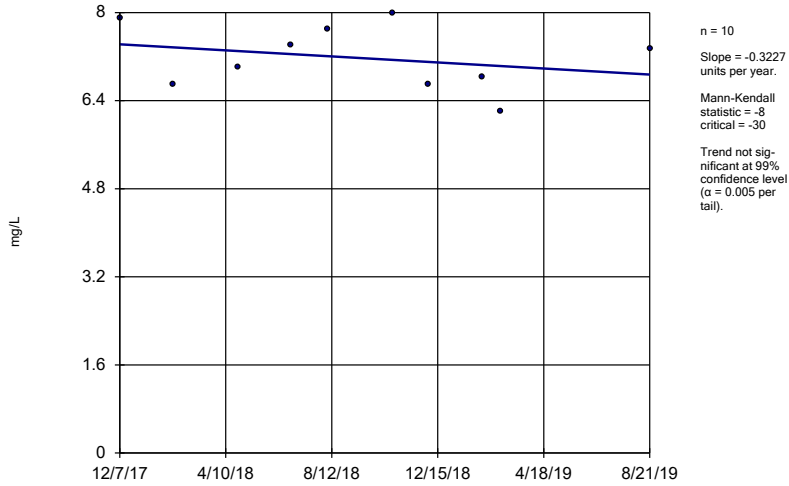
GSD-AP-MW-6



Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

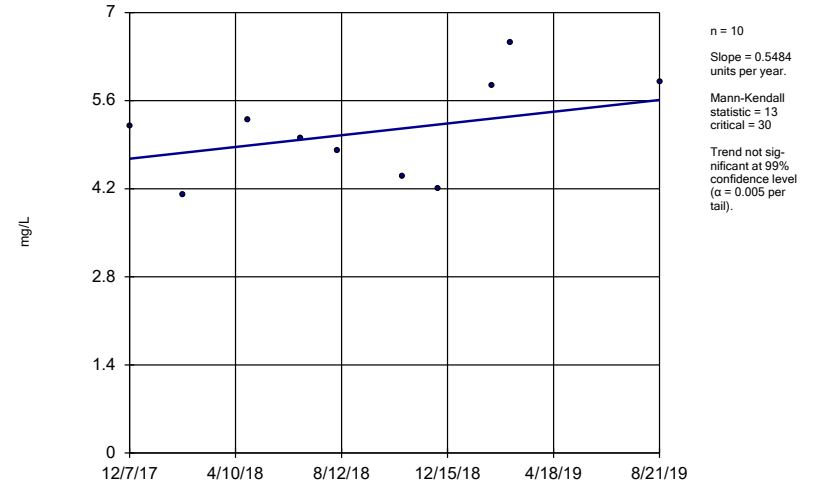
GSD-AP-MW-7



Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

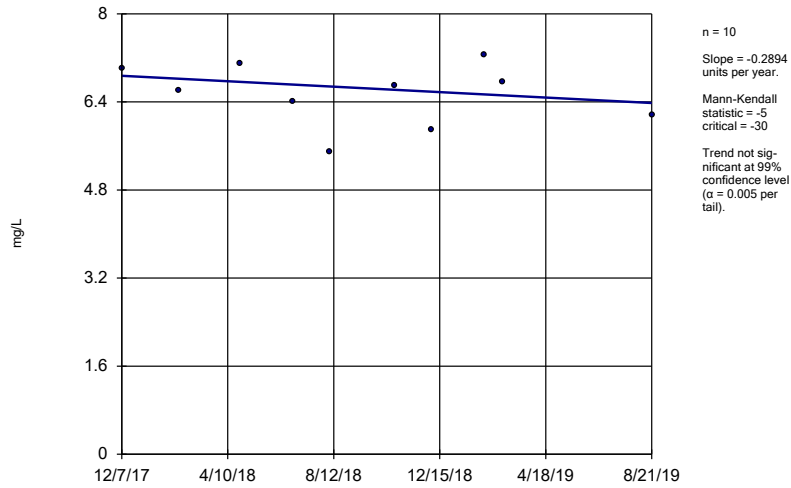
Sen's Slope Estimator

GSD-AP-MW-8



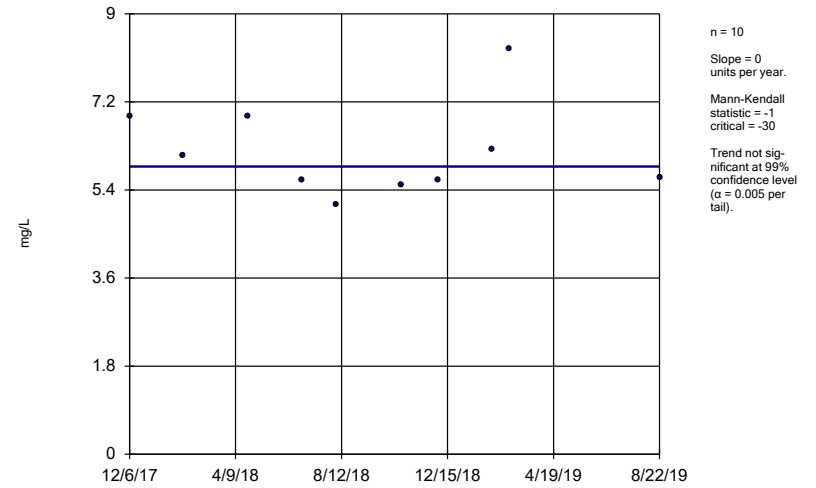
Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-9



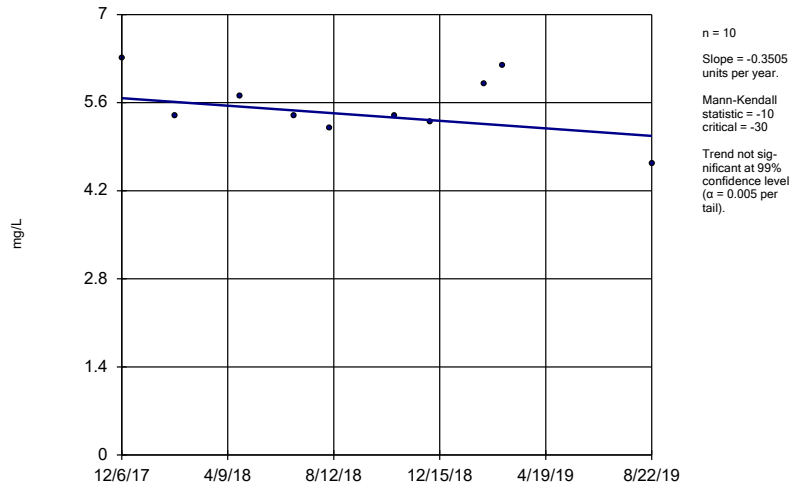
Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-10



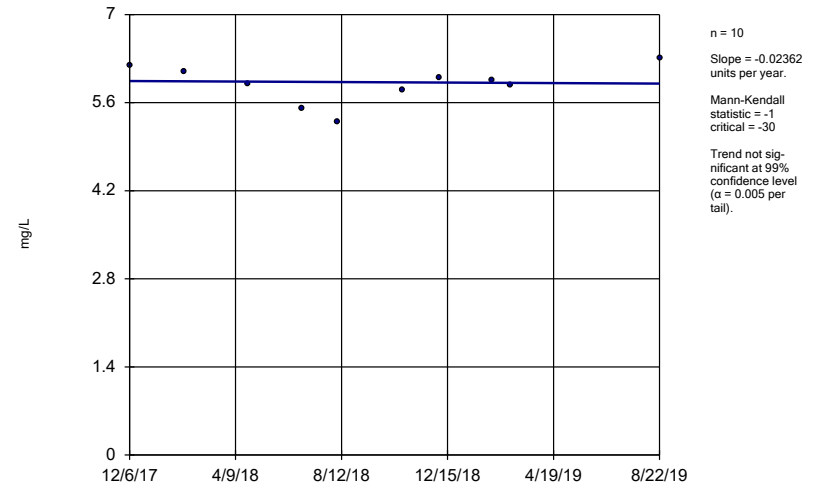
Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-11



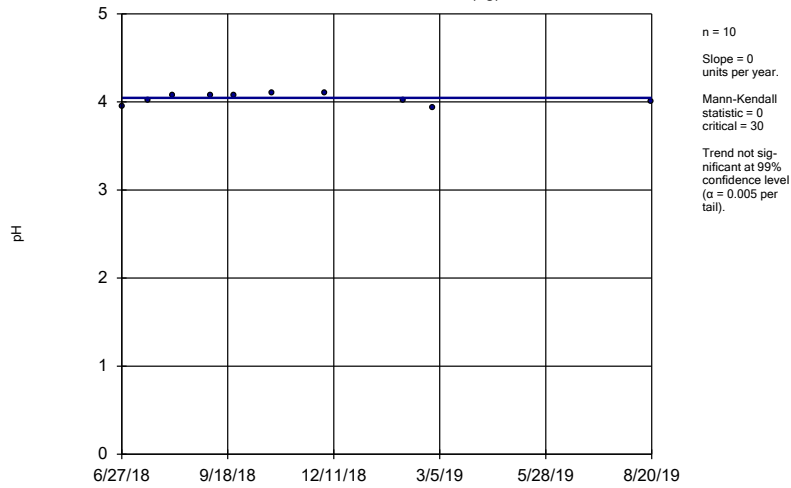
Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-12



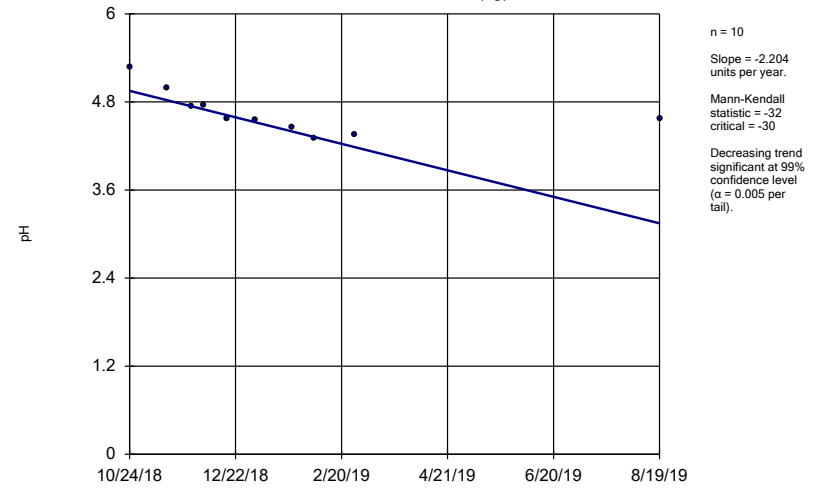
Constituent: Chloride Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-14 (bg)



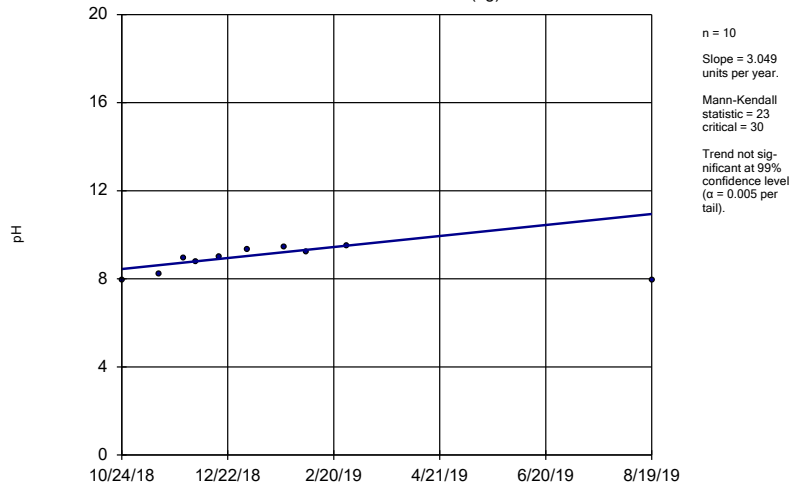
Constituent: pH Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-16 (bg)



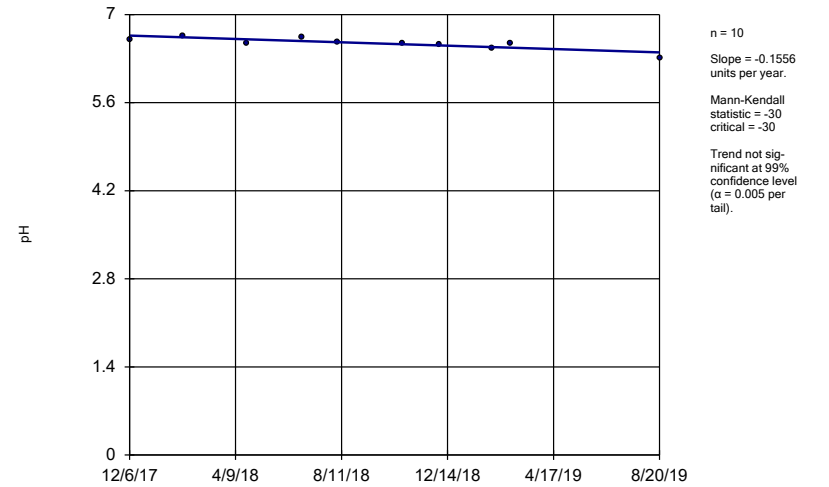
Constituent: pH Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-17 (bg)



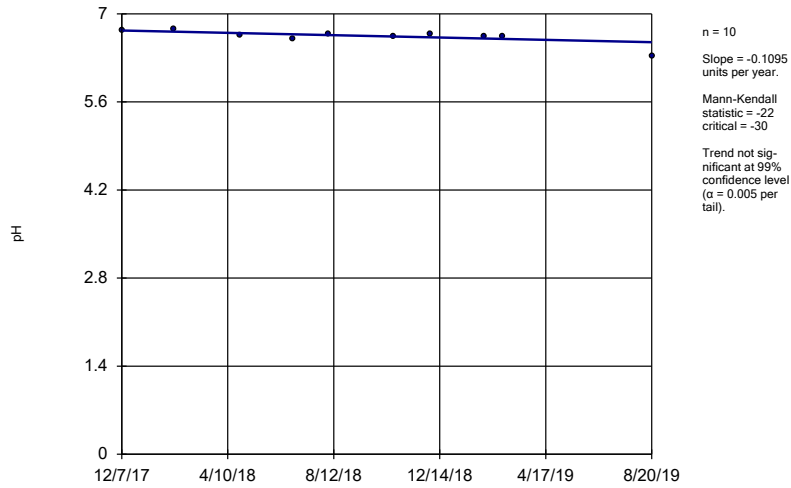
Constituent: pH Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-2



