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**2018 ANNUAL GROUNDWATER MONITORING AND CORRECTIVE  
ACTION REPORT**

**ALABAMA POWER COMPANY  
PLANT GORGAS ASH POND**



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## ABBREVIATIONS

AL	Alabama
APC	Alabama Power Company
APCEL	APC Environmental Laboratory
ASD	Alternate Source Demonstration
ASTM	Alabama Power Company Environmental Laboratory
BGS	below ground surface
CCR	Coal Combustion Residual
CFR	Code of Federal Regulations
COC	chain of custody
DO	dissolved oxygen
EPA	United States Environmental Protection Agency
ft	feet
GW	groundwater
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

## **1.0 INTRODUCTION**

In accordance with the United States Environmental Protection Agency's (EPA) coal combustion residual (CCR) rule (40 C.F.R. Part 257, Subpart D) and the State of Alabama's ADEM Admin. Code Chapter 335-13-15), this 2018 Annual Groundwater Monitoring and Corrective Action Report has been prepared to document the 2018 initial assessment and two semi-annual groundwater monitoring activities at the Plant Gorgas Ash Pond and to satisfy the requirements of §257.90(e) and ADEM Admin. Code r. 335-13-15-.06(1)(f). Initial assessment monitoring, semi-annual monitoring, and associated reporting for Plant Gorgas Ash Pond is performed in accordance with the monitoring requirements §257.90 through §257.95 and ADEM Admin. Code r. 335-13-15-.06(1) through r. 335-13-15-.06(6).

## **2.0 SITE LOCATION AND DESCRIPTION**

Alabama Power Company's William Crawford Gorgas Electric Generating Plant (Plant Gorgas) is located in southeastern Walker County, Alabama, approximately fifteen miles south of Jasper, at 460 Gorgas Road, Parrish, AL 35580. Based on visual inspection of USGS topographic quadrangle maps and GIS plant boundary files provided by SCS, the plant occupies portions of Sections 7, 8, 9, 16, 17, 18, 19, 20, 21, 28 and 29, Township 16 South, Range 6 West and Section 12, 13 and 24, Township 16 South, Range 7 West (USGS, 1975; USGS, 1983).

The Ash Pond is located southeast of the main plant on the opposite side of the Black Warrior River. **Figure 1, Site Location Map**, depicts the location of the Plant and Ash Pond with respect to the surrounding area.

## **3.0 SITE GEOLOGY AND HYDROGEOLOGY**

### **3.1 Physical Setting**

Plant Gorgas is in the Black Warrior River basin, an area typified by moderate relief, with river and stream valleys having dendritic drainage patterns. Elevations at the site range from approximately 260 feet above mean sea level (MSL) near the Mulberry Fork to over 600 feet MSL east of the ash pond. The ash pond occupies a localized, narrow valley where ground elevations are higher to the west, north, and east of the ash pond.

### **3.2 Geology and Hydrogeology**

Plant Gorgas lies in the Warrior Basin physiographic region (Sapp and Emplainscourt, 1975), a late Paleozoic basin formed as a result of flexure and sediment loading associated with Appalachian and Ouachita orogenies. The bedrock geology is dominated by clastic sedimentary rocks of the Lower Pottsville Formation as shown on **Figure 2, Site Geologic Map** (GSA, 2010b). The lower Pottsville formation directly underlies Plant Gorgas and extends down to a depth of approximately 2,100 feet below ground surface. This formation is characterized by cyclic sequences (cyclothems) of marginal marine shale/claystone, siltstone, sandstone, conglomerates, and individual coal beds. These depositional cyclothems reflect the sediment balance controlled by 4<sup>th</sup> or 5<sup>th</sup> order glacial eustasy, continued basin evolution, and variations in sedimentation rates (Pashin and Raymond, 2004). Deeper stratigraphy is marked by carbonates, shales, chert, and sandstones of Mississippian to Cambrian in age (Raymond et al., 1988).

The Plant Gorgas Ash Pond is directly underlain by rocks belonging to the Pratt Coal Group (Ward II et al., 1989) of the Lower Pottsville Formation. In general, the Pratt Coal Group consists of mudstone, shale, fine-grained sandstone, and interbedded coal in fining-upward sequences. The Pratt Coal Group generally contains 3 named coal seams each separated by 25 to 50 feet of intra-burden. In descending order, they are, the Pratt, Nickel Plate, and American coal seams. Locally, Pratt Coal Group strata gently dip ( $0.5^{\circ}$  to  $1.0^{\circ}$ ) to the south and south-southwest.

The Pottsville aquifer system is the primary aquifer in Walker County. Although on a regional scale there are other aquifer systems in the vicinity of Plant Gorgas, the Pottsville aquifer system is the most significant. The nearest exposure of the Valley and Ridge aquifer system occurs in central Jefferson County, approximately 25 miles east of Plant Gorgas. The nearest exposure of the Tuscaloosa aquifer system occurs in northwesternmost Walker County, approximately 30 miles northwest of Plant Gorgas. The Tuscaloosa aquifer system is not considered a primary source of groundwater in Walker County (Stricklin, 1989).

The Pottsville aquifer system is comprised primarily of Pennsylvanian-aged sandstones, shales, conglomerates, and coal. Groundwater flow primarily occurs via coal seams or rock fabric discontinuities such as bedding planes and fractures. Groundwater in the Pottsville aquifer is commonly regarded as confined due to large permeability contrasts within the aquifer (Stricklin, 1989). Recharge to the Pottsville formation is largely through infiltration of precipitation and to a lesser extent, downward seepage of river water at hydraulically favored locations. Recharge is accommodated largely by fracture enhanced permeability. Major recharge zones to the Pottsville Formation are related to major geologic structures such as large fault zones or along systematic fold axes (Pashin, 2007). Although the Pottsville aquifer system is the primary aquifer in Walker County, groundwater use is relatively limited. According to O'Rear et al., 1972, groundwater use accounted for approximately 15% of total water use in Walker County in 1966. By 2005, groundwater use had declined to less than 1% of total water use in Walker County, or 1.14 million gallons per day (mgd) of groundwater out of a total water use of 969.5 mgd (USGS, 2005).

### **3.3 Uppermost Aquifer**

The Pottsville aquifer is the uppermost aquifer beneath the site for groundwater monitoring purposes. Groundwater occurs in the Pratt Coal Group of the Lower Pottsville Formation at the site. The primary occurrences of groundwater in the uppermost aquifer are: (1) coal seams, (2) rock fractures or zones of fracture enhanced permeability, and to a lesser extent (3) bedding plains. Fractured intervals are sporadic across the site and tend to occur with greater density in the upper 100 feet of rock. Generally, groundwater

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yield at the site is considered low and typical of the Pottsville aquifer system. Wells were generally screened in the Pratt coal seam or across groundwater yielding fractures. Depth to groundwater producing zones were highly variable at the site and generally ranged from 30 to 240 feet BGS. Caliper, natural gamma, normal resistivity, fluid temperature, fluid resistivity logs, and heat pulse flowmeter logs were utilized to determine groundwater yielding zones. Packer testing was utilized in select borings to further enhance characterization.

Based on published data, groundwater quality produced from the Pottsville Formation can be characterized by high concentrations of sulfate, iron, and other trace metals (Jennings and Cook, 2010). Trace metals in Pottsville Formation groundwater are associated with sulfide minerals contained in organic-rich strata (e.g., Mudstones and Coal Seams) and siliceous/carbonate healed fractures and joints. Trace element enrichment is likely the result of migrating hydrothermal fluids generated during the late Paleozoic Allegheny orogeny (Diehl et al., 2004). Arsenic, antimony, molybdenum, selenium, copper, thallium, and mercury are elevated in Warrior Basin coal strata (Goldhaber et al., 2002).

#### **4.0 GROUNDWATER MONITORING SYSTEM AND ACTIVITY**

Pursuant to §257.91 and ADEM Admin. Code r. 335-13-15-.06(2), Plant Gorgas has installed a groundwater monitoring system to monitor groundwater within the uppermost aquifer. The certified groundwater monitoring system for the Plant Gorgas 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 r. 335-13-15-.06(1)(f), the following also describes monitoring related-activities performed during the preceding year.

##### **4.1 Groundwater Monitoring System**

The groundwater monitoring network is comprised of 16 monitoring wells. Monitoring well locations are presented on **Figure 3, Monitoring Well Location Map. Table 1, Groundwater Monitoring Well Network Details**, summarizes the monitoring well construction details and design purpose for the Plant Gorgas Ash Pond.

Monitoring well locations GS-AP-MW-8 and GS-AP-MW-13 serve as upgradient locations for the Ash Pond. Upgradient wells are determined by water level monitoring and potentiometric surface maps constructed for the site.

Monitoring well locations GS-GSA-MW-2, GS-GSA-MW-6S, GS-GSA-MW-6D, GS-AP-MW-7, GS-AP-MW-9, GS-AP-MW-11, GS-AP-MW-12, GS-AP-MW-14, GS-AP-MW-15, GS-AP-MW-16D, GS-AP-MW-17, GS-AP-MW-18, GS-AP-MW-19, AND GS-AP-MW-21 are utilized as downgradient locations for the Ash Pond. Downgradient locations are located south of the Ash Pond as determined by water level monitoring and potentiometric surface maps constructed for the site.

**Table 1. Groundwater Monitoring Well Network Details**

<b>Well Name</b>	<b>Purpose</b>	<b>Installation Date</b>	<b>Northing</b>	<b>Easting</b>	<b>Ground Elevation</b>	<b>Top of Casing Elevation</b>	<b>Top of Screen Elevation</b>	<b>Bottom of Screen Elevation</b>
GS-AP-MW-2	Downgradient	3/10/2016	1321951.86	2067629.25	518.77	522.03	329.77	309.77
GS-AP-MW-6S	Downgradient	1/19/2016	1324533.13	2063864.63	271.57	274.67	237.57	227.57
GS-AP-MW-6D	Downgradient	1/18/2016	1324547.48	2063881.96	271.39	274.50	220.39	210.39
GS-AP-MW-7	Downgradient	1/26/2016	1324250.98	2063518.48	310.05	313.45	223.05	213.05
GS-AP-MW-8	Upgradient	2/26/2016	1323405.23	2062398.47	431.63	434.61	390.63	370.63
GS-AP-MW-9	Downgradient	4/22/2016	1322446.73	2062720.10	417.06	420.04	329.06	309.06
GS-AP-MW-11	Downgradient	2/4/2016	1320953.14	2063257.73	465.34	468.34	348.84	328.84
GS-AP-MW-12	Upgradient	4/20/2016	1320369.19	2063836.90	447.48	450.67	307.48	297.48
GS-AP-MW-13	Downgradient	2/4/2016	1319377.84	2064083.37	461.03	464.20	371.03	351.03
GS-AP-MW-14	Downgradient	1/30/2016	1318393.75	2063787.88	469.60	472.40	279.60	269.60
GS-AP-MW-15	Downgradient	2/8/2016	1317267.07	2063959.21	452.21	454.89	272.21	262.21
GS-AP-MW-16D	Downgradient	4/20/2016	1316152.70	2064850.23	459.09	462.27	259.09	239.09
GS-AP-MW-17	Downgradient	2/11/2016	1314955.86	2066094.14	528.78	531.88	295.28	285.28
GS-AP-MW-18	Downgradient	3/29/2016	1315052.82	2066824.84	400.17	403.39	320.17	300.17
GS-AP-MW-19	Downgradient	4/29/2016	1316325.43	2066775.98	492.60	495.58	337.60	317.60
GS-AP-MW-21	Downgradient	2/20/2016	1319122.82	2067233.10	506.51	509.48	283.51	273.51

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.



#### 4.2 Monitoring Well Installation and Maintenance

There was no change to the groundwater monitoring system in 2018; the network remained the same as in the 2017 (previous) reporting year. Monitoring well-related activities were limited to the following: Visual inspection of well conditions prior to sampling, recording the site conditions, and performing exterior maintenance to perform sampling under safe and clean conditions.

#### 4.3 Assessment Monitoring

Based on results of the 2017 Annual Groundwater and Corrective Action Monitoring Report, Alabama Power initiated an assessment monitoring program on January 15, 2018. Pursuant to 40 CFR § 257.95(a) and ADEM Admin. Code r. 335-13-15-.06(6)(a), monitoring wells were sampled for all Appendix IV parameters in February 2018, within 90 days of initiating the assessment monitoring program. Pursuant to 40 CFR 257.95(d) and ADEM Admin. Code r. 335-13-15-.06(6)(d), monitoring wells were subsequently sampled for Appendix III and Appendix IV parameters in May and October 2018. The May 2018 event was conducted within 90 days of obtaining the results from the February 2018 sampling event. Samples were collected from wells in the Professional Engineer (PE)-certified monitoring systems shown on **Figure 3**. A summary of groundwater sampling events completed in 2018 is provided in **Table 2, Compliance Sampling Events Summary**.

Analytical data from the initial assessment and semi-annual monitoring events are included as **Appendix A, Groundwater Analytical Data**, in accordance with the requirements of §257.90(e)(3) and ADEM Admin. Code r. 335-13-15-.06(1)(f)3.

<b>Table 2. Compliance Sampling Events Summary</b>			
	Sampling Purpose	Constituents Sampled	Laboratory Receipt Date
Compliance Event 1	Initial Assessment	Appendix IV	4/13/2018
Compliance Event 2	Assessment Monitoring	Appendices III and IV	7/16/2018
Compliance Event 3	Assessment Monitoring	Appendices III and IV	11/27/2018

#### 4.4 Other Groundwater Sampling

Additional groundwater sampling was performed in April and October to further characterize groundwater quality at the site. Groundwater samples were collected following the procedures described in Section 5.0.

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Analytical results are included in **Appendix A**. Additional sampling was completed for the following analytes:

- Alkalinity, Total
- Bicarbonate Alkalinity
- Calcium, Total
- Carbonate Alkalinity
- Chloride
- Conductivity
- Dissolved Oxygen
- Dissolved Solids
- Iron, Dissolved
- Iron, Total
- Magnesium, Total
- Manganese, Dissolved
- Manganese, Total
- ORP
- pH
- pH for Alkalinity
- Potassium, Total
- Sodium, Total
- Sulfate
- Temperature
- Turbidity

## 5.0 SAMPLING METHODOLOGY AND ANALYSIS

The following describes the methods used to conduct assessment monitoring at the Plant Gorgas Ash Pond.

### 5.1 Groundwater Flow Direction, Gradient, and Velocity

Prior to each sampling event, groundwater levels were measured and recorded to the nearest 0.01 foot within a 24-hour period from the certified well network and piezometers. Groundwater levels recorded during the monitoring events are summarized in **Table 3, Groundwater Elevations Summary 2018**. Groundwater levels and top of casing elevations were used to calculate groundwater elevation and develop the potentiometric surface elevation contour map provided as **Figures 4 through 6, Potentiometric Surface Contour Map(s)**. The general direction of groundwater flow is lateral to the north and south. The groundwater flow pattern observed during the 2018 monitoring events is consistent with historic observations.

<b>Table 3</b>				
<b>Groundwater Elevations Summary 2018</b>				
<b>Well ID</b>	<b>Top of Casing Elevation</b>	<b>Groundwater Elevations</b>		
		<b>(feet MSL)</b>		
	<b>(feet MSL)</b>	<b>Feb-18</b>	<b>May-18</b>	<b>Oct-18</b>
GS-AP-MW-2	522.03	376.69	376.49	376.18
GS-AP-MW-6S	274.67	256.76	256.70	256.98
GS-AP-MW-6D	274.5	262.01	261.95	263.06
GS-AP-MW-7	313.45	304.76	304.58	304.81
GS-AP-MW-8	434.61	391.02	391.08	389.43
GS-AP-MW-9	420.04	375.43	375.58	375.47
GS-AP-MW-11	468.34	382.14	382.20	382.13
GS-AP-MW-12	450.67	380.91	380.84	380.81
GS-AP-MW-13	464.2	392.39	393.22	392.99
GS-AP-MW-14	472.4	372.11	371.88	371.77
GS-AP-MW-15	454.89	374.57	374.40	373.88
GS-AP-MW-16D	462.27	326.22	324.98	318.72
GS-AP-MW-17	531.88	358.80	355.09	277.68
GS-AP-MW-18	403.39	358.87	354.99	350.59
GS-AP-MW-19	495.58	383.40	383.52	383.72
GS-AP-MW-21	509.48	349.73	350.33	346.15

Groundwater flow rates at the site were calculated based on hydraulic gradients, hydraulic conductivity from previous slug and packer test results, and an estimated effective porosity of the screened horizon. Slug testing provided horizontal hydraulic conductivities for the uppermost aquifer between  $1.19 \times 10^{-3}$  cm/sec and  $1.22 \times 10^{-5}$  cm/sec. Hydraulic conductivity values derived from slug tests and packer tests have been used to determine an average hydraulic conductivity. The average conductivity value is used for calculating groundwater flow velocity is  $6.15 \times 10^{-4}$  cm/sec or 1.74 feet/day and a conservative literature value for effective porosity of 10%. The hydraulic gradient was calculated between well pairs shown on **Table 4, 2018 Groundwater Flow Velocity Calculations.**

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

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

Where:

- $V$  = Groundwater flow velocity  $\left(\frac{feet}{day}\right)$
- $K$  = Average permeability of the aquifer  $\left(\frac{feet}{day}\right)$
- $i$  = Horizontal hydraulic gradient
- $n_e$  = Effective porosity

Using this equation, groundwater flow velocities are calculated for various areas of the site and are tabulated on **Table 4.** **Table 4** presents the velocities calculated using groundwater elevation data from the sampling events in 2018.

<b>TABLE 4: 2018 Groundwater Flow Velocity Calculations</b>					
<b>Locations</b>	<b>Hydraulic Gradient (I) (feet/feet)</b>	<b>Average Hydraulic Conductivity (K) (feet/day)</b>	<b>Assumed Effective Porosity (ne)</b>	<b>Calculated Groundwater Flow Velocity (feet/day)</b>	<b>Calculated Groundwater Flow Velocity (feet/year)</b>
South	0.03448	1.74	0.10	0.60	219.00
East	0.01897	1.74	0.10	0.33	120.45
West	0.02299	1.74	0.10	0.40	146.00
North	0.18046	1.74	0.10	3.14	1146.10

Potentiometric surface lines from the most recent sampling event were utilized to calculate groundwater flow or “seepage” velocities. Groundwater seepage velocities for the bedrock aquifer were calculated using an average hydraulic conductivity value of  $6.15 \times 10^{-4}$  cm/sec or 1.74 feet/day and a conservative literature value for effective porosity of 10%. The groundwater flow velocity calculated for groundwater flowing south was 0.60 ft/day or 219 ft/year. The groundwater flow velocity calculated for groundwater flowing east was 0.33 ft/day or 120.45 ft/year. The groundwater flow velocity calculated for groundwater flowing west was 0.40 ft/day or 146 ft/year. The groundwater flow velocity calculated for groundwater flowing north was 3.14 ft/day or 1146.1 ft/year. Calculated gradients and flow rates do not consider vertical flow gradients.

## 5.2 Groundwater Sampling

Groundwater samples were collected in accordance with §257.93(a) and ADEM Admin. Code r. 335-13-15-.06(4)(a). All monitoring wells at Plant Gorgas 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.

## 5.3 Laboratory Analysis

Laboratory analyses was performed by the APC Environmental Laboratory (APCEL) in Calera, Alabama or Test America, Inc. (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. Groundwater data and chain of custody records for the monitoring events are presented in **Appendix A**.

#### **5.4 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 10 detection samples. Equipment blanks and duplicate samples were also collected during each sampling event. QA/QC sample data was evaluated during data validation and is included in **Appendix A**.

Groundwater quality data for the most recent sampling event was validated for the most recent sampling event following guidance from the EPA Region IV Environmental Investigations Standard Operating Procedures and Quality Assurance Manual (November 2001); the EPA Region IV Data Validation Standard Operating Procedures (US EPA Region IV, September 2011); and the analytical methods. Data validation generally consisted of reviewing sample integrity, holding times, laboratory method blanks, laboratory control samples, matrix spikes/matrix spike duplicate recoveries and relative percent differences, post digestion spikes, laboratory and field duplicate RPDs, field and equipment blanks, and reporting limits.

Where appropriate, validation qualifiers and flags are applied to the data using the procedures in EPA National Functional Guidelines for Inorganic Data Review (USEPA, 2014), as guidance. Flagged data is identified in the statistical analysis reports.

## 6.0 STATISTICAL ANALYSIS

Statistical analysis of Appendix III and IV groundwater monitoring data was performed on samples collected from the certified groundwater monitoring network pursuant to 40 CFR §257.93 and ADEM Admin. Code r. 335-13-15-.06(4) and following the appropriate PE-certified method. The statistical method used at the site was developed by Groundwater Stats Consulting, LLC. (GSC), in accordance with 40 CFR §257.93(f) and ADEM Admin. Code r. 335-13-15-.06(4)(f) using methodology presented in *Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance*, March 2009, EPA 530/R-09-007 (USEPA, 2009).

### 6.1 Statistical Methods

The Sanitas groundwater statistical software was 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 USEPA regulations. Although Assessment Monitoring has been implemented, statistical evaluation of Appendix III constituents is performed to determine if constituents have returned to background conditions. Statistical analysis was performed using methods described in the PE-certified statistical analysis plan for the site.

#### 6.1.1 Appendix III Constituents

Statistical tests used to evaluate the groundwater monitoring data consist of interwell prediction limits combined with a 1-of-2 verification resample plan for each of the Appendix III parameters. Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent, and the most recent sample from each downgradient well is compared to the same limit for each parameter. The most recent sample from each downgradient well is compared to the background limit to determine whether there has been an initial statistically significant increase (SSI) over background groundwater quality.

A summary table of the statistical limits accompanies the prediction limits in **Appendix B, Statistical Data Evaluation**.

#### 6.1.2 Assessment Monitoring Statistics

Parametric tolerance limits were used to calculate background limits from 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 background limits were then used when determining the groundwater protection standard (GWPS).

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

- (1) The maximum contaminant level established under §§141.62 and 141.66 of this title (the “MCL”).
- (2) Where an MCL has not been established:
  - (i) Cobalt 6 micrograms per liter (ug/l);
  - (ii) Lead 15 ug/l;
  - (iii) Lithium 40 ug/l; and
  - (iv) Molybdenum 100 ug/l.
- (3) Background levels for constituents where the background level is higher than the MCL or rule-specified GWPS.

Existing ADEM Admin Code r. 335-13-15 includes boron as an Appendix IV assessment monitoring parameter; therefore, it is included in the statistical analysis for the site. As explained in the Preamble to the federal CCR rule, the GWPSs listed above for cobalt, lead, lithium, and molybdenum are USEPA-established “Regional Screening Levels” (RSLs) that are used where an MCL has not been established. Following the procedure used by USEPA for the federal CCR rule, the USEPA-established RSL for boron (4.0 mg/L) was used as a GWPS for statistical comparison of boron data. **Table 5, Summary of Background Levels and Groundwater Protection Standards**, summarizes the background limit established at each monitoring well and the GWPS.



<b>Table 5. Summary of Background Levels and Groundwater Protection Standards</b>			
<b>Analyte</b>	<b>Units</b>	<b>Background</b>	<b>Groundwater Protection Standard</b>
Antimony	mg/L	0.003	0.006
Arsenic	mg/L	0.005	0.01
Barium	mg/L	0.189	2
Beryllium	mg/L	0.003	0.004
Boron	mg/L	0.1	4.0
Cadmium	mg/L	0.001	0.005
Chromium	mg/L	0.01	0.1
Cobalt	mg/L	0.01	0.006
Fluoride	mg/L	0.2169, 0.2222	4
Lead	mg/L	0.005	0.015
Lithium	mg/L	0.05	0.04
Mercury	mg/L	0.0005	0.002
Molybdenum	mg/L	0.01	0.1
Selenium	mg/L	0.01	0.05
Thallium	mg/L	0.001	0.002
Total Radium-226/228	pCi/L	1.059, 1.02	5

**Notes:**

1. Where 2 numbers are present, they denote the different background levels and background-derived GWPS for each of the 2 semi-annual monitoring events in the order that they were determined.

**6.2 Statistical Analysis Results**

Analytical data from the 2018 semi-annual monitoring events in May and October were statistically analyzed in accordance with the PE-certified Statistical Analysis Plan (October 2017). 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.

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

### **6.2.1 First Semi-Annual Groundwater Monitoring Event**

Statistical analysis of Appendix IV data identified the following statistically significant levels (SSLs) over GWPS at the listed wells:

- GS-AP-MW-6D: Arsenic, Lithium
- GS-AP-MW-7: Arsenic, Lithium, Molybdenum
- GS-AP-MW-9: Lithium
- GS-AP-MW-12: Arsenic
- GS-AP-MW-15: Lithium
- GS-AP-MW-18: Arsenic, Lithium
- GS-AP-MW-21: Lithium

### **6.2.2 Second Semi-Annual Groundwater Monitoring Event**

During the second semi-annual event, statistical analysis of Appendix IV data identified the following SSLs over GWPS:

- GS-AP-MW-6D: Arsenic, Lithium
- GS-AP-MW-7: Arsenic, Lithium, Molybdenum
- GS-AP-MW-9: Lithium
- GS-AP-MW-12: Arsenic
- GS-AP-MW-15: Lithium
- GS-AP-MW-18: Arsenic, Lithium
- GS-AP-MW-21: Lithium

## **7.0 MONITORING PROGRAM STATUS**

In accordance with §257.94(e) and ADEM Admin. Code r. 335-13-15-.06(5)(e), APC implemented assessment monitoring in January 2018. SSIs of Appendix III and SSLs of Appendix IV parameters were identified at the Plant Gorgas Ash Pond during sampling events conducted in 2018. Alternate Source Demonstrations (ASDs) have not been completed for Appendix IV constituent exceeding the GWPS; therefore, in accordance with §257.95(g)(3)(i) and ADEM Admin. Code r. 335-13-15-.06(6)(g)4(i), APC will implement assessment of corrective measures as required by §257.96 and r. 335-13-15-.06(7).

## **8.0 CONCLUSIONS AND FUTURE ACTIONS**

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

The certified compliance monitoring well network was resampled on a semi-annual basis, occurring in May and October 2018. The groundwater samples were analyzed for all Appendix III & IV parameters and the Appendix IV data from the semi-annual events statistically evaluated relative to GWPS. Statistical evaluations of the May and October 2018 assessment monitoring data identified SSLs of Appendix IV constituents above the GWPS.

Additional groundwater samples were collected to further characterize groundwater quality. An ASD was not prepared to address the Appendix IV SSLs. APC will characterize the nature and extent of GWPS exceedances as required by §257.95(g)(1) and ADEM Admin. Code r. 335-13-15-.06(6)(g)2 and perform an assessment of corrective measures pursuant to §257.96 and ADEM Admin. Code r. 335-13-15-.06(7).

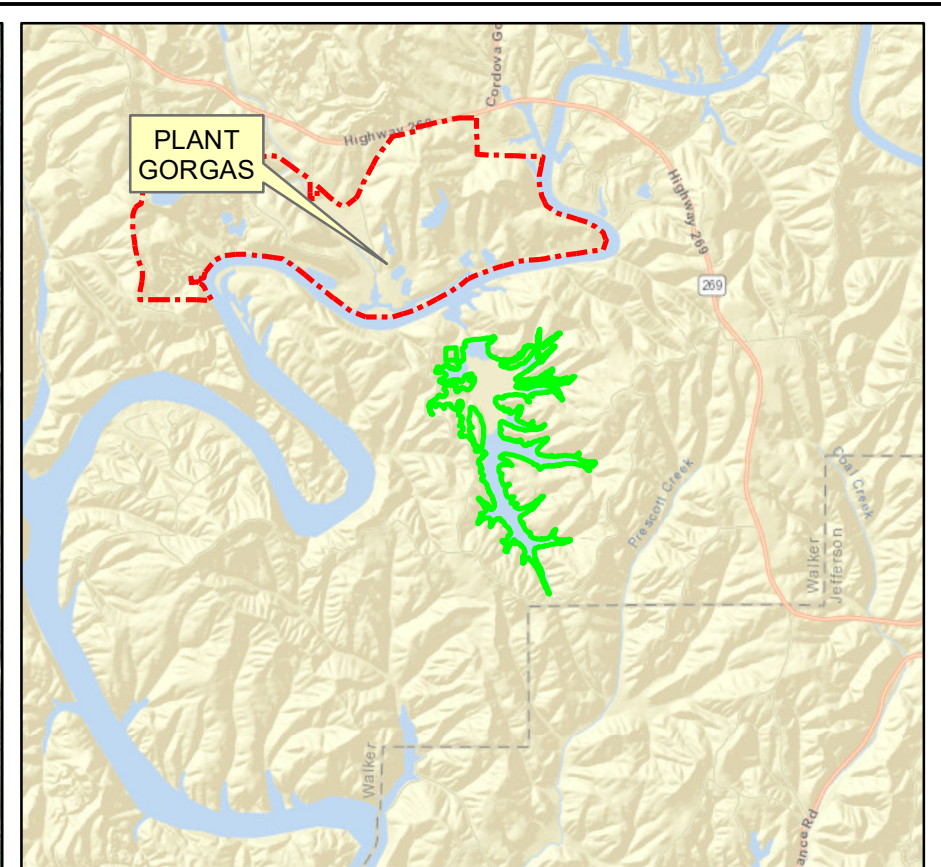
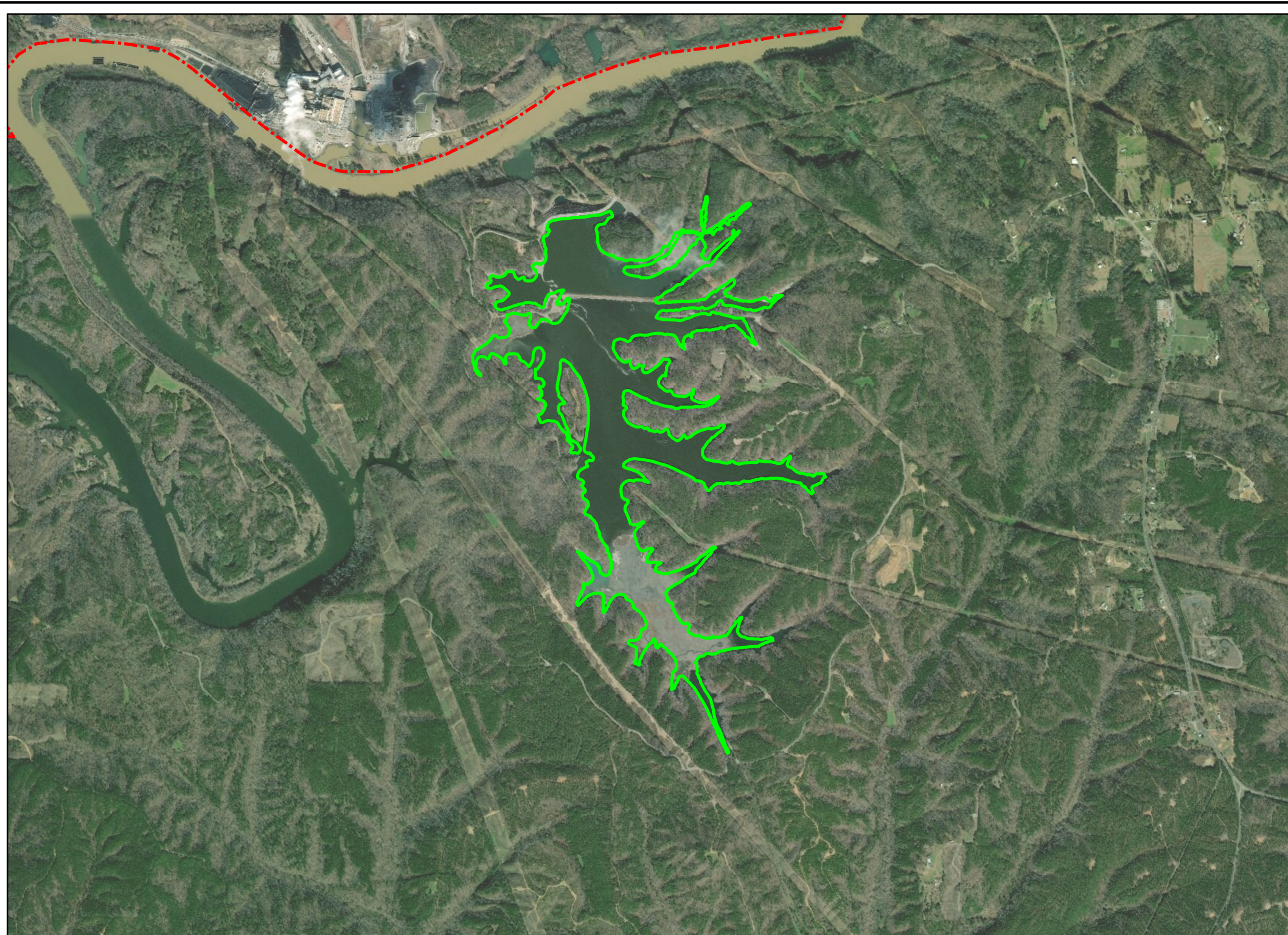
The first semi-annual assessment monitoring event is planned for April 2019.



## 9.0 REFERENCES

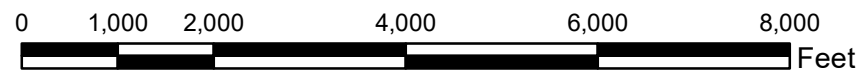
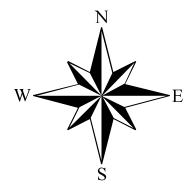
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# Figures





Legend	
	Ash Pond Boundary
	Property Boundary (Approximate)



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**Southern Company Generation  
Earth Science and Environmental Engineering**

**FOR**

**Alabama Power Company**

**FIGURE 1  
SITE LOCATION MAP  
PLANT GORGAS ASH POND**

SCALE	PROJ. I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:24k		FIGURE 1	1		



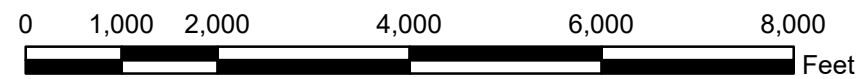
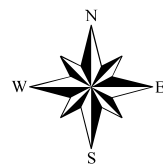


**Legend**

- Ash Pond Boundary
- Property Boundary (Approximate)

**Geologic Units**

- Pottsville Formation (upper part), Appalachian Plateaus (Ppv1u)



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**Southern Company Generation  
Earth Science and Environmental Engineering**

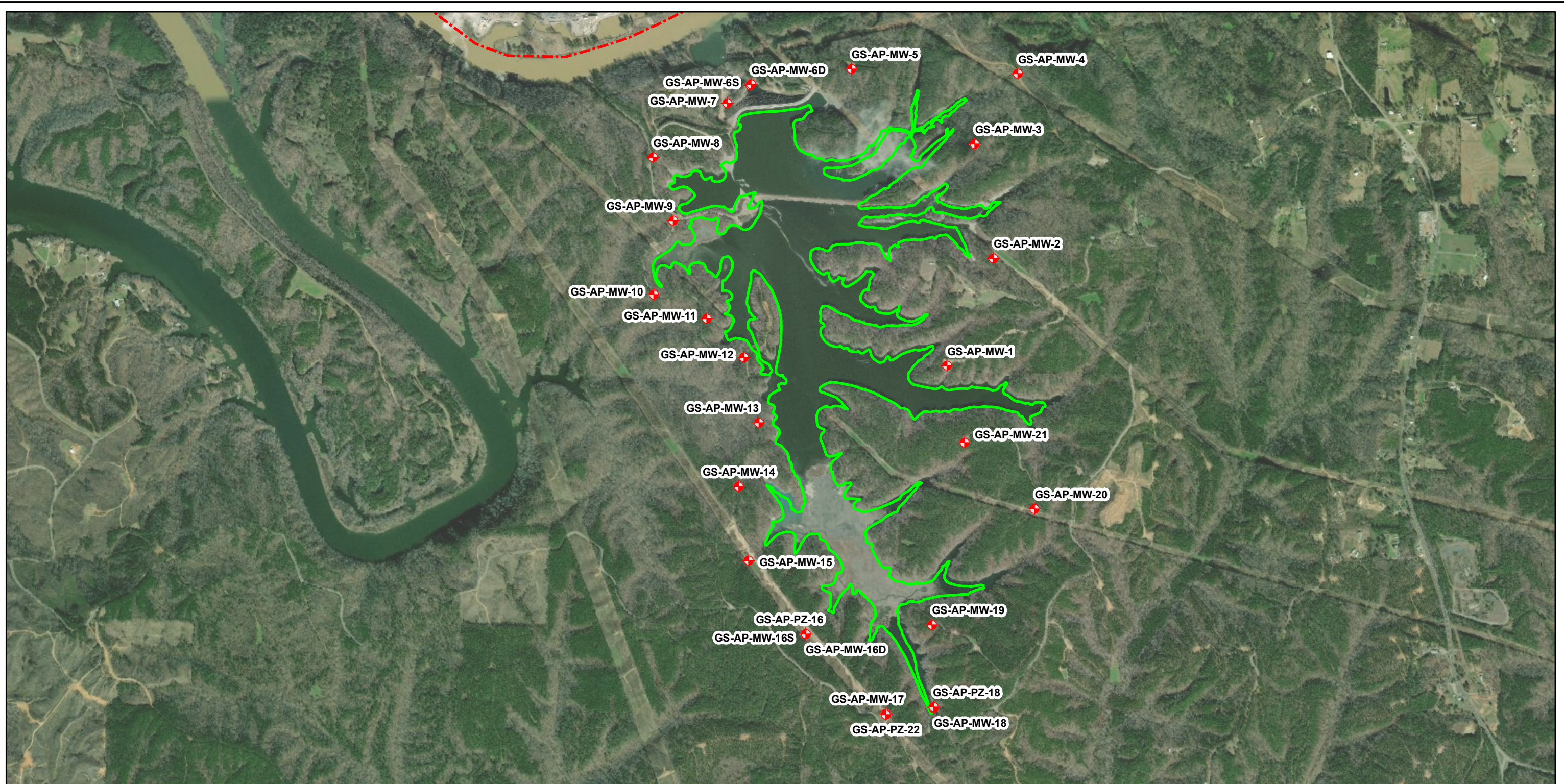
**FOR**

**Alabama Power Company**

**FIGURE 2  
SITE GEOLOGIC MAP  
PLANT GORGAS ASH POND**

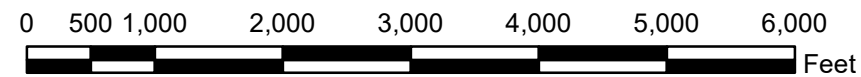
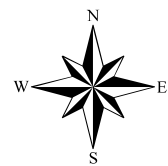
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:24k		FIGURE 2	1		





**Legend**

- Monitoring Well
- Ash Pond Boundary
- Property Boundary (Approximate)



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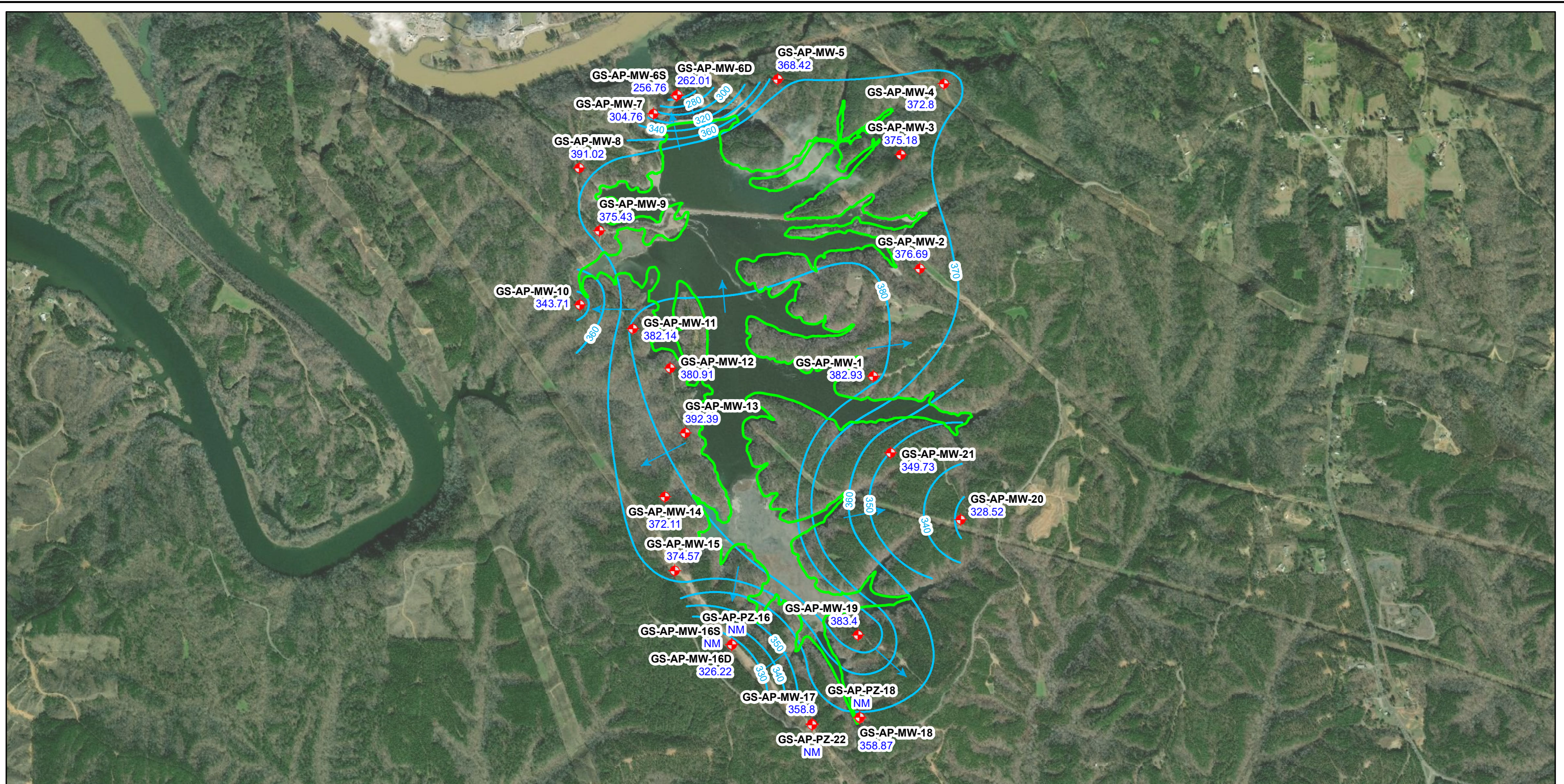
**FIGURE 3**  
**MONITORING WELL LOCATION MAP**  
**PLANT GORGAS ASH POND**

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**Earth Science and Environmental Engineering**

**FOR**

<b>Alabama Power Company</b>					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:18k		FIGURE 3	1		



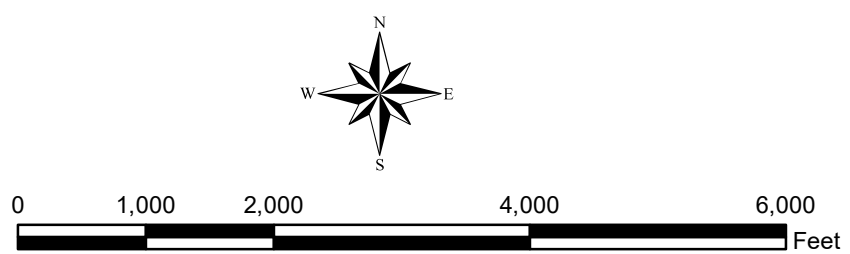


**Legend**

- Monitoring Well
- Ash Pond Boundary
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction

GN-AP-MW-1 Well ID  
382.93 Groundwater Elevation

NOTES:  
 1. NAVD88 indicates North American Vertical Datum of 1988.  
 2. NM indicates not measured.



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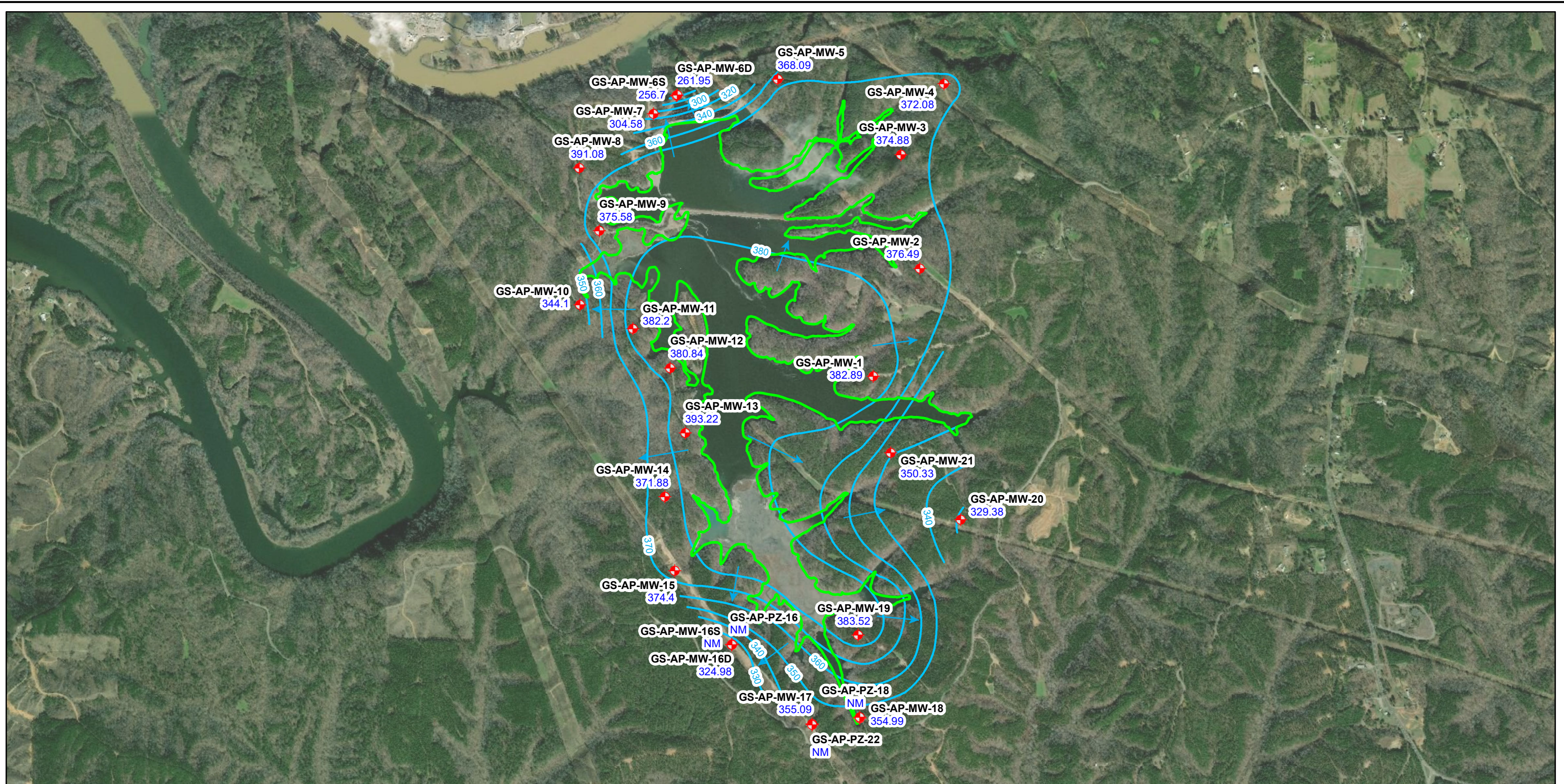
**FIGURE 4**  
**POTENTIOMETRIC SURFACE MAP**  
**FEBRUARY 2018**  
**PLANT GORGAS ASH POND**

**Southern Company Generation**  
**Earth Science and Environmental Engineering**

**FOR**

<b>Alabama Power Company</b>					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:18k		FIGURE 4	1		



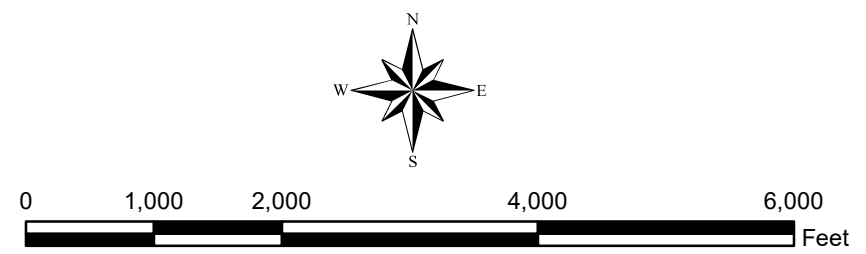


**Legend**

- ◆ Monitoring Well
- Ash Pond Boundary
- Potentiometric Surface Contour (ft NAVD88)
- Approximate Groundwater Flow Direction

GN-AP-MW-1 Well ID  
382.89 Groundwater Elevation

NOTE:  
 1. NAVD88 indicates North American Vertical Datum of 1988.  
 2. NM indicates not measured.



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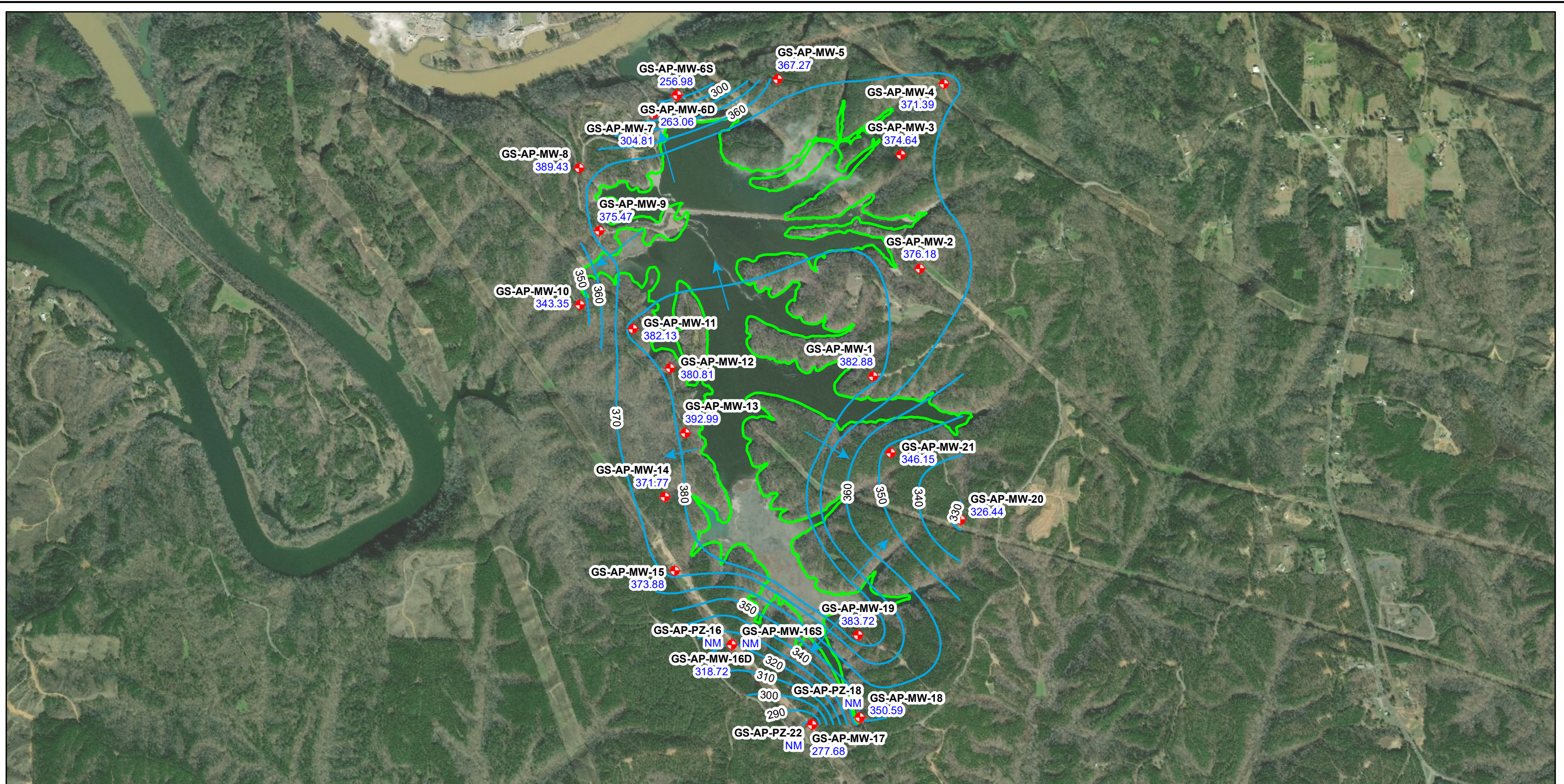
**FIGURE 5  
 POTENTIOMETRIC SURFACE MAP  
 MAY 2018  
 PLANT GORGAS ASH POND**

**Southern Company Generation  
 Earth Science and Environmental Engineering**

**FOR**

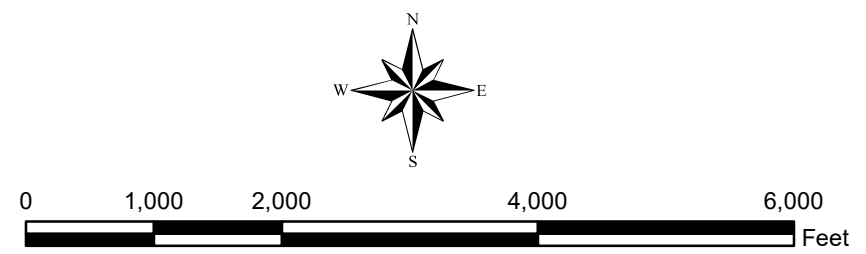
<b>Alabama Power Company</b>					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:18k		FIGURE 5	1		





Legend	
	Monitoring Well
	Potentiometric Surface Contour (ft NAVD88)
	Approximate Groundwater Flow Direction
	Ash Pond Boundary

NOTE:  
 1. NAVD88 indicates North American Vertical Datum of 1988.  
 2. NM indicates not measured.



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FIGURE 6  
 POTENTIOMETRIC SURFACE MAP  
 OCTOBER 2018  
 PLANT GORGAS ASH POND

Southern Company Generation  
 Earth Science and Environmental Engineering  
 FOR

<b>Alabama Power Company</b>					
SCALE	PROJ I.D.	DRAWING NUMBER	SHEET	CONT'D	REV
1:18k		FIGURE 6	1		



# Appendix A

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***



# **Gorgas Ash Pond**

## **Assessment Event 1**

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

An additional dissolved set was collected at well MW-14 after black suspended solids were visible in the turbidity vial while collecting readings. Turbidity readings were consistently less than 2 NTU while pumping and the turbidity meter was verified as accurate at the end of the day after sampling.

Light rain was present while pumping and sampling well MW-2 and red flock was noticed in the sample stream while pumping well MW-21.

Field quality control procedures were performed as follows:

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

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

# Analytical Report



**Sample Group :** WMWGORAP\_1138  
**Project/Site :** Gorgas Ash Pond  
Parrish, AL 35580  
**For :** Southern Company Services  
42 Inverness Center Parkway  
Birmingham, AL 35242  
**Attention :** Dustin Brooks & Greg Dyer  
**Released By :** Sarah Copeland  
sgcopela@southernco.com  
(205) 664-6121

The following data has been reviewed and approved by:

**Quality Control:** Sarah  
Copeland

Digitally signed by Sarah Copeland  
DN: cn=Sarah Copeland, o, ou,  
email=sgcopela@southernco.com,  
c=US  
Date: 2018.03.23 09:56:07 -05'00'

**Supervision:** T. Durant  
Maske

Digitally signed by T. Durant Maske  
DN: cn=T. Durant Maske, o=Alabama  
Power Company, ou=Environmental  
Affairs, email=tdmaske@southernco.com,  
c=US  
Date: 2018.03.23 15:01:52 -05'00'

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

## Case Narrative

 Alabama Power



Fluoride

Gorgas Ash Pond

WMWGORAP\_1138

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 samples were outsourced to Test America, Pensacola for analysis. There was no job narrative provided as there were no issues.





Metals ICP

Gorgas Ash Pond

WMWGORAP\_1138

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>
AY04735	20180228FK	WMWGORAP_1138
AY04736	20180228FK	WMWGORAP_1138
AY04737	20180228FK	WMWGORAP_1138
AY04738	20180228FK	WMWGORAP_1138
AY04739	20180228FK	WMWGORAP_1138
AY04740	20180228FK	WMWGORAP_1138
AY04741	20180228FK	WMWGORAP_1138
AY04742	20180228FK	WMWGORAP_1138
AY04743	20180228FK	WMWGORAP_1138
AY04744	20180228FK	WMWGORAP_1138
AY04745	20180228GK	WMWGORAP_1138
AY04747	20180228GK	WMWGORAP_1138
AY04748	20180228GK	WMWGORAP_1138
AY04749	20180228GK	WMWGORAP_1138
AY04750	20180228GK	WMWGORAP_1138
AY04751	20180228GK	WMWGORAP_1138
AY04752	20180228GK	WMWGORAP_1138
AY04753	20180228GK	WMWGORAP_1138
AY04754	20180228GK	WMWGORAP_1138
AY04755	20180228GK	WMWGORAP_1138
AY04756	20180228HK	WMWGORAP_1138
AY04746	20180305BK	WMWGORAP_1138

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 passed.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.



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

#### Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
  - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x2.03 dilution to compensate for any potential matrix effects, with the exception of sample AY04746, which was analyzed at a x1.01 dilution.
  8. The raw data results include results corrected for dilution.



Metals ICPMS

Gorgas Ash Pond

WMWGORAP\_1138

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>
AY04735	614194	WMWGORAP_1138
AY04736	614194	WMWGORAP_1138
AY04737	614194	WMWGORAP_1138
AY04738	614194	WMWGORAP_1138
AY04739	614194	WMWGORAP_1138
AY04740	614194	WMWGORAP_1138
AY04741	614194	WMWGORAP_1138
AY04742	614194	WMWGORAP_1138
AY04743	614194	WMWGORAP_1138
AY04744	614194	WMWGORAP_1138
AY04745	614195	WMWGORAP_1138
AY04747	614195	WMWGORAP_1138
AY04748	614195	WMWGORAP_1138
AY04749	614195	WMWGORAP_1138
AY04750	614195	WMWGORAP_1138
AY04751	614195	WMWGORAP_1138
AY04752	614195	WMWGORAP_1138
AY04753	614195	WMWGORAP_1138
AY04754	614195	WMWGORAP_1138
AY04755	614195	WMWGORAP_1138
AY04756	614196	WMWGORAP_1138
AY04746	614140	WMWGORAP_1138

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, with the exception of batch 614140, which is a dissolved sample and is not digested.
- 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 at a dilution of 1 to 5 to compensate for any matrix effects.
  8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP\_1138

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>
AY04735	614006	WMWGORAP_1138
AY04736	614006	WMWGORAP_1138
AY04737	614006	WMWGORAP_1138
AY04738	614006	WMWGORAP_1138
AY04739	614006	WMWGORAP_1138
AY04740	614006	WMWGORAP_1138
AY04741	614006	WMWGORAP_1138
AY04742	614006	WMWGORAP_1138
AY04743	614006	WMWGORAP_1138
AY04744	614006	WMWGORAP_1138
AY04745	614007	WMWGORAP_1138
AY04747	614007	WMWGORAP_1138
AY04748	614007	WMWGORAP_1138
AY04749	614007	WMWGORAP_1138
AY04750	614007	WMWGORAP_1138
AY04751	614007	WMWGORAP_1138
AY04752	614007	WMWGORAP_1138
AY04753	614007	WMWGORAP_1138
AY04754	614007	WMWGORAP_1138
AY04755	614007	WMWGORAP_1138
AY04756	614008	WMWGORAP_1138
AY04746	614268	WMWGORAP_1138

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

General Quality Control Procedures:

- Prior to sample analysis, an initial calibration verification (ICV) was analyzed and all criteria were met.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the method detection limit for the requested analyte.



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

#### Matrix Specific Quality Control Procedures:

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

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

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY04735

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	0.0108	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.145	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.10	mg/L

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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY04735

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AY04744	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0899	0.0921	0.0955	0.085 to 0.115		89.9	70 to 130		2.41	20
AY04744	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0914	0.0926	0.0986	0.085 to 0.115		91.4	70 to 130		1.28	20
AY04744	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.251	0.254	0.0935	0.085 to 0.115		87.9	70 to 130		1.18	20
AY04744	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0957	0.0981	0.0970	0.085 to 0.115		95.7	70 to 130		2.55	20
AY04744	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0915	0.0953	0.0950	0.085 to 0.115		91.5	70 to 130		4.11	20
AY04744	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.101	0.102	0.101	0.085 to 0.115		101	70 to 130		1.35	20
AY04744	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0852	0.0875	0.0934	0.085 to 0.115		85.2	70 to 130		2.63	20
AY04744	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0953	0.0972	0.102	0.085 to 0.115		95.3	70 to 130		1.92	20
AY04744	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.0958	0.0996	0.0988	0.085 to 0.115		95.8	70 to 130		3.88	20
AY04744	Mercury, Total by CVAA	mg/L	-0.00000201	0.0005	0.004	0.00383	0.00386	0.00359	0.0034 to 0.0046		95.8	70 to 130		0.725	20
AY04744	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0885	0.0913	0.0978	0.085 to 0.115		88.5	70 to 130		3.05	20
AY04744	Lithium, Total	mg/L	-0.000254	0.022	0.20	0.209	0.208	0.188	0.17 to 0.23		104	70 to 130		0.616	20
AY04744	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0951	0.0970	0.0954	0.085 to 0.115		95.1	70 to 130		2.04	20

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010



Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
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 (205) 664-6032 or 6171  
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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY04735

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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CC:

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY04736

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	0.0616	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.872	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	0.213	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	J 0.00537	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.13	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY04736

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY04744	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0899	0.0921	0.0955	0.085 to 0.115	89.9	70 to 130	2.41	20
AY04744	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0914	0.0926	0.0986	0.085 to 0.115	91.4	70 to 130	1.28	20
AY04744	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0915	0.0953	0.0950	0.085 to 0.115	91.5	70 to 130	4.11	20
AY04744	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.35	20
AY04744	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.251	0.254	0.0935	0.085 to 0.115	87.9	70 to 130	1.18	20
AY04744	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0957	0.0981	0.0970	0.085 to 0.115	95.7	70 to 130	2.55	20
AY04744	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0852	0.0875	0.0934	0.085 to 0.115	85.2	70 to 130	2.63	20
AY04744	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0953	0.0972	0.102	0.085 to 0.115	95.3	70 to 130	1.92	20
AY04744	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.0958	0.0996	0.0988	0.085 to 0.115	95.8	70 to 130	3.88	20
AY04744	Mercury, Total by CVAA	mg/L	-0.00000201	0.0005	0.004	0.00383	0.00386	0.00359	0.0034 to 0.0046	95.8	70 to 130	0.725	20
AY04744	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0885	0.0913	0.0978	0.085 to 0.115	88.5	70 to 130	3.05	20
AY04744	Lithium, Total	mg/L	-0.000254	0.022	0.20	0.209	0.208	0.188	0.17 to 0.23	104	70 to 130	0.616	20
AY04744	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0951	0.0970	0.0954	0.085 to 0.115	95.1	70 to 130	2.04	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY04736

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS			Rec		Prec	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY04737

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	0.182	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0464	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	0.143	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.172	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	J 0.090	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY04737

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit	
				Limit	Spike				Limit	Rec	Limit	Prec			
AY04744	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0899	0.0921	0.0955	0.085 to 0.115		89.9	70 to 130		2.41	20
AY04744	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0914	0.0926	0.0986	0.085 to 0.115		91.4	70 to 130		1.28	20
AY04744	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0915	0.0953	0.0950	0.085 to 0.115		91.5	70 to 130		4.11	20
AY04744	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.101	0.102	0.101	0.085 to 0.115		101	70 to 130		1.35	20
AY04744	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.251	0.254	0.0935	0.085 to 0.115		87.9	70 to 130		1.18	20
AY04744	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0957	0.0981	0.0970	0.085 to 0.115		95.7	70 to 130		2.55	20
AY04744	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0852	0.0875	0.0934	0.085 to 0.115		85.2	70 to 130		2.63	20
AY04744	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0953	0.0972	0.102	0.085 to 0.115		95.3	70 to 130		1.92	20
AY04744	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.0958	0.0996	0.0988	0.085 to 0.115		95.8	70 to 130		3.88	20
AY04744	Mercury, Total by CVAA	mg/L	-0.00000201	0.0005	0.004	0.00383	0.00386	0.00359	0.0034 to 0.0046		95.8	70 to 130		0.725	20
AY04744	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0885	0.0913	0.0978	0.085 to 0.115		88.5	70 to 130		3.05	20
AY04744	Lithium, Total	mg/L	-0.000254	0.022	0.20	0.209	0.208	0.188	0.17 to 0.23		104	70 to 130		0.616	20
AY04744	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0951	0.0970	0.0954	0.085 to 0.115		95.1	70 to 130		2.04	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY04737

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY04738

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	J 0.00762	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	J 0.080	mg/L

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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: Test America, Pensacola NELAP ID: E81010



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY04738

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY04744	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0899	0.0921	0.0955	0.085 to 0.115	89.9	70 to 130	2.41	20
AY04744	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0914	0.0926	0.0986	0.085 to 0.115	91.4	70 to 130	1.28	20
AY04744	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0915	0.0953	0.0950	0.085 to 0.115	91.5	70 to 130	4.11	20
AY04744	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.35	20
AY04744	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.251	0.254	0.0935	0.085 to 0.115	87.9	70 to 130	1.18	20
AY04744	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0957	0.0981	0.0970	0.085 to 0.115	95.7	70 to 130	2.55	20
AY04744	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0852	0.0875	0.0934	0.085 to 0.115	85.2	70 to 130	2.63	20
AY04744	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0953	0.0972	0.102	0.085 to 0.115	95.3	70 to 130	1.92	20
AY04744	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.0958	0.0996	0.0988	0.085 to 0.115	95.8	70 to 130	3.88	20
AY04744	Mercury, Total by CVAA	mg/L	-0.00000201	0.0005	0.004	0.00383	0.00386	0.00359	0.0034 to 0.0046	95.8	70 to 130	0.725	20
AY04744	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0885	0.0913	0.0978	0.085 to 0.115	88.5	70 to 130	3.05	20
AY04744	Lithium, Total	mg/L	-0.000254	0.022	0.20	0.209	0.208	0.188	0.17 to 0.23	104	70 to 130	0.616	20
AY04744	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0951	0.0970	0.0954	0.085 to 0.115	95.1	70 to 130	2.04	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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY04738

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Limit

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.