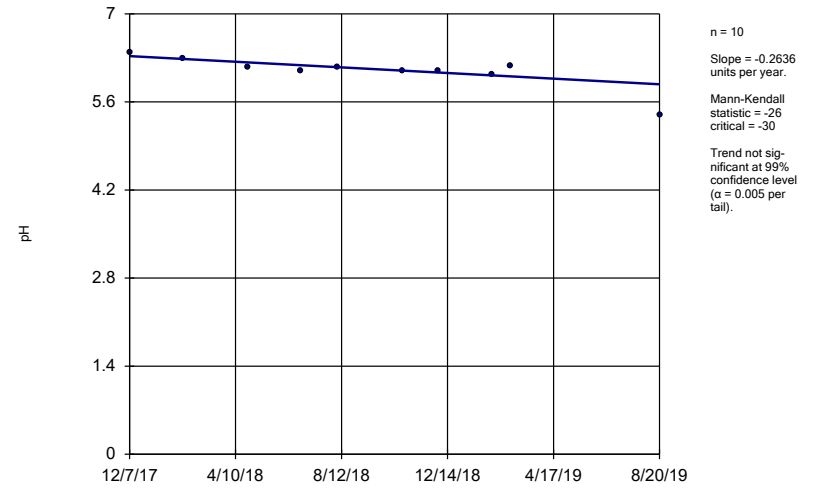
Constituent: pH Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-4



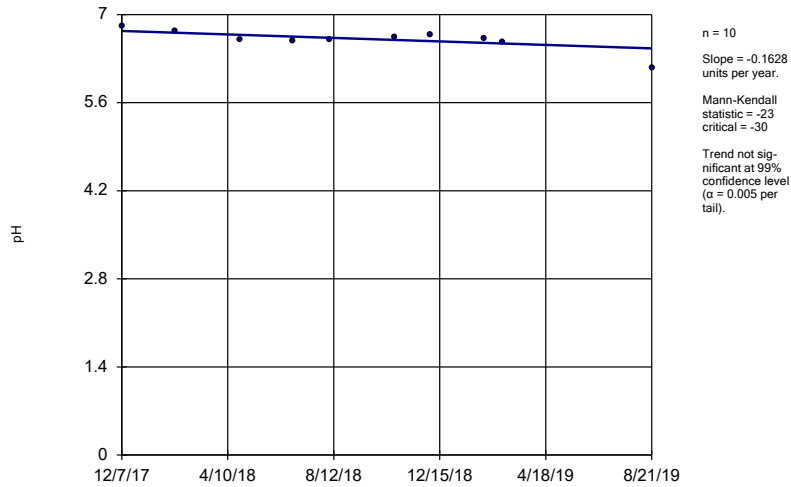
Constituent: pH Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-6



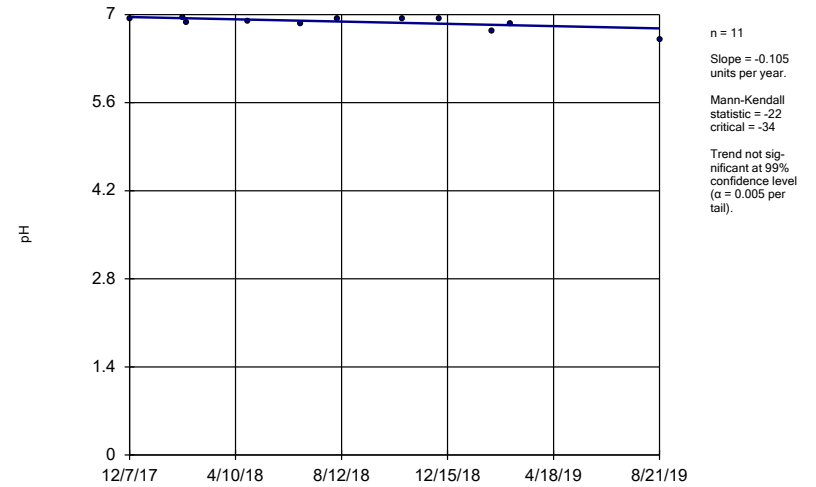
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Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-8



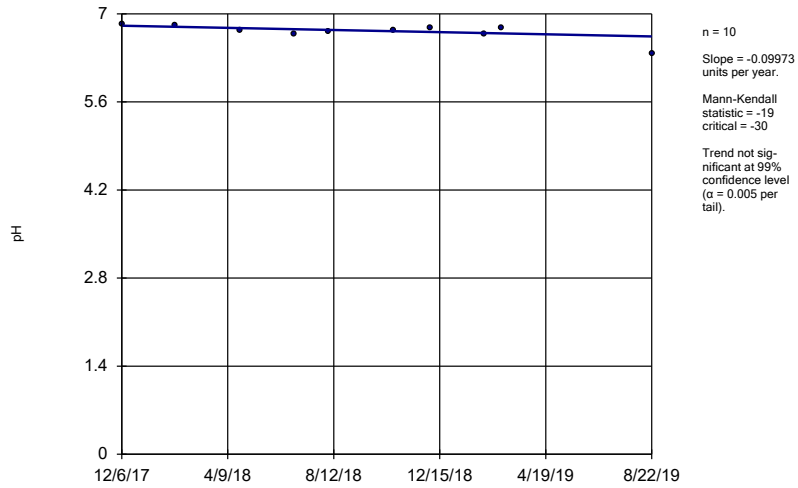
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Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-9



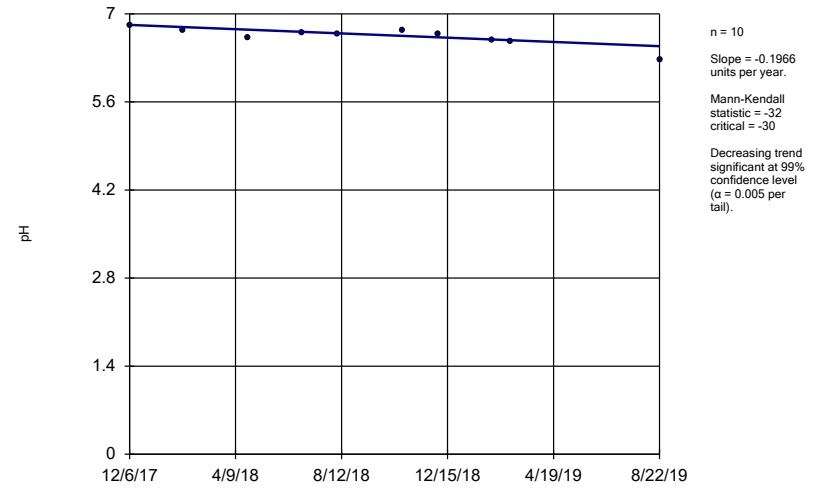
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Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-10



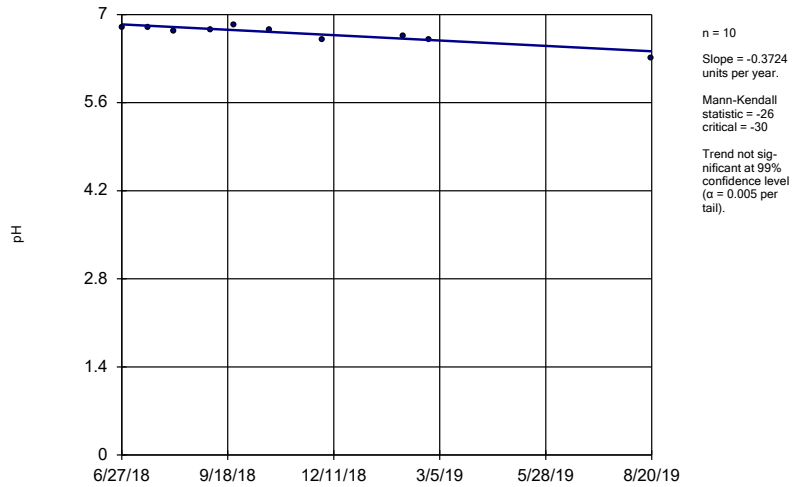
Constituent: pH Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-11



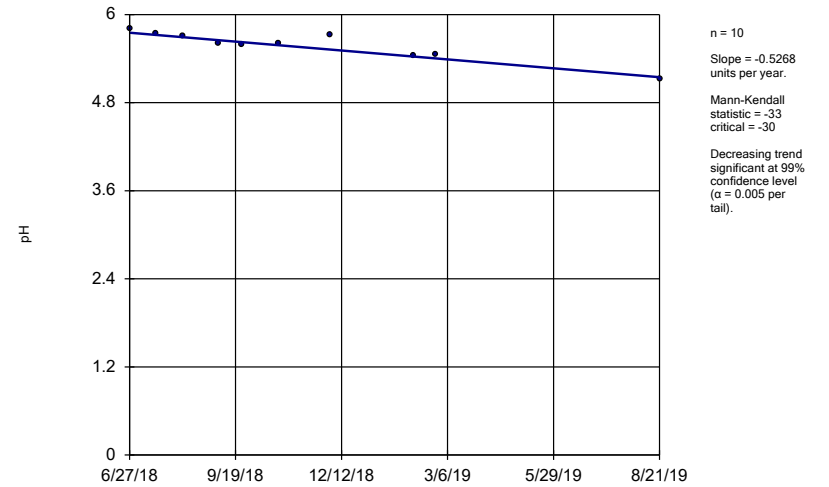
Constituent: pH Analysis Run 1/17/2020 1:36 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-PZ-1



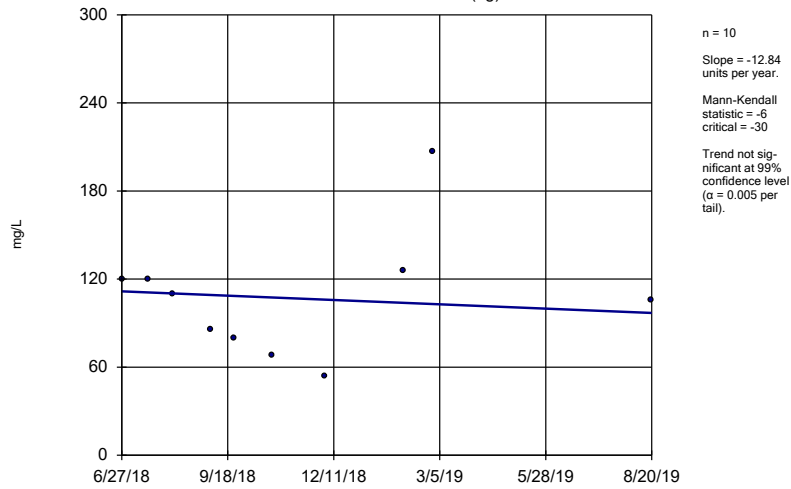
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Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-PZ-5



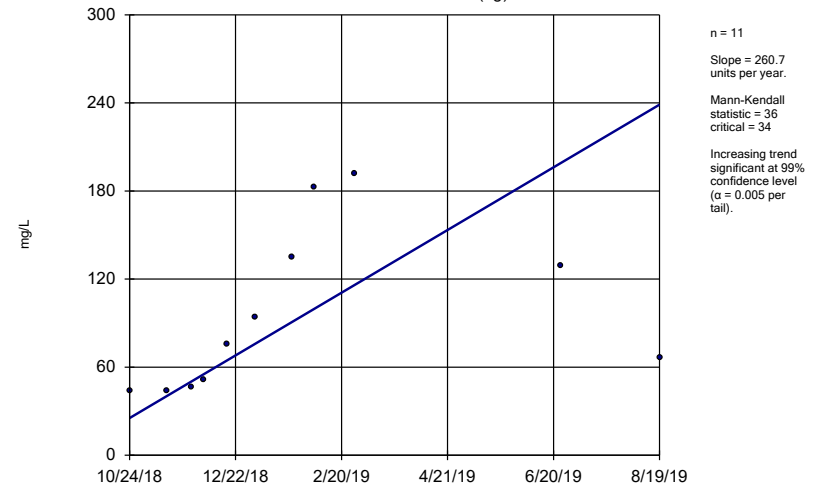
Constituent: pH Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-14 (bg)



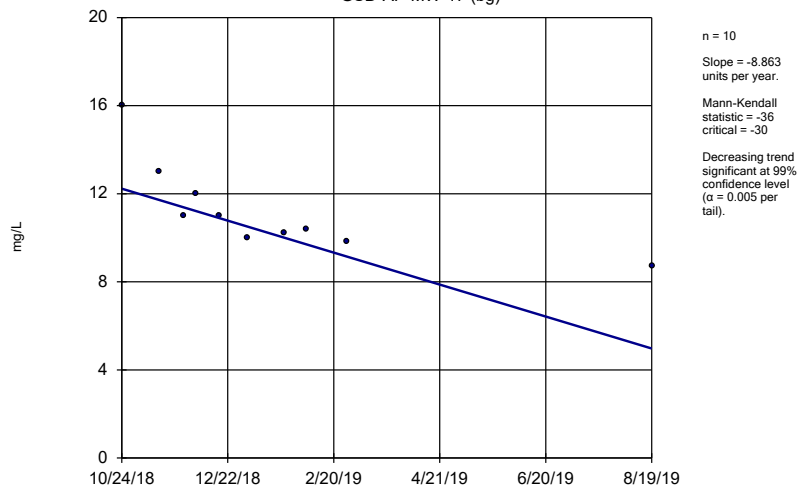
Constituent: Sulfate Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-16 (bg)