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY04739

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY04739

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY04744	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0899	0.0921	0.0955	0.085 to 0.115	89.9	70 to 130	2.41	20	
AY04744	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0914	0.0926	0.0986	0.085 to 0.115	91.4	70 to 130	1.28	20	
AY04744	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0852	0.0875	0.0934	0.085 to 0.115	85.2	70 to 130	2.63	20	
AY04744	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0953	0.0972	0.102	0.085 to 0.115	95.3	70 to 130	1.92	20	
AY04744	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.0958	0.0996	0.0988	0.085 to 0.115	95.8	70 to 130	3.88	20	
AY04744	Mercury, Total by CVAA	mg/L	-0.00000201	0.0005	0.004	0.00383	0.00386	0.00359	0.0034 to 0.0046	95.8	70 to 130	0.725	20	
AY04744	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.251	0.254	0.0935	0.085 to 0.115	87.9	70 to 130	1.18	20	
AY04744	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0957	0.0981	0.0970	0.085 to 0.115	95.7	70 to 130	2.55	20	
AY04744	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0915	0.0953	0.0950	0.085 to 0.115	91.5	70 to 130	4.11	20	
AY04744	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.35	20	
AY04744	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0885	0.0913	0.0978	0.085 to 0.115	88.5	70 to 130	3.05	20	
AY04744	Lithium, Total	mg/L	-0.000254	0.022	0.20	0.209	0.208	0.188	0.17 to 0.23	104	70 to 130	0.616	20	
AY04744	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0951	0.0970	0.0954	0.085 to 0.115	95.1	70 to 130	2.04	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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY04739

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY04740

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	0.00676	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0255	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	0.0833	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	J 0.00747	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.13	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY04740

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY04744	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0914	0.0926	0.0986	0.085 to 0.115	91.4	70 to 130	1.28	20	
AY04744	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0899	0.0921	0.0955	0.085 to 0.115	89.9	70 to 130	2.41	20	
AY04744	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.251	0.254	0.0935	0.085 to 0.115	87.9	70 to 130	1.18	20	
AY04744	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0957	0.0981	0.0970	0.085 to 0.115	95.7	70 to 130	2.55	20	
AY04744	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0915	0.0953	0.0950	0.085 to 0.115	91.5	70 to 130	4.11	20	
AY04744	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.35	20	
AY04744	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0852	0.0875	0.0934	0.085 to 0.115	85.2	70 to 130	2.63	20	
AY04744	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0953	0.0972	0.102	0.085 to 0.115	95.3	70 to 130	1.92	20	
AY04744	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.0958	0.0996	0.0988	0.085 to 0.115	95.8	70 to 130	3.88	20	
AY04744	Mercury, Total by CVAA	mg/L	-0.00000201	0.0005	0.004	0.00383	0.00386	0.00359	0.0034 to 0.0046	95.8	70 to 130	0.725	20	
AY04744	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0885	0.0913	0.0978	0.085 to 0.115	88.5	70 to 130	3.05	20	
AY04744	Lithium, Total	mg/L	-0.000254	0.022	0.20	0.209	0.208	0.188	0.17 to 0.23	104	70 to 130	0.616	20	
AY04744	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0951	0.0970	0.0954	0.085 to 0.115	95.1	70 to 130	2.04	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010



Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY04740

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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.

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY04741

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.201	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	J 0.0119	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.13	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY04741

Sample	Analysis	Units	MB	MB			MS	MSD	LCS	LCS		Rec	Prec	Limit
				Limit	Spike	MS				Limit	Rec			
AY04744	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0914	0.0926	0.0986	0.085 to 0.115	91.4	70 to 130	1.28	20	
AY04744	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0899	0.0921	0.0955	0.085 to 0.115	89.9	70 to 130	2.41	20	
AY04744	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.251	0.254	0.0935	0.085 to 0.115	87.9	70 to 130	1.18	20	
AY04744	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0957	0.0981	0.0970	0.085 to 0.115	95.7	70 to 130	2.55	20	
AY04744	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0885	0.0913	0.0978	0.085 to 0.115	88.5	70 to 130	3.05	20	
AY04744	Lithium, Total	mg/L	-0.000254	0.022	0.20	0.209	0.208	0.188	0.17 to 0.23	104	70 to 130	0.616	20	
AY04744	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0951	0.0970	0.0954	0.085 to 0.115	95.1	70 to 130	2.04	20	
AY04744	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0915	0.0953	0.0950	0.085 to 0.115	91.5	70 to 130	4.11	20	
AY04744	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.35	20	
AY04744	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0852	0.0875	0.0934	0.085 to 0.115	85.2	70 to 130	2.63	20	
AY04744	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0953	0.0972	0.102	0.085 to 0.115	95.3	70 to 130	1.92	20	
AY04744	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.0958	0.0996	0.0988	0.085 to 0.115	95.8	70 to 130	3.88	20	
AY04744	Mercury, Total by CVAA	mg/L	-0.00000201	0.0005	0.004	0.00383	0.00386	0.00359	0.0034 to 0.0046	95.8	70 to 130	0.725	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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY04741

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY04742

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	0.0282	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.132	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	0.0580	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.27	mg/L

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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY04742

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY04744	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0914	0.0926	0.0986	0.085 to 0.115	91.4	70 to 130	1.28	20	
AY04744	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0899	0.0921	0.0955	0.085 to 0.115	89.9	70 to 130	2.41	20	
AY04744	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0915	0.0953	0.0950	0.085 to 0.115	91.5	70 to 130	4.11	20	
AY04744	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.35	20	
AY04744	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0852	0.0875	0.0934	0.085 to 0.115	85.2	70 to 130	2.63	20	
AY04744	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0953	0.0972	0.102	0.085 to 0.115	95.3	70 to 130	1.92	20	
AY04744	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.0958	0.0996	0.0988	0.085 to 0.115	95.8	70 to 130	3.88	20	
AY04744	Mercury, Total by CVAA	mg/L	-0.00000201	0.0005	0.004	0.00383	0.00386	0.00359	0.0034 to 0.0046	95.8	70 to 130	0.725	20	
AY04744	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0885	0.0913	0.0978	0.085 to 0.115	88.5	70 to 130	3.05	20	
AY04744	Lithium, Total	mg/L	-0.000254	0.022	0.20	0.209	0.208	0.188	0.17 to 0.23	104	70 to 130	0.616	20	
AY04744	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0951	0.0970	0.0954	0.085 to 0.115	95.1	70 to 130	2.04	20	
AY04744	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.251	0.254	0.0935	0.085 to 0.115	87.9	70 to 130	1.18	20	
AY04744	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0957	0.0981	0.0970	0.085 to 0.115	95.7	70 to 130	2.55	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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY04742

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY04743

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.165	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.17	mg/L

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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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY04743

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY04744	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0914	0.0926	0.0986	0.085 to 0.115		91.4	70 to 130	1.28	20
AY04744	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0899	0.0921	0.0955	0.085 to 0.115		89.9	70 to 130	2.41	20
AY04744	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0885	0.0913	0.0978	0.085 to 0.115		88.5	70 to 130	3.05	20
AY04744	Lithium, Total	mg/L	-0.000254	0.022	0.20	0.209	0.208	0.188	0.17 to 0.23		104	70 to 130	0.616	20
AY04744	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0951	0.0970	0.0954	0.085 to 0.115		95.1	70 to 130	2.04	20
AY04744	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.251	0.254	0.0935	0.085 to 0.115		87.9	70 to 130	1.18	20
AY04744	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0957	0.0981	0.0970	0.085 to 0.115		95.7	70 to 130	2.55	20
AY04744	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0915	0.0953	0.0950	0.085 to 0.115		91.5	70 to 130	4.11	20
AY04744	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.101	0.102	0.101	0.085 to 0.115		101	70 to 130	1.35	20
AY04744	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0852	0.0875	0.0934	0.085 to 0.115		85.2	70 to 130	2.63	20
AY04744	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0953	0.0972	0.102	0.085 to 0.115		95.3	70 to 130	1.92	20
AY04744	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.0958	0.0996	0.0988	0.085 to 0.115		95.8	70 to 130	3.88	20
AY04744	Mercury, Total by CVAA	mg/L	-0.00000201	0.0005	0.004	0.00383	0.00386	0.00359	0.0034 to 0.0046		95.8	70 to 130	0.725	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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY04743

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AY04744

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.163	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.17	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AY04744

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
				Limit	Spike					Rec	Limit		
AY04744	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0914	0.0926	0.0986	0.085 to 0.115	91.4	70 to 130	1.28	20
AY04744	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0899	0.0921	0.0955	0.085 to 0.115	89.9	70 to 130	2.41	20
AY04744	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0915	0.0953	0.0950	0.085 to 0.115	91.5	70 to 130	4.11	20
AY04744	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.101	0.102	0.101	0.085 to 0.115	101	70 to 130	1.35	20
AY04744	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.251	0.254	0.0935	0.085 to 0.115	87.9	70 to 130	1.18	20
AY04744	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0957	0.0981	0.0970	0.085 to 0.115	95.7	70 to 130	2.55	20
AY04744	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0852	0.0875	0.0934	0.085 to 0.115	85.2	70 to 130	2.63	20
AY04744	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0953	0.0972	0.102	0.085 to 0.115	95.3	70 to 130	1.92	20
AY04744	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.0958	0.0996	0.0988	0.085 to 0.115	95.8	70 to 130	3.88	20
AY04744	Mercury, Total by CVAA	mg/L	-0.00000201	0.0005	0.004	0.00383	0.00386	0.00359	0.0034 to 0.0046	95.8	70 to 130	0.725	20
AY04744	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0885	0.0913	0.0978	0.085 to 0.115	88.5	70 to 130	3.05	20
AY04744	Lithium, Total	mg/L	-0.000254	0.022	0.20	0.209	0.208	0.188	0.17 to 0.23	104	70 to 130	0.616	20
AY04744	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0951	0.0970	0.0954	0.085 to 0.115	95.1	70 to 130	2.04	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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AY04744

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit

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: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY04745

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	J 0.00139	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.276	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	J 0.0353	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.17	mg/L

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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: Test America, Pensacola NELAP ID: E81010



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY04745

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY04755	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0983	0.0960	0.0970	0.085 to 0.115	98.3	70 to 130	2.38	20	
AY04755	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0994	0.0956	0.102	0.085 to 0.115	99.4	70 to 130	3.82	20	
AY04755	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0877	0.0856	0.0934	0.085 to 0.115	87.7	70 to 130	2.44	20	
AY04755	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.130	0.129	0.0935	0.085 to 0.115	86.3	70 to 130	1.34	20	
AY04755	Mercury, Total by CVAA	mg/L	-0.00000225	0.0005	0.004	0.00384	0.00382	0.00382	0.0034 to 0.0046	96.0	70 to 130	0.446	20	
AY04755	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.195	0.191	0.101	0.085 to 0.115	98.1	70 to 130	2.16	20	
AY04755	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0968	0.0945	0.0954	0.085 to 0.115	96.8	70 to 130	2.33	20	
AY04755	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0938	0.0917	0.0950	0.085 to 0.115	91.7	70 to 130	2.34	20	
AY04755	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0893	0.0856	0.0986	0.085 to 0.115	89.3	70 to 130	4.28	20	
AY04755	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.100	0.0972	0.0988	0.085 to 0.115	100	70 to 130	3.19	20	
AY04755	Lithium, Total	mg/L	-0.000227	0.022	0.20	0.371	0.372	0.189	0.17 to 0.23	106	70 to 130	0.291	20	
AY04755	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0917	0.0894	0.0955	0.085 to 0.115	91.7	70 to 130	2.49	20	
AY04755	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0891	0.0871	0.0978	0.085 to 0.115	89.1	70 to 130	2.27	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY04745

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-14 Dissolved

Laboratory ID Number: AY04746

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.001	0.005	U Not Detected	mg/L
* Barium, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.002	0.01	0.240	mg/L
* Beryllium, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.0003	0.001	U Not Detected	mg/L
* Antimony, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Chromium, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Mercury, Dissolved by CVAA	ABB	3/5/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Dissolved	HRG	3/5/2018	EPA 200.7		1.01	0.01	0.05	J 0.0311	mg/L
* Molybdenum, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Lead, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.001	0.005	U Not Detected	mg/L
* Selenium, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.002	0.01	U Not Detected	mg/L
* Thallium, Dissolved	DLJ	3/1/2018	EPA 200.8		5.025	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Diss, Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.17	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-14 Dissolved

Laboratory ID Number: AY04746

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY04746	Barium, Dissolved	mg/L	0.00000242	0.0044	0.10	0.339	0.336			98.5	70 to 130	0.765	20
AY04746	Cadmium, Dissolved	mg/L	0.00	0.00044	0.10	0.0910	0.0894			91.0	70 to 130	1.74	20
AY04746	Arsenic, Dissolved	mg/L	0.00000213	0.0022	0.10	0.0928	0.0920			92.8	70 to 130	0.905	20
AY04746	Antimony, Dissolved	mg/L	0.0000305	0.00132	0.10	0.0872	0.0869			87.2	70 to 130	0.420	20
AY04746	Cobalt, Dissolved	mg/L	0.000000557	0.0044	0.10	0.0963	0.0955			96.3	70 to 130	0.794	20
AY04746	Selenium, Dissolved	mg/L	0.0000309	0.0044	0.10	0.0914	0.0904			91.4	70 to 130	1.15	20
AY04746	Lead, Dissolved	mg/L	-0.00000690	0.0022	0.10	0.0952	0.0942			95.2	70 to 130	1.01	20
AY04746	Thallium, Dissolved	mg/L	0.000000740	0.00044	0.10	0.0942	0.0945			94.2	70 to 130	0.348	20
AY04746	Chromium, Dissolved	mg/L	0.00000679	0.0044	0.10	0.0941	0.0931			94.1	70 to 130	1.11	20
AY04746	Lithium, Dissolved	mg/L	-0.000136	0.022	0.20	0.227	0.225	0.170	0.17 to 0.23	98.1	70 to 130	0.947	20
AY04746	Beryllium, Dissolved	mg/L	0.00000590	0.00132	0.10	0.0964	0.103			96.4	70 to 130	6.51	20
AY04746	Mercury, Dissolved by CVAA	mg/L	0.00000628	0.0005	0.004	0.00394	0.00393	0.00390	0.0034 to 0.0046	98.5	70 to 130	0.381	20
AY04746	Molybdenum, Dissolved	mg/L	0.00000613	0.0044	0.10	0.101	0.102			101	70 to 130	0.286	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-14 Dissolved

Laboratory ID Number: AY04746

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS			Rec		Prec	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY04747

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.300	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	J 0.0327	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.11	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY04747

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY04755	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0983	0.0960	0.0970	0.085 to 0.115		98.3	70 to 130	2.38	20
AY04755	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0994	0.0956	0.102	0.085 to 0.115		99.4	70 to 130	3.82	20
AY04755	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.100	0.0972	0.0988	0.085 to 0.115		100	70 to 130	3.19	20
AY04755	Lithium, Total	mg/L	-0.000227	0.022	0.20	0.371	0.372	0.189	0.17 to 0.23		106	70 to 130	0.291	20
AY04755	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0917	0.0894	0.0955	0.085 to 0.115		91.7	70 to 130	2.49	20
AY04755	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0891	0.0871	0.0978	0.085 to 0.115		89.1	70 to 130	2.27	20
AY04755	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0877	0.0856	0.0934	0.085 to 0.115		87.7	70 to 130	2.44	20
AY04755	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.130	0.129	0.0935	0.085 to 0.115		86.3	70 to 130	1.34	20
AY04755	Mercury, Total by CVAA	mg/L	-0.00000225	0.0005	0.004	0.00384	0.00382	0.00382	0.0034 to 0.0046		96.0	70 to 130	0.446	20
AY04755	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.195	0.191	0.101	0.085 to 0.115		98.1	70 to 130	2.16	20
AY04755	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0968	0.0945	0.0954	0.085 to 0.115		96.8	70 to 130	2.33	20
AY04755	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0938	0.0917	0.0950	0.085 to 0.115		91.7	70 to 130	2.34	20
AY04755	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0893	0.0856	0.0986	0.085 to 0.115		89.3	70 to 130	4.28	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.

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY04747

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY04748

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	0.0922	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0455	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	0.189	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0441	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.46	mg/L

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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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY04748

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AY04755	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0994	0.0956	0.102	0.085 to 0.115		99.4	70 to 130		3.82	20
AY04755	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0983	0.0960	0.0970	0.085 to 0.115		98.3	70 to 130		2.38	20
AY04755	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0938	0.0917	0.0950	0.085 to 0.115		91.7	70 to 130		2.34	20
AY04755	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0893	0.0856	0.0986	0.085 to 0.115		89.3	70 to 130		4.28	20
AY04755	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0917	0.0894	0.0955	0.085 to 0.115		91.7	70 to 130		2.49	20
AY04755	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0891	0.0871	0.0978	0.085 to 0.115		89.1	70 to 130		2.27	20
AY04755	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0877	0.0856	0.0934	0.085 to 0.115		87.7	70 to 130		2.44	20
AY04755	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.130	0.129	0.0935	0.085 to 0.115		86.3	70 to 130		1.34	20
AY04755	Mercury, Total by CVAA	mg/L	-0.00000225	0.0005	0.004	0.00384	0.00382	0.00382	0.0034 to 0.0046		96.0	70 to 130		0.446	20
AY04755	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.195	0.191	0.101	0.085 to 0.115		98.1	70 to 130		2.16	20
AY04755	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0968	0.0945	0.0954	0.085 to 0.115		96.8	70 to 130		2.33	20
AY04755	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.100	0.0972	0.0988	0.085 to 0.115		100	70 to 130		3.19	20
AY04755	Lithium, Total	mg/L	-0.000227	0.022	0.20	0.371	0.372	0.189	0.17 to 0.23		106	70 to 130		0.291	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY04748

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-18 Dup

Laboratory ID Number: AY04749

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	0.0875	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0427	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	0.192	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0419	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.46	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-18 Dup

Laboratory ID Number: AY04749

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AY04755	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0994	0.0956	0.102	0.085 to 0.115		99.4	70 to 130		3.82	20
AY04755	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0983	0.0960	0.0970	0.085 to 0.115		98.3	70 to 130		2.38	20
AY04755	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0938	0.0917	0.0950	0.085 to 0.115		91.7	70 to 130		2.34	20
AY04755	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0893	0.0856	0.0986	0.085 to 0.115		89.3	70 to 130		4.28	20
AY04755	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.100	0.0972	0.0988	0.085 to 0.115		100	70 to 130		3.19	20
AY04755	Lithium, Total	mg/L	-0.000227	0.022	0.20	0.371	0.372	0.189	0.17 to 0.23		106	70 to 130		0.291	20
AY04755	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0917	0.0894	0.0955	0.085 to 0.115		91.7	70 to 130		2.49	20
AY04755	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0891	0.0871	0.0978	0.085 to 0.115		89.1	70 to 130		2.27	20
AY04755	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0877	0.0856	0.0934	0.085 to 0.115		87.7	70 to 130		2.44	20
AY04755	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.130	0.129	0.0935	0.085 to 0.115		86.3	70 to 130		1.34	20
AY04755	Mercury, Total by CVAA	mg/L	-0.00000225	0.0005	0.004	0.00384	0.00382	0.00382	0.0034 to 0.0046		96.0	70 to 130		0.446	20
AY04755	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.195	0.191	0.101	0.085 to 0.115		98.1	70 to 130		2.16	20
AY04755	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0968	0.0945	0.0954	0.085 to 0.115		96.8	70 to 130		2.33	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.

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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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-18 Dup

Laboratory ID Number: AY04749

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS			Rec		Prec	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY04750

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	J 0.00138	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.291	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	J 0.0472	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	J 0.00903	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.39	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY04750

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			Limit	MB					Limit	Rec	Limit	Prec			
AY04755	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0983	0.0960	0.0970	0.085 to 0.115		98.3	70 to 130		2.38	20
AY04755	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0994	0.0956	0.102	0.085 to 0.115		99.4	70 to 130		3.82	20
AY04755	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0917	0.0894	0.0955	0.085 to 0.115		91.7	70 to 130		2.49	20
AY04755	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0891	0.0871	0.0978	0.085 to 0.115		89.1	70 to 130		2.27	20
AY04755	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.100	0.0972	0.0988	0.085 to 0.115		100	70 to 130		3.19	20
AY04755	Lithium, Total	mg/L	-0.000227	0.022	0.20	0.371	0.372	0.189	0.17 to 0.23		106	70 to 130		0.291	20
AY04755	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0877	0.0856	0.0934	0.085 to 0.115		87.7	70 to 130		2.44	20
AY04755	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.130	0.129	0.0935	0.085 to 0.115		86.3	70 to 130		1.34	20
AY04755	Mercury, Total by CVAA	mg/L	-0.00000225	0.0005	0.004	0.00384	0.00382	0.00382	0.0034 to 0.0046		96.0	70 to 130		0.446	20
AY04755	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.195	0.191	0.101	0.085 to 0.115		98.1	70 to 130		2.16	20
AY04755	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0968	0.0945	0.0954	0.085 to 0.115		96.8	70 to 130		2.33	20
AY04755	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0938	0.0917	0.0950	0.085 to 0.115		91.7	70 to 130		2.34	20
AY04755	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0893	0.0856	0.0986	0.085 to 0.115		89.3	70 to 130		4.28	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.

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY04750

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:



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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY04751

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0864	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	0.0534	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0112	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	1.1	mg/L

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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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY04751

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY04755	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0983	0.0960	0.0970	0.085 to 0.115	98.3	70 to 130	2.38	20	
AY04755	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0994	0.0956	0.102	0.085 to 0.115	99.4	70 to 130	3.82	20	
AY04755	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0917	0.0894	0.0955	0.085 to 0.115	91.7	70 to 130	2.49	20	
AY04755	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0891	0.0871	0.0978	0.085 to 0.115	89.1	70 to 130	2.27	20	
AY04755	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0938	0.0917	0.0950	0.085 to 0.115	91.7	70 to 130	2.34	20	
AY04755	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0893	0.0856	0.0986	0.085 to 0.115	89.3	70 to 130	4.28	20	
AY04755	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0877	0.0856	0.0934	0.085 to 0.115	87.7	70 to 130	2.44	20	
AY04755	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.130	0.129	0.0935	0.085 to 0.115	86.3	70 to 130	1.34	20	
AY04755	Mercury, Total by CVAA	mg/L	-0.00000225	0.0005	0.004	0.00384	0.00382	0.00382	0.0034 to 0.0046	96.0	70 to 130	0.446	20	
AY04755	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.195	0.191	0.101	0.085 to 0.115	98.1	70 to 130	2.16	20	
AY04755	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0968	0.0945	0.0954	0.085 to 0.115	96.8	70 to 130	2.33	20	
AY04755	Cobalt, Total	mg/L	0.00000898	0.0044	0.10	0.100	0.0972	0.0988	0.085 to 0.115	100	70 to 130	3.19	20	
AY04755	Lithium, Total	mg/L	-0.000227	0.022	0.20	0.371	0.372	0.189	0.17 to 0.23	106	70 to 130	0.291	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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY04751

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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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: Test America, Pensacola NELAP ID: E81010

CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY04752

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY04752

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY04755	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0983	0.0960	0.0970	0.085 to 0.115	98.3	70 to 130	2.38	20
AY04755	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0994	0.0956	0.102	0.085 to 0.115	99.4	70 to 130	3.82	20
AY04755	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0917	0.0894	0.0955	0.085 to 0.115	91.7	70 to 130	2.49	20
AY04755	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0891	0.0871	0.0978	0.085 to 0.115	89.1	70 to 130	2.27	20
AY04755	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.100	0.0972	0.0988	0.085 to 0.115	100	70 to 130	3.19	20
AY04755	Lithium, Total	mg/L	-0.000227	0.022	0.20	0.371	0.372	0.189	0.17 to 0.23	106	70 to 130	0.291	20
AY04755	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0877	0.0856	0.0934	0.085 to 0.115	87.7	70 to 130	2.44	20
AY04755	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.130	0.129	0.0935	0.085 to 0.115	86.3	70 to 130	1.34	20
AY04755	Mercury, Total by CVAA	mg/L	-0.00000225	0.0005	0.004	0.00384	0.00382	0.00382	0.0034 to 0.0046	96.0	70 to 130	0.446	20
AY04755	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.195	0.191	0.101	0.085 to 0.115	98.1	70 to 130	2.16	20
AY04755	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0968	0.0945	0.0954	0.085 to 0.115	96.8	70 to 130	2.33	20
AY04755	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0938	0.0917	0.0950	0.085 to 0.115	91.7	70 to 130	2.34	20
AY04755	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0893	0.0856	0.0986	0.085 to 0.115	89.3	70 to 130	4.28	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: Test America, Pensacola NELAP ID: E81010



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 21-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY04752

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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Laboratory certification ID: E571114

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CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY04753

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	J 0.00424	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0770	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	J 0.0481	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0134	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.34	mg/L

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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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY04753

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY04755	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0983	0.0960	0.0970	0.085 to 0.115		98.3	70 to 130	2.38	20
AY04755	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0994	0.0956	0.102	0.085 to 0.115		99.4	70 to 130	3.82	20
AY04755	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.100	0.0972	0.0988	0.085 to 0.115		100	70 to 130	3.19	20
AY04755	Lithium, Total	mg/L	-0.000227	0.022	0.20	0.371	0.372	0.189	0.17 to 0.23		106	70 to 130	0.291	20
AY04755	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0877	0.0856	0.0934	0.085 to 0.115		87.7	70 to 130	2.44	20
AY04755	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.130	0.129	0.0935	0.085 to 0.115		86.3	70 to 130	1.34	20
AY04755	Mercury, Total by CVAA	mg/L	-0.00000225	0.0005	0.004	0.00384	0.00382	0.00382	0.0034 to 0.0046		96.0	70 to 130	0.446	20
AY04755	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.195	0.191	0.101	0.085 to 0.115		98.1	70 to 130	2.16	20
AY04755	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0968	0.0945	0.0954	0.085 to 0.115		96.8	70 to 130	2.33	20
AY04755	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0917	0.0894	0.0955	0.085 to 0.115		91.7	70 to 130	2.49	20
AY04755	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0891	0.0871	0.0978	0.085 to 0.115		89.1	70 to 130	2.27	20
AY04755	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0938	0.0917	0.0950	0.085 to 0.115		91.7	70 to 130	2.34	20
AY04755	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0893	0.0856	0.0986	0.085 to 0.115		89.3	70 to 130	4.28	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 19-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY04753

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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.

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY04754

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	0.00724	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.224	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	J 0.000636	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	0.149	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0362	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.60	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010



Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY04754

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	Spike				Limit	Rec	Limit	Prec		
AY04755	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0983	0.0960	0.0970	0.085 to 0.115	98.3	70 to 130	2.38	20
AY04755	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0994	0.0956	0.102	0.085 to 0.115	99.4	70 to 130	3.82	20
AY04755	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0877	0.0856	0.0934	0.085 to 0.115	87.7	70 to 130	2.44	20
AY04755	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.130	0.129	0.0935	0.085 to 0.115	86.3	70 to 130	1.34	20
AY04755	Mercury, Total by CVAA	mg/L	-0.00000225	0.0005	0.004	0.00384	0.00382	0.00382	0.0034 to 0.0046	96.0	70 to 130	0.446	20
AY04755	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.195	0.191	0.101	0.085 to 0.115	98.1	70 to 130	2.16	20
AY04755	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0968	0.0945	0.0954	0.085 to 0.115	96.8	70 to 130	2.33	20
AY04755	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0917	0.0894	0.0955	0.085 to 0.115	91.7	70 to 130	2.49	20
AY04755	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0891	0.0871	0.0978	0.085 to 0.115	89.1	70 to 130	2.27	20
AY04755	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0938	0.0917	0.0950	0.085 to 0.115	91.7	70 to 130	2.34	20
AY04755	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0893	0.0856	0.0986	0.085 to 0.115	89.3	70 to 130	4.28	20
AY04755	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.100	0.0972	0.0988	0.085 to 0.115	100	70 to 130	3.19	20
AY04755	Lithium, Total	mg/L	-0.000227	0.022	0.20	0.371	0.372	0.189	0.17 to 0.23	106	70 to 130	0.291	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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY04754

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS			Rec		Prec	

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY04755

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0441	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	J 0.00219	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	0.158	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	0.0966	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	0.23	mg/L

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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: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY04755

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY04755	Lead, Total	mg/L	0.00000105	0.0022	0.10	0.0983	0.0960	0.0970	0.085 to 0.115	98.3	70 to 130	2.38	20
AY04755	Beryllium, Total	mg/L	0.00000927	0.00132	0.10	0.0994	0.0956	0.102	0.085 to 0.115	99.4	70 to 130	3.82	20
AY04755	Chromium, Total	mg/L	0.0000322	0.0044	0.10	0.0938	0.0917	0.0950	0.085 to 0.115	91.7	70 to 130	2.34	20
AY04755	Selenium, Total	mg/L	0.0000588	0.0044	0.10	0.0893	0.0856	0.0986	0.085 to 0.115	89.3	70 to 130	4.28	20
AY04755	Cobalt, Total	mg/L	0.000000898	0.0044	0.10	0.100	0.0972	0.0988	0.085 to 0.115	100	70 to 130	3.19	20
AY04755	Lithium, Total	mg/L	-0.000227	0.022	0.20	0.371	0.372	0.189	0.17 to 0.23	106	70 to 130	0.291	20
AY04755	Antimony, Total	mg/L	0.0000515	0.00132	0.10	0.0877	0.0856	0.0934	0.085 to 0.115	87.7	70 to 130	2.44	20
AY04755	Barium, Total	mg/L	-0.0000104	0.0044	0.10	0.130	0.129	0.0935	0.085 to 0.115	86.3	70 to 130	1.34	20
AY04755	Mercury, Total by CVAA	mg/L	-0.00000225	0.0005	0.004	0.00384	0.00382	0.00382	0.0034 to 0.0046	96.0	70 to 130	0.446	20
AY04755	Molybdenum, Total	mg/L	0.0000124	0.0044	0.10	0.195	0.191	0.101	0.085 to 0.115	98.1	70 to 130	2.16	20
AY04755	Thallium, Total	mg/L	0.00000695	0.00044	0.10	0.0968	0.0945	0.0954	0.085 to 0.115	96.8	70 to 130	2.33	20
AY04755	Arsenic, Total	mg/L	0.00000623	0.0022	0.10	0.0917	0.0894	0.0955	0.085 to 0.115	91.7	70 to 130	2.49	20
AY04755	Cadmium, Total	mg/L	0.00000104	0.00066	0.10	0.0891	0.0871	0.0978	0.085 to 0.115	89.1	70 to 130	2.27	20

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY04755

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS			Rec		Prec	

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Comments: Test America, Pensacola NELAP ID: E81010

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY04756

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cadmium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	3/1/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	HRG	2/28/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	3/1/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Fluoride, Total, by Test America	SGC	3/16/2018	SM 4500 F_C		1	0.032	0.10	U <0.032	mg/L

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY04756

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY04756	Cobalt, Total	mg/L	0.00000891	0.0044	0.10	0.0980	0.0947	0.0965	0.085 to 0.115	98.0	70 to 130	3.37	20	
AY04756	Lithium, Total	mg/L	-0.000248	0.022	0.20	0.188	0.190	0.190	0.17 to 0.23	94.2	70 to 130	0.810	20	
AY04756	Mercury, Total by CVAA	mg/L	-0.00000166	0.0005	0.004	0.00383	0.00380	0.00389	0.0034 to 0.0046	95.8	70 to 130	0.797	20	
AY04756	Antimony, Total	mg/L	0.0000449	0.00132	0.10	0.0863	0.0851	0.0912	0.085 to 0.115	86.3	70 to 130	1.41	20	
AY04756	Barium, Total	mg/L	-0.0000124	0.0044	0.10	0.0874	0.0871	0.0911	0.085 to 0.115	87.4	70 to 130	0.320	20	
AY04756	Lead, Total	mg/L	0.00000254	0.0022	0.10	0.0962	0.0942	0.0945	0.085 to 0.115	96.2	70 to 130	2.16	20	
AY04756	Molybdenum, Total	mg/L	0.0000110	0.0044	0.10	0.101	0.0981	0.0982	0.085 to 0.115	101	70 to 130	2.89	20	
AY04756	Chromium, Total	mg/L	0.0000271	0.0044	0.10	0.0944	0.0919	0.0942	0.085 to 0.115	94.4	70 to 130	2.71	20	
AY04756	Thallium, Total	mg/L	0.00000694	0.00044	0.10	0.0962	0.0935	0.0926	0.085 to 0.115	96.2	70 to 130	2.85	20	
AY04756	Arsenic, Total	mg/L	0.00000960	0.0022	0.10	0.0916	0.0886	0.0943	0.085 to 0.115	91.6	70 to 130	3.36	20	
AY04756	Beryllium, Total	mg/L	0.00000894	0.00132	0.10	0.0968	0.0943	0.0993	0.085 to 0.115	96.8	70 to 130	2.61	20	
AY04756	Cadmium, Total	mg/L	0.00000211	0.00066	0.10	0.0908	0.0893	0.0949	0.085 to 0.115	90.8	70 to 130	1.69	20	
AY04756	Selenium, Total	mg/L	0.0000420	0.0044	0.10	0.0904	0.0885	0.0956	0.085 to 0.115	90.4	70 to 130	2.08	20	