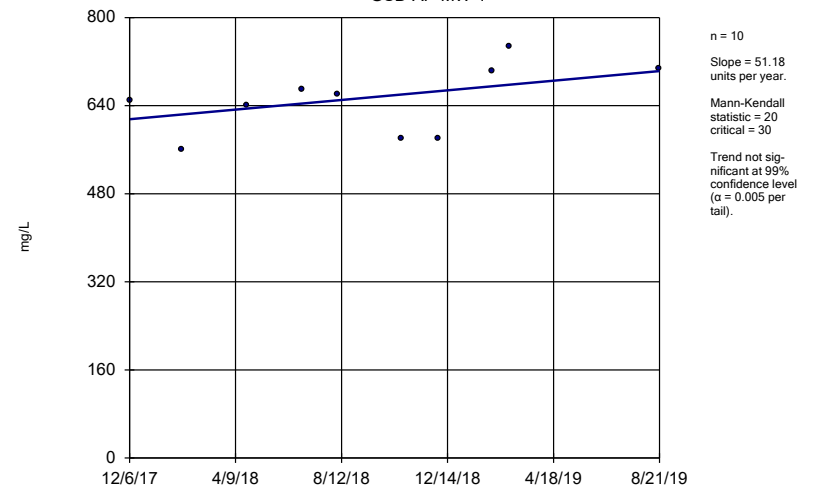
Constituent: Sulfate Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-17 (bg)



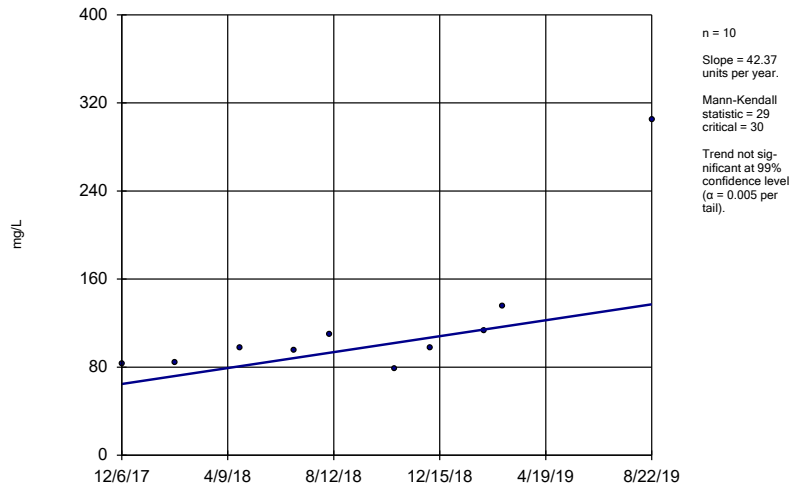
Constituent: Sulfate Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-1



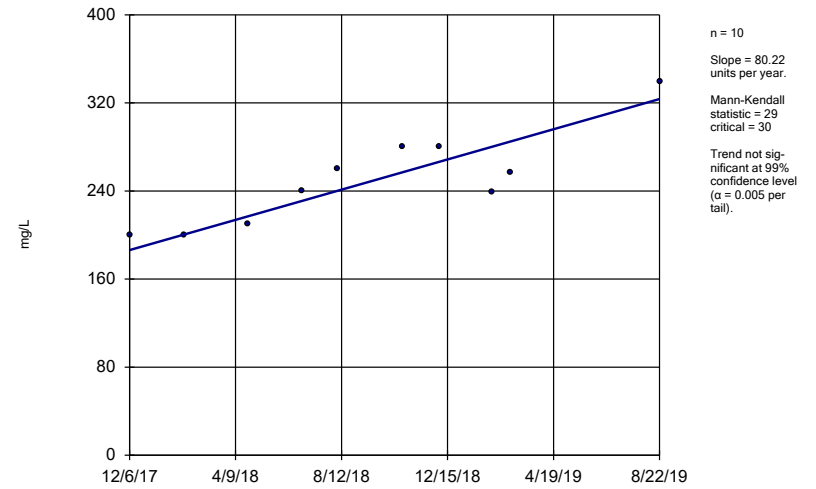
Constituent: Sulfate Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator
GSD-AP-MW-11



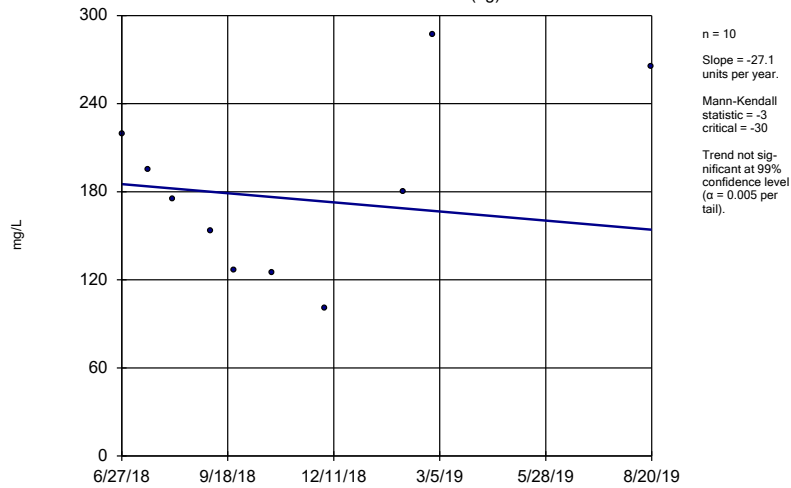
Constituent: Sulfate Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator
GSD-AP-MW-12



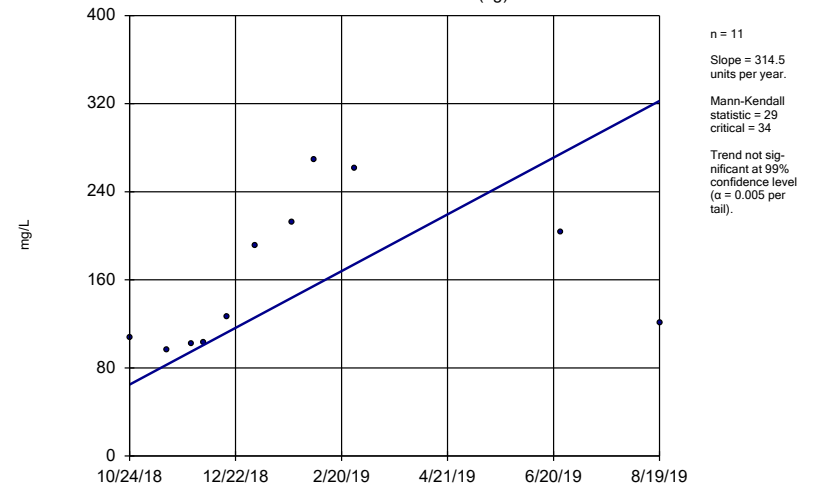
Constituent: Sulfate Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator
GSD-AP-MW-14 (bg)



Constituent: Total Dissolved Solids Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

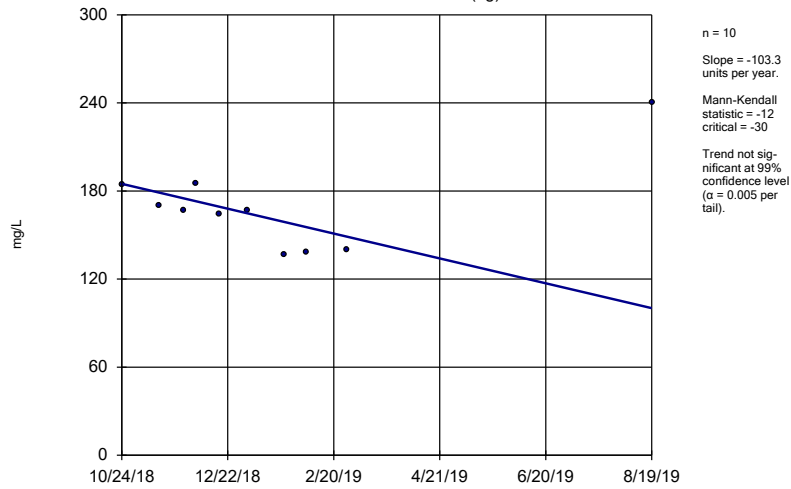
Sen's Slope Estimator
GSD-AP-MW-16 (bg)



Constituent: Total Dissolved Solids Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

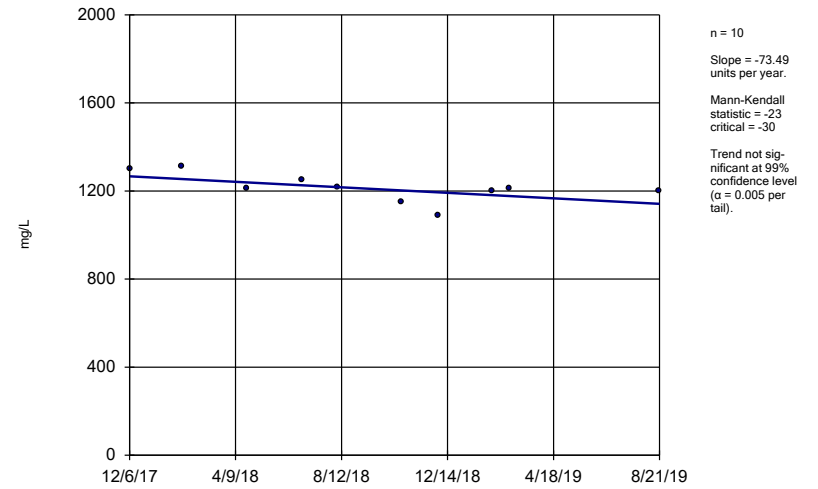
GSD-AP-MW-17 (bg)



Constituent: Total Dissolved Solids Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

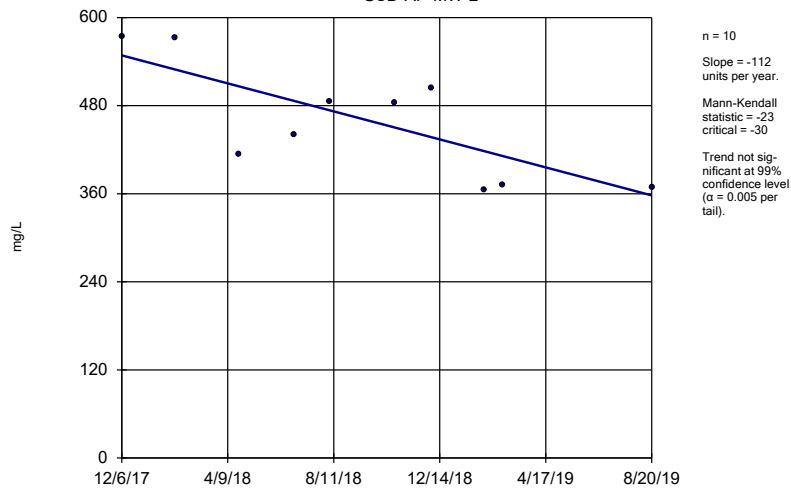
GSD-AP-MW-1



Constituent: Total Dissolved Solids Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator

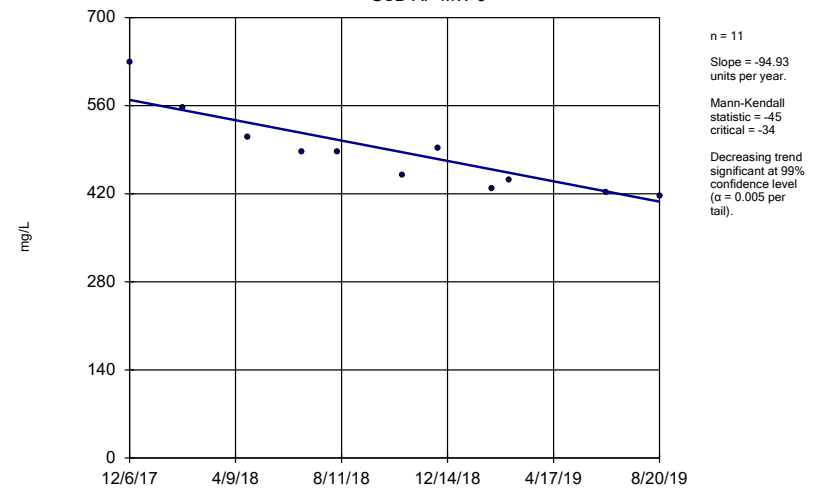
GSD-AP-MW-2



Constituent: Total Dissolved Solids Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

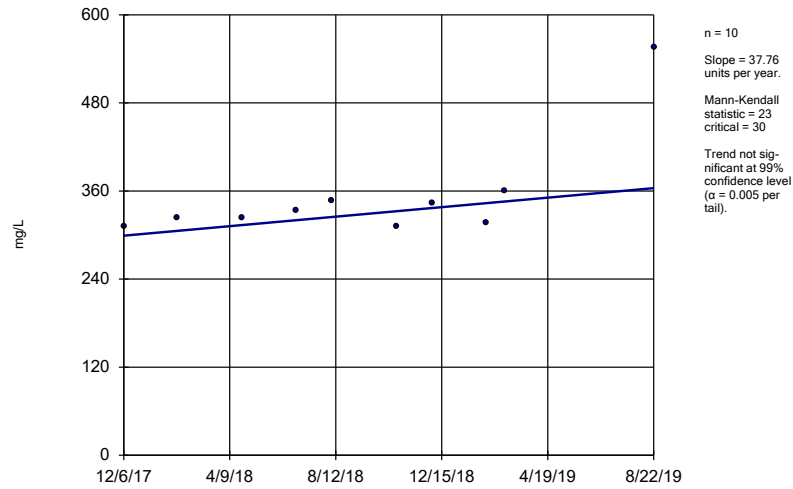
Sen's Slope Estimator

GSD-AP-MW-3



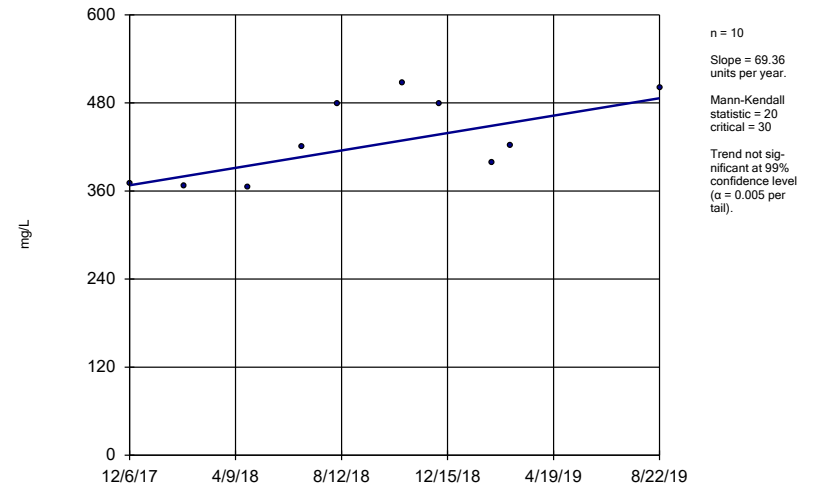
Constituent: Total Dissolved Solids Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-11