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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 20-Feb-18  
 Customer ID:  
 Delivery Date: 22-Feb-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY04756

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Rec	Limit	Prec	Limit

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments: Test America, Pensacola NELAP ID: E81010

CC:

## 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
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



# Chain of Custody Groundwater

APC General Testing Laboratory  
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 02/20/2018 19:54

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Anthony Goggins"/>	Location	<input type="text" value="Gorgas Ash Pond"/>

Analysis Requested	<input type="text" value="Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (250mL): Anions"/>
Comments	Relinquished to secure location, GSC Building 8 shipping lab on 022018 at 20:00. Received from shipping lab. Fluoride outsourced to Test America, Pensacola for analysis. There is no temperature preservation requirement for the analyses requested.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17	02/19/2018	12:47	3	Groundwater		AY04753
MW-15	02/20/2018	13:43	3	Groundwater		AY04754
MW-21	02/20/2018	16:21	3	Groundwater		AY04755
FB-2	02/20/2018	10:34	3	Field Blank		AY04756

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2018.02.21 11:08:59 -0600</small>	02/21/2018 11:08

SmarTroll ID	<input type="text" value="5141-26150-1-1"/>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/> Cooler Temp <input type="text" value="NA"/> Thermometer ID <input type="text" value="NA"/> pH Strip ID <input type="text" value="5881-30151-10-5"/>
Turbidity ID	<input type="text" value="4677-23343-4-2"/>	





# Chain of Custody Groundwater

APC General Testing Laboratory  
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 02/21/2018 18:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschadl	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (500mL): Metals, Bottle 2 (250mL): Hg, Bottle 3 (250mL): Anions		
Comments	Groundwater Samples secured in APCO Shipping Lab located in GSC Building 8. Secured samples at 1800 on 21FEB18. Received from shipping lab. Fluoride outsourced to Test America, Pensacola for analysis. There is no temperature preservation requirement for the analyses requested. On 2/22/18 lab filtered using filter ID 5470-27980-9-4, added 2.0mL HNO3 to bottle 1		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	02/19/2018	12:10	3	Groundwater		AY04735
MW-6D	02/19/2018	13:05	3	Groundwater		AY04736
MW-7	02/19/2018	14:00	3	Groundwater		AY04737
MW-8	02/19/2018	15:07	3	Groundwater		AY04738
FB-1	02/19/2018	15:40	3	Field Blank		AY04739
MW-9	02/20/2018	09:55	3	Groundwater		AY04740
MW-11	02/20/2018	11:14	3	Groundwater		AY04741
MW-12	02/20/2018	13:18	3	Groundwater		AY04742
MW-13	02/20/2018	14:32	3	Groundwater		AY04743
MW-13 DUP	02/20/2018	14:32	3	Sample Duplicate		AY04744
MW-14	02/20/2018	15:56	3	Groundwater		AY04745
MW-14 DIS	02/20/2018	16:20	3	Groundwater	✓	AY04746
MW-16D	02/21/2018	11:39	3	Groundwater		AY04747
MW-18	02/21/2018	12:57	3	Groundwater		AY04748
MW-18 DUP	02/21/2018	12:57	3	Sample Duplicate		AY04749
MW-19	02/21/2018	13:57	3	Groundwater		AY04750
MW-2	02/21/2018	14:56	3	Groundwater		AY04751
EB-1	02/21/2018	15:40	3	Equipment Blank		AY04752

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southerncco.com, c=US Date: 2018.02.22 13:02:59 -0600</small>	02/22/2018 13:02

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2	<input type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp	NA
		Thermometer ID	NA
		pH Strip ID	5881-30151-10-5



**Chain of Custody  
Groundwater**  
APC General Testing Laboratory  
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 02/20/2018 19:54

Requested Complete Date	<input type="text" value="Routine"/>	Results To	<input type="text" value="Dustin Brooks, Greg Dyer"/>
Site Representative	<input type="text" value="Che George"/>	Requested By	<input type="text" value="Greg Dyer"/>
Collector	<input type="text" value="Anthony Goggins"/>	Location	<input type="text" value="Gorgas Ash Pond"/>

Analysis Requested	<input type="text" value="Bottle 1 (1L): Radiological"/>
Comments	<input type="text" value="Radium Duplicate collected at MW-21. Relinquished samples to secure location, GSC Building 8 shipping lab on 02/20/2018 at 20:00. Received from shipping lab. There is no temperature preservation requirement for Radium."/>

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17	02/19/2018	12:47	1	Groundwater		AY04775
MW-15	02/20/2018	13:43	1	Groundwater		AY04776
MW-21	02/20/2018	16:21	3	Groundwater		AY04777
FB-2	02/20/2018	10:34	1	Field Blank		AY04778

<p>Relinquished By</p> <div style="border: 1px solid black; padding: 5px; text-align: center;"> </div>	<p>Received By</p> <div style="border: 1px solid black; padding: 5px;"> <p><b>Sarah Copeland</b></p> <small>Digitally signed by Sarah Copeland              DN: cn=Sarah Copeland, o.ou,              email=sgcopela@southernco.com, c=US              Date: 2018.02.21 11:06:12 -06'00'</small> </div>	<p>Date/Time</p> <div style="border: 1px solid black; padding: 5px;"> <p>02/21/2018 11:06</p> </div>

SmarTroll ID <input type="text" value="5141-26150-1-1"/>	<p>All metals and radiological bottles have pH &lt; 2 <input checked="" type="checkbox"/></p> <p>Cooler Temp <input type="text" value="NA"/></p> <p>Thermometer ID <input type="text" value="NA"/></p> <p>pH Strip ID <input type="text" value="5881-30151-10-5"/></p>
Turbidity ID <input type="text" value="4677-23343-4-2"/>	



# Chain of Custody Groundwater

APC General Testing Laboratory  
General Service Complex Building 8

- Field Complete
- Lab Complete

Lab ETA 02/21/2018 18:04

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschadl	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (1L): Radiological		
Comments	Radium Duplicate Collected at MW-6S Groundwater Samples secured in APCO Shipping Lab located in GSC Building 8. Secured samples at 1800 on 21FEB18. Received from shipping lab. There is no temperature preservation requirement for Radium. On 2/22/18 lab filtered using ID		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	02/19/2018	12:10	3	Groundwater		AY04757
MW-6D	02/19/2018	13:05	1	Groundwater		AY04758
MW-7	02/19/2018	14:00	1	Groundwater		AY04759
MW-8	02/19/2018	15:07	1	Groundwater		AY04760
FB-1	02/19/2018	15:40	1	Field Blank		AY04761
MW-9	02/20/2018	09:55	1	Groundwater		AY04762
MW-11	02/20/2018	11:14	1	Groundwater		AY04763
MW-12	02/20/2018	13:18	1	Groundwater		AY04764
MW-13	02/20/2018	14:32	1	Groundwater		AY04765
MW-13 DUP	02/20/2018	14:32	1	Sample Duplicate		AY04766
MW-14	02/20/2018	15:56	1	Groundwater		AY04767
MW-14 DIS	02/20/2018	16:20	1	Groundwater	✓	AY04768
MW-16D	02/21/2018	11:39	1	Groundwater		AY04769
MW-18	02/21/2018	12:57	1	Groundwater		AY04770
MW-18 DUP	02/21/2018	12:57	1	Sample Duplicate		AY04771
MW-19	02/21/2018	13:57	1	Groundwater		AY04772
MW-2	02/21/2018	14:56	1	Groundwater		AY04773
EB-1	02/21/2018	15:40	1	Equipment Blank		AY04774

Relinquished By	Received By	Date/Time
	<b>Sarah Copeland</b> <small>Digitally signed by Sarah Copeland            DN: cn=Sarah Copeland, o.ou,            email=sgcopela@southernco.com, c=US            Date: 2018.02.22 13:01:00 -0600</small>	02/22/2018 13:01

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2	<input type="checkbox"/>
Turbidity ID	3901-20009-2-1	Cooler Temp	NA
		Thermometer ID	NA
		pH Strip ID	5881-30151-10-5

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-150129-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond 1138

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

2/28/2018 4:51:55 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

Review your project  
results through

Total Access

Have a Question?



Visit us at:

[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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

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# Method Summary

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

TestAmerica Job ID: 400-150129-1  
SDG: Gorgas Ash Pond 1138

---

Method	Method Description	Protocol	Laboratory
SM 4500 F C	Fluoride	SM	TAL PEN

---

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater",

**Laboratory References:**

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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# Sample Summary

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

TestAmerica Job ID: 400-150129-1  
SDG: Gorgas Ash Pond 1138

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-150129-1	AY04735 MW-6S	Water	02/19/18 12:10	02/26/18 15:30
400-150129-2	AY04736 MW-6D	Water	02/19/18 13:05	02/26/18 15:30
400-150129-3	AY04737 MW-7	Water	02/19/18 14:00	02/26/18 15:30
400-150129-4	AY04738 MW-8	Water	02/19/18 15:07	02/26/18 15:30
400-150129-5	AY04739 FB-1	Water	02/19/18 15:40	02/26/18 15:30
400-150129-6	AY04740 MW-9	Water	02/20/18 09:55	02/26/18 15:30
400-150129-7	AY04741 MW-11	Water	02/20/18 11:14	02/26/18 15:30
400-150129-8	AY04742 MW-12	Water	02/20/18 13:18	02/26/18 15:30
400-150129-9	AY04743 MW-13	Water	02/20/18 14:32	02/26/18 15:30
400-150129-10	AY04744 MW-13 DUP	Water	02/20/18 14:32	02/26/18 15:30
400-150129-11	AY04745 MW-14	Water	02/20/18 15:56	02/26/18 15:30
400-150129-12	AY04746 MW-14 DISS	Water	02/20/18 16:20	02/26/18 15:30
400-150129-13	AY04747 MW-16D	Water	02/21/18 11:39	02/26/18 15:30
400-150129-14	AY04748 MW-18	Water	02/21/18 12:57	02/26/18 15:30
400-150129-15	AY04749 MW-18 DUP	Water	02/21/18 12:57	02/26/18 15:30
400-150129-16	AY04750 MW-19	Water	02/21/18 13:57	02/26/18 15:30
400-150129-17	AY04751 MW-2	Water	02/21/18 14:56	02/26/18 15:30
400-150129-18	AY04752 EB-1	Water	02/21/18 15:40	02/26/18 15:30
400-150129-19	AY04753 MW-17	Water	02/19/18 12:47	02/26/18 15:30
400-150129-20	AY04754 MW-15	Water	02/20/18 13:43	02/26/18 15:30
400-150129-21	AY04755 MW-21	Water	02/20/18 16:21	02/26/18 15:30
400-150129-22	AY04756 FB-2	Water	02/20/18 10:34	02/26/18 15:30

# Client Sample Results

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

TestAmerica Job ID: 400-150129-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04735 MW-6S**

**Lab Sample ID: 400-150129-1**

Date Collected: 02/19/18 12:10

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.10		0.10	0.032	mg/L			02/28/18 11:02	1

**Client Sample ID: AY04736 MW-6D**

**Lab Sample ID: 400-150129-2**

Date Collected: 02/19/18 13:05

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.13		0.10	0.032	mg/L			02/28/18 11:04	1

**Client Sample ID: AY04737 MW-7**

**Lab Sample ID: 400-150129-3**

Date Collected: 02/19/18 14:00

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.090	J	0.10	0.032	mg/L			02/28/18 11:06	1

**Client Sample ID: AY04738 MW-8**

**Lab Sample ID: 400-150129-4**

Date Collected: 02/19/18 15:07

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.080	J	0.10	0.032	mg/L			02/28/18 11:08	1

**Client Sample ID: AY04739 FB-1**

**Lab Sample ID: 400-150129-5**

Date Collected: 02/19/18 15:40

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/28/18 11:12	1

**Client Sample ID: AY04740 MW-9**

**Lab Sample ID: 400-150129-6**

Date Collected: 02/20/18 09:55

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.13		0.10	0.032	mg/L			02/28/18 11:15	1

**Client Sample ID: AY04741 MW-11**

**Lab Sample ID: 400-150129-7**

Date Collected: 02/20/18 11:14

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.13		0.10	0.032	mg/L			02/28/18 11:17	1

# Client Sample Results

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

TestAmerica Job ID: 400-150129-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04742 MW-12**

**Lab Sample ID: 400-150129-8**

Date Collected: 02/20/18 13:18

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.27		0.10	0.032	mg/L			02/28/18 11:25	1

**Client Sample ID: AY04743 MW-13**

**Lab Sample ID: 400-150129-9**

Date Collected: 02/20/18 14:32

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.17		0.10	0.032	mg/L			02/28/18 11:30	1

**Client Sample ID: AY04744 MW-13 DUP**

**Lab Sample ID: 400-150129-10**

Date Collected: 02/20/18 14:32

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.17		0.10	0.032	mg/L			02/28/18 10:53	1

**Client Sample ID: AY04745 MW-14**

**Lab Sample ID: 400-150129-11**

Date Collected: 02/20/18 15:56

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.17		0.10	0.032	mg/L			02/28/18 11:33	1

**Client Sample ID: AY04746 MW-14 DISS**

**Lab Sample ID: 400-150129-12**

Date Collected: 02/20/18 16:20

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride, Dissolved	0.17		0.10	0.032	mg/L			02/28/18 11:37	1

**Client Sample ID: AY04747 MW-16D**

**Lab Sample ID: 400-150129-13**

Date Collected: 02/21/18 11:39

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.11		0.10	0.032	mg/L			02/28/18 11:39	1

**Client Sample ID: AY04748 MW-18**

**Lab Sample ID: 400-150129-14**

Date Collected: 02/21/18 12:57

Matrix: Water

Date Received: 02/26/18 15:30

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.46		0.10	0.032	mg/L			02/28/18 11:42	1

# Client Sample Results

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

TestAmerica Job ID: 400-150129-1  
SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04749 MW-18 DUP**

**Lab Sample ID: 400-150129-15**

Date Collected: 02/21/18 12:57

Matrix: Water

Date Received: 02/26/18 15:30

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.46		0.10	0.032	mg/L			02/28/18 11:45	1

**Client Sample ID: AY04750 MW-19**

**Lab Sample ID: 400-150129-16**

Date Collected: 02/21/18 13:57

Matrix: Water

Date Received: 02/26/18 15:30

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.39		0.10	0.032	mg/L			02/28/18 11:47	1

**Client Sample ID: AY04751 MW-2**

**Lab Sample ID: 400-150129-17**

Date Collected: 02/21/18 14:56

Matrix: Water

Date Received: 02/26/18 15:30

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	1.1		0.10	0.032	mg/L			02/28/18 11:49	1

**Client Sample ID: AY04752 EB-1**

**Lab Sample ID: 400-150129-18**

Date Collected: 02/21/18 15:40

Matrix: Water

Date Received: 02/26/18 15:30

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/28/18 12:46	1

**Client Sample ID: AY04753 MW-17**

**Lab Sample ID: 400-150129-19**

Date Collected: 02/19/18 12:47

Matrix: Water

Date Received: 02/26/18 15:30

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.34		0.10	0.032	mg/L			02/28/18 12:49	1

**Client Sample ID: AY04754 MW-15**

**Lab Sample ID: 400-150129-20**

Date Collected: 02/20/18 13:43

Matrix: Water

Date Received: 02/26/18 15:30

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.60		0.10	0.032	mg/L			02/28/18 13:01	1

**Client Sample ID: AY04755 MW-21**

**Lab Sample ID: 400-150129-21**

Date Collected: 02/20/18 16:21

Matrix: Water

Date Received: 02/26/18 15:30

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.23		0.10	0.032	mg/L			02/28/18 12:52	1

TestAmerica Pensacola

# Client Sample Results

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

TestAmerica Job ID: 400-150129-1  
SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04756 FB-2**

**Lab Sample ID: 400-150129-22**

**Date Collected: 02/20/18 10:34**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/28/18 12:38	1

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# Definitions/Glossary

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

TestAmerica Job ID: 400-150129-1  
SDG: Gorgas Ash Pond 1138

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## 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 Gorgas

TestAmerica Job ID: 400-150129-1  
SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04735 MW-6S**

**Date Collected: 02/19/18 12:10**

**Date Received: 02/26/18 15:30**

**Lab Sample ID: 400-150129-1**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:02	BAB	TAL PEN

**Client Sample ID: AY04736 MW-6D**

**Date Collected: 02/19/18 13:05**

**Date Received: 02/26/18 15:30**

**Lab Sample ID: 400-150129-2**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:04	BAB	TAL PEN

**Client Sample ID: AY04737 MW-7**

**Date Collected: 02/19/18 14:00**

**Date Received: 02/26/18 15:30**

**Lab Sample ID: 400-150129-3**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:06	BAB	TAL PEN

**Client Sample ID: AY04738 MW-8**

**Date Collected: 02/19/18 15:07**

**Date Received: 02/26/18 15:30**

**Lab Sample ID: 400-150129-4**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:08	BAB	TAL PEN

**Client Sample ID: AY04739 FB-1**

**Date Collected: 02/19/18 15:40**

**Date Received: 02/26/18 15:30**

**Lab Sample ID: 400-150129-5**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:12	BAB	TAL PEN

**Client Sample ID: AY04740 MW-9**

**Date Collected: 02/20/18 09:55**

**Date Received: 02/26/18 15:30**

**Lab Sample ID: 400-150129-6**

**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:15	BAB	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-150129-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04741 MW-11**

**Lab Sample ID: 400-150129-7**

Date Collected: 02/20/18 11:14

Matrix: Water

Date Received: 02/26/18 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:17	BAB	TAL PEN

**Client Sample ID: AY04742 MW-12**

**Lab Sample ID: 400-150129-8**

Date Collected: 02/20/18 13:18

Matrix: Water

Date Received: 02/26/18 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:25	BAB	TAL PEN

**Client Sample ID: AY04743 MW-13**

**Lab Sample ID: 400-150129-9**

Date Collected: 02/20/18 14:32

Matrix: Water

Date Received: 02/26/18 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:30	BAB	TAL PEN

**Client Sample ID: AY04744 MW-13 DUP**

**Lab Sample ID: 400-150129-10**

Date Collected: 02/20/18 14:32

Matrix: Water

Date Received: 02/26/18 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 10:53	BAB	TAL PEN

**Client Sample ID: AY04745 MW-14**

**Lab Sample ID: 400-150129-11**

Date Collected: 02/20/18 15:56

Matrix: Water

Date Received: 02/26/18 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:33	BAB	TAL PEN

**Client Sample ID: AY04746 MW-14 DISS**

**Lab Sample ID: 400-150129-12**

Date Collected: 02/20/18 16:20

Matrix: Water

Date Received: 02/26/18 15:30

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:37	BAB	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-150129-1  
SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04747 MW-16D**

**Lab Sample ID: 400-150129-13**

**Date Collected: 02/21/18 11:39**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:39	BAB	TAL PEN

**Client Sample ID: AY04748 MW-18**

**Lab Sample ID: 400-150129-14**

**Date Collected: 02/21/18 12:57**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:42	BAB	TAL PEN

**Client Sample ID: AY04749 MW-18 DUP**

**Lab Sample ID: 400-150129-15**

**Date Collected: 02/21/18 12:57**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:45	BAB	TAL PEN

**Client Sample ID: AY04750 MW-19**

**Lab Sample ID: 400-150129-16**

**Date Collected: 02/21/18 13:57**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:47	BAB	TAL PEN

**Client Sample ID: AY04751 MW-2**

**Lab Sample ID: 400-150129-17**

**Date Collected: 02/21/18 14:56**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388260	02/28/18 11:49	BAB	TAL PEN

**Client Sample ID: AY04752 EB-1**

**Lab Sample ID: 400-150129-18**

**Date Collected: 02/21/18 15:40**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388281	02/28/18 12:46	BAB	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-150129-1  
SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04753 MW-17**

**Lab Sample ID: 400-150129-19**

**Date Collected: 02/19/18 12:47**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388281	02/28/18 12:49	BAB	TAL PEN

**Client Sample ID: AY04754 MW-15**

**Lab Sample ID: 400-150129-20**

**Date Collected: 02/20/18 13:43**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388281	02/28/18 13:01	BAB	TAL PEN

**Client Sample ID: AY04755 MW-21**

**Lab Sample ID: 400-150129-21**

**Date Collected: 02/20/18 16:21**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388281	02/28/18 12:52	BAB	TAL PEN

**Client Sample ID: AY04756 FB-2**

**Lab Sample ID: 400-150129-22**

**Date Collected: 02/20/18 10:34**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 F C		1	388281	02/28/18 12:38	BAB	TAL PEN

## Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# QC Association Summary

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

TestAmerica Job ID: 400-150129-1  
 SDG: Gorgas Ash Pond 1138

## General Chemistry

### Analysis Batch: 388260

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150129-1	AY04735 MW-6S	Total/NA	Water	SM 4500 F C	
400-150129-2	AY04736 MW-6D	Total/NA	Water	SM 4500 F C	
400-150129-3	AY04737 MW-7	Total/NA	Water	SM 4500 F C	
400-150129-4	AY04738 MW-8	Total/NA	Water	SM 4500 F C	
400-150129-5	AY04739 FB-1	Total/NA	Water	SM 4500 F C	
400-150129-6	AY04740 MW-9	Total/NA	Water	SM 4500 F C	
400-150129-7	AY04741 MW-11	Total/NA	Water	SM 4500 F C	
400-150129-8	AY04742 MW-12	Total/NA	Water	SM 4500 F C	
400-150129-9	AY04743 MW-13	Total/NA	Water	SM 4500 F C	
400-150129-10	AY04744 MW-13 DUP	Total/NA	Water	SM 4500 F C	
400-150129-11	AY04745 MW-14	Total/NA	Water	SM 4500 F C	
400-150129-12	AY04746 MW-14 DISS	Total/NA	Water	SM 4500 F C	
400-150129-13	AY04747 MW-16D	Total/NA	Water	SM 4500 F C	
400-150129-14	AY04748 MW-18	Total/NA	Water	SM 4500 F C	
400-150129-15	AY04749 MW-18 DUP	Total/NA	Water	SM 4500 F C	
400-150129-16	AY04750 MW-19	Total/NA	Water	SM 4500 F C	
400-150129-17	AY04751 MW-2	Total/NA	Water	SM 4500 F C	
MB 400-388260/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-388260/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-150129-10 MS	AY04744 MW-13 DUP	Total/NA	Water	SM 4500 F C	
400-150129-10 MSD	AY04744 MW-13 DUP	Total/NA	Water	SM 4500 F C	
400-150129-8 DU	AY04742 MW-12	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 388281

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150129-18	AY04752 EB-1	Total/NA	Water	SM 4500 F C	
400-150129-19	AY04753 MW-17	Total/NA	Water	SM 4500 F C	
400-150129-20	AY04754 MW-15	Total/NA	Water	SM 4500 F C	
400-150129-21	AY04755 MW-21	Total/NA	Water	SM 4500 F C	
400-150129-22	AY04756 FB-2	Total/NA	Water	SM 4500 F C	
MB 400-388281/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-388281/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-150129-20 MS	AY04754 MW-15	Total/NA	Water	SM 4500 F C	
400-150129-20 MSD	AY04754 MW-15	Total/NA	Water	SM 4500 F C	
400-150129-22 MS	AY04756 FB-2	Total/NA	Water	SM 4500 F C	
400-150129-22 MSD	AY04756 FB-2	Total/NA	Water	SM 4500 F C	



# QC Sample Results

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

TestAmerica Job ID: 400-150129-1  
 SDG: Gorgas Ash Pond 1138

## Method: SM 4500 F C - Fluoride

**Lab Sample ID: MB 400-388260/3**  
**Matrix: Water**  
**Analysis Batch: 388260**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/28/18 10:37	1
Fluoride, Dissolved	<0.032		0.10	0.032	mg/L			02/28/18 10:37	1

**Lab Sample ID: LCS 400-388260/4**  
**Matrix: Water**  
**Analysis Batch: 388260**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.10		mg/L		103	90 - 110
Fluoride, Dissolved	4.00	4.10		mg/L		103	90 - 110

**Lab Sample ID: 400-150129-10 MS**  
**Matrix: Water**  
**Analysis Batch: 388260**

**Client Sample ID: AY04744 MW-13 DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	FD Result	FD Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.17		1.00	1.28		mg/L		111	75 - 125

**Lab Sample ID: 400-150129-10 MSD**  
**Matrix: Water**  
**Analysis Batch: 388260**

**Client Sample ID: AY04744 MW-13 DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	FD Result	FD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.17		1.00	1.24		mg/L		107	75 - 125	3	4

**Lab Sample ID: 400-150129-8 DU**  
**Matrix: Water**  
**Analysis Batch: 388260**

**Client Sample ID: AY04742 MW-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.27		0.270		mg/L		0	4
Fluoride, Dissolved	0.27		0.270		mg/L		0	4

**Lab Sample ID: MB 400-388281/3**  
**Matrix: Water**  
**Analysis Batch: 388281**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			02/28/18 12:22	1

**Lab Sample ID: LCS 400-388281/4**  
**Matrix: Water**  
**Analysis Batch: 388281**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.02		mg/L		101	90 - 110

# QC Sample Results

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

TestAmerica Job ID: 400-150129-1  
 SDG: Gorgas Ash Pond 1138

## Method: SM 4500 F C - Fluoride (Continued)

**Lab Sample ID: 400-150129-20 MS**

**Matrix: Water**

**Analysis Batch: 388281**

**Client Sample ID: AY04754 MW-15**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.60		1.00	1.65		mg/L		105	75 - 125

**Lab Sample ID: 400-150129-20 MSD**

**Matrix: Water**

**Analysis Batch: 388281**

**Client Sample ID: AY04754 MW-15**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.60		1.00	1.65		mg/L		105	75 - 125	0	4

**Lab Sample ID: 400-150129-22 MS**

**Matrix: Water**

**Analysis Batch: 388281**

**Client Sample ID: AY04756 FB-2**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	FB Result	FB Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	1.06		mg/L		106	75 - 125

**Lab Sample ID: 400-150129-22 MSD**

**Matrix: Water**

**Analysis Batch: 388281**

**Client Sample ID: AY04756 FB-2**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	FB Result	FB Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	1.10		mg/L		110	75 - 125	4	4

# Chain of Custody Record

<b>Client Information</b>		<b>Lab P/N:</b> Whitmire, Cheyenne R		<b>Carrier Tracking No(s):</b> 400-56525-24537.1	
Alabama Power General Test Laboratory		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2	
Address: 744 County Rd 87 GSC #8		Phone: Ben Rothschild		Job #: 400-150129 COC	
City: Calera		State, Zip: AL, 35040		Analysis Requested	
Phone: 205-664-6121 (Tel)		PO #: 40007143		Total Number of containers	
Email: sgcopela@southernco.com		WO #: 40007143		Preservation Codes:	
Project Name: CCR		Site: Gorgas Ash Pond 1138		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:	
Due Date Requested:		TAT Requested (days):		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)	
Sample Date		Sample Time		Special Instructions/Note:	
Sample Identification		Sample Type (C=Comp, G=grab)		Total Number of containers	
Matrix (Water, Solid, On-site, etc.)		Preservation Code:		SM 4500 SO4 <sub>F</sub>	
Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		SM 4500 Cl <sub>F</sub>	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		SM 4500 F <sub>C</sub>	
Sample Date		Sample Time		Special Instructions/Note:	
Sample Identification		Sample Type (C=Comp, G=grab)		Total Number of containers	
Matrix (Water, Solid, On-site, etc.)		Preservation Code:		SM 4500 SO4 <sub>F</sub>	
Perform MS/MSD (Yes or No)		Field Filtered Sample (Yes or No)		SM 4500 Cl <sub>F</sub>	
Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		SM 4500 F <sub>C</sub>	

Sample ID	Sample Date	Sample Time	Sample Type	Matrix	Preservation Code	Field Filtered	MS/MSD	SM 4500 F <sub>C</sub>	SM 4500 Cl <sub>F</sub>	SM 4500 SO4 <sub>F</sub>	Special Instructions/Note
AY04735	2/19/18	1210	G	Water		X		X			MW-6S
AY04736	2/19/18	1305	G	Water		X		X			MW-6D
AY04737	2/19/18	1400	G	Water		X		X			MW-7
AY04738	2/19/18	1507	G	Water		X		X			MW-8
AY04739	2/19/18	1540	G	Water		X		X			FB-1 (Field Blank)
AY04740	2/20/18	0955	G	Water		X		X			MW-9
AY04741	2/20/18	1114	G	Water		X		X			MW-11
AY04742	2/20/18	1318	G	Water		X		X			MW-12
AY04743	2/20/18	1432	G	Water		X		X			MW-13
AY04744	2/20/18	1432	G	Water		X		X			MW-13 Dup (Sample Duplicate)
AY04745	2/20/18	1556	G	Water		X		X			MW-14
AY04746	2/20/18	1620	G	Water		X		X			MW-14 Diss (Dissolved Sample)

Non-Hazard  Flammable  Skin Irritant  Poison B  Unknown  Radiological

Deliverable Requested: I, II, III, IV, Other (specify)

Empty Kit Relinquished by: \_\_\_\_\_ Date: \_\_\_\_\_

Relinquished by: Sarah Copeland Date/Time: 2/23/2018, 1000 \_\_\_\_\_ Company: APC

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Relinquished by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Custody Seals Intact:  Yes  No  Δ Yes  Δ No

Custody Seal No.: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Company: \_\_\_\_\_

Received by: \_\_\_\_\_ Date/Time: 2/20/18 15:30 \_\_\_\_\_ Company: TAKEN

Cooling Temperature(s) °C and Other Remarks: \_\_\_\_\_





# Chain of Custody Record

<b>Client Information</b>		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-56525-24537.1						
Company: Alabama Power General Test Laboratory		E-Mail: cheyenne.whitmire@testamericainc.com		Page: Page 2 of 2		Job #:						
Address: 744 County Rd 87 GSC #8		Due Date Requested:		Analysis Requested		Preservation Codes:						
City: Callera		TAT Requested (days): Routine		Total Number of Containers		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Anchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:						
State, Zip: AL, 35040		PO #:		Field Filtered Sample (Yes or No)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2S2O3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4-5 Z - other (specify)						
Phone: 205-664-6121(Tel)		WO #:		Perform MS/MSD (Yes or No)		Special Instructions/Note:						
Email: sgcopela@southernco.com		Project #: 40007143		SM 4500 F.C								
Project Name: CCR		ISSOW#:		SM 4500 Cl.F								
Site: Gorgas Ash Pond 1138				SM 4500 SO4.F								
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (W=Water, S=solid, O=metal, B=crystalline, ACID)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	SM 4500 F.C	SM 4500 Cl.F	SM 4500 SO4.F	Total Number of Containers	Special Instructions/Note:
AY04747	2/21/18	1139	G	Water		X	X				1	MW-16D
AY04748	2/21/18	1257	G	Water		X	X				1	MW-18
AY04749	2/21/18	1257	G	Water		X	X				1	MW-18 Dup (Sample Duplicate)
AY04750	2/21/18	1357	G	Water		X	X				1	MW-19
AY04751	2/21/18	1456	G	Water		X	X				1	MW-2
AY04752	2/21/18	1540	G	Water		X	X				1	EB-1 (Equipment Blank)
AY04753	2/19/18	1247	G	Water		X	X				1	MW-17
AY04754	2/20/18	1343	G	Water		Y	X				1	MW-15
AY04755	2/20/18	1621	G	Water		X	X				1	MW-21
AY04756	2/20/18	1034	G	Water		Y	X				1	FB-2 (Field Blank)
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)												
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Sarah Copeland Date/Time: 2/23/2018: 1000 Company APC Relinquished by: _____ Date/Time: _____ Company Relinquished by: _____ Date/Time: _____ Company Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Δ <input type="checkbox"/> No <input type="checkbox"/> Δ <input type="checkbox"/> No <input type="checkbox"/> Δ <input type="checkbox"/> No Custody Seal No.: _____ Cooler Temperature(s) °C and Other Remarks:												
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:												

Received by: [Signature]  
 Date/Time: 2-26-18 15:30  
 Company: [Signature]

## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-150129-1  
SDG Number: Gorgas Ash Pond 1138

**Login Number: 150129**

**List Number: 1**

**Creator: Edwards, Robin S**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.6°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-150129-1  
 SDG: Gorgas Ash Pond 1138

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-17 *
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

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



# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-150143-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond 1138

Client Project/Site: CCR Plant Gorgas

For:

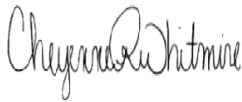
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

3/29/2018 2:25:39 PM

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*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 Gorgas

TestAmerica Job ID: 400-150143-1  
SDG: Gorgas Ash Pond 1138

**Job ID: 400-150143-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-150143-1

#### RAD

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-354402: Sample aliquots reduced due to limited sample volume. AY04757 MW-6S (400-150143-1), AY04757 MW-6S (400-150143-1[DUJ]), AY04758 MW-6D (400-150143-2), AY04759 MW-7 (400-150143-3), AY04760 MW-8 (400-150143-4), AY04761 FB-1 (400-150143-5) and AY04762 MW-9 (400-150143-6)

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-354418: Sample aliquots reduced due to limited sample volume. AY04763 MW-11 (400-150143-7), AY04764 MW-12 (400-150143-8), AY04765 MW-13 (400-150143-9), AY04766 MW-13 DUP (400-150143-10), AY04767 MW-14 (400-150143-11), AY04768 MW-14 DISS (400-150143-12), AY04769 MW-16D (400-150143-13), AY04770 MW-18 (400-150143-14), AY04771 MW-18 DUP (400-150143-15), AY04772 MW-19 (400-150143-16), AY04773 MW-2 (400-150143-17), AY04774 EB-1 (400-150143-18), AY04775 MW-17 (400-150143-19), AY04776 MW-15 (400-150143-20), AY04777 MW-21 (400-150143-21), AY04777 MW-21 (400-150143-21[DUJ]) and AY04778 FB-2 (400-150143-22)

Method(s) PrecSep-21: Radium 226 Prep batch 160-354226: Sample aliquots reduced due to limited sample volume. AY04757 MW-6S (400-150143-1), AY04757 MW-6S (400-150143-1[DUJ]), AY04758 MW-6D (400-150143-2), AY04759 MW-7 (400-150143-3), AY04760 MW-8 (400-150143-4), AY04761 FB-1 (400-150143-5) and AY04762 MW-9 (400-150143-6)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-354408: Sample aliquots reduced due to limited sample volume. AY04763 MW-11 (400-150143-7), AY04764 MW-12 (400-150143-8), AY04765 MW-13 (400-150143-9), AY04766 MW-13 DUP (400-150143-10), AY04767 MW-14 (400-150143-11), AY04768 MW-14 DISS (400-150143-12), AY04769 MW-16D (400-150143-13), AY04770 MW-18 (400-150143-14), AY04771 MW-18 DUP (400-150143-15), AY04772 MW-19 (400-150143-16), AY04773 MW-2 (400-150143-17), AY04774 EB-1 (400-150143-18), AY04775 MW-17 (400-150143-19), AY04776 MW-15 (400-150143-20), AY04777 MW-21 (400-150143-21), AY04777 MW-21 (400-150143-21[DUJ]) and AY04778 FB-2 (400-150143-22)

# Method Summary

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

TestAmerica Job ID: 400-150143-1  
SDG: Gorgas Ash Pond 1138

Method	Method Description	Protocol	Laboratory
9315	Radium-226 (GFPC)	SW846	TAL SL
9320	Radium-228 (GFPC)	SW846	TAL SL
Ra226_Ra228	Combined Radium-226 and Radium-228	TAL-STL	TAL SL
Ra226_Ra228 (D)	Combined Radium-226 and Radium-228	TAL-STL	TAL SL

**Protocol References:**

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 = 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 Gorgas

TestAmerica Job ID: 400-150143-1  
SDG: Gorgas Ash Pond 1138

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-150143-1	AY04757 MW-6S	Water	02/19/18 12:10	02/26/18 15:30
400-150143-2	AY04758 MW-6D	Water	02/19/18 13:05	02/26/18 15:30
400-150143-3	AY04759 MW-7	Water	02/19/18 14:00	02/26/18 15:30
400-150143-4	AY04760 MW-8	Water	02/19/18 15:07	02/26/18 15:30
400-150143-5	AY04761 FB-1	Water	02/19/18 15:40	02/26/18 15:30
400-150143-6	AY04762 MW-9	Water	02/20/18 09:55	02/26/18 15:30
400-150143-7	AY04763 MW-11	Water	02/20/18 11:14	02/26/18 15:30
400-150143-8	AY04764 MW-12	Water	02/20/18 13:18	02/26/18 15:30
400-150143-9	AY04765 MW-13	Water	02/20/18 14:32	02/26/18 15:30
400-150143-10	AY04766 MW-13 DUP	Water	02/20/18 14:32	02/26/18 15:30
400-150143-11	AY04767 MW-14	Water	02/20/18 15:56	02/26/18 15:30
400-150143-12	AY04768 MW-14 DISS	Water	02/20/18 16:20	02/26/18 15:30
400-150143-13	AY04769 MW-16D	Water	02/21/18 11:39	02/26/18 15:30
400-150143-14	AY04770 MW-18	Water	02/21/18 12:57	02/26/18 15:30
400-150143-15	AY04771 MW-18 DUP	Water	02/21/18 12:57	02/26/18 15:30
400-150143-16	AY04772 MW-19	Water	02/21/18 13:57	02/26/18 15:30
400-150143-17	AY04773 MW-2	Water	02/21/18 14:56	02/26/18 15:30
400-150143-18	AY04774 EB-1	Water	02/21/18 15:40	02/26/18 15:30
400-150143-19	AY04775 MW-17	Water	02/19/18 12:47	02/26/18 15:30
400-150143-20	AY04776 MW-15	Water	02/20/18 13:43	02/26/18 15:30
400-150143-21	AY04777 MW-21	Water	02/20/18 16:21	02/26/18 15:30
400-150143-22	AY04778 FB-2	Water	02/20/18 10:34	02/26/18 15:30

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04757 MW-6S**

**Lab Sample ID: 400-150143-1**

**Date Collected: 02/19/18 12:10**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

**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		0.112	0.113	1.00	0.155	pCi/L	03/07/18 08:56	03/29/18 06:12	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					03/07/18 08:56	03/29/18 06:12	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.607		0.382	0.386	1.00	0.589	pCi/L	03/07/18 10:01	03/19/18 17:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					03/07/18 10:01	03/19/18 17:21	1
Y Carrier	80.4		40 - 110					03/07/18 10:01	03/19/18 17:21	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	0.776		0.398	0.402	5.00	0.589	pCi/L		03/29/18 13:07	1



# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04758 MW-6D**

**Lab Sample ID: 400-150143-2**

**Date Collected: 02/19/18 13:05**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

**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		0.0933	0.0948	1.00	0.0998	pCi/L	03/07/18 08:56	03/29/18 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/07/18 08:56	03/29/18 06:42	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0915	U	0.308	0.308	1.00	0.537	pCi/L	03/07/18 10:01	03/19/18 17:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/07/18 10:01	03/19/18 17:21	1
Y Carrier	78.1		40 - 110					03/07/18 10:01	03/19/18 17:21	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	0.283	U	0.322	0.322	5.00	0.537	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04759 MW-7**

**Lab Sample ID: 400-150143-3**

**Date Collected: 02/19/18 14:00**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.108		0.0755	0.0762	1.00	0.0967	pCi/L	03/07/18 08:56	03/29/18 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					03/07/18 08:56	03/29/18 06:42	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0982	U	0.330	0.330	1.00	0.572	pCi/L	03/07/18 10:01	03/19/18 17:21	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110					03/07/18 10:01	03/19/18 17:21	1
Y Carrier	83.0		40 - 110					03/07/18 10:01	03/19/18 17:21	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	0.207	U	0.339	0.339	5.00	0.572	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04760 MW-8**

**Lab Sample ID: 400-150143-4**

Date Collected: 02/19/18 15:07

Matrix: Water

Date Received: 02/26/18 15:30

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0972		0.0735	0.0740	1.00	0.0972	pCi/L	03/07/18 08:56	03/29/18 06:42	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					03/07/18 08:56	03/29/18 06:42	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.399	U	0.287	0.289	1.00	0.446	pCi/L	03/07/18 10:01	03/19/18 17:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.5		40 - 110					03/07/18 10:01	03/19/18 17:22	1
Y Carrier	94.2		40 - 110					03/07/18 10:01	03/19/18 17:22	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.497		0.296	0.298	5.00	0.446	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04761 FB-1**

**Lab Sample ID: 400-150143-5**

**Date Collected: 02/19/18 15:40**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.129		0.0800	0.0808	1.00	0.0938	pCi/L	03/07/18 08:56	03/29/18 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					03/07/18 08:56	03/29/18 06:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.195	U	0.316	0.317	1.00	0.533	pCi/L	03/07/18 10:01	03/19/18 17:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.4		40 - 110					03/07/18 10:01	03/19/18 17:22	1
Y Carrier	86.7		40 - 110					03/07/18 10:01	03/19/18 17:22	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.324	U	0.326	0.327	5.00	0.533	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04762 MW-9**

**Lab Sample ID: 400-150143-6**

**Date Collected: 02/20/18 09:55**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.141		0.0809	0.0818	1.00	0.0921	pCi/L	03/07/18 08:56	03/29/18 06:43	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/07/18 08:56	03/29/18 06:43	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.741		0.319	0.326	1.00	0.452	pCi/L	03/07/18 10:01	03/19/18 17:22	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/07/18 10:01	03/19/18 17:22	1
Y Carrier	87.5		40 - 110					03/07/18 10:01	03/19/18 17:22	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.882		0.329	0.336	5.00	0.452	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04763 MW-11**

**Lab Sample ID: 400-150143-7**

**Date Collected: 02/20/18 11:14**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.219		0.106	0.108	1.00	0.120	pCi/L	03/07/18 10:43	03/29/18 06:03	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					03/07/18 10:43	03/29/18 06:03	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0842	U	0.258	0.258	1.00	0.448	pCi/L	03/07/18 11:17	03/20/18 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					03/07/18 11:17	03/20/18 14:30	1
Y Carrier	94.2		40 - 110					03/07/18 11:17	03/20/18 14:30	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	0.303	U	0.279	0.280	5.00	0.448	pCi/L		03/29/18 13:07	1



# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04764 MW-12**

**Lab Sample ID: 400-150143-8**

**Date Collected: 02/20/18 13:18**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.209		0.0985	0.100	1.00	0.105	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					03/07/18 10:43	03/29/18 06:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0328	U	0.288	0.288	1.00	0.507	pCi/L	03/07/18 11:17	03/20/18 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					03/07/18 11:17	03/20/18 14:30	1
Y Carrier	95.3		40 - 110					03/07/18 11:17	03/20/18 14:30	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	0.242	U	0.304	0.305	5.00	0.507	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04765 MW-13**

**Lab Sample ID: 400-150143-9**

**Date Collected: 02/20/18 14:32**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

**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		0.0787	0.0795	1.00	0.0962	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					03/07/18 10:43	03/29/18 06:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.341	U	0.287	0.289	1.00	0.457	pCi/L	03/07/18 11:17	03/20/18 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					03/07/18 11:17	03/20/18 14:30	1
Y Carrier	90.5		40 - 110					03/07/18 11:17	03/20/18 14:30	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	0.465		0.298	0.300	5.00	0.457	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04766 MW-13 DUP**

**Lab Sample ID: 400-150143-10**

**Date Collected: 02/20/18 14:32**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.128		0.0844	0.0852	1.00	0.110	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					03/07/18 10:43	03/29/18 06:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.191	U	0.235	0.235	1.00	0.389	pCi/L	03/07/18 11:17	03/20/18 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					03/07/18 11:17	03/20/18 14:30	1
Y Carrier	96.1		40 - 110					03/07/18 11:17	03/20/18 14:30	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	0.320	U	0.250	0.250	5.00	0.389	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04767 MW-14**

**Lab Sample ID: 400-150143-11**

Date Collected: 02/20/18 15:56

Matrix: Water

Date Received: 02/26/18 15:30

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.104		0.0738	0.0744	1.00	0.0958	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/07/18 10:43	03/29/18 06:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0825	U	0.240	0.240	1.00	0.418	pCi/L	03/07/18 11:17	03/20/18 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/07/18 11:17	03/20/18 14:30	1
Y Carrier	93.1		40 - 110					03/07/18 11:17	03/20/18 14:30	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.186	U	0.251	0.251	5.00	0.418	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04768 MW-14 DISS**

**Lab Sample ID: 400-150143-12**

Date Collected: 02/20/18 16:20

Matrix: Water

Date Received: 02/26/18 15:30

**Method: 9315 - Radium-226 (GFPC) - Dissolved**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.116		0.0796	0.0803	1.00	0.105	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					03/07/18 10:43	03/29/18 06:04	1

**Method: 9320 - Radium-228 (GFPC) - Dissolved**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.405	U	0.322	0.324	1.00	0.513	pCi/L	03/07/18 11:17	03/20/18 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					03/07/18 11:17	03/20/18 14:30	1
Y Carrier	95.3		40 - 110					03/07/18 11:17	03/20/18 14:30	1

**Method: Ra226\_Ra228 (D) - Combined Radium-226 and Radium-228 - Dissolved**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.521		0.332	0.334	5.00	0.513	pCi/L		03/29/18 13:10	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04769 MW-16D**

**Lab Sample ID: 400-150143-13**

**Date Collected: 02/21/18 11:39**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0860	U	0.0746	0.0750	1.00	0.110	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					03/07/18 10:43	03/29/18 06:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.354	U	0.272	0.274	1.00	0.429	pCi/L	03/07/18 11:17	03/20/18 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					03/07/18 11:17	03/20/18 14:30	1
Y Carrier	94.2		40 - 110					03/07/18 11:17	03/20/18 14:30	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
<b>Combined Radium 226 + 228</b>	<b>0.440</b>		0.282	0.284	5.00	0.429	pCi/L		03/29/18 13:07	1



# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04770 MW-18**

**Lab Sample ID: 400-150143-14**

**Date Collected: 02/21/18 12:57**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0535	U	0.0649	0.0651	1.00	0.106	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/07/18 10:43	03/29/18 06:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.364	U	0.281	0.283	1.00	0.443	pCi/L	03/07/18 11:17	03/20/18 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					03/07/18 11:17	03/20/18 14:30	1
Y Carrier	94.6		40 - 110					03/07/18 11:17	03/20/18 14:30	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	0.418	U	0.288	0.290	5.00	0.443	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04771 MW-18 DUP**

**Lab Sample ID: 400-150143-15**

**Date Collected: 02/21/18 12:57**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.112		0.0806	0.0812	1.00	0.112	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/07/18 10:43	03/29/18 06:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.152	U	0.264	0.264	1.00	0.447	pCi/L	03/07/18 11:17	03/20/18 14:30	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					03/07/18 11:17	03/20/18 14:30	1
Y Carrier	95.0		40 - 110					03/07/18 11:17	03/20/18 14:30	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	0.263	U	0.276	0.276	5.00	0.447	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04772 MW-19**

**Lab Sample ID: 400-150143-16**

**Date Collected: 02/21/18 13:57**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.160		0.0846	0.0858	1.00	0.0934	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					03/07/18 10:43	03/29/18 06:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.189	U	0.327	0.328	1.00	0.551	pCi/L	03/07/18 11:17	03/20/18 14:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					03/07/18 11:17	03/20/18 14:31	1
Y Carrier	93.8		40 - 110					03/07/18 11:17	03/20/18 14:31	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	0.349	U	0.338	0.339	5.00	0.551	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04773 MW-2**

**Lab Sample ID: 400-150143-17**

**Date Collected: 02/21/18 14:56**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0969	U	0.0777	0.0782	1.00	0.112	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					03/07/18 10:43	03/29/18 06:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.465	U	0.312	0.315	1.00	0.487	pCi/L	03/07/18 11:17	03/20/18 14:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					03/07/18 11:17	03/20/18 14:31	1
Y Carrier	94.2		40 - 110					03/07/18 11:17	03/20/18 14:31	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
<b>Combined Radium 226 + 228</b>	<b>0.562</b>		0.322	0.325	5.00	0.487	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04774 EB-1**

**Lab Sample ID: 400-150143-18**

**Date Collected: 02/21/18 15:40**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0493	U	0.0625	0.0627	1.00	0.103	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					03/07/18 10:43	03/29/18 06:04	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.324	U	0.303	0.304	1.00	0.490	pCi/L	03/07/18 11:17	03/20/18 14:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					03/07/18 11:17	03/20/18 14:31	1
Y Carrier	93.8		40 - 110					03/07/18 11:17	03/20/18 14:31	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	0.374	U	0.309	0.310	5.00	0.490	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04775 MW-17**

**Lab Sample ID: 400-150143-19**

**Date Collected: 02/19/18 12:47**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0944	U	0.0741	0.0746	1.00	0.103	pCi/L	03/07/18 10:43	03/29/18 06:04	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					03/07/18 10:43	03/29/18 06:04	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	0.275	0.276	1.00	0.455	pCi/L	03/07/18 11:17	03/20/18 14:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					03/07/18 11:17	03/20/18 14:31	1
Y Carrier	93.5		40 - 110					03/07/18 11:17	03/20/18 14:31	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	0.322	U	0.285	0.286	5.00	0.455	pCi/L		03/29/18 13:07	1



# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04776 MW-15**

**Lab Sample ID: 400-150143-20**

**Date Collected: 02/20/18 13:43**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.224		0.104	0.106	1.00	0.115	pCi/L	03/07/18 10:43	03/29/18 06:05	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					03/07/18 10:43	03/29/18 06:05	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.135	U	0.255	0.255	1.00	0.476	pCi/L	03/07/18 11:17	03/20/18 14:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					03/07/18 11:17	03/20/18 14:31	1
Y Carrier	93.1		40 - 110					03/07/18 11:17	03/20/18 14:31	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	0.0898	U	0.275	0.276	5.00	0.476	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04777 MW-21**

**Lab Sample ID: 400-150143-21**

Date Collected: 02/20/18 16:21

Matrix: Water

Date Received: 02/26/18 15:30

**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		0.0940	0.0957	1.00	0.0989	pCi/L	03/07/18 10:43	03/29/18 06:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					03/07/18 10:43	03/29/18 06:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.123	U	0.238	0.238	1.00	0.407	pCi/L	03/07/18 11:17	03/20/18 14:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					03/07/18 11:17	03/20/18 14:31	1
Y Carrier	95.0		40 - 110					03/07/18 11:17	03/20/18 14:31	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	0.321	U	0.256	0.257	5.00	0.407	pCi/L		03/29/18 13:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04778 FB-2**

**Lab Sample ID: 400-150143-22**

**Date Collected: 02/20/18 10:34**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0443	U	0.0603	0.0604	1.00	0.101	pCi/L	03/07/18 10:43	03/29/18 06:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					03/07/18 10:43	03/29/18 06:06	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.572		0.283	0.288	1.00	0.414	pCi/L	03/07/18 11:17	03/20/18 14:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					03/07/18 11:17	03/20/18 14:31	1
Y Carrier	95.0		40 - 110					03/07/18 11:17	03/20/18 14:31	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	0.616		0.289	0.294	5.00	0.414	pCi/L		03/29/18 13:07	1

# Definitions/Glossary

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

TestAmerica Job ID: 400-150143-1  
SDG: Gorgas Ash Pond 1138

## Qualifiers

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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 Gorgas

TestAmerica Job ID: 400-150143-1  
SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04757 MW-6S**

**Lab Sample ID: 400-150143-1**

**Date Collected: 02/19/18 12:10**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354226	03/07/18 08:56	TJT	TAL SL
Total/NA	Analysis	9315		1	358060	03/29/18 06:12	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354402	03/07/18 10:01	TJT	TAL SL
Total/NA	Analysis	9320		1	356419	03/19/18 17:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04758 MW-6D**

**Lab Sample ID: 400-150143-2**

**Date Collected: 02/19/18 13:05**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354226	03/07/18 08:56	TJT	TAL SL
Total/NA	Analysis	9315		1	358141	03/29/18 06:42	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354402	03/07/18 10:01	TJT	TAL SL
Total/NA	Analysis	9320		1	356419	03/19/18 17:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04759 MW-7**

**Lab Sample ID: 400-150143-3**

**Date Collected: 02/19/18 14:00**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354226	03/07/18 08:56	TJT	TAL SL
Total/NA	Analysis	9315		1	358141	03/29/18 06:42	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354402	03/07/18 10:01	TJT	TAL SL
Total/NA	Analysis	9320		1	356419	03/19/18 17:21	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04760 MW-8**

**Lab Sample ID: 400-150143-4**

**Date Collected: 02/19/18 15:07**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354226	03/07/18 08:56	TJT	TAL SL
Total/NA	Analysis	9315		1	358141	03/29/18 06:42	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354402	03/07/18 10:01	TJT	TAL SL
Total/NA	Analysis	9320		1	356419	03/19/18 17:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04761 FB-1**

**Lab Sample ID: 400-150143-5**

**Date Collected: 02/19/18 15:40**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354226	03/07/18 08:56	TJT	TAL SL
Total/NA	Analysis	9315		1	358141	03/29/18 06:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354402	03/07/18 10:01	TJT	TAL SL
Total/NA	Analysis	9320		1	356419	03/19/18 17:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04762 MW-9**

**Lab Sample ID: 400-150143-6**

**Date Collected: 02/20/18 09:55**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354226	03/07/18 08:56	TJT	TAL SL
Total/NA	Analysis	9315		1	358141	03/29/18 06:43	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354402	03/07/18 10:01	TJT	TAL SL
Total/NA	Analysis	9320		1	356419	03/19/18 17:22	RTM	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04763 MW-11**

**Lab Sample ID: 400-150143-7**

**Date Collected: 02/20/18 11:14**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:03	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04764 MW-12**

**Lab Sample ID: 400-150143-8**

**Date Collected: 02/20/18 13:18**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL



# Lab Chronicle

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04765 MW-13**

**Lab Sample ID: 400-150143-9**

**Date Collected: 02/20/18 14:32**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04766 MW-13 DUP**

**Lab Sample ID: 400-150143-10**

**Date Collected: 02/20/18 14:32**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04767 MW-14**

**Lab Sample ID: 400-150143-11**

**Date Collected: 02/20/18 15:56**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04768 MW-14 DISS**

**Lab Sample ID: 400-150143-12**

**Date Collected: 02/20/18 16:20**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Dissolved	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Dissolved	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Dissolved	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Dissolved	Analysis	9320		1	356516	03/20/18 14:30	CDR	TAL SL
Dissolved	Analysis	Ra226_Ra228 (D)		1	358173	03/29/18 13:10	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04769 MW-16D**

**Lab Sample ID: 400-150143-13**

**Date Collected: 02/21/18 11:39**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04770 MW-18**

**Lab Sample ID: 400-150143-14**

**Date Collected: 02/21/18 12:57**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04771 MW-18 DUP**

**Lab Sample ID: 400-150143-15**

**Date Collected: 02/21/18 12:57**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:30	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04772 MW-19**

**Lab Sample ID: 400-150143-16**

**Date Collected: 02/21/18 13:57**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-150143-1  
SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04773 MW-2**

**Lab Sample ID: 400-150143-17**

**Date Collected: 02/21/18 14:56**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04774 EB-1**

**Lab Sample ID: 400-150143-18**

**Date Collected: 02/21/18 15:40**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04775 MW-17**

**Lab Sample ID: 400-150143-19**

**Date Collected: 02/19/18 12:47**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:04	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04776 MW-15**

**Lab Sample ID: 400-150143-20**

**Date Collected: 02/20/18 13:43**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358140	03/29/18 06:05	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-150143-1  
SDG: Gorgas Ash Pond 1138

**Client Sample ID: AY04777 MW-21**

**Lab Sample ID: 400-150143-21**

**Date Collected: 02/20/18 16:21**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358141	03/29/18 06:06	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

**Client Sample ID: AY04778 FB-2**

**Lab Sample ID: 400-150143-22**

**Date Collected: 02/20/18 10:34**

**Matrix: Water**

**Date Received: 02/26/18 15:30**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			354408	03/07/18 10:43	TJT	TAL SL
Total/NA	Analysis	9315		1	358141	03/29/18 06:06	RTM	TAL SL
Total/NA	Prep	PrecSep_0			354418	03/07/18 11:17	TJT	TAL SL
Total/NA	Analysis	9320		1	356516	03/20/18 14:31	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	358172	03/29/18 13:07	RTM	TAL SL

#### Laboratory References:

TAL SL = 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 Gorgas

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

## Rad

### Prep Batch: 354226

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150143-1	AY04757 MW-6S	Total/NA	Water	PrecSep-21	
400-150143-2	AY04758 MW-6D	Total/NA	Water	PrecSep-21	
400-150143-3	AY04759 MW-7	Total/NA	Water	PrecSep-21	
400-150143-4	AY04760 MW-8	Total/NA	Water	PrecSep-21	
400-150143-5	AY04761 FB-1	Total/NA	Water	PrecSep-21	
400-150143-6	AY04762 MW-9	Total/NA	Water	PrecSep-21	
MB 160-354226/23-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-354226/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-150143-1 DU	AY04757 MW-6S	Total/NA	Water	PrecSep-21	

### Prep Batch: 354402

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150143-1	AY04757 MW-6S	Total/NA	Water	PrecSep_0	
400-150143-2	AY04758 MW-6D	Total/NA	Water	PrecSep_0	
400-150143-3	AY04759 MW-7	Total/NA	Water	PrecSep_0	
400-150143-4	AY04760 MW-8	Total/NA	Water	PrecSep_0	
400-150143-5	AY04761 FB-1	Total/NA	Water	PrecSep_0	
400-150143-6	AY04762 MW-9	Total/NA	Water	PrecSep_0	
MB 160-354402/23-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-354402/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-150143-1 DU	AY04757 MW-6S	Total/NA	Water	PrecSep_0	

### Prep Batch: 354408

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150143-7	AY04763 MW-11	Total/NA	Water	PrecSep-21	
400-150143-8	AY04764 MW-12	Total/NA	Water	PrecSep-21	
400-150143-9	AY04765 MW-13	Total/NA	Water	PrecSep-21	
400-150143-10	AY04766 MW-13 DUP	Total/NA	Water	PrecSep-21	
400-150143-11	AY04767 MW-14	Total/NA	Water	PrecSep-21	
400-150143-12	AY04768 MW-14 DISS	Dissolved	Water	PrecSep-21	
400-150143-13	AY04769 MW-16D	Total/NA	Water	PrecSep-21	
400-150143-14	AY04770 MW-18	Total/NA	Water	PrecSep-21	
400-150143-15	AY04771 MW-18 DUP	Total/NA	Water	PrecSep-21	
400-150143-16	AY04772 MW-19	Total/NA	Water	PrecSep-21	
400-150143-17	AY04773 MW-2	Total/NA	Water	PrecSep-21	
400-150143-18	AY04774 EB-1	Total/NA	Water	PrecSep-21	
400-150143-19	AY04775 MW-17	Total/NA	Water	PrecSep-21	
400-150143-20	AY04776 MW-15	Total/NA	Water	PrecSep-21	
400-150143-21	AY04777 MW-21	Total/NA	Water	PrecSep-21	
400-150143-22	AY04778 FB-2	Total/NA	Water	PrecSep-21	
MB 160-354408/19-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-354408/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-150143-21 DU	AY04777 MW-21	Total/NA	Water	PrecSep-21	

### Prep Batch: 354418

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150143-7	AY04763 MW-11	Total/NA	Water	PrecSep_0	
400-150143-8	AY04764 MW-12	Total/NA	Water	PrecSep_0	
400-150143-9	AY04765 MW-13	Total/NA	Water	PrecSep_0	
400-150143-10	AY04766 MW-13 DUP	Total/NA	Water	PrecSep_0	
400-150143-11	AY04767 MW-14	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-150143-1  
SDG: Gorgas Ash Pond 1138

## Rad (Continued)

### Prep Batch: 354418 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-150143-12	AY04768 MW-14 DISS	Dissolved	Water	PrecSep_0	
400-150143-13	AY04769 MW-16D	Total/NA	Water	PrecSep_0	
400-150143-14	AY04770 MW-18	Total/NA	Water	PrecSep_0	
400-150143-15	AY04771 MW-18 DUP	Total/NA	Water	PrecSep_0	
400-150143-16	AY04772 MW-19	Total/NA	Water	PrecSep_0	
400-150143-17	AY04773 MW-2	Total/NA	Water	PrecSep_0	
400-150143-18	AY04774 EB-1	Total/NA	Water	PrecSep_0	
400-150143-19	AY04775 MW-17	Total/NA	Water	PrecSep_0	
400-150143-20	AY04776 MW-15	Total/NA	Water	PrecSep_0	
400-150143-21	AY04777 MW-21	Total/NA	Water	PrecSep_0	
400-150143-22	AY04778 FB-2	Total/NA	Water	PrecSep_0	
MB 160-354418/19-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-354418/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-150143-21 DU	AY04777 MW-21	Total/NA	Water	PrecSep_0	



# QC Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

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

**Lab Sample ID: MB 160-354226/23-A**  
**Matrix: Water**  
**Analysis Batch: 358141**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 354226**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.0000	U	0.0328	0.0328	1.00	0.0750	pCi/L	03/07/18 08:56	03/29/18 07:02	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	91.7		40 - 110	03/07/18 08:56	03/29/18 07:02	1				

**Lab Sample ID: LCS 160-354226/1-A**  
**Matrix: Water**  
**Analysis Batch: 358060**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 354226**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	11.8	12.26		1.25	1.00	0.0819	pCi/L	104	68 - 137
Carrier	LCS LCS		Limits			Prepared	Analyzed	Dil Fac	
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed				
Ba Carrier	99.7		40 - 110	03/07/18 08:56	03/29/18 07:02	1			

**Lab Sample ID: 400-150143-1 DU**  
**Matrix: Water**  
**Analysis Batch: 358141**

**Client Sample ID: AY04757 MW-6S**  
**Prep Type: Total/NA**  
**Prep Batch: 354226**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER Limit
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					
Radium-226	0.169		0.3052		0.117	1.00	0.0948	pCi/L	0.59	1
Carrier	DU DU		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	94.7		40 - 110	03/07/18 10:43	03/29/18 06:06	1				

**Lab Sample ID: MB 160-354408/19-A**  
**Matrix: Water**  
**Analysis Batch: 358141**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 354408**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.03377	U	0.0502	0.0503	1.00	0.0865	pCi/L	03/07/18 10:43	03/29/18 06:06	1
Carrier	MB MB		Limits			Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier		Prepared	Analyzed					
Ba Carrier	104		40 - 110	03/07/18 10:43	03/29/18 06:06	1				

**Lab Sample ID: LCS 160-354408/1-A**  
**Matrix: Water**  
**Analysis Batch: 358140**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 354408**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.7	13.72		1.42	1.00	0.128	pCi/L	87	68 - 137

# QC Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

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

**Lab Sample ID: LCS 160-354408/1-A**  
**Matrix: Water**  
**Analysis Batch: 358140**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 354408**

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	105		40 - 110

**Lab Sample ID: 400-150143-21 DU**  
**Matrix: Water**  
**Analysis Batch: 358141**

**Client Sample ID: AY04777 MW-21**  
**Prep Type: Total/NA**  
**Prep Batch: 354408**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.199		0.3204		0.126	1.00	0.125	pCi/L	0.55	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	102		40 - 110

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

**Lab Sample ID: MB 160-354402/23-A**  
**Matrix: Water**  
**Analysis Batch: 356419**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 354402**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.2357	U	0.248	0.249	1.00	0.405	pCi/L	03/07/18 10:01	03/19/18 17:22	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	91.7		40 - 110	03/07/18 10:01	03/19/18 17:22	1
Y Carrier	86.0		40 - 110	03/07/18 10:01	03/19/18 17:22	1

**Lab Sample ID: LCS 160-354402/1-A**  
**Matrix: Water**  
**Analysis Batch: 356419**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 354402**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	8.47	8.693		1.02	1.00	0.360	pCi/L	103	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	99.7		40 - 110
Y Carrier	84.1		40 - 110

**Lab Sample ID: 400-150143-1 DU**  
**Matrix: Water**  
**Analysis Batch: 356419**

**Client Sample ID: AY04757 MW-6S**  
**Prep Type: Total/NA**  
**Prep Batch: 354402**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.607		0.5599	U	0.378	1.00	0.584	pCi/L	0.06	1

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

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

**Lab Sample ID: 400-150143-1 DU**  
**Matrix: Water**  
**Analysis Batch: 356419**

**Client Sample ID: AY04757 MW-6S**  
**Prep Type: Total/NA**  
**Prep Batch: 354402**

Carrier	<i>DU</i> %Yield	<i>DU</i> Qualifier	Limits
Ba Carrier	94.7		40 - 110
Y Carrier	84.1		40 - 110

**Lab Sample ID: MB 160-354418/19-A**  
**Matrix: Water**  
**Analysis Batch: 356516**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 354418**

Analyte	<i>MB</i> Result	<i>MB</i> Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.1828	U	0.222	0.222	1.00	0.430	pCi/L	03/07/18 11:17	03/20/18 14:31	1

Carrier	<i>MB</i> %Yield	<i>MB</i> Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110	03/07/18 11:17	03/20/18 14:31	1
Y Carrier	97.6		40 - 110	03/07/18 11:17	03/20/18 14:31	1

**Lab Sample ID: LCS 160-354418/1-A**  
**Matrix: Water**  
**Analysis Batch: 356516**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 354418**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	11.3	10.21		1.20	1.00	0.435	pCi/L	90	56 - 140

Carrier	<i>LCS</i> %Yield	<i>LCS</i> Qualifier	Limits
Ba Carrier	105		40 - 110
Y Carrier	93.5		40 - 110

**Lab Sample ID: 400-150143-21 DU**  
**Matrix: Water**  
**Analysis Batch: 356516**

**Client Sample ID: AY04777 MW-21**  
**Prep Type: Total/NA**  
**Prep Batch: 354418**

Analyte	Sample Result	Sample Qual	<i>DU</i> Result	<i>DU</i> Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.123	U	0.2102	U	0.283	1.00	0.471	pCi/L	0.17	1

Carrier	<i>DU</i> %Yield	<i>DU</i> Qualifier	Limits
Ba Carrier	102		40 - 110
Y Carrier	92.7		40 - 110