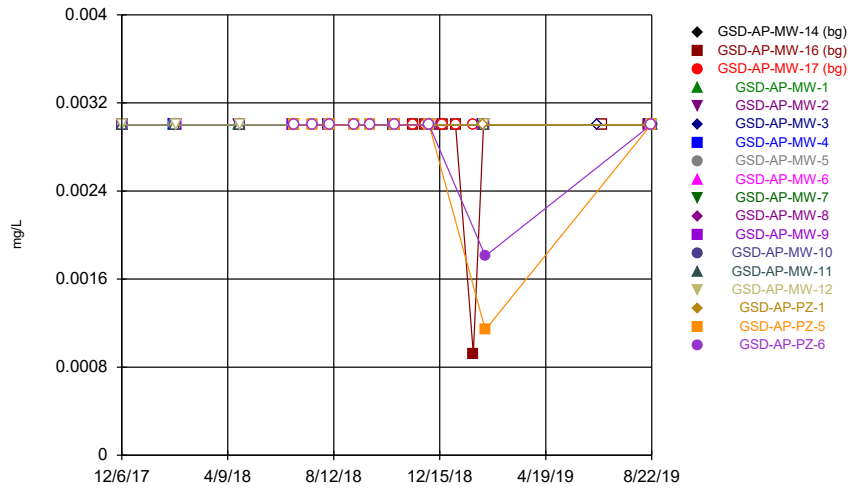
Constituent: Total Dissolved Solids Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Sen's Slope Estimator GSD-AP-MW-12



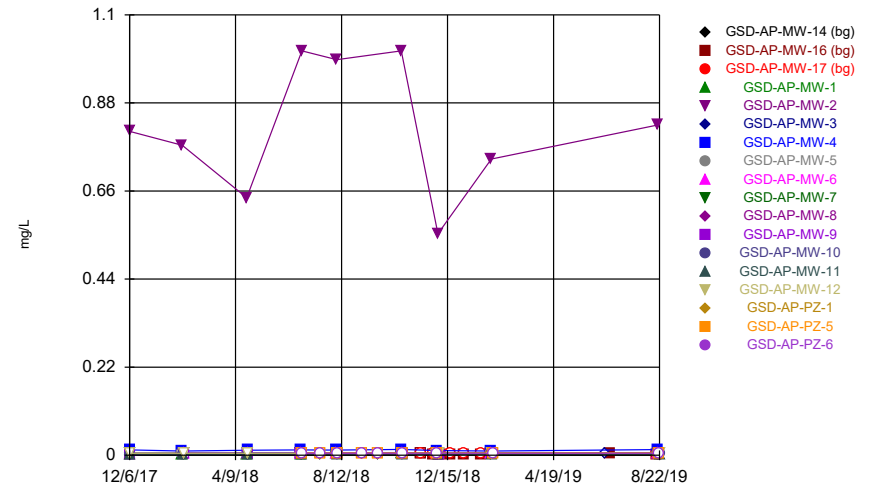
Constituent: Total Dissolved Solids Analysis Run 1/17/2020 1:37 PM View: Trend Test
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



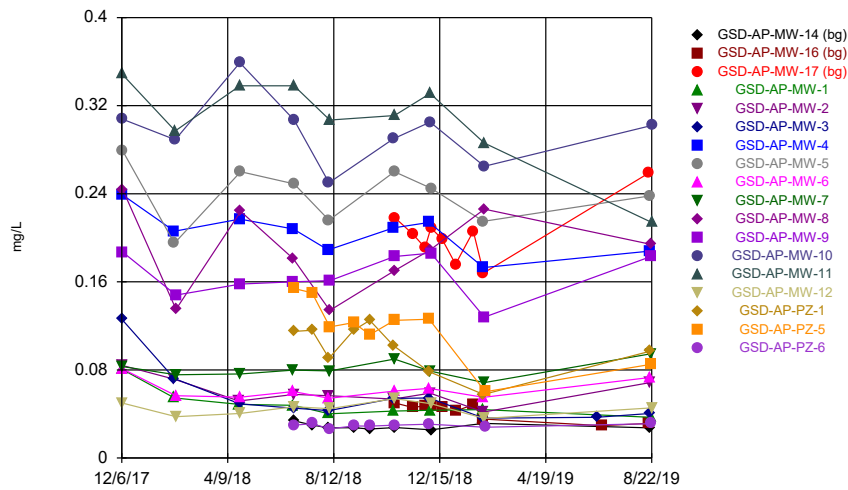
Constituent: Antimony Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



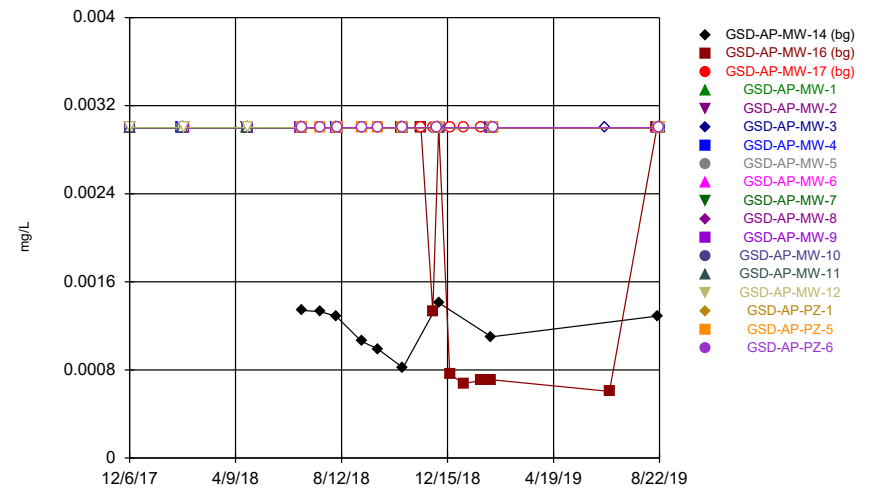
Constituent: Arsenic Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



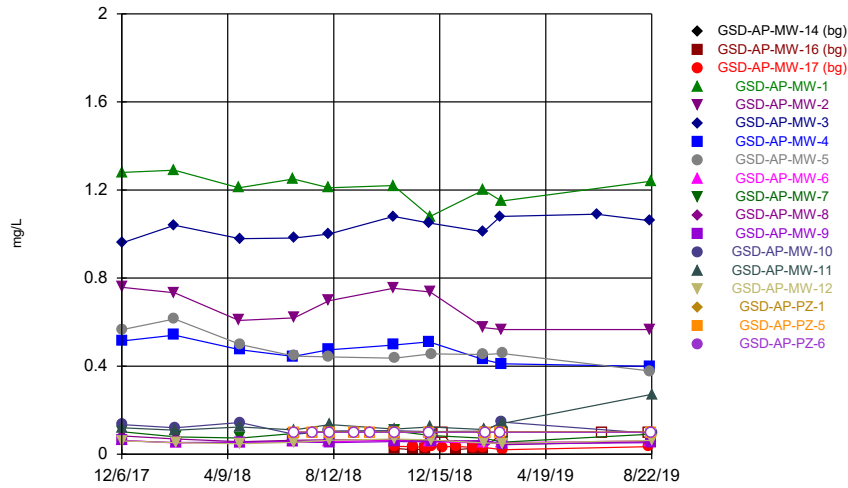
Constituent: Barium Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



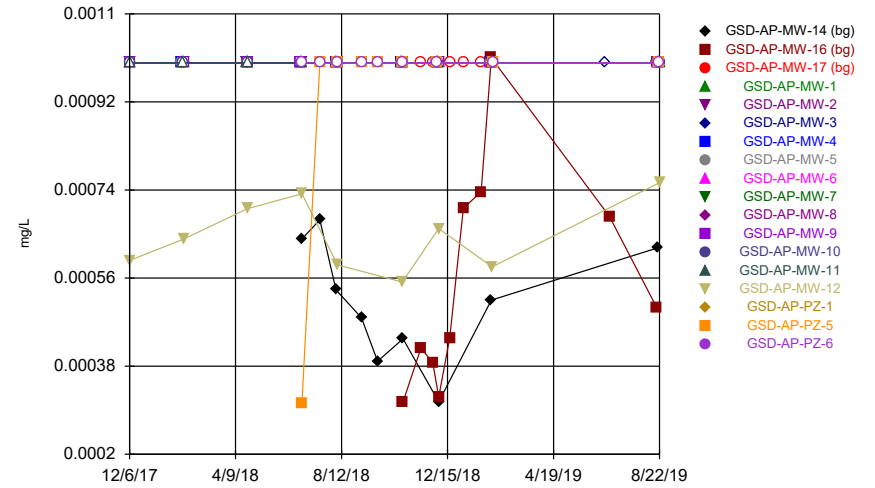
Constituent: Beryllium Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



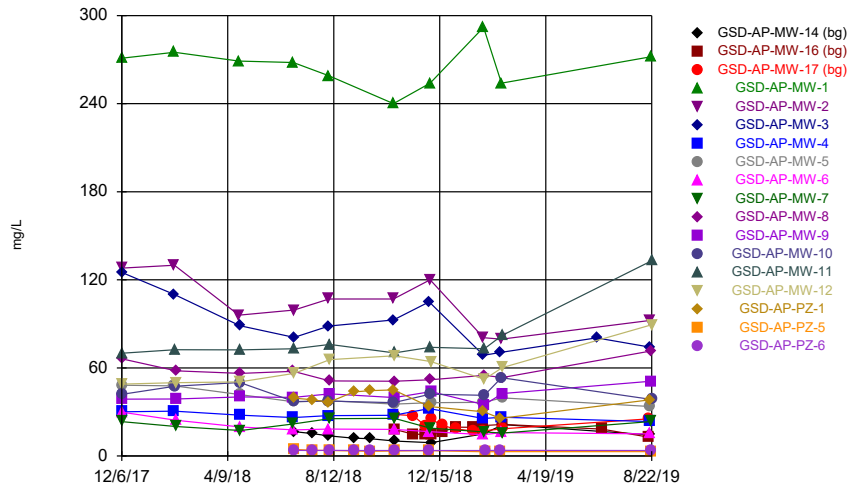
Constituent: Boron Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



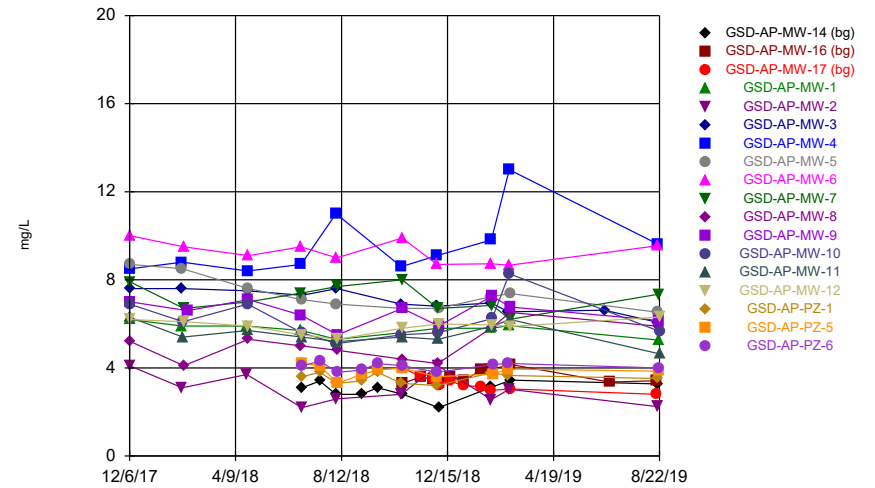
Constituent: Cadmium Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



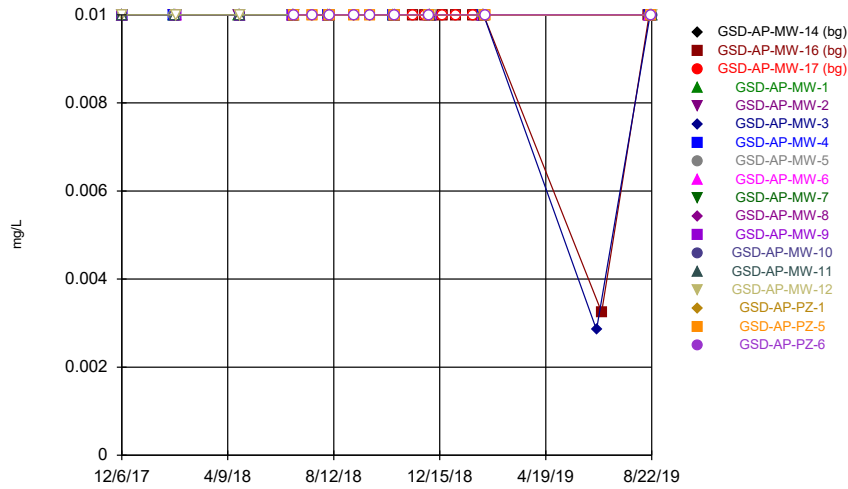
Constituent: Calcium Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series