# QC Sample Results

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-150143-1 DU**  
**Matrix: Water**  
**Analysis Batch: 358172**

**Client Sample ID: AY04757 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.776		0.8651		0.396	5.00	0.584	pCi/L	0.11	

**Lab Sample ID: 400-150143-21 DU**  
**Matrix: Water**  
**Analysis Batch: 358172**

**Client Sample ID: AY04777 MW-21**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.321	U	0.5306		0.310	5.00	0.471	pCi/L	0.37	

**Chain of Custody Record**



<b>Client Information</b>		Lab P/N: Whitmire, Cheyenne R		Carrier Tracking No(s):	
Alabama Power General Test Laboratory		E-Mail: cheyenne.whitmire@testamericainc.com		COC No: 400-56525-24537.1	
744 County Rd 87 GSC #8		Due Date Requested:		Page: 1 of 2	
City: Calera		TAT Requested (days): Routine		Job #:	
State, Zip: AL, 35040		PO #:		Preservation Codes:	
Phone: 205-664-6121(Tel)		WO #:		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - NaHSO4 R - Na2SO3 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - EDTA Y - EDA Z - other (specify)	
Email: sgcopels@southernco.com		Project #:		Other:	
CCR: 40007143		SSOW#:			
Site: Gorgas Ash Pond 1138					

Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Sediment, etc.)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	9315_Ra226, 9320_Ra228, Ra226Ra228_GFPc	Total Number of Containers	Special Instructions/Note:
AY04757	2/19/18	1210	G	Water	X	Y	X	3	MW-6S
AY04758	2/19/18	1305	G	Water	X	X	X	1	MW-6D
AY04759	2/19/18	1400	G	Water	X	X	X	1	MW-7
AY04760	2/19/18	1507	G	Water	X	X	X	1	MW-8
AY04761	2/19/18	1540	G	Water	X	X	X	1	FB-1 (Field Blank)
AY04762	2/20/18	0955	G	Water	X	X	X	1	MW-9
AY04763	2/20/18	1114	G	Water	X	X	X	1	MW-11
AY04764	2/20/18	1318	G	Water	X	X	X	1	MW-12
AY04765	2/20/18	1432	G	Water	X	X	X	1	MW-13
AY04766	2/20/18	1432	G	Water	X	X	X	1	MW-13 Dup (Sample Duplicate)
AY04767	2/20/18	1556	G	Water	X	X	X	1	MW-14
AY04768	2/20/18	1620	G	Water	X	X	X	1	MW-14 Diss (Dissolved Sample)

**Analysis Requested**

400-150143 COC

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: Sarah Copeland Date: 2/23/2018: 1030 Company: APC

Relinquished by: Date/Time: Company:

Relinquished by: Date/Time: Company:

Relinquished by: Date/Time: Company:

Custody Seals Intact: Custody Seal No.:  
 Δ Yes Δ No





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

### Chain of Custody Record



<b>Client Information</b>		Lab PM: Whitmire, Chyenne R		COC No: 400-56525-24537.1				
Ben Rofschadl/ Anthony Goggins		E-Mail: chyenmire@testamericainc.com		Page: Page 2 of 2				
Sarah Copeland		Carrier Tracking No(s):		Job #:				
Alabama Power General Test Laboratory		Due Date Requested:		Preservation Codes:				
744 County Rd 87 GSC #8		TAT Requested (days): Routine		A - HCL M - Hexane B - NaOH N - None C - Zn Acetate O - AsNaO2 D - Nitric Acid P - Na2O4S E - NaHSO4 F - MeOH R - Na2SO3 G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate I - Ice J - DI Water U - Acetone K - EDTA W - ph 4-5 L - EDA Z - other (specify)				
City: Calera		PO #:		Other:				
State, Zip: AL, 35040		WO #:						
Phone: 205-664-6121(Tel)		Project #:						
Email: sgcopela@southernco.com		40007143						
Project Name: CCR		SSOW#:						
Site: Gorgas Ash Pond 1138								
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)	Matrix (W=water, S=solid, O=oil, A=air)	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Total Number of Containers	Special Instructions/Note:
A'Y04769	2/21/18	1139	G	Water	X	X	1	MW-16D
A'Y04770	2/21/18	1257	G	Water	X	X	1	MW-18
A'Y04771	2/21/18	1257	G	Water	X	X	1	MW-18 Dup (Sample Duplicate)
A'Y04772	2/21/18	1357	G	Water	X	X	1	MW-19
A'Y04773	2/21/18	1456	G	Water	X	X	1	MW-2
A'Y04774	2/21/18	1540	G	Water	X	X	1	EB-1 (Equipment Blank)
A'Y04775	2/19/18	1247	G	Water	X	X	1	MW-17
A'Y04776	2/20/18	1343	G	Water	X	X	1	MW-15
A'Y04777	2/20/18	1621	G	Water	Y	X	3	MW-21
A'Y04778	2/20/18	1034	G	Water	X	X	1	FB-2 (Field Blank)
<p><b>Possible Hazard Identification</b>  <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological</p> <p>Deliverable Requested: I, II, III, IV, Other (specify)</p> <p>Empty Kit Relinquished by: _____ Date: _____</p> <p>Relinquished by: Sarah Copeland Date/Time: 2/23/2018, 1030</p> <p>Relinquished by: _____ Date/Time: _____</p> <p>Relinquished by: _____ Date/Time: _____</p> <p>Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Custody Seal No.: _____</p>								
<p>Special Instructions/QC Requirements:  <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months</p> <p>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</p> <p>Method of Shipment: _____ Date/Time: _____</p> <p>Relinquished by: _____ Date/Time: _____</p> <p>Relinquished by: _____ Date/Time: _____</p> <p>Relinquished by: _____ Date/Time: _____</p> <p>Cooler Temperature(s) °C and Other Remarks: 2-26-18 15:30 (A-Pen)</p>								

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## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-150143-1  
SDG Number: Gorgas Ash Pond 1138

**Login Number: 150143**

**List Number: 1**

**Creator: Edwards, Robin S**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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.	False	Thermal preservation not required.
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	20.6°C, 20.6°C IR-7
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-150143-1  
SDG Number: Gorgas Ash Pond 1138

**Login Number: 150143**  
**List Number: 2**  
**Creator: Taylor, Kristene N**

**List Source: TestAmerica St. Louis**  
**List Creation: 03/06/18 01:33 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	N/A	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	19.0.19.0
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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
L-A-B	ISO/IEC 17025		L2471	02-22-20
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

## Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18
Arizona	State Program	9	AZ0813	12-08-18
California	State Program	9	2886	03-31-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18
Illinois	NELAP	5	200023	11-30-18
Iowa	State Program	7	373	12-01-18
Kansas	NELAP	7	E-10236	10-31-18
Kentucky (DW)	State Program	4	90125	12-31-18
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA180017	12-31-18
Maryland	State Program	3	310	09-30-18
Missouri	State Program	7	780	06-30-18
Nevada	State Program	9	MO000542018-1	07-31-18
New Jersey	NELAP	2	MO002	06-30-18 *

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

## Accreditation/Certification Summary

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

TestAmerica Job ID: 400-150143-1  
 SDG: Gorgas Ash Pond 1138

### Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New York	NELAP	2	11616	03-31-18 *
North Dakota	State Program	8	R207	06-30-18
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18
Pennsylvania	NELAP	3	68-00540	02-28-19
South Carolina	State Program	4	85002001	06-30-18
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-18
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18 *

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



**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-2	2/21/2018 14:35	667.7	uS/cm	Conductivity
GS-AP-MW-2	2/21/2018 14:35	145.87	ft	Depth to Water Detail
GS-AP-MW-2	2/21/2018 14:35	4.38	mg/L	DO
GS-AP-MW-2	2/21/2018 14:35	-86.8	mv	Oxidation Reduction Potention
GS-AP-MW-2	2/21/2018 14:35	8.22	pH	pH
GS-AP-MW-2	2/21/2018 14:35	20.07	C	Temperature
GS-AP-MW-2	2/21/2018 14:35	1.53	NTU	Turbidity
GS-AP-MW-2	2/21/2018 14:40	741.1	uS/cm	Conductivity
GS-AP-MW-2	2/21/2018 14:40	146.02	ft	Depth to Water Detail
GS-AP-MW-2	2/21/2018 14:40	0.98	mg/L	DO
GS-AP-MW-2	2/21/2018 14:40	-77	mv	Oxidation Reduction Potention
GS-AP-MW-2	2/21/2018 14:40	8.95	pH	pH
GS-AP-MW-2	2/21/2018 14:40	19.68	C	Temperature
GS-AP-MW-2	2/21/2018 14:40	1.06	NTU	Turbidity
GS-AP-MW-2	2/21/2018 14:45	768	uS/cm	Conductivity
GS-AP-MW-2	2/21/2018 14:45	146.07	ft	Depth to Water Detail
GS-AP-MW-2	2/21/2018 14:45	0.56	mg/L	DO
GS-AP-MW-2	2/21/2018 14:45	-54.8	mv	Oxidation Reduction Potention
GS-AP-MW-2	2/21/2018 14:45	9.11	pH	pH
GS-AP-MW-2	2/21/2018 14:45	19.47	C	Temperature
GS-AP-MW-2	2/21/2018 14:45	0.89	NTU	Turbidity
GS-AP-MW-2	2/21/2018 14:50	773.5	uS/cm	Conductivity
GS-AP-MW-2	2/21/2018 14:50	146.08	ft	Depth to Water Detail
GS-AP-MW-2	2/21/2018 14:50	0.45	mg/L	DO
GS-AP-MW-2	2/21/2018 14:50	-49.5	mv	Oxidation Reduction Potention
GS-AP-MW-2	2/21/2018 14:50	9.16	pH	pH
GS-AP-MW-2	2/21/2018 14:50	19.39	C	Temperature
GS-AP-MW-2	2/21/2018 14:50	1.14	NTU	Turbidity
GS-AP-MW-2	2/21/2018 14:55	771	uS/cm	Conductivity
GS-AP-MW-2	2/21/2018 14:55	146.09	ft	Depth to Water Detail
GS-AP-MW-2	2/21/2018 14:55	0.43	mg/L	DO
GS-AP-MW-2	2/21/2018 14:55	-50.3	mv	Oxidation Reduction Potention
GS-AP-MW-2	2/21/2018 14:55	9.17	pH	pH
GS-AP-MW-2	2/21/2018 14:55	19.46	C	Temperature
GS-AP-MW-2	2/21/2018 14:55	1.12	NTU	Turbidity

**Alabama Power Company  
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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-6D	2/19/2018 12:48	506.9	uS/cm	Conductivity
GS-AP-MW-6D	2/19/2018 12:48	12.65	ft	Depth to Water Detail
GS-AP-MW-6D	2/19/2018 12:48	0.11	mg/L	DO
GS-AP-MW-6D	2/19/2018 12:48	-138.2	mv	Oxidation Reduction Potential
GS-AP-MW-6D	2/19/2018 12:48	7.37	pH	pH
GS-AP-MW-6D	2/19/2018 12:48	17.17	C	Temperature
GS-AP-MW-6D	2/19/2018 12:48	0.35	NTU	Turbidity
GS-AP-MW-6D	2/19/2018 12:53	508.9	uS/cm	Conductivity
GS-AP-MW-6D	2/19/2018 12:53	12.65	ft	Depth to Water Detail
GS-AP-MW-6D	2/19/2018 12:53	0.1	mg/L	DO
GS-AP-MW-6D	2/19/2018 12:53	-150.4	mv	Oxidation Reduction Potential
GS-AP-MW-6D	2/19/2018 12:53	7.38	pH	pH
GS-AP-MW-6D	2/19/2018 12:53	17.19	C	Temperature
GS-AP-MW-6D	2/19/2018 12:53	0.34	NTU	Turbidity
GS-AP-MW-6D	2/19/2018 12:58	510	uS/cm	Conductivity
GS-AP-MW-6D	2/19/2018 12:58	12.65	ft	Depth to Water Detail
GS-AP-MW-6D	2/19/2018 12:58	0.1	mg/L	DO
GS-AP-MW-6D	2/19/2018 12:58	-151.2	mv	Oxidation Reduction Potential
GS-AP-MW-6D	2/19/2018 12:58	7.37	pH	pH
GS-AP-MW-6D	2/19/2018 12:58	17.19	C	Temperature
GS-AP-MW-6D	2/19/2018 12:58	0.33	NTU	Turbidity
GS-AP-MW-6D	2/19/2018 13:03	510.3	uS/cm	Conductivity
GS-AP-MW-6D	2/19/2018 13:03	12.65	ft	Depth to Water Detail
GS-AP-MW-6D	2/19/2018 13:03	0.11	mg/L	DO
GS-AP-MW-6D	2/19/2018 13:03	-150.7	mv	Oxidation Reduction Potential
GS-AP-MW-6D	2/19/2018 13:03	7.36	pH	pH
GS-AP-MW-6D	2/19/2018 13:03	17.18	C	Temperature
GS-AP-MW-6D	2/19/2018 13:03	0.3	NTU	Turbidity



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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-6S	2/19/2018 11:48	735.9	uS/cm	Conductivity
GS-AP-MW-6S	2/19/2018 11:48	17.95	ft	Depth to Water Detail
GS-AP-MW-6S	2/19/2018 11:48	0.17	mg/L	DO
GS-AP-MW-6S	2/19/2018 11:48	-131.3	mv	Oxidation Reduction Potention
GS-AP-MW-6S	2/19/2018 11:48	6.83	pH	pH
GS-AP-MW-6S	2/19/2018 11:48	17.13	C	Temperature
GS-AP-MW-6S	2/19/2018 11:48	10	NTU	Turbidity
GS-AP-MW-6S	2/19/2018 11:53	736.5	uS/cm	Conductivity
GS-AP-MW-6S	2/19/2018 11:53	17.95	ft	Depth to Water Detail
GS-AP-MW-6S	2/19/2018 11:53	0.16	mg/L	DO
GS-AP-MW-6S	2/19/2018 11:53	-127.7	mv	Oxidation Reduction Potention
GS-AP-MW-6S	2/19/2018 11:53	6.84	pH	pH
GS-AP-MW-6S	2/19/2018 11:53	17.09	C	Temperature
GS-AP-MW-6S	2/19/2018 11:53	7.89	NTU	Turbidity
GS-AP-MW-6S	2/19/2018 11:58	734.8	uS/cm	Conductivity
GS-AP-MW-6S	2/19/2018 11:58	17.95	ft	Depth to Water Detail
GS-AP-MW-6S	2/19/2018 11:58	0.15	mg/L	DO
GS-AP-MW-6S	2/19/2018 11:58	-124.4	mv	Oxidation Reduction Potention
GS-AP-MW-6S	2/19/2018 11:58	6.85	pH	pH
GS-AP-MW-6S	2/19/2018 11:58	17.05	C	Temperature
GS-AP-MW-6S	2/19/2018 11:58	6.94	NTU	Turbidity
GS-AP-MW-6S	2/19/2018 12:03	736.2	uS/cm	Conductivity
GS-AP-MW-6S	2/19/2018 12:03	17.95	ft	Depth to Water Detail
GS-AP-MW-6S	2/19/2018 12:03	0.14	mg/L	DO
GS-AP-MW-6S	2/19/2018 12:03	-121.6	mv	Oxidation Reduction Potention
GS-AP-MW-6S	2/19/2018 12:03	6.85	pH	pH
GS-AP-MW-6S	2/19/2018 12:03	17.03	C	Temperature
GS-AP-MW-6S	2/19/2018 12:03	5.53	NTU	Turbidity
GS-AP-MW-6S	2/19/2018 12:08	737	uS/cm	Conductivity
GS-AP-MW-6S	2/19/2018 12:08	17.95	ft	Depth to Water Detail
GS-AP-MW-6S	2/19/2018 12:08	0.14	mg/L	DO
GS-AP-MW-6S	2/19/2018 12:08	-119.6	mv	Oxidation Reduction Potention
GS-AP-MW-6S	2/19/2018 12:08	6.85	pH	pH
GS-AP-MW-6S	2/19/2018 12:08	16.92	C	Temperature
GS-AP-MW-6S	2/19/2018 12:08	4.68	NTU	Turbidity

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-7	2/19/2018 13:44	554.4	uS/cm	Conductivity
GS-AP-MW-7	2/19/2018 13:44	8.87	ft	Depth to Water Detail
GS-AP-MW-7	2/19/2018 13:44	0.47	mg/L	DO
GS-AP-MW-7	2/19/2018 13:44	-216.2	mv	Oxidation Reduction Potention
GS-AP-MW-7	2/19/2018 13:44	7.68	pH	pH
GS-AP-MW-7	2/19/2018 13:44	17.19	C	Temperature
GS-AP-MW-7	2/19/2018 13:44	0.93	NTU	Turbidity
GS-AP-MW-7	2/19/2018 13:49	554.5	uS/cm	Conductivity
GS-AP-MW-7	2/19/2018 13:49	8.91	ft	Depth to Water Detail
GS-AP-MW-7	2/19/2018 13:49	0.42	mg/L	DO
GS-AP-MW-7	2/19/2018 13:49	-203.2	mv	Oxidation Reduction Potention
GS-AP-MW-7	2/19/2018 13:49	7.66	pH	pH
GS-AP-MW-7	2/19/2018 13:49	17.17	C	Temperature
GS-AP-MW-7	2/19/2018 13:49	0.91	NTU	Turbidity
GS-AP-MW-7	2/19/2018 13:54	554.9	uS/cm	Conductivity
GS-AP-MW-7	2/19/2018 13:54	8.92	ft	Depth to Water Detail
GS-AP-MW-7	2/19/2018 13:54	0.41	mg/L	DO
GS-AP-MW-7	2/19/2018 13:54	-193.4	mv	Oxidation Reduction Potention
GS-AP-MW-7	2/19/2018 13:54	7.65	pH	pH
GS-AP-MW-7	2/19/2018 13:54	17.23	C	Temperature
GS-AP-MW-7	2/19/2018 13:54	0.86	NTU	Turbidity
GS-AP-MW-7	2/19/2018 13:59	554.9	uS/cm	Conductivity
GS-AP-MW-7	2/19/2018 13:59	8.94	ft	Depth to Water Detail
GS-AP-MW-7	2/19/2018 13:59	0.38	mg/L	DO
GS-AP-MW-7	2/19/2018 13:59	-186.6	mv	Oxidation Reduction Potention
GS-AP-MW-7	2/19/2018 13:59	7.65	pH	pH
GS-AP-MW-7	2/19/2018 13:59	17.36	C	Temperature
GS-AP-MW-7	2/19/2018 13:59	1.26	NTU	Turbidity

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-8	2/19/2018 14:50	127.1	uS/cm	Conductivity
GS-AP-MW-8	2/19/2018 14:50	44.6	ft	Depth to Water Detail
GS-AP-MW-8	2/19/2018 14:50	0.66	mg/L	DO
GS-AP-MW-8	2/19/2018 14:50	100.2	mv	Oxidation Reduction Potention
GS-AP-MW-8	2/19/2018 14:50	5.79	pH	pH
GS-AP-MW-8	2/19/2018 14:50	18.88	C	Temperature
GS-AP-MW-8	2/19/2018 14:50	1.17	NTU	Turbidity
GS-AP-MW-8	2/19/2018 14:55	127.4	uS/cm	Conductivity
GS-AP-MW-8	2/19/2018 14:55	44.81	ft	Depth to Water Detail
GS-AP-MW-8	2/19/2018 14:55	0.6	mg/L	DO
GS-AP-MW-8	2/19/2018 14:55	100.9	mv	Oxidation Reduction Potention
GS-AP-MW-8	2/19/2018 14:55	5.79	pH	pH
GS-AP-MW-8	2/19/2018 14:55	18.79	C	Temperature
GS-AP-MW-8	2/19/2018 14:55	1.06	NTU	Turbidity
GS-AP-MW-8	2/19/2018 15:00	127	uS/cm	Conductivity
GS-AP-MW-8	2/19/2018 15:00	44.96	ft	Depth to Water Detail
GS-AP-MW-8	2/19/2018 15:00	0.58	mg/L	DO
GS-AP-MW-8	2/19/2018 15:00	101	mv	Oxidation Reduction Potention
GS-AP-MW-8	2/19/2018 15:00	5.78	pH	pH
GS-AP-MW-8	2/19/2018 15:00	18.7	C	Temperature
GS-AP-MW-8	2/19/2018 15:00	1.48	NTU	Turbidity
GS-AP-MW-8	2/19/2018 15:05	126.8	uS/cm	Conductivity
GS-AP-MW-8	2/19/2018 15:05	45.06	ft	Depth to Water Detail
GS-AP-MW-8	2/19/2018 15:05	0.57	mg/L	DO
GS-AP-MW-8	2/19/2018 15:05	100.4	mv	Oxidation Reduction Potention
GS-AP-MW-8	2/19/2018 15:05	5.78	pH	pH
GS-AP-MW-8	2/19/2018 15:05	18.79	C	Temperature
GS-AP-MW-8	2/19/2018 15:05	1.73	NTU	Turbidity

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-9	2/20/2018 9:34	647.8	uS/cm	Conductivity
GS-AP-MW-9	2/20/2018 9:34	45.41	ft	Depth to Water Detail
GS-AP-MW-9	2/20/2018 9:34	0.34	mg/L	DO
GS-AP-MW-9	2/20/2018 9:34	-91.4	mv	Oxidation Reduction Potention
GS-AP-MW-9	2/20/2018 9:34	6.75	pH	pH
GS-AP-MW-9	2/20/2018 9:34	18.97	C	Temperature
GS-AP-MW-9	2/20/2018 9:34	10.95	NTU	Turbidity
GS-AP-MW-9	2/20/2018 9:39	652.4	uS/cm	Conductivity
GS-AP-MW-9	2/20/2018 9:39	45.81	ft	Depth to Water Detail
GS-AP-MW-9	2/20/2018 9:39	0.25	mg/L	DO
GS-AP-MW-9	2/20/2018 9:39	-82.9	mv	Oxidation Reduction Potention
GS-AP-MW-9	2/20/2018 9:39	6.74	pH	pH
GS-AP-MW-9	2/20/2018 9:39	18.74	C	Temperature
GS-AP-MW-9	2/20/2018 9:39	2.03	NTU	Turbidity
GS-AP-MW-9	2/20/2018 9:44	652.2	uS/cm	Conductivity
GS-AP-MW-9	2/20/2018 9:44	45.95	ft	Depth to Water Detail
GS-AP-MW-9	2/20/2018 9:44	0.22	mg/L	DO
GS-AP-MW-9	2/20/2018 9:44	-77.7	mv	Oxidation Reduction Potention
GS-AP-MW-9	2/20/2018 9:44	6.74	pH	pH
GS-AP-MW-9	2/20/2018 9:44	18.75	C	Temperature
GS-AP-MW-9	2/20/2018 9:44	0.97	NTU	Turbidity
GS-AP-MW-9	2/20/2018 9:49	650.1	uS/cm	Conductivity
GS-AP-MW-9	2/20/2018 9:49	46.06	ft	Depth to Water Detail
GS-AP-MW-9	2/20/2018 9:49	0.21	mg/L	DO
GS-AP-MW-9	2/20/2018 9:49	-73.8	mv	Oxidation Reduction Potention
GS-AP-MW-9	2/20/2018 9:49	6.75	pH	pH
GS-AP-MW-9	2/20/2018 9:49	18.73	C	Temperature
GS-AP-MW-9	2/20/2018 9:49	1.25	NTU	Turbidity
GS-AP-MW-9	2/20/2018 9:54	648.8	uS/cm	Conductivity
GS-AP-MW-9	2/20/2018 9:54	46.16	ft	Depth to Water Detail
GS-AP-MW-9	2/20/2018 9:54	0.21	mg/L	DO
GS-AP-MW-9	2/20/2018 9:54	-70.4	mv	Oxidation Reduction Potention
GS-AP-MW-9	2/20/2018 9:54	6.75	pH	pH
GS-AP-MW-9	2/20/2018 9:54	18.7	C	Temperature
GS-AP-MW-9	2/20/2018 9:54	1.36	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-11	2/20/2018 10:47	419.9	uS/cm	Conductivity
GS-AP-MW-11	2/20/2018 10:47	87.69	ft	Depth to Water Detail
GS-AP-MW-11	2/20/2018 10:47	0.73	mg/L	DO
GS-AP-MW-11	2/20/2018 10:47	4.9	mv	Oxidation Reduction Potention
GS-AP-MW-11	2/20/2018 10:47	7	pH	pH
GS-AP-MW-11	2/20/2018 10:47	18.54	C	Temperature
GS-AP-MW-11	2/20/2018 10:47	2.7	NTU	Turbidity
GS-AP-MW-11	2/20/2018 10:52	419.7	uS/cm	Conductivity
GS-AP-MW-11	2/20/2018 10:52	88.02	ft	Depth to Water Detail
GS-AP-MW-11	2/20/2018 10:52	0.51	mg/L	DO
GS-AP-MW-11	2/20/2018 10:52	11.6	mv	Oxidation Reduction Potention
GS-AP-MW-11	2/20/2018 10:52	6.98	pH	pH
GS-AP-MW-11	2/20/2018 10:52	18.39	C	Temperature
GS-AP-MW-11	2/20/2018 10:52	1.94	NTU	Turbidity
GS-AP-MW-11	2/20/2018 10:57	420.3	uS/cm	Conductivity
GS-AP-MW-11	2/20/2018 10:57	88.3	ft	Depth to Water Detail
GS-AP-MW-11	2/20/2018 10:57	0.44	mg/L	DO
GS-AP-MW-11	2/20/2018 10:57	17.9	mv	Oxidation Reduction Potention
GS-AP-MW-11	2/20/2018 10:57	6.98	pH	pH
GS-AP-MW-11	2/20/2018 10:57	18.48	C	Temperature
GS-AP-MW-11	2/20/2018 10:57	1.12	NTU	Turbidity
GS-AP-MW-11	2/20/2018 11:02	419.9	uS/cm	Conductivity
GS-AP-MW-11	2/20/2018 11:02	88.51	ft	Depth to Water Detail
GS-AP-MW-11	2/20/2018 11:02	0.42	mg/L	DO
GS-AP-MW-11	2/20/2018 11:02	15.2	mv	Oxidation Reduction Potention
GS-AP-MW-11	2/20/2018 11:02	6.98	pH	pH
GS-AP-MW-11	2/20/2018 11:02	18.26	C	Temperature
GS-AP-MW-11	2/20/2018 11:02	0.64	NTU	Turbidity
GS-AP-MW-11	2/20/2018 11:07	421.1	uS/cm	Conductivity
GS-AP-MW-11	2/20/2018 11:07	88.63	ft	Depth to Water Detail
GS-AP-MW-11	2/20/2018 11:07	0.41	mg/L	DO
GS-AP-MW-11	2/20/2018 11:07	5.3	mv	Oxidation Reduction Potention
GS-AP-MW-11	2/20/2018 11:07	6.98	pH	pH
GS-AP-MW-11	2/20/2018 11:07	18.27	C	Temperature
GS-AP-MW-11	2/20/2018 11:07	0.71	NTU	Turbidity
GS-AP-MW-11	2/20/2018 11:12	421.1	uS/cm	Conductivity
GS-AP-MW-11	2/20/2018 11:12	88.73	ft	Depth to Water Detail
GS-AP-MW-11	2/20/2018 11:12	0.41	mg/L	DO
GS-AP-MW-11	2/20/2018 11:12	-2.4	mv	Oxidation Reduction Potention
GS-AP-MW-11	2/20/2018 11:12	6.98	pH	pH
GS-AP-MW-11	2/20/2018 11:12	18.27	C	Temperature
GS-AP-MW-11	2/20/2018 11:12	1.03	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-12	2/20/2018 12:06	426.4	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:06	71.07	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:06	1.25	mg/L	DO
GS-AP-MW-12	2/20/2018 12:06	-208	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:06	7.67	pH	pH
GS-AP-MW-12	2/20/2018 12:06	19.79	C	Temperature
GS-AP-MW-12	2/20/2018 12:06	1.36	NTU	Turbidity
GS-AP-MW-12	2/20/2018 12:11	423.2	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:11	71.55	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:11	1.06	mg/L	DO
GS-AP-MW-12	2/20/2018 12:11	-225	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:11	7.72	pH	pH
GS-AP-MW-12	2/20/2018 12:11	19.63	C	Temperature
GS-AP-MW-12	2/20/2018 12:11	0.97	NTU	Turbidity
GS-AP-MW-12	2/20/2018 12:16	422.1	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:16	72.19	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:16	0.93	mg/L	DO
GS-AP-MW-12	2/20/2018 12:16	-237.5	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:16	7.74	pH	pH
GS-AP-MW-12	2/20/2018 12:16	19.58	C	Temperature
GS-AP-MW-12	2/20/2018 12:16	0.75	NTU	Turbidity
GS-AP-MW-12	2/20/2018 12:21	422.1	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:21	72.65	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:21	0.81	mg/L	DO
GS-AP-MW-12	2/20/2018 12:21	-244.8	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:21	7.74	pH	pH
GS-AP-MW-12	2/20/2018 12:21	19.5	C	Temperature
GS-AP-MW-12	2/20/2018 12:21	0.68	NTU	Turbidity
GS-AP-MW-12	2/20/2018 12:26	421.3	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:26	73.07	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:26	0.77	mg/L	DO
GS-AP-MW-12	2/20/2018 12:26	-250.3	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:26	7.75	pH	pH
GS-AP-MW-12	2/20/2018 12:26	19.59	C	Temperature
GS-AP-MW-12	2/20/2018 12:26	1.02	NTU	Turbidity
GS-AP-MW-12	2/20/2018 12:31	421.7	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:31	73.4	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:31	0.68	mg/L	DO
GS-AP-MW-12	2/20/2018 12:31	-253.1	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:31	7.75	pH	pH
GS-AP-MW-12	2/20/2018 12:31	19.43	C	Temperature
GS-AP-MW-12	2/20/2018 12:31	0.63	NTU	Turbidity
GS-AP-MW-12	2/20/2018 12:36	421.2	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:36	73.75	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:36	0.61	mg/L	DO



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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-12	2/20/2018 12:36	-255.7	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:36	7.75	pH	pH
GS-AP-MW-12	2/20/2018 12:36	19.5	C	Temperature
GS-AP-MW-12	2/20/2018 12:36	0.67	NTU	Turbidity
GS-AP-MW-12	2/20/2018 12:41	420.5	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:41	73.99	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:41	0.56	mg/L	DO
GS-AP-MW-12	2/20/2018 12:41	-257.2	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:41	7.75	pH	pH
GS-AP-MW-12	2/20/2018 12:41	19.52	C	Temperature
GS-AP-MW-12	2/20/2018 12:41	0.69	NTU	Turbidity
GS-AP-MW-12	2/20/2018 12:46	418.7	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:46	74.22	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:46	0.52	mg/L	DO
GS-AP-MW-12	2/20/2018 12:46	-258.5	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:46	7.74	pH	pH
GS-AP-MW-12	2/20/2018 12:46	19.36	C	Temperature
GS-AP-MW-12	2/20/2018 12:46	0.62	NTU	Turbidity
GS-AP-MW-12	2/20/2018 12:51	417.7	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:51	74.49	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:51	0.49	mg/L	DO
GS-AP-MW-12	2/20/2018 12:51	-258.9	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:51	7.73	pH	pH
GS-AP-MW-12	2/20/2018 12:51	19.32	C	Temperature
GS-AP-MW-12	2/20/2018 12:51	0.61	NTU	Turbidity
GS-AP-MW-12	2/20/2018 12:56	416.2	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 12:56	74.68	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 12:56	0.46	mg/L	DO
GS-AP-MW-12	2/20/2018 12:56	-259.6	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 12:56	7.72	pH	pH
GS-AP-MW-12	2/20/2018 12:56	19.41	C	Temperature
GS-AP-MW-12	2/20/2018 12:56	0.59	NTU	Turbidity
GS-AP-MW-12	2/20/2018 13:01	414.4	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 13:01	74.87	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 13:01	0.43	mg/L	DO
GS-AP-MW-12	2/20/2018 13:01	-258.5	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 13:01	7.71	pH	pH
GS-AP-MW-12	2/20/2018 13:01	19.49	C	Temperature
GS-AP-MW-12	2/20/2018 13:01	0.63	NTU	Turbidity
GS-AP-MW-12	2/20/2018 13:06	412.5	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 13:06	75.07	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 13:06	0.42	mg/L	DO
GS-AP-MW-12	2/20/2018 13:06	-258	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 13:06	7.7	pH	pH
GS-AP-MW-12	2/20/2018 13:06	19.41	C	Temperature

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-12	2/20/2018 13:06	0.55	NTU	Turbidity
GS-AP-MW-12	2/20/2018 13:11	412	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 13:11	75.21	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 13:11	0.4	mg/L	DO
GS-AP-MW-12	2/20/2018 13:11	-257.9	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 13:11	7.7	pH	pH
GS-AP-MW-12	2/20/2018 13:11	19.48	C	Temperature
GS-AP-MW-12	2/20/2018 13:11	0.59	NTU	Turbidity
GS-AP-MW-12	2/20/2018 13:16	409.9	uS/cm	Conductivity
GS-AP-MW-12	2/20/2018 13:16	75.33	ft	Depth to Water Detail
GS-AP-MW-12	2/20/2018 13:16	0.4	mg/L	DO
GS-AP-MW-12	2/20/2018 13:16	-256.9	mv	Oxidation Reduction Potention
GS-AP-MW-12	2/20/2018 13:16	7.69	pH	pH
GS-AP-MW-12	2/20/2018 13:16	19.35	C	Temperature
GS-AP-MW-12	2/20/2018 13:16	0.56	NTU	Turbidity