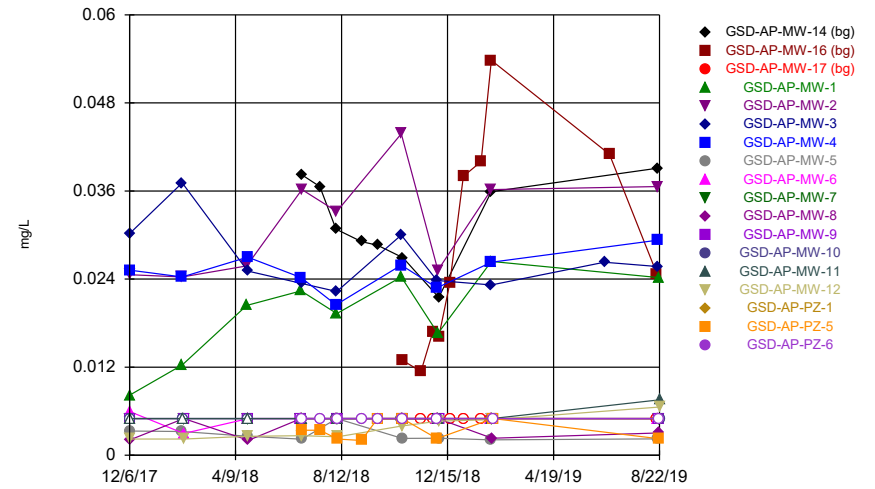


Constituent: Chloride Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

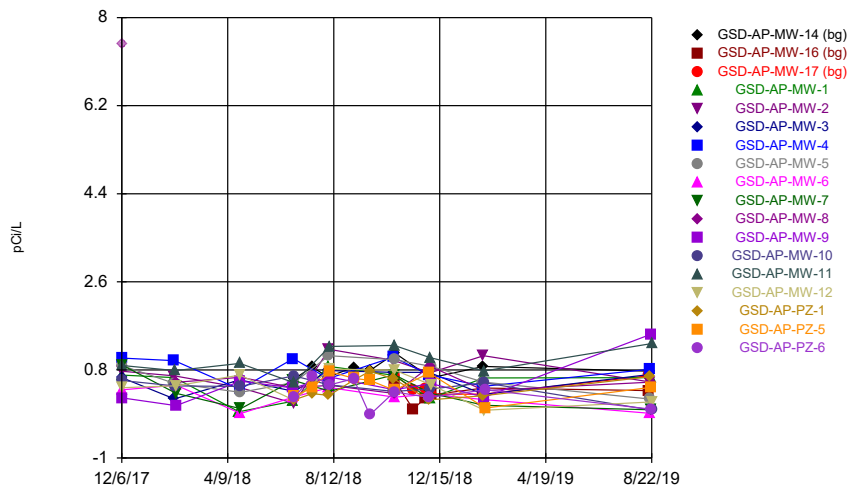
Time Series



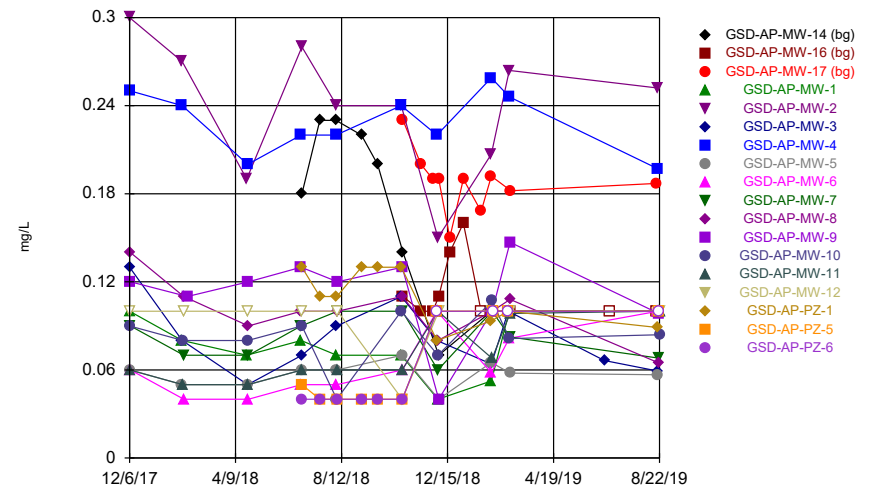
Time Series



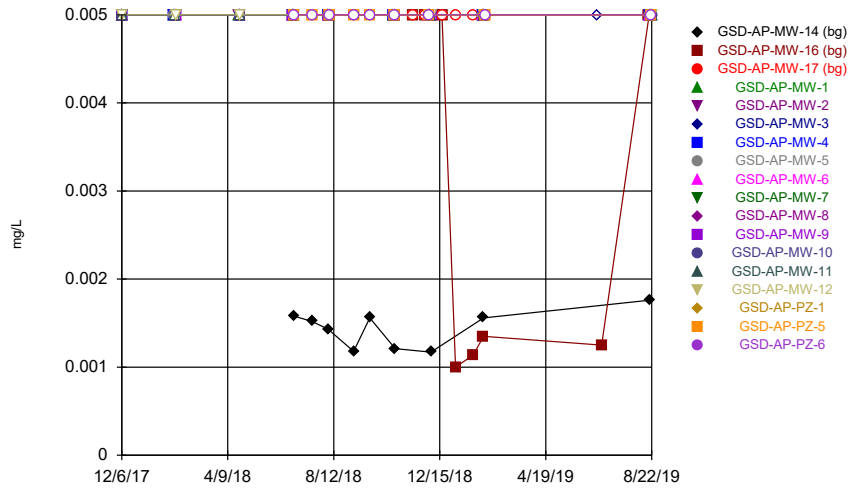
Time Series



Time Series

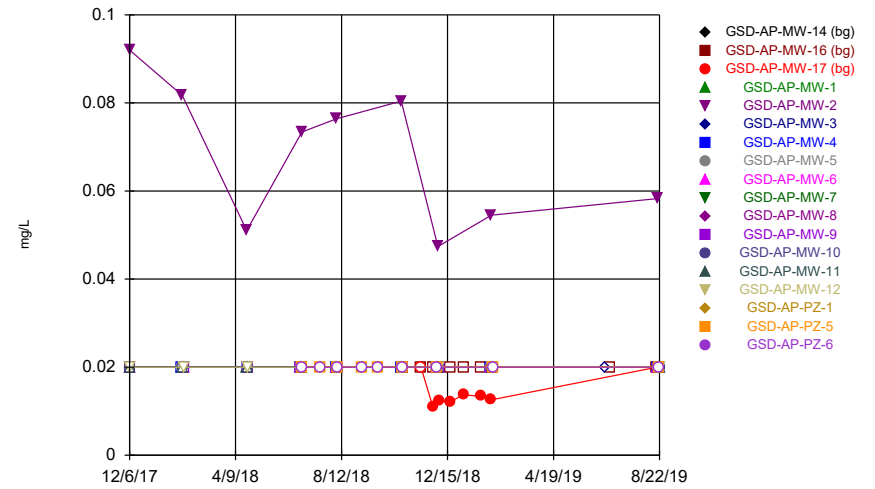


Time Series



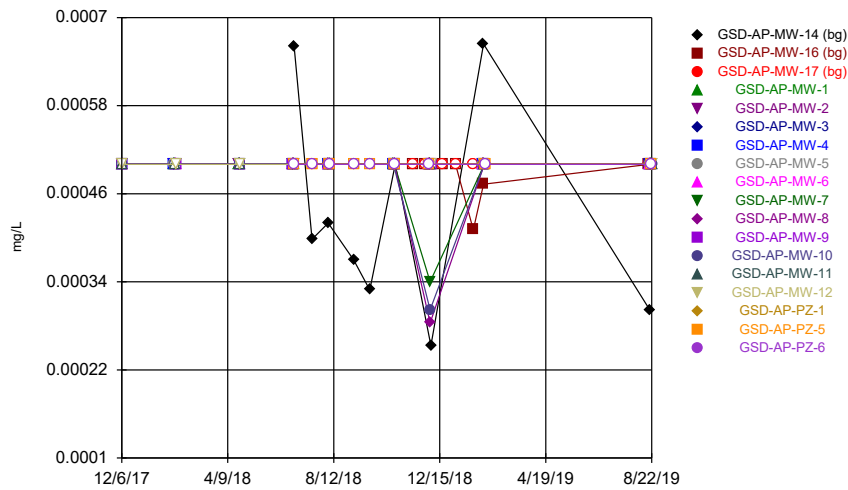
Constituent: Lead Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



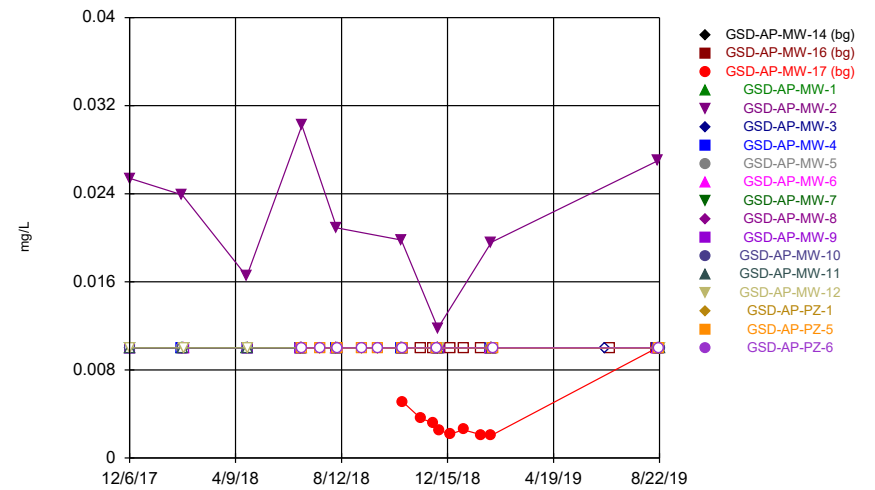
Constituent: Lithium Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



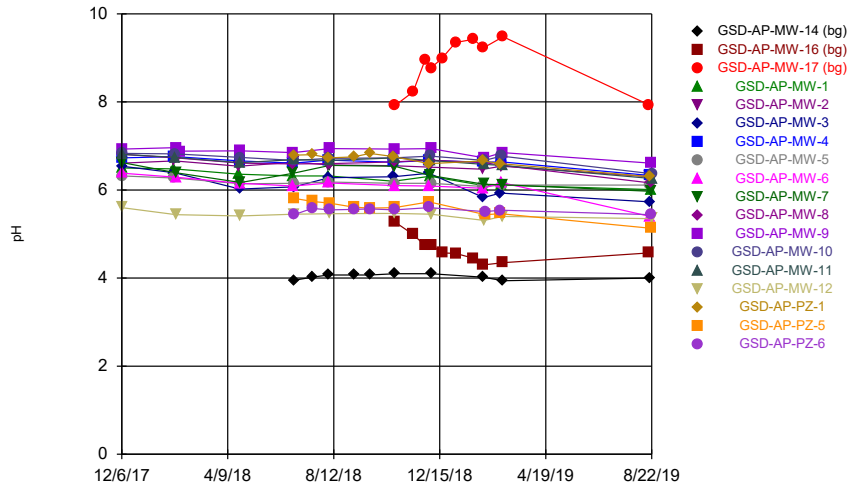
Constituent: Mercury Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



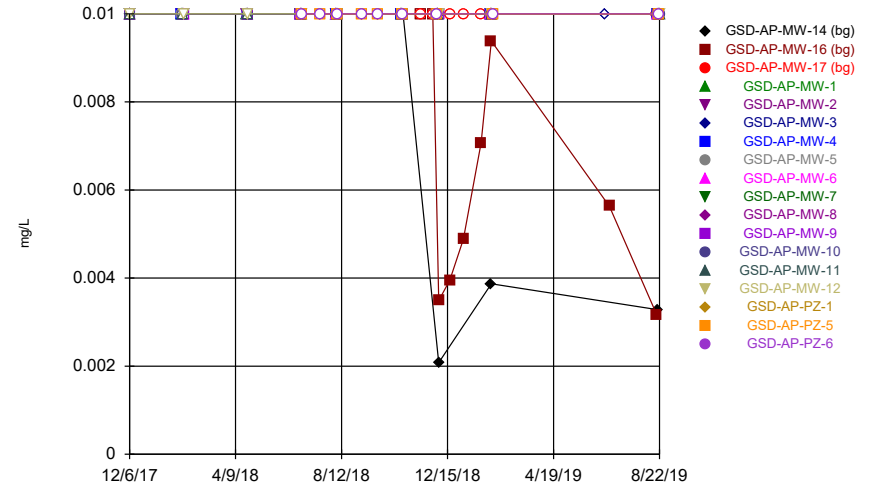
Constituent: Molybdenum Analysis Run 1/17/2020 1:39 PM View: Time Series
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



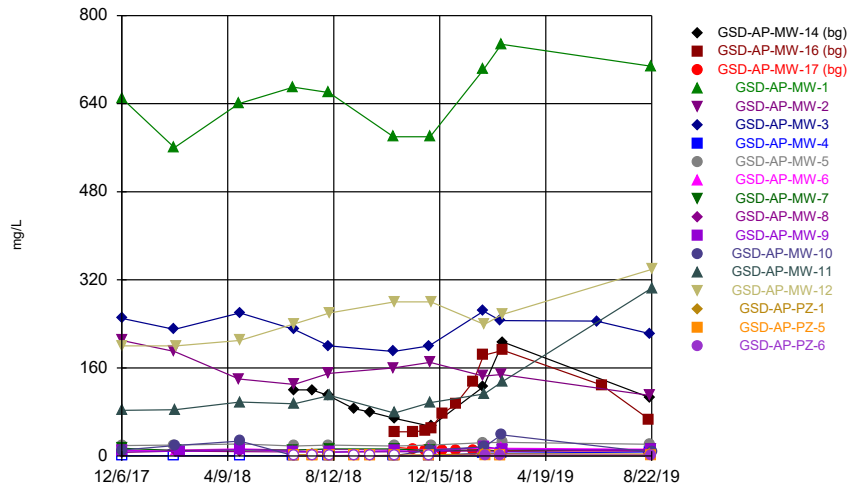
Constituent: pH Analysis Run 1/17/2020 1:39 PM View: Time Series
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



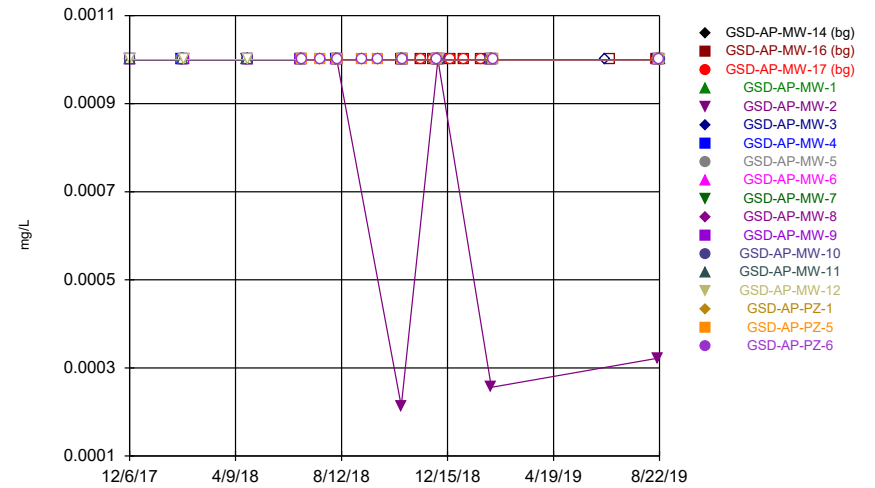
Constituent: Selenium Analysis Run 1/17/2020 1:40 PM View: Time Series
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



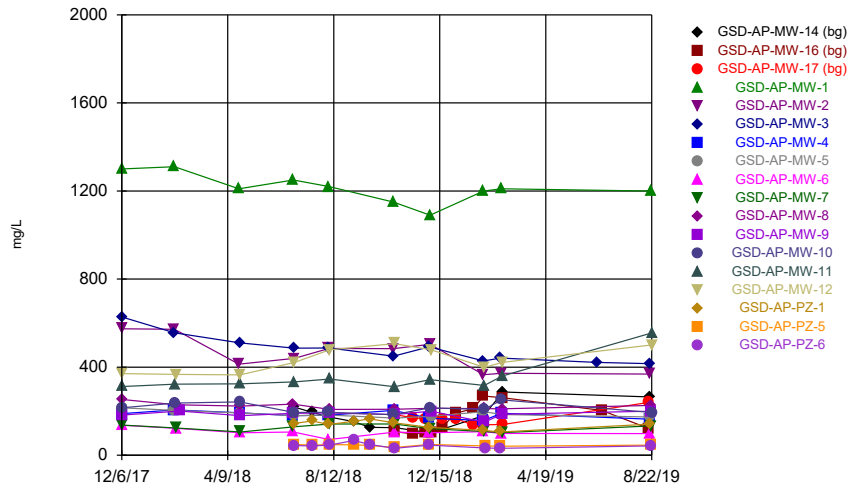
Constituent: Sulfate Analysis Run 1/17/2020 1:40 PM View: Time Series
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



Constituent: Thallium Analysis Run 1/17/2020 1:40 PM View: Time Series
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Time Series



Constituent: Total Dissolved Solids Analysis Run 1/17/2020 1:40 PM View: Time Series

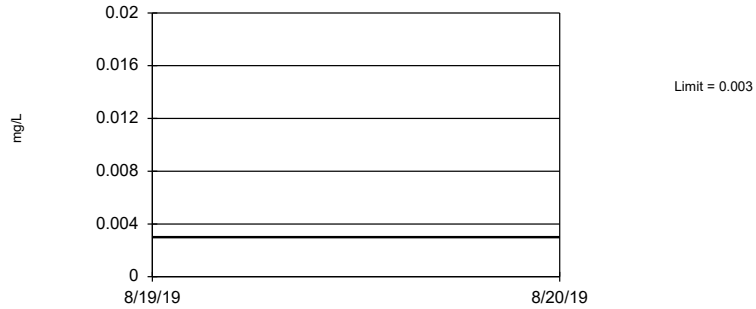
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Upper Tolerance Limits - Appendix IV

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:41 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	28	n/a	n/a	96.43	n/a	n/a	0.2378	NP Inter(NDs)
Arsenic (mg/L)	0.005	n/a	28	n/a	n/a	53.57	n/a	n/a	0.2378	NP Inter(normal...
Barium (mg/L)	0.259	n/a	28	n/a	n/a	0	n/a	n/a	0.2378	NP Inter(normal...
Beryllium (mg/L)	0.003	n/a	28	n/a	n/a	46.43	n/a	n/a	0.2378	NP Inter(normal...
Cadmium (mg/L)	0.00101	n/a	28	n/a	n/a	32.14	n/a	n/a	0.2378	NP Inter(normal...
Chromium (mg/L)	0.01	n/a	28	n/a	n/a	96.43	n/a	n/a	0.2378	NP Inter(NDs)
Cobalt (mg/L)	0.0538	n/a	28	n/a	n/a	32.14	n/a	n/a	0.2378	NP Inter(normal...
Combined Radium 226 + 228 (pCi/L)	1.213	n/a	21	0.5662	0.2728	0	None	No	0.05	Inter
Fluoride (mg/L)	0.23	n/a	31	n/a	n/a	25.81	n/a	n/a	0.2039	NP Inter(normal...
Lead (mg/L)	0.005	n/a	28	n/a	n/a	53.57	n/a	n/a	0.2378	NP Inter(normal...
Lithium (mg/L)	0.02	n/a	28	n/a	n/a	78.57	n/a	n/a	0.2378	NP Inter(NDs)
Mercury (mg/L)	0.000664	n/a	27	n/a	n/a	62.96	n/a	n/a	0.2503	NP Inter(normal...
Molybdenum (mg/L)	0.01	n/a	28	n/a	n/a	71.43	n/a	n/a	0.2378	NP Inter(normal...
Selenium (mg/L)	0.01	n/a	28	n/a	n/a	64.29	n/a	n/a	0.2378	NP Inter(normal...
Thallium (mg/L)	0.001	n/a	28	n/a	n/a	100	n/a	n/a	0.2378	NP Inter(NDs)

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 28 background values. 96.43% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Antimony Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

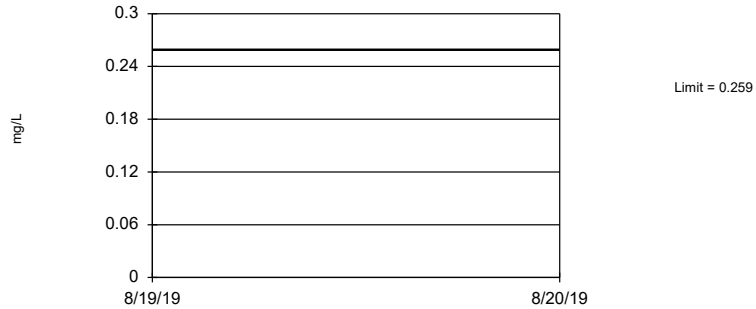
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. 53.57% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Arsenic Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

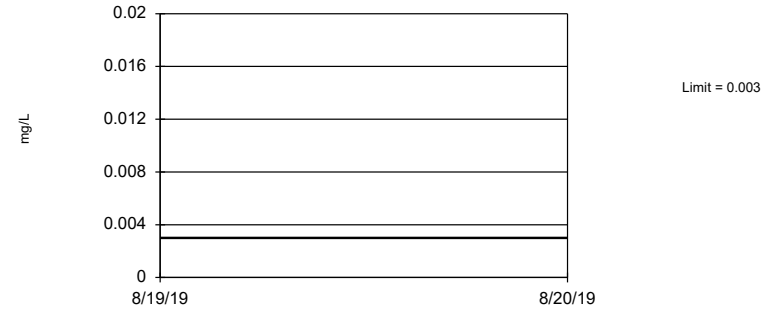
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Barium Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

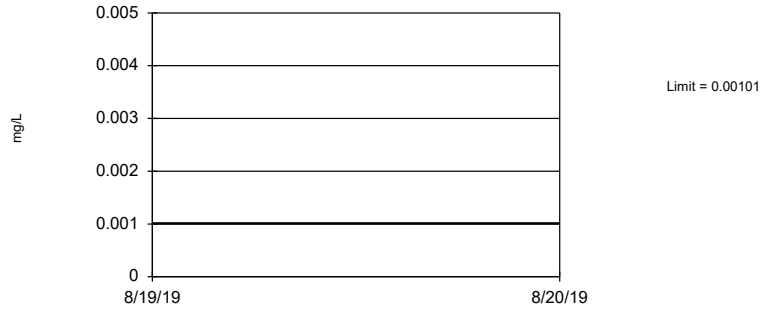
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. 46.43% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Beryllium Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. 32.14% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Cadmium Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

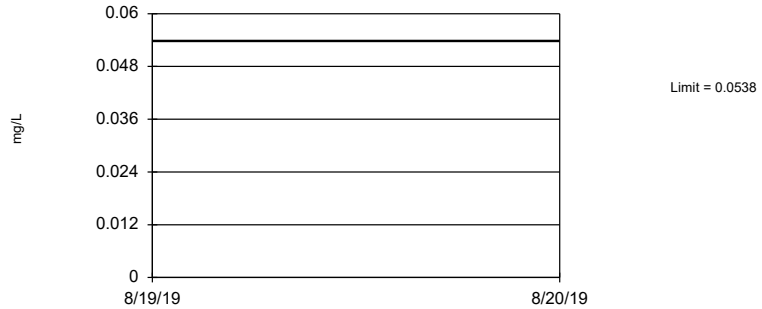
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 28 background values. 96.43% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Chromium Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

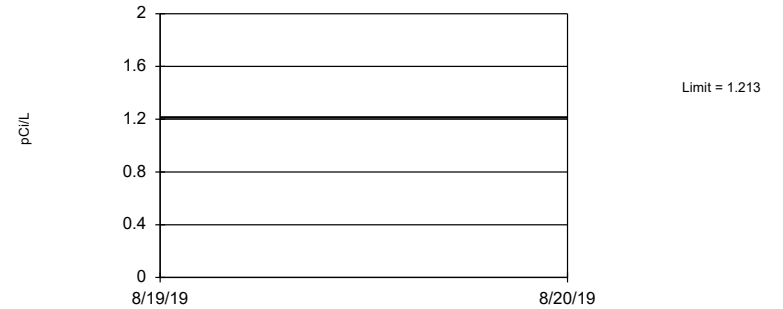
Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. 32.14% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Cobalt Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

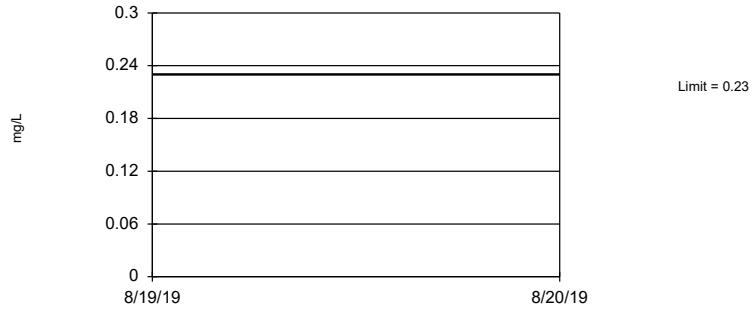
Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.5662, Std. Dev.=0.2728, n=21. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9803, critical = 0.873. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

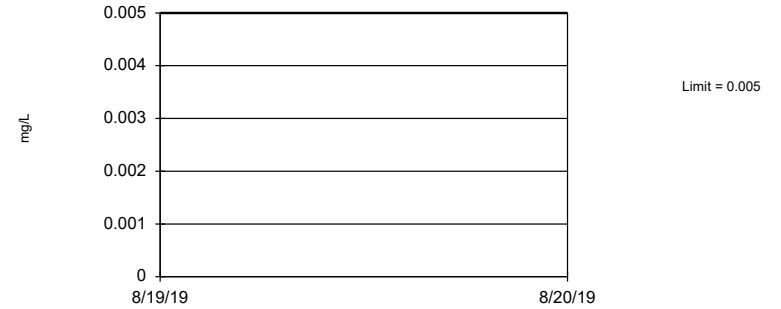
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 31 background values. 25.81% NDs. 86.13% coverage at alpha=0.01; 90.82% coverage at alpha=0.05; 97.85% coverage at alpha=0.5. Report alpha = 0.2039.

Constituent: Fluoride Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. 53.57% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Lead Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

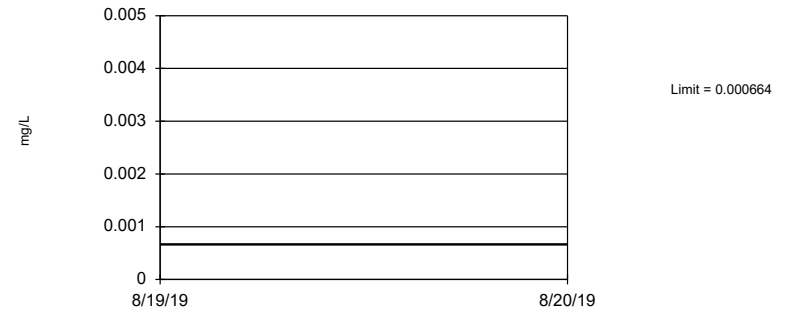
Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. Limit is highest of 28 background values. 78.57% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Lithium Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Tolerance Limit
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 27 background values. 62.96% NDs. 84.18% coverage at alpha=0.01; 89.65% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2503.

Constituent: Mercury Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. 71.43% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Molybdenum Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 28 background values. 64.29% NDs. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Selenium Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 75%. All background values were censored; limit is most recent reporting limit. 84.96% coverage at alpha=0.01; 90.04% coverage at alpha=0.05; 97.46% coverage at alpha=0.5. Report alpha = 0.2378.

Constituent: Thallium Analysis Run 1/17/2020 1:41 PM View: UTL's-Appendix IV
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Confidence Intervals - Significant Results

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:45 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	GSD-AP-MW-2	0.9739	0.6599	0.01	Yes	9	0	No	0.01	Param.
Arsenic (mg/L)	GSD-AP-MW-4	0.01392	0.01128	0.01	Yes	9	0	No	0.01	Param.
Lithium (mg/L)	GSD-AP-MW-2	0.08363	0.05306	0.04	Yes	9	0	No	0.01	Param.