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-13	2/20/2018 14:15	379.7	uS/cm	Conductivity
GS-AP-MW-13	2/20/2018 14:15	71.98	ft	Depth to Water Detail
GS-AP-MW-13	2/20/2018 14:15	0.15	mg/L	DO
GS-AP-MW-13	2/20/2018 14:15	10	mv	Oxidation Reduction Potention
GS-AP-MW-13	2/20/2018 14:15	6.78	pH	pH
GS-AP-MW-13	2/20/2018 14:15	17.25	C	Temperature
GS-AP-MW-13	2/20/2018 14:15	3.22	NTU	Turbidity
GS-AP-MW-13	2/20/2018 14:20	379.7	uS/cm	Conductivity
GS-AP-MW-13	2/20/2018 14:20	71.98	ft	Depth to Water Detail
GS-AP-MW-13	2/20/2018 14:20	0.14	mg/L	DO
GS-AP-MW-13	2/20/2018 14:20	10.4	mv	Oxidation Reduction Potention
GS-AP-MW-13	2/20/2018 14:20	6.77	pH	pH
GS-AP-MW-13	2/20/2018 14:20	17.19	C	Temperature
GS-AP-MW-13	2/20/2018 14:20	3.9	NTU	Turbidity
GS-AP-MW-13	2/20/2018 14:25	381	uS/cm	Conductivity
GS-AP-MW-13	2/20/2018 14:25	71.98	ft	Depth to Water Detail
GS-AP-MW-13	2/20/2018 14:25	0.14	mg/L	DO
GS-AP-MW-13	2/20/2018 14:25	8.8	mv	Oxidation Reduction Potention
GS-AP-MW-13	2/20/2018 14:25	6.77	pH	pH
GS-AP-MW-13	2/20/2018 14:25	17.17	C	Temperature
GS-AP-MW-13	2/20/2018 14:25	3.53	NTU	Turbidity
GS-AP-MW-13	2/20/2018 14:30	381.9	uS/cm	Conductivity
GS-AP-MW-13	2/20/2018 14:30	71.99	ft	Depth to Water Detail
GS-AP-MW-13	2/20/2018 14:30	0.14	mg/L	DO
GS-AP-MW-13	2/20/2018 14:30	8.2	mv	Oxidation Reduction Potention
GS-AP-MW-13	2/20/2018 14:30	6.77	pH	pH
GS-AP-MW-13	2/20/2018 14:30	17.19	C	Temperature
GS-AP-MW-13	2/20/2018 14:30	2.6	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-14	2/20/2018 15:19	393.3	uS/cm	Conductivity
GS-AP-MW-14	2/20/2018 15:19	101.43	ft	Depth to Water Detail
GS-AP-MW-14	2/20/2018 15:19	1.09	mg/L	DO
GS-AP-MW-14	2/20/2018 15:19	-129	mv	Oxidation Reduction Potention
GS-AP-MW-14	2/20/2018 15:19	7.34	pH	pH
GS-AP-MW-14	2/20/2018 15:19	18	C	Temperature
GS-AP-MW-14	2/20/2018 15:19	1.01	NTU	Turbidity
GS-AP-MW-14	2/20/2018 15:24	416	uS/cm	Conductivity
GS-AP-MW-14	2/20/2018 15:24	101.93	ft	Depth to Water Detail
GS-AP-MW-14	2/20/2018 15:24	0.56	mg/L	DO
GS-AP-MW-14	2/20/2018 15:24	-140.5	mv	Oxidation Reduction Potention
GS-AP-MW-14	2/20/2018 15:24	7.32	pH	pH
GS-AP-MW-14	2/20/2018 15:24	17.84	C	Temperature
GS-AP-MW-14	2/20/2018 15:24	1.64	NTU	Turbidity
GS-AP-MW-14	2/20/2018 15:29	422.3	uS/cm	Conductivity
GS-AP-MW-14	2/20/2018 15:29	102.34	ft	Depth to Water Detail
GS-AP-MW-14	2/20/2018 15:29	0.46	mg/L	DO
GS-AP-MW-14	2/20/2018 15:29	-153.4	mv	Oxidation Reduction Potention
GS-AP-MW-14	2/20/2018 15:29	7.33	pH	pH
GS-AP-MW-14	2/20/2018 15:29	17.86	C	Temperature
GS-AP-MW-14	2/20/2018 15:29	1.54	NTU	Turbidity
GS-AP-MW-14	2/20/2018 15:34	421.6	uS/cm	Conductivity
GS-AP-MW-14	2/20/2018 15:34	102.71	ft	Depth to Water Detail
GS-AP-MW-14	2/20/2018 15:34	0.42	mg/L	DO
GS-AP-MW-14	2/20/2018 15:34	-159	mv	Oxidation Reduction Potention
GS-AP-MW-14	2/20/2018 15:34	7.31	pH	pH
GS-AP-MW-14	2/20/2018 15:34	17.91	C	Temperature
GS-AP-MW-14	2/20/2018 15:34	1.26	NTU	Turbidity
GS-AP-MW-14	2/20/2018 15:39	418.8	uS/cm	Conductivity
GS-AP-MW-14	2/20/2018 15:39	102.94	ft	Depth to Water Detail
GS-AP-MW-14	2/20/2018 15:39	0.41	mg/L	DO
GS-AP-MW-14	2/20/2018 15:39	-159.5	mv	Oxidation Reduction Potention
GS-AP-MW-14	2/20/2018 15:39	7.28	pH	pH
GS-AP-MW-14	2/20/2018 15:39	17.81	C	Temperature
GS-AP-MW-14	2/20/2018 15:39	1.13	NTU	Turbidity
GS-AP-MW-14	2/20/2018 15:44	415.8	uS/cm	Conductivity
GS-AP-MW-14	2/20/2018 15:44	103.27	ft	Depth to Water Detail
GS-AP-MW-14	2/20/2018 15:44	0.41	mg/L	DO
GS-AP-MW-14	2/20/2018 15:44	-157.3	mv	Oxidation Reduction Potention
GS-AP-MW-14	2/20/2018 15:44	7.24	pH	pH
GS-AP-MW-14	2/20/2018 15:44	17.77	C	Temperature
GS-AP-MW-14	2/20/2018 15:44	1.3	NTU	Turbidity
GS-AP-MW-14	2/20/2018 15:49	413.7	uS/cm	Conductivity
GS-AP-MW-14	2/20/2018 15:49	103.32	ft	Depth to Water Detail
GS-AP-MW-14	2/20/2018 15:49	0.42	mg/L	DO

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-14	2/20/2018 15:49	-154.1	mv	Oxidation Reduction Potention
GS-AP-MW-14	2/20/2018 15:49	7.22	pH	pH
GS-AP-MW-14	2/20/2018 15:49	17.74	C	Temperature
GS-AP-MW-14	2/20/2018 15:49	1.25	NTU	Turbidity
GS-AP-MW-14	2/20/2018 15:54	410.6	uS/cm	Conductivity
GS-AP-MW-14	2/20/2018 15:54	103.45	ft	Depth to Water Detail
GS-AP-MW-14	2/20/2018 15:54	0.43	mg/L	DO
GS-AP-MW-14	2/20/2018 15:54	-149.6	mv	Oxidation Reduction Potention
GS-AP-MW-14	2/20/2018 15:54	7.19	pH	pH
GS-AP-MW-14	2/20/2018 15:54	17.85	C	Temperature
GS-AP-MW-14	2/20/2018 15:54	0.89	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	2/20/2018 10:41	601	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 10:41	81.87	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 10:41	0.77	mg/L	DO
GS-AP-MW-15	2/20/2018 10:41	-54.1	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 10:41	10.3	pH	pH
GS-AP-MW-15	2/20/2018 10:41	20.12	C	Temperature
GS-AP-MW-15	2/20/2018 10:41	2.36	NTU	Turbidity
GS-AP-MW-15	2/20/2018 10:46	1197.5	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 10:46	82.41	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 10:46	0.41	mg/L	DO
GS-AP-MW-15	2/20/2018 10:46	-25	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 10:46	11.35	pH	pH
GS-AP-MW-15	2/20/2018 10:46	19.86	C	Temperature
GS-AP-MW-15	2/20/2018 10:46	1.09	NTU	Turbidity
GS-AP-MW-15	2/20/2018 10:51	1331	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 10:51	83.03	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 10:51	0.35	mg/L	DO
GS-AP-MW-15	2/20/2018 10:51	-25.2	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 10:51	11.52	pH	pH
GS-AP-MW-15	2/20/2018 10:51	19.78	C	Temperature
GS-AP-MW-15	2/20/2018 10:51	0.93	NTU	Turbidity
GS-AP-MW-15	2/20/2018 10:56	1363.4	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 10:56	83.63	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 10:56	0.3	mg/L	DO
GS-AP-MW-15	2/20/2018 10:56	-27.4	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 10:56	11.57	pH	pH
GS-AP-MW-15	2/20/2018 10:56	19.71	C	Temperature
GS-AP-MW-15	2/20/2018 10:56	0.86	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:01	1374.1	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:01	84.12	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:01	0.3	mg/L	DO
GS-AP-MW-15	2/20/2018 11:01	-31.9	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:01	11.58	pH	pH
GS-AP-MW-15	2/20/2018 11:01	19.68	C	Temperature
GS-AP-MW-15	2/20/2018 11:01	0.85	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:06	1377.9	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:06	84.54	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:06	0.3	mg/L	DO
GS-AP-MW-15	2/20/2018 11:06	-34	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:06	11.59	pH	pH
GS-AP-MW-15	2/20/2018 11:06	19.94	C	Temperature
GS-AP-MW-15	2/20/2018 11:06	0.8	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:11	1381.3	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:11	84.82	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:11	0.3	mg/L	DO



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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	2/20/2018 11:11	-36.7	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:11	11.59	pH	pH
GS-AP-MW-15	2/20/2018 11:11	19.91	C	Temperature
GS-AP-MW-15	2/20/2018 11:11	1.68	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:16	1380.7	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:16	85.3	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:16	0.31	mg/L	DO
GS-AP-MW-15	2/20/2018 11:16	-35.5	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:16	11.59	pH	pH
GS-AP-MW-15	2/20/2018 11:16	19.97	C	Temperature
GS-AP-MW-15	2/20/2018 11:16	1.4	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:21	1376.2	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:21	85.58	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:21	0.32	mg/L	DO
GS-AP-MW-15	2/20/2018 11:21	-33.5	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:21	11.59	pH	pH
GS-AP-MW-15	2/20/2018 11:21	20.04	C	Temperature
GS-AP-MW-15	2/20/2018 11:21	1.24	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:26	1373	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:26	85.92	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:26	0.33	mg/L	DO
GS-AP-MW-15	2/20/2018 11:26	-32.4	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:26	11.59	pH	pH
GS-AP-MW-15	2/20/2018 11:26	20.13	C	Temperature
GS-AP-MW-15	2/20/2018 11:26	0.86	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:31	1370.1	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:31	86.2	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:31	0.34	mg/L	DO
GS-AP-MW-15	2/20/2018 11:31	-31.2	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:31	11.59	pH	pH
GS-AP-MW-15	2/20/2018 11:31	20.04	C	Temperature
GS-AP-MW-15	2/20/2018 11:31	0.65	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:36	1360.3	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:36	86.46	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:36	0.35	mg/L	DO
GS-AP-MW-15	2/20/2018 11:36	-31.1	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:36	11.59	pH	pH
GS-AP-MW-15	2/20/2018 11:36	19.81	C	Temperature
GS-AP-MW-15	2/20/2018 11:36	2.15	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:41	1354.1	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:41	86.81	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:41	0.37	mg/L	DO
GS-AP-MW-15	2/20/2018 11:41	-31.6	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:41	11.6	pH	pH
GS-AP-MW-15	2/20/2018 11:41	19.5	C	Temperature

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	2/20/2018 11:41	1.78	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:46	1349.2	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:46	86.98	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:46	0.38	mg/L	DO
GS-AP-MW-15	2/20/2018 11:46	-34.3	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:46	11.61	pH	pH
GS-AP-MW-15	2/20/2018 11:46	19.24	C	Temperature
GS-AP-MW-15	2/20/2018 11:46	0.86	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:51	1346.1	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:51	87.19	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:51	0.38	mg/L	DO
GS-AP-MW-15	2/20/2018 11:51	-38	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:51	11.6	pH	pH
GS-AP-MW-15	2/20/2018 11:51	19.58	C	Temperature
GS-AP-MW-15	2/20/2018 11:51	0.88	NTU	Turbidity
GS-AP-MW-15	2/20/2018 11:56	1338.3	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 11:56	87.43	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 11:56	0.38	mg/L	DO
GS-AP-MW-15	2/20/2018 11:56	-38.6	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 11:56	11.6	pH	pH
GS-AP-MW-15	2/20/2018 11:56	19.28	C	Temperature
GS-AP-MW-15	2/20/2018 11:56	0.71	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:01	1323.6	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:01	87.54	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:01	0.4	mg/L	DO
GS-AP-MW-15	2/20/2018 12:01	-40	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:01	11.6	pH	pH
GS-AP-MW-15	2/20/2018 12:01	19.13	C	Temperature
GS-AP-MW-15	2/20/2018 12:01	1.1	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:06	1299.4	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:06	87.72	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:06	0.4	mg/L	DO
GS-AP-MW-15	2/20/2018 12:06	-42.2	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:06	11.59	pH	pH
GS-AP-MW-15	2/20/2018 12:06	19.03	C	Temperature
GS-AP-MW-15	2/20/2018 12:06	0.93	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:11	1264.4	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:11	87.88	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:11	0.4	mg/L	DO
GS-AP-MW-15	2/20/2018 12:11	-43.3	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:11	11.57	pH	pH
GS-AP-MW-15	2/20/2018 12:11	19.08	C	Temperature
GS-AP-MW-15	2/20/2018 12:11	0.67	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:16	1218.1	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:16	88.02	ft	Depth to Water Detail

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	2/20/2018 12:16	0.41	mg/L	DO
GS-AP-MW-15	2/20/2018 12:16	-44	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:16	11.54	pH	pH
GS-AP-MW-15	2/20/2018 12:16	19.11	C	Temperature
GS-AP-MW-15	2/20/2018 12:16	0.79	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:21	1180.1	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:21	88.16	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:21	0.41	mg/L	DO
GS-AP-MW-15	2/20/2018 12:21	-44.8	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:21	11.51	pH	pH
GS-AP-MW-15	2/20/2018 12:21	19.15	C	Temperature
GS-AP-MW-15	2/20/2018 12:21	0.95	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:26	1142.1	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:26	88.32	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:26	0.42	mg/L	DO
GS-AP-MW-15	2/20/2018 12:26	-44.8	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:26	11.48	pH	pH
GS-AP-MW-15	2/20/2018 12:26	19.14	C	Temperature
GS-AP-MW-15	2/20/2018 12:26	2.05	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:31	1095.7	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:31	88.39	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:31	0.42	mg/L	DO
GS-AP-MW-15	2/20/2018 12:31	-45.1	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:31	11.45	pH	pH
GS-AP-MW-15	2/20/2018 12:31	19.15	C	Temperature
GS-AP-MW-15	2/20/2018 12:31	0.8	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:36	1043.5	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:36	88.52	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:36	0.42	mg/L	DO
GS-AP-MW-15	2/20/2018 12:36	-45.4	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:36	11.41	pH	pH
GS-AP-MW-15	2/20/2018 12:36	19.17	C	Temperature
GS-AP-MW-15	2/20/2018 12:36	0.78	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:41	992.9	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:41	88.62	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:41	0.42	mg/L	DO
GS-AP-MW-15	2/20/2018 12:41	-45.4	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:41	11.35	pH	pH
GS-AP-MW-15	2/20/2018 12:41	19.3	C	Temperature
GS-AP-MW-15	2/20/2018 12:41	0.86	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:46	941.4	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:46	88.7	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:46	0.43	mg/L	DO
GS-AP-MW-15	2/20/2018 12:46	-44.2	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:46	11.29	pH	pH

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	2/20/2018 12:46	19.15	C	Temperature
GS-AP-MW-15	2/20/2018 12:46	0.92	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:51	884.4	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:51	88.78	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:51	0.43	mg/L	DO
GS-AP-MW-15	2/20/2018 12:51	-44.7	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:51	11.21	pH	pH
GS-AP-MW-15	2/20/2018 12:51	19.21	C	Temperature
GS-AP-MW-15	2/20/2018 12:51	0.96	NTU	Turbidity
GS-AP-MW-15	2/20/2018 12:56	856.6	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 12:56	88.87	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 12:56	0.43	mg/L	DO
GS-AP-MW-15	2/20/2018 12:56	-45.1	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 12:56	11.15	pH	pH
GS-AP-MW-15	2/20/2018 12:56	19.15	C	Temperature
GS-AP-MW-15	2/20/2018 12:56	0.89	NTU	Turbidity
GS-AP-MW-15	2/20/2018 13:01	839.1	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 13:01	88.91	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 13:01	0.43	mg/L	DO
GS-AP-MW-15	2/20/2018 13:01	-46	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 13:01	11.11	pH	pH
GS-AP-MW-15	2/20/2018 13:01	19.24	C	Temperature
GS-AP-MW-15	2/20/2018 13:01	1.19	NTU	Turbidity
GS-AP-MW-15	2/20/2018 13:06	805.9	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 13:06	88.95	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 13:06	0.43	mg/L	DO
GS-AP-MW-15	2/20/2018 13:06	-46	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 13:06	11.05	pH	pH
GS-AP-MW-15	2/20/2018 13:06	19.08	C	Temperature
GS-AP-MW-15	2/20/2018 13:06	0.73	NTU	Turbidity
GS-AP-MW-15	2/20/2018 13:11	774.8	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 13:11	89.04	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 13:11	0.43	mg/L	DO
GS-AP-MW-15	2/20/2018 13:11	-46.6	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 13:11	10.98	pH	pH
GS-AP-MW-15	2/20/2018 13:11	19.34	C	Temperature
GS-AP-MW-15	2/20/2018 13:11	0.89	NTU	Turbidity
GS-AP-MW-15	2/20/2018 13:16	751.1	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 13:16	89.1	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 13:16	0.44	mg/L	DO
GS-AP-MW-15	2/20/2018 13:16	-45.8	mv	Oxidation Reduction Potention
GS-AP-MW-15	2/20/2018 13:16	10.92	pH	pH
GS-AP-MW-15	2/20/2018 13:16	19.06	C	Temperature
GS-AP-MW-15	2/20/2018 13:16	1.1	NTU	Turbidity
GS-AP-MW-15	2/20/2018 13:21	733.9	uS/cm	Conductivity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	2/20/2018 13:21	89.14	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 13:21	0.44	mg/L	DO
GS-AP-MW-15	2/20/2018 13:21	-47.1	mv	Oxidation Reduction Potential
GS-AP-MW-15	2/20/2018 13:21	10.87	pH	pH
GS-AP-MW-15	2/20/2018 13:21	19.38	C	Temperature
GS-AP-MW-15	2/20/2018 13:21	0.64	NTU	Turbidity
GS-AP-MW-15	2/20/2018 13:26	709.2	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 13:26	89.19	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 13:26	0.44	mg/L	DO
GS-AP-MW-15	2/20/2018 13:26	-45.8	mv	Oxidation Reduction Potential
GS-AP-MW-15	2/20/2018 13:26	10.8	pH	pH
GS-AP-MW-15	2/20/2018 13:26	19.27	C	Temperature
GS-AP-MW-15	2/20/2018 13:26	1.28	NTU	Turbidity
GS-AP-MW-15	2/20/2018 13:31	690.8	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 13:31	89.2	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 13:31	0.44	mg/L	DO
GS-AP-MW-15	2/20/2018 13:31	-45.4	mv	Oxidation Reduction Potential
GS-AP-MW-15	2/20/2018 13:31	10.75	pH	pH
GS-AP-MW-15	2/20/2018 13:31	19.15	C	Temperature
GS-AP-MW-15	2/20/2018 13:31	0.62	NTU	Turbidity
GS-AP-MW-15	2/20/2018 13:36	675.3	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 13:36	89.21	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 13:36	0.44	mg/L	DO
GS-AP-MW-15	2/20/2018 13:36	-44.2	mv	Oxidation Reduction Potential
GS-AP-MW-15	2/20/2018 13:36	10.69	pH	pH
GS-AP-MW-15	2/20/2018 13:36	18.99	C	Temperature
GS-AP-MW-15	2/20/2018 13:36	0.65	NTU	Turbidity
GS-AP-MW-15	2/20/2018 13:41	666.5	uS/cm	Conductivity
GS-AP-MW-15	2/20/2018 13:41	89.3	ft	Depth to Water Detail
GS-AP-MW-15	2/20/2018 13:41	0.45	mg/L	DO
GS-AP-MW-15	2/20/2018 13:41	-45.1	mv	Oxidation Reduction Potential
GS-AP-MW-15	2/20/2018 13:41	10.63	pH	pH
GS-AP-MW-15	2/20/2018 13:41	18.84	C	Temperature
GS-AP-MW-15	2/20/2018 13:41	0.83	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-16D	2/21/2018 10:57	368.9	uS/cm	Conductivity
GS-AP-MW-16D	2/21/2018 10:57	137.42	ft	Depth to Water Detail
GS-AP-MW-16D	2/21/2018 10:57	2.1	mg/L	DO
GS-AP-MW-16D	2/21/2018 10:57	-93.6	mv	Oxidation Reduction Potention
GS-AP-MW-16D	2/21/2018 10:57	7.32	pH	pH
GS-AP-MW-16D	2/21/2018 10:57	19.15	C	Temperature
GS-AP-MW-16D	2/21/2018 10:57	0.5	NTU	Turbidity
GS-AP-MW-16D	2/21/2018 11:02	370.8	uS/cm	Conductivity
GS-AP-MW-16D	2/21/2018 11:02	137.89	ft	Depth to Water Detail
GS-AP-MW-16D	2/21/2018 11:02	0.79	mg/L	DO
GS-AP-MW-16D	2/21/2018 11:02	-95.3	mv	Oxidation Reduction Potention
GS-AP-MW-16D	2/21/2018 11:02	7.41	pH	pH
GS-AP-MW-16D	2/21/2018 11:02	18.79	C	Temperature
GS-AP-MW-16D	2/21/2018 11:02	0.56	NTU	Turbidity
GS-AP-MW-16D	2/21/2018 11:07	371.9	uS/cm	Conductivity
GS-AP-MW-16D	2/21/2018 11:07	138.25	ft	Depth to Water Detail
GS-AP-MW-16D	2/21/2018 11:07	0.55	mg/L	DO
GS-AP-MW-16D	2/21/2018 11:07	-94.6	mv	Oxidation Reduction Potention
GS-AP-MW-16D	2/21/2018 11:07	7.43	pH	pH
GS-AP-MW-16D	2/21/2018 11:07	18.68	C	Temperature
GS-AP-MW-16D	2/21/2018 11:07	0.35	NTU	Turbidity
GS-AP-MW-16D	2/21/2018 11:12	371.1	uS/cm	Conductivity
GS-AP-MW-16D	2/21/2018 11:12	138.55	ft	Depth to Water Detail
GS-AP-MW-16D	2/21/2018 11:12	0.5	mg/L	DO
GS-AP-MW-16D	2/21/2018 11:12	-93.3	mv	Oxidation Reduction Potention
GS-AP-MW-16D	2/21/2018 11:12	7.43	pH	pH
GS-AP-MW-16D	2/21/2018 11:12	18.57	C	Temperature
GS-AP-MW-16D	2/21/2018 11:12	0.4	NTU	Turbidity
GS-AP-MW-16D	2/21/2018 11:17	371.5	uS/cm	Conductivity
GS-AP-MW-16D	2/21/2018 11:17	138.81	ft	Depth to Water Detail
GS-AP-MW-16D	2/21/2018 11:17	0.49	mg/L	DO
GS-AP-MW-16D	2/21/2018 11:17	-92.1	mv	Oxidation Reduction Potention
GS-AP-MW-16D	2/21/2018 11:17	7.44	pH	pH
GS-AP-MW-16D	2/21/2018 11:17	18.52	C	Temperature
GS-AP-MW-16D	2/21/2018 11:17	0.43	NTU	Turbidity
GS-AP-MW-16D	2/21/2018 11:22	370.1	uS/cm	Conductivity
GS-AP-MW-16D	2/21/2018 11:22	139	ft	Depth to Water Detail
GS-AP-MW-16D	2/21/2018 11:22	0.5	mg/L	DO
GS-AP-MW-16D	2/21/2018 11:22	-90.7	mv	Oxidation Reduction Potention
GS-AP-MW-16D	2/21/2018 11:22	7.44	pH	pH
GS-AP-MW-16D	2/21/2018 11:22	18.88	C	Temperature
GS-AP-MW-16D	2/21/2018 11:22	0.44	NTU	Turbidity
GS-AP-MW-16D	2/21/2018 11:27	370.4	uS/cm	Conductivity
GS-AP-MW-16D	2/21/2018 11:27	139.2	ft	Depth to Water Detail
GS-AP-MW-16D	2/21/2018 11:27	0.51	mg/L	DO

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-16D	2/21/2018 11:27	-87.1	mv	Oxidation Reduction Potention
GS-AP-MW-16D	2/21/2018 11:27	7.44	pH	pH
GS-AP-MW-16D	2/21/2018 11:27	18.61	C	Temperature
GS-AP-MW-16D	2/21/2018 11:27	0.4	NTU	Turbidity
GS-AP-MW-16D	2/21/2018 11:32	369.7	uS/cm	Conductivity
GS-AP-MW-16D	2/21/2018 11:32	139.32	ft	Depth to Water Detail
GS-AP-MW-16D	2/21/2018 11:32	0.53	mg/L	DO
GS-AP-MW-16D	2/21/2018 11:32	-84.3	mv	Oxidation Reduction Potention
GS-AP-MW-16D	2/21/2018 11:32	7.44	pH	pH
GS-AP-MW-16D	2/21/2018 11:32	18.88	C	Temperature
GS-AP-MW-16D	2/21/2018 11:32	0.53	NTU	Turbidity
GS-AP-MW-16D	2/21/2018 11:37	369	uS/cm	Conductivity
GS-AP-MW-16D	2/21/2018 11:37	139.42	ft	Depth to Water Detail
GS-AP-MW-16D	2/21/2018 11:37	0.53	mg/L	DO
GS-AP-MW-16D	2/21/2018 11:37	-81.9	mv	Oxidation Reduction Potention
GS-AP-MW-16D	2/21/2018 11:37	7.44	pH	pH
GS-AP-MW-16D	2/21/2018 11:37	18.92	C	Temperature
GS-AP-MW-16D	2/21/2018 11:37	0.39	NTU	Turbidity



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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-17	2/19/2018 12:25	874.2	uS/cm	Conductivity
GS-AP-MW-17	2/19/2018 12:25	173.17	ft	Depth to Water Detail
GS-AP-MW-17	2/19/2018 12:25	1.81	mg/L	DO
GS-AP-MW-17	2/19/2018 12:25	-48.6	mv	Oxidation Reduction Potention
GS-AP-MW-17	2/19/2018 12:25	7.97	pH	pH
GS-AP-MW-17	2/19/2018 12:25	19.86	C	Temperature
GS-AP-MW-17	2/19/2018 12:25	2.01	NTU	Turbidity
GS-AP-MW-17	2/19/2018 12:30	1000.2	uS/cm	Conductivity
GS-AP-MW-17	2/19/2018 12:30	173.17	ft	Depth to Water Detail
GS-AP-MW-17	2/19/2018 12:30	0.89	mg/L	DO
GS-AP-MW-17	2/19/2018 12:30	-32.9	mv	Oxidation Reduction Potention
GS-AP-MW-17	2/19/2018 12:30	8.2	pH	pH
GS-AP-MW-17	2/19/2018 12:30	19.71	C	Temperature
GS-AP-MW-17	2/19/2018 12:30	1.45	NTU	Turbidity
GS-AP-MW-17	2/19/2018 12:35	1025.7	uS/cm	Conductivity
GS-AP-MW-17	2/19/2018 12:35	173.17	ft	Depth to Water Detail
GS-AP-MW-17	2/19/2018 12:35	0.56	mg/L	DO
GS-AP-MW-17	2/19/2018 12:35	-38.3	mv	Oxidation Reduction Potention
GS-AP-MW-17	2/19/2018 12:35	8.29	pH	pH
GS-AP-MW-17	2/19/2018 12:35	20.16	C	Temperature
GS-AP-MW-17	2/19/2018 12:35	0.98	NTU	Turbidity
GS-AP-MW-17	2/19/2018 12:40	1034.8	uS/cm	Conductivity
GS-AP-MW-17	2/19/2018 12:40	173.17	ft	Depth to Water Detail
GS-AP-MW-17	2/19/2018 12:40	0.47	mg/L	DO
GS-AP-MW-17	2/19/2018 12:40	-56.3	mv	Oxidation Reduction Potention
GS-AP-MW-17	2/19/2018 12:40	8.32	pH	pH
GS-AP-MW-17	2/19/2018 12:40	20.26	C	Temperature
GS-AP-MW-17	2/19/2018 12:40	1.19	NTU	Turbidity
GS-AP-MW-17	2/19/2018 12:45	1032.6	uS/cm	Conductivity
GS-AP-MW-17	2/19/2018 12:45	173.17	ft	Depth to Water Detail
GS-AP-MW-17	2/19/2018 12:45	0.42	mg/L	DO
GS-AP-MW-17	2/19/2018 12:45	-75.2	mv	Oxidation Reduction Potention
GS-AP-MW-17	2/19/2018 12:45	8.33	pH	pH
GS-AP-MW-17	2/19/2018 12:45	20	C	Temperature
GS-AP-MW-17	2/19/2018 12:45	0.85	NTU	Turbidity

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-18	2/21/2018 12:40	1051.9	uS/cm	Conductivity
GS-AP-MW-18	2/21/2018 12:40	45.5	ft	Depth to Water Detail
GS-AP-MW-18	2/21/2018 12:40	0.15	mg/L	DO
GS-AP-MW-18	2/21/2018 12:40	-202.5	mv	Oxidation Reduction Potential
GS-AP-MW-18	2/21/2018 12:40	7.44	pH	pH
GS-AP-MW-18	2/21/2018 12:40	17.98	C	Temperature
GS-AP-MW-18	2/21/2018 12:40	0.39	NTU	Turbidity
GS-AP-MW-18	2/21/2018 12:45	1042.2	uS/cm	Conductivity
GS-AP-MW-18	2/21/2018 12:45	45.59	ft	Depth to Water Detail
GS-AP-MW-18	2/21/2018 12:45	0.14	mg/L	DO
GS-AP-MW-18	2/21/2018 12:45	-191.3	mv	Oxidation Reduction Potential
GS-AP-MW-18	2/21/2018 12:45	7.44	pH	pH
GS-AP-MW-18	2/21/2018 12:45	17.76	C	Temperature
GS-AP-MW-18	2/21/2018 12:45	0.47	NTU	Turbidity
GS-AP-MW-18	2/21/2018 12:50	1044.2	uS/cm	Conductivity
GS-AP-MW-18	2/21/2018 12:50	45.61	ft	Depth to Water Detail
GS-AP-MW-18	2/21/2018 12:50	0.14	mg/L	DO
GS-AP-MW-18	2/21/2018 12:50	-181.6	mv	Oxidation Reduction Potential
GS-AP-MW-18	2/21/2018 12:50	7.44	pH	pH
GS-AP-MW-18	2/21/2018 12:50	17.66	C	Temperature
GS-AP-MW-18	2/21/2018 12:50	0.29	NTU	Turbidity
GS-AP-MW-18	2/21/2018 12:55	1047.5	uS/cm	Conductivity
GS-AP-MW-18	2/21/2018 12:55	45.63	ft	Depth to Water Detail
GS-AP-MW-18	2/21/2018 12:55	0.15	mg/L	DO
GS-AP-MW-18	2/21/2018 12:55	-173.4	mv	Oxidation Reduction Potential
GS-AP-MW-18	2/21/2018 12:55	7.44	pH	pH
GS-AP-MW-18	2/21/2018 12:55	17.5	C	Temperature
GS-AP-MW-18	2/21/2018 12:55	0.25	NTU	Turbidity