Confidence Intervals - All Results

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:45 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GSD-AP-MW-1	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-2	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-3	0.003	0.003	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-4	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-5	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-6	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-7	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-8	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-9	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-10	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-11	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-MW-12	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-PZ-1	0.003	0.003	0.006	No	9	100	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-PZ-5	0.003	0.00114	0.006	No	9	88.89	No	0.002	NP (NDs)
Antimony (mg/L)	GSD-AP-PZ-6	0.003	0.00181	0.006	No	9	88.89	No	0.002	NP (NDs)
Arsenic (mg/L)	GSD-AP-MW-1	0.004391	0.002216	0.01	No	9	0	No	0.01	Param.
Arsenic (mg/L)	GSD-AP-MW-2	0.9739	0.6599	0.01	Yes	9	0	No	0.01	Param.
Arsenic (mg/L)	GSD-AP-MW-3	0.005	0.005	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	GSD-AP-MW-4	0.01392	0.01128	0.01	Yes	9	0	No	0.01	Param.
Arsenic (mg/L)	GSD-AP-MW-5	0.005	0.005	0.01	No	9	100	No	0.002	NP (NDs)
Arsenic (mg/L)	GSD-AP-MW-6	0.005	0.005	0.01	No	9	100	No	0.002	NP (NDs)
Arsenic (mg/L)	GSD-AP-MW-7	0.005	0.005	0.01	No	9	100	No	0.002	NP (NDs)
Arsenic (mg/L)	GSD-AP-MW-8	0.00321	0.00239	0.01	No	9	0	No	0.01	Param.
Arsenic (mg/L)	GSD-AP-MW-9	0.005	0.00111	0.01	No	9	77.78	No	0.002	NP (NDs)
Arsenic (mg/L)	GSD-AP-MW-10	0.00404	0.002414	0.01	No	9	0	No	0.01	Param.
Arsenic (mg/L)	GSD-AP-MW-11	0.002882	0.002512	0.01	No	9	0	No	0.01	Param.
Arsenic (mg/L)	GSD-AP-MW-12	0.005	0.005	0.01	No	9	100	No	0.002	NP (NDs)
Arsenic (mg/L)	GSD-AP-PZ-1	0.005	0.005	0.01	No	9	100	No	0.002	NP (NDs)
Arsenic (mg/L)	GSD-AP-PZ-5	0.005	0.005	0.01	No	9	100	No	0.002	NP (NDs)
Arsenic (mg/L)	GSD-AP-PZ-6	0.005	0.005	0.01	No	9	100	No	0.002	NP (NDs)
Barium (mg/L)	GSD-AP-MW-1	0.0807	0.037	2	No	9	0	No	0.002	NP (normality)
Barium (mg/L)	GSD-AP-MW-2	0.07259	0.04848	2	No	9	0	No	0.01	Param.
Barium (mg/L)	GSD-AP-MW-3	0.0721	0.0369	2	No	10	0	No	0.011	NP (normality)
Barium (mg/L)	GSD-AP-MW-4	0.2234	0.1862	2	No	9	0	No	0.01	Param.
Barium (mg/L)	GSD-AP-MW-5	0.2653	0.214	2	No	9	0	No	0.01	Param.
Barium (mg/L)	GSD-AP-MW-6	0.0809	0.0542	2	No	9	0	No	0.002	NP (normality)
Barium (mg/L)	GSD-AP-MW-7	0.08813	0.07316	2	No	9	0	No	0.01	Param.
Barium (mg/L)	GSD-AP-MW-8	0.226	0.1511	2	No	9	0	No	0.01	Param.
Barium (mg/L)	GSD-AP-MW-9	0.1856	0.1464	2	No	9	0	No	0.01	Param.
Barium (mg/L)	GSD-AP-MW-10	0.3268	0.2677	2	No	9	0	No	0.01	Param.
Barium (mg/L)	GSD-AP-MW-11	0.3445	0.2719	2	No	9	0	x^2	0.01	Param.
Barium (mg/L)	GSD-AP-MW-12	0.05069	0.03915	2	No	9	0	No	0.01	Param.
Barium (mg/L)	GSD-AP-PZ-1	0.1205	0.07896	2	No	9	0	No	0.01	Param.
Barium (mg/L)	GSD-AP-PZ-5	0.1455	0.08874	2	No	9	0	No	0.01	Param.
Barium (mg/L)	GSD-AP-PZ-6	0.03097	0.02799	2	No	9	0	No	0.01	Param.
Beryllium (mg/L)	GSD-AP-MW-1	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-2	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-3	0.003	0.003	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-4	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-5	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-6	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-7	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-8	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-9	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-10	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-11	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-MW-12	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-PZ-1	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-PZ-5	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	GSD-AP-PZ-6	0.003	0.003	0.004	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-1	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-2	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-3	0.001	0.001	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-4	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-5	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-6	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-7	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-8	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)

Confidence Intervals - All Results

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:45 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Cadmium (mg/L)	GSD-AP-MW-9	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-10	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-11	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-MW-12	0.0007148	0.0005758	0.005	No	9	0	No	0.01	Param.
Cadmium (mg/L)	GSD-AP-PZ-1	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-PZ-5	0.001	0.000304	0.005	No	9	88.89	No	0.002	NP (NDs)
Cadmium (mg/L)	GSD-AP-PZ-6	0.001	0.001	0.005	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-1	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-2	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-3	0.01	0.01	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-4	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-5	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-6	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-7	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-8	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-9	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-10	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-11	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-MW-12	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-PZ-1	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-PZ-5	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Chromium (mg/L)	GSD-AP-PZ-6	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Cobalt (mg/L)	GSD-AP-MW-1	0.02516	0.01353	0.0538	No	9	0	No	0.01	Param.
Cobalt (mg/L)	GSD-AP-MW-2	0.03855	0.02498	0.0538	No	9	0	No	0.01	Param.
Cobalt (mg/L)	GSD-AP-MW-3	0.03077	0.02265	0.0538	No	10	0	No	0.01	Param.
Cobalt (mg/L)	GSD-AP-MW-4	0.0275	0.02261	0.0538	No	9	0	No	0.01	Param.
Cobalt (mg/L)	GSD-AP-MW-5	0.005	0.0021	0.0538	No	9	11.11	No	0.002	NP (normality)
Cobalt (mg/L)	GSD-AP-MW-6	0.00592	0.00297	0.0538	No	9	77.78	No	0.002	NP (NDs)
Cobalt (mg/L)	GSD-AP-MW-7	0.005	0.005	0.0538	No	9	100	No	0.002	NP (NDs)
Cobalt (mg/L)	GSD-AP-MW-8	0.005	0.00204	0.0538	No	9	55.56	No	0.002	NP (normality)
Cobalt (mg/L)	GSD-AP-MW-9	0.005	0.005	0.0538	No	9	100	No	0.002	NP (NDs)
Cobalt (mg/L)	GSD-AP-MW-10	0.005	0.005	0.0538	No	9	100	No	0.002	NP (NDs)
Cobalt (mg/L)	GSD-AP-MW-11	0.00756	0.005	0.0538	No	9	88.89	No	0.002	NP (NDs)
Cobalt (mg/L)	GSD-AP-MW-12	0.004975	0.002202	0.0538	No	9	0	sqrt(x)	0.01	Param.
Cobalt (mg/L)	GSD-AP-PZ-1	0.005	0.005	0.0538	No	9	100	No	0.002	NP (NDs)
Cobalt (mg/L)	GSD-AP-PZ-5	0.005	0.00202	0.0538	No	9	33.33	No	0.002	NP (normality)
Cobalt (mg/L)	GSD-AP-PZ-6	0.005	0.005	0.0538	No	9	100	No	0.002	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-1	0.7637	0.2966	5	No	9	0	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-2	1.064	0.4053	5	No	9	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-3	0.7613	0.3862	5	No	9	0	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-4	1.038	0.5448	5	No	9	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-5	0.9665	0.3733	5	No	9	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-6	0.4381	0.03612	5	No	9	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-7	0.6686	0.05799	5	No	9	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-8	0.7154	0.3459	5	No	8	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-9	0.8692	0.1685	5	No	9	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-10	0.5966	0.3226	5	No	9	0	x^2	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-11	1.255	0.722	5	No	9	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-MW-12	0.7338	0.1599	5	No	9	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-PZ-1	0.6508	0.2132	5	No	9	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-PZ-5	0.7026	0.2432	5	No	9	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GSD-AP-PZ-6	0.5776	0.06365	5	No	9	0	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-1	0.1005	0.05734	4	No	10	20	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-2	0.2798	0.1988	4	No	10	0	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-3	0.1017	0.06182	4	No	11	9.091	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-4	0.248	0.2104	4	No	10	0	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-5	0.06454	0.04938	4	No	10	0	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-6	0.09009	0.04288	4	No	10	20	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-7	0.09653	0.06955	4	No	10	10	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-8	0.1181	0.08243	4	No	10	10	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-9	0.1342	0.09163	4	No	10	10	x^2	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-10	0.09851	0.06595	4	No	10	0	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-MW-11	0.1	0.05	4	No	10	20	No	0.011	NP (normality)
Fluoride (mg/L)	GSD-AP-MW-12	0.1	0.1	4	No	10	90	No	0.011	NP (NDs)
Fluoride (mg/L)	GSD-AP-PZ-1	0.1274	0.09309	4	No	10	10	No	0.01	Param.
Fluoride (mg/L)	GSD-AP-PZ-5	0.1	0.04	4	No	10	40	No	0.011	NP (normality)
Fluoride (mg/L)	GSD-AP-PZ-6	0.1	0.04	4	No	10	40	No	0.011	NP (normality)
Lead (mg/L)	GSD-AP-MW-1	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)

Confidence Intervals - All Results

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:45 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lead (mg/L)	GSD-AP-MW-2	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-MW-3	0.005	0.005	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GSD-AP-MW-4	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-MW-5	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-MW-6	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-MW-7	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-MW-8	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-MW-9	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-MW-10	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-MW-11	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-MW-12	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-PZ-1	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-PZ-5	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lead (mg/L)	GSD-AP-PZ-6	0.005	0.005	0.015	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-1	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-2	0.08363	0.05306	0.04	Yes	9	0	No	0.01	Param.
Lithium (mg/L)	GSD-AP-MW-3	0.02	0.02	0.04	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-4	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-5	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-6	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-7	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-8	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-9	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-10	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-11	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-MW-12	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-PZ-1	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-PZ-5	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Lithium (mg/L)	GSD-AP-PZ-6	0.02	0.02	0.04	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-1	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-2	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-3	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-4	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-5	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-6	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-7	0.0005	0.00034	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-8	0.0005	0.000284	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-9	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-10	0.0005	0.000302	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-11	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-MW-12	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-PZ-1	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-PZ-5	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	GSD-AP-PZ-6	0.0005	0.0005	0.002	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-1	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-2	0.0271	0.01625	0.1	No	9	0	No	0.01	Param.
Molybdenum (mg/L)	GSD-AP-MW-3	0.01	0.01	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-4	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-5	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-6	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-7	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-8	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-9	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-10	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-11	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-MW-12	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-PZ-1	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-PZ-5	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	GSD-AP-PZ-6	0.01	0.01	0.1	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-1	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-2	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-3	0.01	0.01	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-4	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-5	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-6	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-7	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-8	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-9	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)

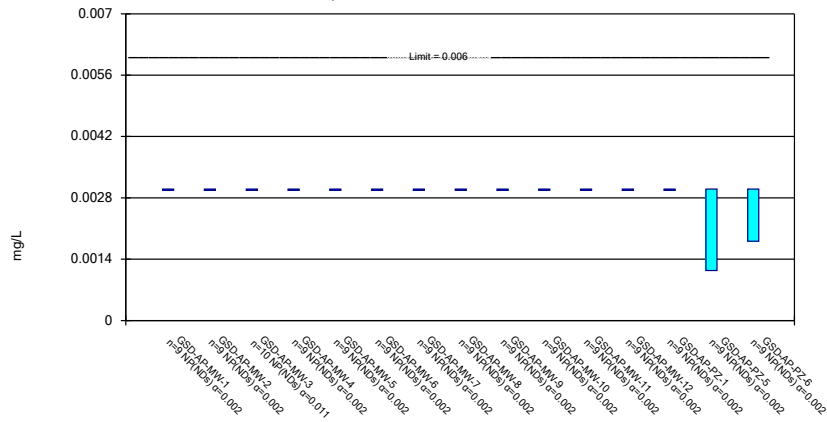
Confidence Intervals - All Results

Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR Printed 1/17/2020, 1:45 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Selenium (mg/L)	GSD-AP-MW-10	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-11	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-MW-12	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-PZ-1	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-PZ-5	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	GSD-AP-PZ-6	0.01	0.01	0.05	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-1	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-2	0.001	0.000213	0.002	No	9	66.67	No	0.002	NP (normality)
Thallium (mg/L)	GSD-AP-MW-3	0.001	0.001	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-4	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-5	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-6	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-7	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-8	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-9	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-10	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-11	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-MW-12	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-PZ-1	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-PZ-5	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	GSD-AP-PZ-6	0.001	0.001	0.002	No	9	100	No	0.002	NP (NDs)

Non-Parametric Confidence Interval

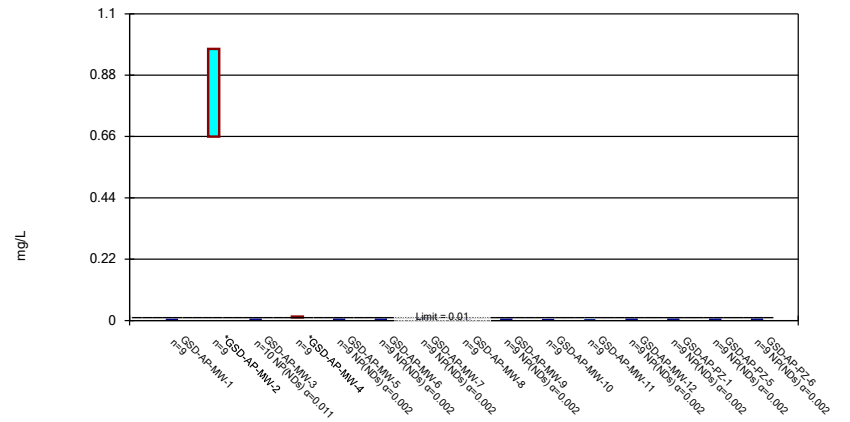
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 1/17/2020 1:43 PM View: Confidence Intervals
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Parametric and Non-Parametric (NP) Confidence Interval

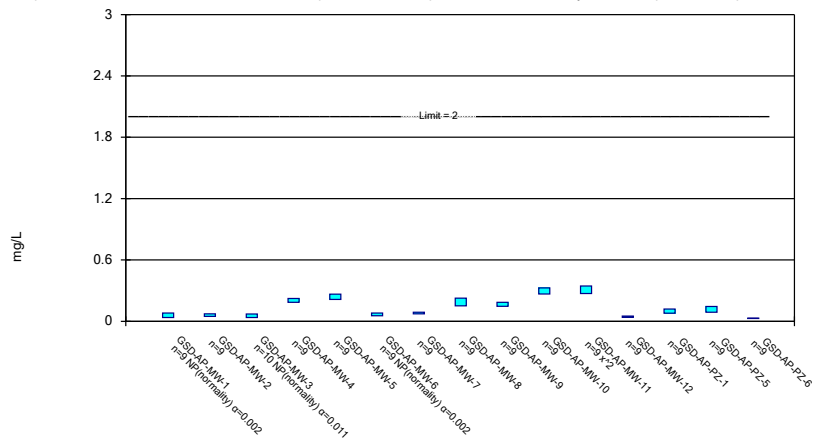
Compliance limit is exceeded.* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/17/2020 1:43 PM View: Confidence Intervals
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Parametric and Non-Parametric (NP) Confidence Interval

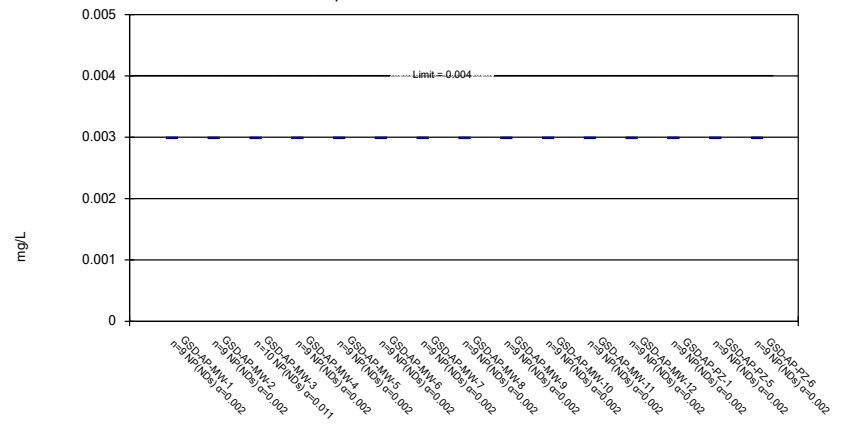
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/17/2020 1:43 PM View: Confidence Intervals
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Non-Parametric Confidence Interval

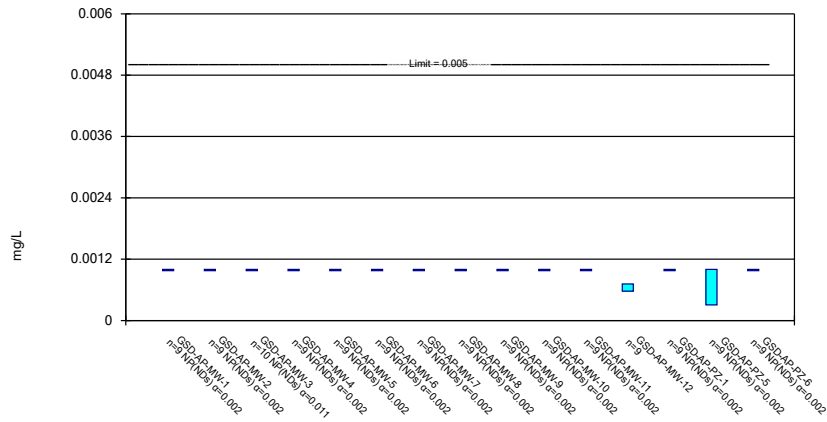
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 1/17/2020 1:43 PM View: Confidence Intervals
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Parametric and Non-Parametric (NP) Confidence Interval

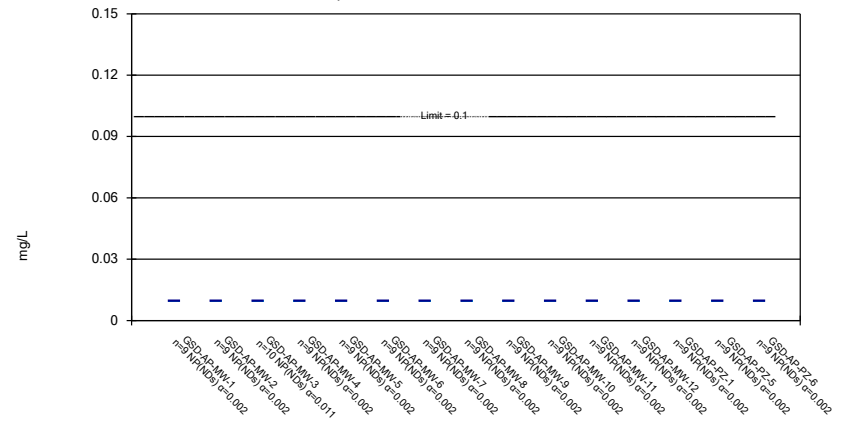
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cadmium Analysis Run 1/17/2020 1:43 PM View: Confidence Intervals
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Non-Parametric Confidence Interval

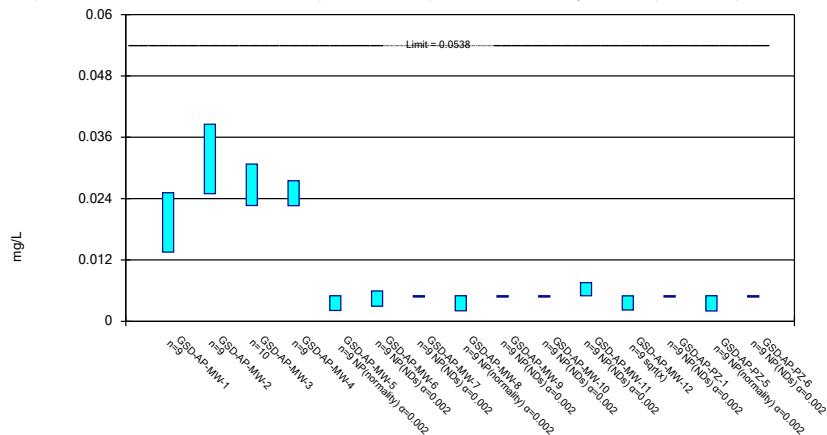
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 1/17/2020 1:43 PM View: Confidence Intervals
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Parametric and Non-Parametric (NP) Confidence Interval

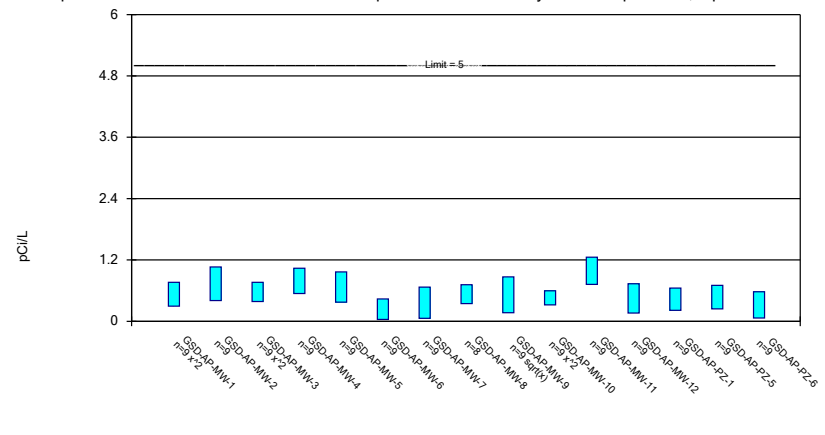
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Cobalt Analysis Run 1/17/2020 1:43 PM View: Confidence Intervals
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Parametric Confidence Interval

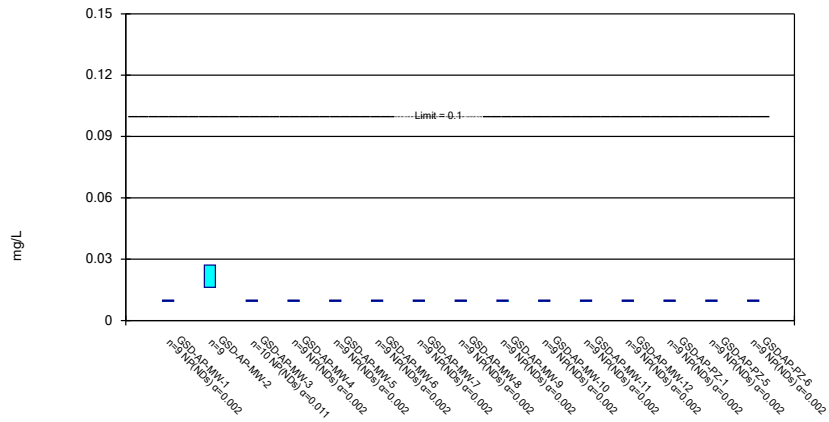
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/17/2020 1:43 PM View: Confidence Intervals
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Parametric and Non-Parametric (NP) Confidence Interval

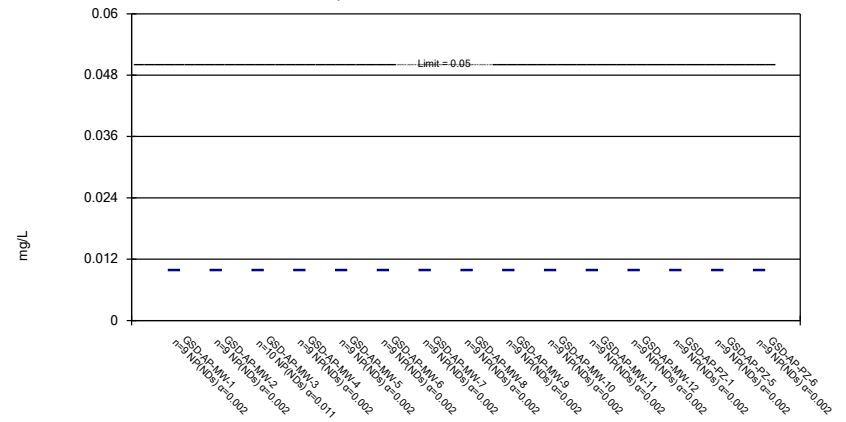
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 1/17/2020 1:44 PM View: Confidence Intervals
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Non-Parametric Confidence Interval

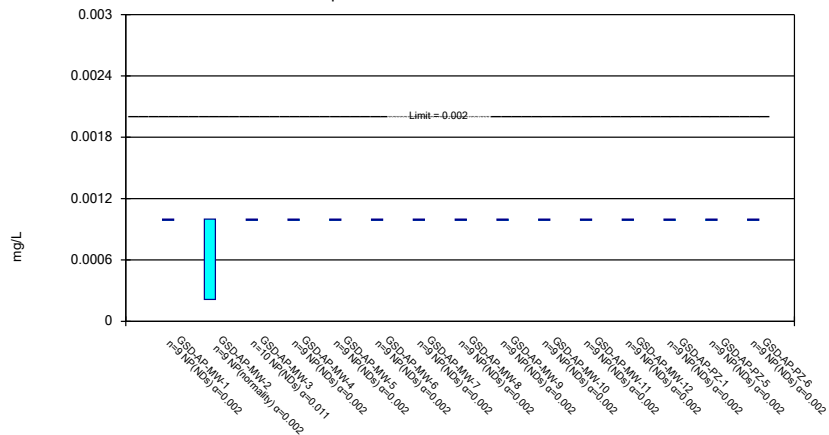
Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 1/17/2020 1:44 PM View: Confidence Intervals
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

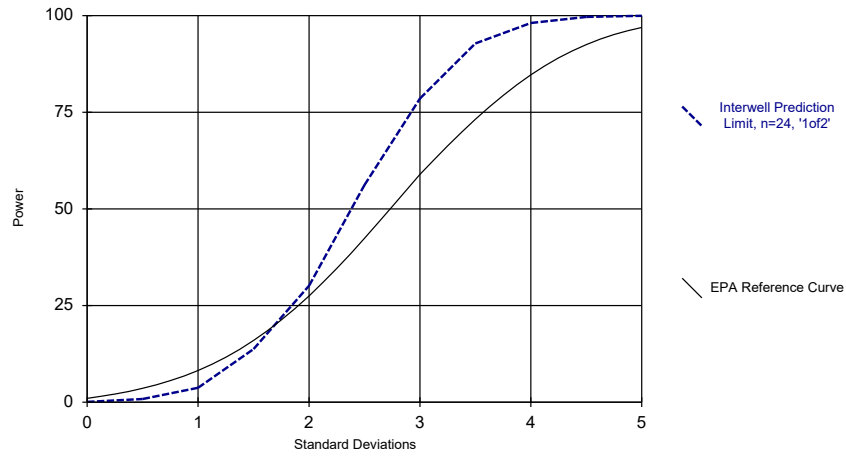
Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 1/17/2020 1:44 PM View: Confidence Intervals
 Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

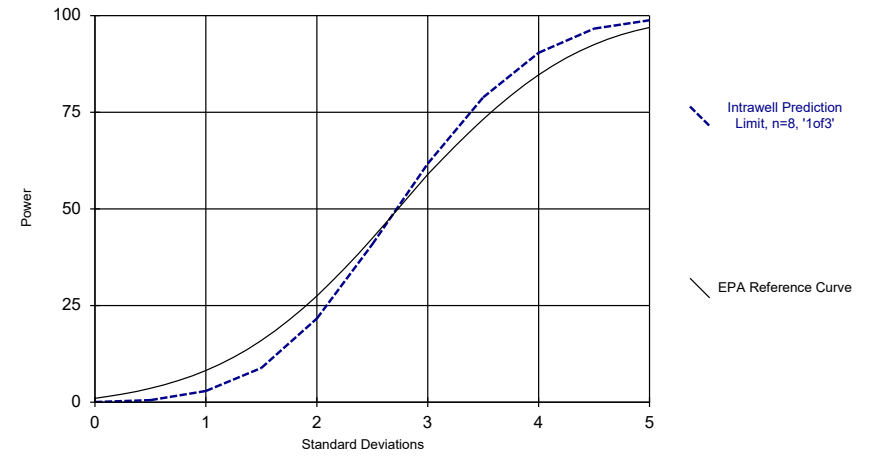
Power Curve



Kappa = 2.316, based on 15 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 1/30/2020 11:03 AM View: Power Curves
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR

Power Curve



Kappa = 2.407, based on 15 compliance wells and 7 constituents, evaluated semi-annually (this report reflects annual total).

Analysis Run 1/30/2020 11:03 AM View: Power Curves
Plant Gadsden Client: Southern Company Data: Plant Gadsden CCR