**Alabama Power Company  
Plant Gorgas Ash Pond**

<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-19	2/21/2018 13:40	484	uS/cm	Conductivity
GS-AP-MW-19	2/21/2018 13:40	112.61	ft	Depth to Water Detail
GS-AP-MW-19	2/21/2018 13:40	0.47	mg/L	DO
GS-AP-MW-19	2/21/2018 13:40	-165.4	mv	Oxidation Reduction Potention
GS-AP-MW-19	2/21/2018 13:40	8.28	pH	pH
GS-AP-MW-19	2/21/2018 13:40	18.48	C	Temperature
GS-AP-MW-19	2/21/2018 13:40	0.77	NTU	Turbidity
GS-AP-MW-19	2/21/2018 13:45	484.7	uS/cm	Conductivity
GS-AP-MW-19	2/21/2018 13:45	112.61	ft	Depth to Water Detail
GS-AP-MW-19	2/21/2018 13:45	0.34	mg/L	DO
GS-AP-MW-19	2/21/2018 13:45	-184.7	mv	Oxidation Reduction Potention
GS-AP-MW-19	2/21/2018 13:45	8.35	pH	pH
GS-AP-MW-19	2/21/2018 13:45	18.18	C	Temperature
GS-AP-MW-19	2/21/2018 13:45	0.38	NTU	Turbidity
GS-AP-MW-19	2/21/2018 13:50	486.5	uS/cm	Conductivity
GS-AP-MW-19	2/21/2018 13:50	112.61	ft	Depth to Water Detail
GS-AP-MW-19	2/21/2018 13:50	0.32	mg/L	DO
GS-AP-MW-19	2/21/2018 13:50	-190.1	mv	Oxidation Reduction Potention
GS-AP-MW-19	2/21/2018 13:50	8.36	pH	pH
GS-AP-MW-19	2/21/2018 13:50	18.19	C	Temperature
GS-AP-MW-19	2/21/2018 13:50	0.3	NTU	Turbidity
GS-AP-MW-19	2/21/2018 13:55	489.1	uS/cm	Conductivity
GS-AP-MW-19	2/21/2018 13:55	112.61	ft	Depth to Water Detail
GS-AP-MW-19	2/21/2018 13:55	0.3	mg/L	DO
GS-AP-MW-19	2/21/2018 13:55	-199.9	mv	Oxidation Reduction Potention
GS-AP-MW-19	2/21/2018 13:55	8.48	pH	pH
GS-AP-MW-19	2/21/2018 13:55	18.11	C	Temperature
GS-AP-MW-19	2/21/2018 13:55	0.32	NTU	Turbidity

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-21	2/20/2018 14:44	928	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 14:44	160.37	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 14:44	5.39	mg/L	DO
GS-AP-MW-21	2/20/2018 14:44	68.5	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 14:44	10.9	pH	pH
GS-AP-MW-21	2/20/2018 14:44	19.21	C	Temperature
GS-AP-MW-21	2/20/2018 14:44	11.15	NTU	Turbidity
GS-AP-MW-21	2/20/2018 14:49	1574.2	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 14:49	160.37	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 14:49	2.05	mg/L	DO
GS-AP-MW-21	2/20/2018 14:49	49.4	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 14:49	11.61	pH	pH
GS-AP-MW-21	2/20/2018 14:49	18.74	C	Temperature
GS-AP-MW-21	2/20/2018 14:49	21	NTU	Turbidity
GS-AP-MW-21	2/20/2018 14:54	2235.2	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 14:54	160.41	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 14:54	1.19	mg/L	DO
GS-AP-MW-21	2/20/2018 14:54	40.2	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 14:54	11.88	pH	pH
GS-AP-MW-21	2/20/2018 14:54	18.73	C	Temperature
GS-AP-MW-21	2/20/2018 14:54	20.9	NTU	Turbidity
GS-AP-MW-21	2/20/2018 14:59	2440.4	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 14:59	160.45	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 14:59	1	mg/L	DO
GS-AP-MW-21	2/20/2018 14:59	35.7	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 14:59	11.97	pH	pH
GS-AP-MW-21	2/20/2018 14:59	18.66	C	Temperature
GS-AP-MW-21	2/20/2018 14:59	12.6	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:04	2458.7	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:04	160.51	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:04	0.92	mg/L	DO
GS-AP-MW-21	2/20/2018 15:04	31.8	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:04	12	pH	pH
GS-AP-MW-21	2/20/2018 15:04	18.52	C	Temperature
GS-AP-MW-21	2/20/2018 15:04	7.15	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:09	2375	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:09	160.51	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:09	0.87	mg/L	DO
GS-AP-MW-21	2/20/2018 15:09	24.3	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:09	12.01	pH	pH
GS-AP-MW-21	2/20/2018 15:09	18.48	C	Temperature
GS-AP-MW-21	2/20/2018 15:09	5.47	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:14	2210.3	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:14	160.51	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:14	0.82	mg/L	DO

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-21	2/20/2018 15:14	15.3	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:14	11.99	pH	pH
GS-AP-MW-21	2/20/2018 15:14	18.34	C	Temperature
GS-AP-MW-21	2/20/2018 15:14	4.88	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:19	2051.8	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:19	160.51	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:19	0.78	mg/L	DO
GS-AP-MW-21	2/20/2018 15:19	9.9	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:19	11.96	pH	pH
GS-AP-MW-21	2/20/2018 15:19	18.31	C	Temperature
GS-AP-MW-21	2/20/2018 15:19	4.25	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:24	1885.5	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:24	160.51	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:24	0.74	mg/L	DO
GS-AP-MW-21	2/20/2018 15:24	5.6	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:24	11.93	pH	pH
GS-AP-MW-21	2/20/2018 15:24	18.45	C	Temperature
GS-AP-MW-21	2/20/2018 15:24	3.62	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:29	1754.4	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:29	160.51	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:29	0.72	mg/L	DO
GS-AP-MW-21	2/20/2018 15:29	2.5	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:29	11.89	pH	pH
GS-AP-MW-21	2/20/2018 15:29	18.43	C	Temperature
GS-AP-MW-21	2/20/2018 15:29	3.6	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:34	1655.4	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:34	160.51	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:34	0.7	mg/L	DO
GS-AP-MW-21	2/20/2018 15:34	0.1	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:34	11.85	pH	pH
GS-AP-MW-21	2/20/2018 15:34	18.29	C	Temperature
GS-AP-MW-21	2/20/2018 15:34	3.45	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:39	1556.9	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:39	160.51	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:39	0.68	mg/L	DO
GS-AP-MW-21	2/20/2018 15:39	-2.4	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:39	11.82	pH	pH
GS-AP-MW-21	2/20/2018 15:39	18.14	C	Temperature
GS-AP-MW-21	2/20/2018 15:39	2.98	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:44	1477.9	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:44	160.53	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:44	0.67	mg/L	DO
GS-AP-MW-21	2/20/2018 15:44	-5.4	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:44	11.78	pH	pH
GS-AP-MW-21	2/20/2018 15:44	18.12	C	Temperature

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-21	2/20/2018 15:44	4.54	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:49	1397.7	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:49	160.53	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:49	0.65	mg/L	DO
GS-AP-MW-21	2/20/2018 15:49	-8.6	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:49	11.74	pH	pH
GS-AP-MW-21	2/20/2018 15:49	18.28	C	Temperature
GS-AP-MW-21	2/20/2018 15:49	2.84	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:54	1331.3	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:54	160.53	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:54	0.64	mg/L	DO
GS-AP-MW-21	2/20/2018 15:54	-11.6	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:54	11.7	pH	pH
GS-AP-MW-21	2/20/2018 15:54	18.29	C	Temperature
GS-AP-MW-21	2/20/2018 15:54	2.38	NTU	Turbidity
GS-AP-MW-21	2/20/2018 15:59	1293.9	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 15:59	160.53	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 15:59	0.64	mg/L	DO
GS-AP-MW-21	2/20/2018 15:59	-15.7	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 15:59	11.67	pH	pH
GS-AP-MW-21	2/20/2018 15:59	18.24	C	Temperature
GS-AP-MW-21	2/20/2018 15:59	2.19	NTU	Turbidity
GS-AP-MW-21	2/20/2018 16:04	1259.7	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 16:04	160.53	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 16:04	0.64	mg/L	DO
GS-AP-MW-21	2/20/2018 16:04	-19.5	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 16:04	11.65	pH	pH
GS-AP-MW-21	2/20/2018 16:04	18.21	C	Temperature
GS-AP-MW-21	2/20/2018 16:04	2.21	NTU	Turbidity
GS-AP-MW-21	2/20/2018 16:09	1223.8	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 16:09	160.56	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 16:09	0.64	mg/L	DO
GS-AP-MW-21	2/20/2018 16:09	-20.8	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 16:09	11.62	pH	pH
GS-AP-MW-21	2/20/2018 16:09	18.19	C	Temperature
GS-AP-MW-21	2/20/2018 16:09	2.81	NTU	Turbidity
GS-AP-MW-21	2/20/2018 16:14	1196.3	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 16:14	160.56	ft	Depth to Water Detail
GS-AP-MW-21	2/20/2018 16:14	0.63	mg/L	DO
GS-AP-MW-21	2/20/2018 16:14	-21.2	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 16:14	11.6	pH	pH
GS-AP-MW-21	2/20/2018 16:14	18.13	C	Temperature
GS-AP-MW-21	2/20/2018 16:14	2.38	NTU	Turbidity
GS-AP-MW-21	2/20/2018 16:19	1168.1	uS/cm	Conductivity
GS-AP-MW-21	2/20/2018 16:19	160.56	ft	Depth to Water Detail

**Alabama Power Company  
Plant Gorgas Ash Pond**

<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-21	2/20/2018 16:19	0.64	mg/L	DO
GS-AP-MW-21	2/20/2018 16:19	-22.6	mv	Oxidation Reduction Potention
GS-AP-MW-21	2/20/2018 16:19	11.57	pH	pH
GS-AP-MW-21	2/20/2018 16:19	18.19	C	Temperature
GS-AP-MW-21	2/20/2018 16:19	2.25	NTU	Turbidity



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

## ***Field Case Narrative***

 Alabama Power



## **Gorgas Ash Pond**

### **2018 Compliance Event 1**

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

Field quality control procedures were performed as follows:

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

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

# Analytical Report



**Sample Group :** WMWGORAP\_1151  
**Project/Site :** Gorgas Ash Pond  
Parrish, AL 35580  
**For :** Southern Company Services  
3535 Colonnade Parkway  
Birmingham, AL 35243  
**Attention :** Dustin Brooks & Greg Dyer  
**Released By :** Sarah Copeland  
sgcopela@southernco.com  
(205) 664-6121

The following data has been reviewed and approved by:

**Quality Control:** Sarah Copeland  
Digitally signed by Sarah Copeland  
DN: cn=Sarah Copeland, o, ou,  
email=sgcopela@southernco.com,  
c=US  
Date: 2018.06.14 13:20:13 -05'00'

**Supervision:** T. Durant Maske  
Digitally signed by T. Durant Maske  
DN: cn=T. Durant Maske, o=Alabama  
Power Company, ou=Environmental  
Affairs, email=tdmaske@southernco.com,  
c=US  
Date: 2018.06.15 07:48:02 -05'00'



Metals ICP

Gorgas Ash Pond

WMWGORAP\_1151

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>
AY11742	20180524	WMWGORAP_1151
AY11743	20180524	WMWGORAP_1151
AY11744	20180524	WMWGORAP_1151
AY11745	20180524	WMWGORAP_1151
AY11746	20180524	WMWGORAP_1151
AY11747	20180524	WMWGORAP_1151
AY11748	20180524	WMWGORAP_1151
AY11749	20180524	WMWGORAP_1151
AY11750	20180524	WMWGORAP_1151
AY11751	20180524	WMWGORAP_1151
AY11752	20180524	WMWGORAP_1151
AY11753	20180524	WMWGORAP_1151
AY11754	20180524	WMWGORAP_1151
AY11755	20180524	WMWGORAP_1151
AY11756	20180524	WMWGORAP_1151
AY11757	20180524	WMWGORAP_1151
AY11758	20180524	WMWGORAP_1151
AY11759	20180524	WMWGORAP_1151
AY11760	20180524	WMWGORAP_1151
AY11761	20180524	WMWGORAP_1151
AY11762	20180524	WMWGORAP_1151

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 passed.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.



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

#### Matrix Specific Quality Control Procedures:

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

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

7. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects. The following samples were diluted due to analyzed sample concentration over the high standard of the calibration curve.

Sample ID	Analyte	Dilution Factor
AY11758	Calcium	x10.15

8. The raw data results include results corrected for dilution.



Metals ICPMS

Gorgas Ash Pond

WMWGORAP\_1151

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>
AY11742	620299	WMWGORAP_1151
AY11743	620299	WMWGORAP_1151
AY11744	620299	WMWGORAP_1151
AY11745	620299	WMWGORAP_1151
AY11746	620299	WMWGORAP_1151
AY11747	620299	WMWGORAP_1151
AY11748	620299	WMWGORAP_1151
AY11749	620299	WMWGORAP_1151
AY11750	620299	WMWGORAP_1151
AY11751	620299	WMWGORAP_1151
AY11752	620300	WMWGORAP_1151
AY11753	620300	WMWGORAP_1151
AY11754	620300	WMWGORAP_1151
AY11755	620300	WMWGORAP_1151
AY11756	620300	WMWGORAP_1151
AY11757	620300	WMWGORAP_1151
AY11758	620300	WMWGORAP_1151
AY11759	620300	WMWGORAP_1151
AY11760	620300	WMWGORAP_1151
AY11761	620300	WMWGORAP_1151
AY11762	620301	WMWGORAP_1151

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

#### General Quality Control Procedures:

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



- All continued calibration verification (CCV) were within the acceptance criteria for the requested analytes except for batch 620299. A new CCV was analyzed and passed and all samples for batch 620299 were reanalyzed and reported with passing bracketing CCV.
- 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 at a dilution of 1 to 5 to compensate for any matrix effects.
  8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP\_1151

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>
AY11742	620678	WMWGORAP_1151
AY11743	620678	WMWGORAP_1151
AY11744	620678	WMWGORAP_1151
AY11745	620678	WMWGORAP_1151
AY11746	620678	WMWGORAP_1151
AY11747	620678	WMWGORAP_1151
AY11748	620678	WMWGORAP_1151
AY11749	620678	WMWGORAP_1151
AY11750	620678	WMWGORAP_1151
AY11751	620678	WMWGORAP_1151
AY11752	620679	WMWGORAP_1151
AY11753	620679	WMWGORAP_1151
AY11754	620679	WMWGORAP_1151
AY11755	620679	WMWGORAP_1151
AY11756	620679	WMWGORAP_1151
AY11757	620679	WMWGORAP_1151
AY11758	620679	WMWGORAP_1151
AY11759	620679	WMWGORAP_1151
AY11760	620679	WMWGORAP_1151
AY11761	620679	WMWGORAP_1151
AY11762	620680	WMWGORAP_1151

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

Gorgas Ash Pond

WMWGORAP\_1151

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>
AY11742	620178	WMWGORAP_1151
AY11743	620178	WMWGORAP_1151
AY11744	620178	WMWGORAP_1151
AY11745	620178	WMWGORAP_1151
AY11746	620178	WMWGORAP_1151
AY11747	620178	WMWGORAP_1151
AY11748	620178	WMWGORAP_1151
AY11749	620178	WMWGORAP_1151
AY11750	620178	WMWGORAP_1151
AY11751	620178	WMWGORAP_1151
AY11752	620179	WMWGORAP_1151
AY11753	620179	WMWGORAP_1151
AY11754	620179	WMWGORAP_1151
AY11755	620179	WMWGORAP_1151
AY11756	620179	WMWGORAP_1151
AY11757	620179	WMWGORAP_1151
AY11758	620179	WMWGORAP_1151
AY11759	620179	WMWGORAP_1151
AY11760	620179	WMWGORAP_1151
AY11761	620179	WMWGORAP_1151
AY11762	620385	WMWGORAP_1151

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 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.
- All samples were between 2.5mg and 200mg residue except samples AY11748, AY11759, and AY11761 which were < 2.5 mg residue but a maximum volume of 150 mL was filtered.

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY11742

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	J 0.00352	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.0751	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	J 0.0953	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	4.53	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	0.0551	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	J 0.00789	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		50	528	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY11742

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY11751	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.107	0.107	0.0962	0.085 to 0.115	100	70 to 130	0.112	20
AY11751	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0987	0.0950	0.0993	0.085 to 0.115	98.7	70 to 130	3.79	20
AY11751	Lithium, Total	mg/L	-0.0000207	0.022	0.20	0.296	0.298	0.196	0.17 to 0.23	105	70 to 130	0.923	20
AY11751	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.111	0.108	0.103	0.085 to 0.115	104	70 to 130	2.99	20
AY11751	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.0998	0.0999	0.105	0.085 to 0.115	99.8	70 to 130	0.142	20
AY11751	Calcium, Total	mg/L	-0.00316	0.22	5.00	81.0	81.0	5.12	4.25 to 5.75	96.2	70 to 130	0.0061820	
AY11751	Lead, Total	mg/L	-0.000000080	0.0022	0.10	0.0963	0.0939	0.0976	0.085 to 0.115	96.3	70 to 130	2.53	20
AY11751	Mercury, Total by CVAA	mg/L	0.0000335	0.0005	0.004	0.00408	0.00407	0.00410	0.0034 to 0.0046	102	70 to 130	0.0368	20
AY11751	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.123	0.119	0.0965	0.085 to 0.115	97.1	70 to 130	3.28	20
AY11751	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.102	0.101	0.105	0.085 to 0.115	102	70 to 130	1.71	20
AY11751	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0889	0.0877	0.0908	0.085 to 0.115	88.9	70 to 130	1.34	20
AY11751	Boron, Total	mg/L	0.000864	0.044	1.00	1.16	1.17	0.987	0.85 to 1.15	99.8	70 to 130	0.733	20
AY11751	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.101	0.0935	0.0998	0.085 to 0.115	101	70 to 130	7.78	20
AY11751	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0921	0.0896	0.0926	0.085 to 0.115	92.1	70 to 130	2.81	20
AY11751	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0952	0.0923	0.0995	0.085 to 0.115	95.2	70 to 130	3.10	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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY11742

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY11751	Solids, Dissolved	mg/L	-1.00	25			429	52.0	40 to 60		0.351	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY11743

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.0456	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	J 0.0769	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	7.57	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	0.174	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.0687	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		50	438	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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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:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY11743

Sample	Analysis	Units	MB	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
				Limit	Limit					Limit	Rec	Limit	Prec	
AY11751	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0987	0.0950	0.0993	0.085 to 0.115	98.7	70 to 130	3.79	20	
AY11751	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.107	0.107	0.0962	0.085 to 0.115	100	70 to 130	0.112	20	
AY11751	Lithium, Total	mg/L	-0.0000207	0.022	0.20	0.296	0.298	0.196	0.17 to 0.23	105	70 to 130	0.923	20	
AY11751	Lead, Total	mg/L	-0.000000080	0.0022	0.10	0.0963	0.0939	0.0976	0.085 to 0.115	96.3	70 to 130	2.53	20	
AY11751	Mercury, Total by CVAA	mg/L	0.0000335	0.0005	0.004	0.00408	0.00407	0.00410	0.0034 to 0.0046	102	70 to 130	0.0368	20	
AY11751	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.123	0.119	0.0965	0.085 to 0.115	97.1	70 to 130	3.28	20	
AY11751	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.102	0.101	0.105	0.085 to 0.115	102	70 to 130	1.71	20	
AY11751	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.111	0.108	0.103	0.085 to 0.115	104	70 to 130	2.99	20	
AY11751	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.0998	0.0999	0.105	0.085 to 0.115	99.8	70 to 130	0.142	20	
AY11751	Calcium, Total	mg/L	-0.00316	0.22	5.00	81.0	81.0	5.12	4.25 to 5.75	96.2	70 to 130	0.0061820		
AY11751	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0889	0.0877	0.0908	0.085 to 0.115	88.9	70 to 130	1.34	20	
AY11751	Boron, Total	mg/L	0.000864	0.044	1.00	1.16	1.17	0.987	0.85 to 1.15	99.8	70 to 130	0.733	20	
AY11751	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.101	0.0935	0.0998	0.085 to 0.115	101	70 to 130	7.78	20	
AY11751	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0921	0.0896	0.0926	0.085 to 0.115	92.1	70 to 130	2.81	20	
AY11751	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0952	0.0923	0.0995	0.085 to 0.115	95.2	70 to 130	3.10	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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY11743

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY11751	Solids, Dissolved	mg/L	-1.00	25			429	52.0	40 to 60		0.351	5

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Laboratory certification ID: E571114

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**Comments:**

CC:

Alabama Power General Test Laboratory  
 744 County Road 87, GSC#8  
 Calera, AL 35040  
 (205) 664-6032 or 6171  
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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY11744

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	0.00749	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.212	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	J 0.0567	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	6.86	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	0.159	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.0344	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	340	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY11744

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit
				Limit	Spike					Limit	Prec		
AY11751	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0987	0.0950	0.0993	0.085 to 0.115	98.7	70 to 130	3.79	20
AY11751	Lithium, Total	mg/L	-0.0000207	0.022	0.20	0.296	0.298	0.196	0.17 to 0.23	105	70 to 130	0.923	20
AY11751	Lead, Total	mg/L	-0.000000080	0.0022	0.10	0.0963	0.0939	0.0976	0.085 to 0.115	96.3	70 to 130	2.53	20
AY11751	Mercury, Total by CVAA	mg/L	0.0000335	0.0005	0.004	0.00408	0.00407	0.00410	0.0034 to 0.0046	102	70 to 130	0.0368	20
AY11751	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.107	0.107	0.0962	0.085 to 0.115	100	70 to 130	0.112	20
AY11751	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.111	0.108	0.103	0.085 to 0.115	104	70 to 130	2.99	20
AY11751	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.0998	0.0999	0.105	0.085 to 0.115	99.8	70 to 130	0.142	20
AY11751	Calcium, Total	mg/L	-0.00316	0.22	5.00	81.0	81.0	5.12	4.25 to 5.75	96.2	70 to 130	0.0061820	20
AY11751	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.123	0.119	0.0965	0.085 to 0.115	97.1	70 to 130	3.28	20
AY11751	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.102	0.101	0.105	0.085 to 0.115	102	70 to 130	1.71	20
AY11751	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0889	0.0877	0.0908	0.085 to 0.115	88.9	70 to 130	1.34	20
AY11751	Boron, Total	mg/L	0.000864	0.044	1.00	1.16	1.17	0.987	0.85 to 1.15	99.8	70 to 130	0.733	20
AY11751	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.101	0.0935	0.0998	0.085 to 0.115	101	70 to 130	7.78	20
AY11751	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0921	0.0896	0.0926	0.085 to 0.115	92.1	70 to 130	2.81	20
AY11751	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0952	0.0923	0.0995	0.085 to 0.115	95.2	70 to 130	3.10	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:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY11744

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY11751	Solids, Dissolved	mg/L	-1.00	25			429	52.0	40 to 60			0.351	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY11745

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	0.00864	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.120	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	0.990	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	67.5	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	J 0.0238	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	J 0.00526	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	458	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY11745

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY11751	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0987	0.0950	0.0993	0.085 to 0.115	98.7	70 to 130	3.79	20
AY11751	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.107	0.107	0.0962	0.085 to 0.115	100	70 to 130	0.112	20
AY11751	Lithium, Total	mg/L	-0.0000207	0.022	0.20	0.296	0.298	0.196	0.17 to 0.23	105	70 to 130	0.923	20
AY11751	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.111	0.108	0.103	0.085 to 0.115	104	70 to 130	2.99	20
AY11751	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.0998	0.0999	0.105	0.085 to 0.115	99.8	70 to 130	0.142	20
AY11751	Calcium, Total	mg/L	-0.00316	0.22	5.00	81.0	81.0	5.12	4.25 to 5.75	96.2	70 to 130	0.0061820	
AY11751	Lead, Total	mg/L	-0.000000080	0.0022	0.10	0.0963	0.0939	0.0976	0.085 to 0.115	96.3	70 to 130	2.53	20
AY11751	Mercury, Total by CVAA	mg/L	0.0000335	0.0005	0.004	0.00408	0.00407	0.00410	0.0034 to 0.0046	102	70 to 130	0.0368	20
AY11751	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.123	0.119	0.0965	0.085 to 0.115	97.1	70 to 130	3.28	20
AY11751	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.102	0.101	0.105	0.085 to 0.115	102	70 to 130	1.71	20
AY11751	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0889	0.0877	0.0908	0.085 to 0.115	88.9	70 to 130	1.34	20
AY11751	Boron, Total	mg/L	0.000864	0.044	1.00	1.16	1.17	0.987	0.85 to 1.15	99.8	70 to 130	0.733	20
AY11751	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.101	0.0935	0.0998	0.085 to 0.115	101	70 to 130	7.78	20
AY11751	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0921	0.0896	0.0926	0.085 to 0.115	92.1	70 to 130	2.81	20
AY11751	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0952	0.0923	0.0995	0.085 to 0.115	95.2	70 to 130	3.10	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY11745

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY11751	Solids, Dissolved	mg/L	-1.00	25			429	52.0	40 to 60		0.351	5

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Expiration: June 30, 2018

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CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AY11746

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	0.00872	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.121	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	0.988	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	68.0	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	J 0.0241	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	J 0.00572	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	453	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Expiration: June 30, 2018

**Comments:**

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AY11746

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY11751	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0987	0.0950	0.0993	0.085 to 0.115	98.7	70 to 130	3.79	20
AY11751	Lithium, Total	mg/L	-0.0000207	0.022	0.20	0.296	0.298	0.196	0.17 to 0.23	105	70 to 130	0.923	20
AY11751	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.111	0.108	0.103	0.085 to 0.115	104	70 to 130	2.99	20
AY11751	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.0998	0.0999	0.105	0.085 to 0.115	99.8	70 to 130	0.142	20
AY11751	Calcium, Total	mg/L	-0.00316	0.22	5.00	81.0	81.0	5.12	4.25 to 5.75	96.2	70 to 130	0.0061820	
AY11751	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.107	0.107	0.0962	0.085 to 0.115	100	70 to 130	0.112	20
AY11751	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.123	0.119	0.0965	0.085 to 0.115	97.1	70 to 130	3.28	20
AY11751	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.102	0.101	0.105	0.085 to 0.115	102	70 to 130	1.71	20
AY11751	Lead, Total	mg/L	-0.000000080	0.0022	0.10	0.0963	0.0939	0.0976	0.085 to 0.115	96.3	70 to 130	2.53	20
AY11751	Mercury, Total by CVAA	mg/L	0.0000335	0.0005	0.004	0.00408	0.00407	0.00410	0.0034 to 0.0046	102	70 to 130	0.0368	20
AY11751	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0889	0.0877	0.0908	0.085 to 0.115	88.9	70 to 130	1.34	20
AY11751	Boron, Total	mg/L	0.000864	0.044	1.00	1.16	1.17	0.987	0.85 to 1.15	99.8	70 to 130	0.733	20
AY11751	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.101	0.0935	0.0998	0.085 to 0.115	101	70 to 130	7.78	20
AY11751	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0921	0.0896	0.0926	0.085 to 0.115	92.1	70 to 130	2.81	20
AY11751	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0952	0.0923	0.0995	0.085 to 0.115	95.2	70 to 130	3.10	20

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Laboratory certification ID: E571114

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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AY11746

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY11751	Solids, Dissolved	mg/L	-1.00	25			429	52.0	40 to 60			0.351	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY11747

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	0.0740	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.914	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	1.04	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	54.8	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	0.239	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	J 0.00564	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	303	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY11747

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AY11751	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0987	0.0950	0.0993	0.085 to 0.115	98.7	70 to 130	3.79	20	
AY11751	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.107	0.107	0.0962	0.085 to 0.115	100	70 to 130	0.112	20	
AY11751	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.111	0.108	0.103	0.085 to 0.115	104	70 to 130	2.99	20	
AY11751	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.0998	0.0999	0.105	0.085 to 0.115	99.8	70 to 130	0.142	20	
AY11751	Calcium, Total	mg/L	-0.00316	0.22	5.00	81.0	81.0	5.12	4.25 to 5.75	96.2	70 to 130	0.0061820		
AY11751	Lead, Total	mg/L	-0.000000080	0.0022	0.10	0.0963	0.0939	0.0976	0.085 to 0.115	96.3	70 to 130	2.53	20	
AY11751	Mercury, Total by CVAA	mg/L	0.0000335	0.0005	0.004	0.00408	0.00407	0.00410	0.0034 to 0.0046	102	70 to 130	0.0368	20	
AY11751	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.123	0.119	0.0965	0.085 to 0.115	97.1	70 to 130	3.28	20	
AY11751	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.102	0.101	0.105	0.085 to 0.115	102	70 to 130	1.71	20	
AY11751	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0889	0.0877	0.0908	0.085 to 0.115	88.9	70 to 130	1.34	20	
AY11751	Boron, Total	mg/L	0.000864	0.044	1.00	1.16	1.17	0.987	0.85 to 1.15	99.8	70 to 130	0.733	20	
AY11751	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.101	0.0935	0.0998	0.085 to 0.115	101	70 to 130	7.78	20	
AY11751	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0921	0.0896	0.0926	0.085 to 0.115	92.1	70 to 130	2.81	20	
AY11751	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0952	0.0923	0.0995	0.085 to 0.115	95.2	70 to 130	3.10	20	
AY11751	Lithium, Total	mg/L	-0.0000207	0.022	0.20	0.296	0.298	0.196	0.17 to 0.23	105	70 to 130	0.923	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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY11747

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY11751	Solids, Dissolved	mg/L	-1.00	25			429	52.0	40 to 60	0.351	5

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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:**

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY11748

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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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:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY11748

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY11751	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0987	0.0950	0.0993	0.085 to 0.115	98.7	70 to 130	3.79	20
AY11751	Lithium, Total	mg/L	-0.0000207	0.022	0.20	0.296	0.298	0.196	0.17 to 0.23	105	70 to 130	0.923	20
AY11751	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.107	0.107	0.0962	0.085 to 0.115	100	70 to 130	0.112	20
AY11751	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.111	0.108	0.103	0.085 to 0.115	104	70 to 130	2.99	20
AY11751	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.0998	0.0999	0.105	0.085 to 0.115	99.8	70 to 130	0.142	20
AY11751	Calcium, Total	mg/L	-0.00316	0.22	5.00	81.0	81.0	5.12	4.25 to 5.75	96.2	70 to 130	0.0061820	
AY11751	Lead, Total	mg/L	-0.000000080	0.0022	0.10	0.0963	0.0939	0.0976	0.085 to 0.115	96.3	70 to 130	2.53	20
AY11751	Mercury, Total by CVAA	mg/L	0.0000335	0.0005	0.004	0.00408	0.00407	0.00410	0.0034 to 0.0046	102	70 to 130	0.0368	20
AY11751	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.123	0.119	0.0965	0.085 to 0.115	97.1	70 to 130	3.28	20
AY11751	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.102	0.101	0.105	0.085 to 0.115	102	70 to 130	1.71	20
AY11751	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0889	0.0877	0.0908	0.085 to 0.115	88.9	70 to 130	1.34	20
AY11751	Boron, Total	mg/L	0.000864	0.044	1.00	1.16	1.17	0.987	0.85 to 1.15	99.8	70 to 130	0.733	20
AY11751	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.101	0.0935	0.0998	0.085 to 0.115	101	70 to 130	7.78	20
AY11751	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0921	0.0896	0.0926	0.085 to 0.115	92.1	70 to 130	2.81	20
AY11751	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0952	0.0923	0.0995	0.085 to 0.115	95.2	70 to 130	3.10	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 14-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY11748

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY11751	Solids, Dissolved	mg/L	-1.00	25			429	52.0	40 to 60		0.351	5

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY11749

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	0.211	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.0501	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	1.50	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	12.9	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	0.151	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.177	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	338	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY11749

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY11751	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0987	0.0950	0.0993	0.085 to 0.115	98.7	70 to 130	3.79	20
AY11751	Lithium, Total	mg/L	-0.0000207	0.022	0.20	0.296	0.298	0.196	0.17 to 0.23	105	70 to 130	0.923	20
AY11751	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.107	0.107	0.0962	0.085 to 0.115	100	70 to 130	0.112	20
AY11751	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.111	0.108	0.103	0.085 to 0.115	104	70 to 130	2.99	20
AY11751	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.0998	0.0999	0.105	0.085 to 0.115	99.8	70 to 130	0.142	20
AY11751	Calcium, Total	mg/L	-0.00316	0.22	5.00	81.0	81.0	5.12	4.25 to 5.75	96.2	70 to 130	0.0061820	
AY11751	Lead, Total	mg/L	-0.000000080	0.0022	0.10	0.0963	0.0939	0.0976	0.085 to 0.115	96.3	70 to 130	2.53	20
AY11751	Mercury, Total by CVAA	mg/L	0.0000335	0.0005	0.004	0.00408	0.00407	0.00410	0.0034 to 0.0046	102	70 to 130	0.0368	20
AY11751	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.123	0.119	0.0965	0.085 to 0.115	97.1	70 to 130	3.28	20
AY11751	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.102	0.101	0.105	0.085 to 0.115	102	70 to 130	1.71	20
AY11751	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0889	0.0877	0.0908	0.085 to 0.115	88.9	70 to 130	1.34	20
AY11751	Boron, Total	mg/L	0.000864	0.044	1.00	1.16	1.17	0.987	0.85 to 1.15	99.8	70 to 130	0.733	20
AY11751	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.101	0.0935	0.0998	0.085 to 0.115	101	70 to 130	7.78	20
AY11751	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0921	0.0896	0.0926	0.085 to 0.115	92.1	70 to 130	2.81	20
AY11751	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0952	0.0923	0.0995	0.085 to 0.115	95.2	70 to 130	3.10	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY11749

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY11751	Solids, Dissolved	mg/L	-1.00	25			429	52.0	40 to 60	0.351	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY11750

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	J 0.00701	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	4.25	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	94.7	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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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:



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY11750

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit
				Limit	Spike					Limit	Prec		
AY11751	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0987	0.0950	0.0993	0.085 to 0.115	98.7	70 to 130	3.79	20
AY11751	Lithium, Total	mg/L	-0.0000207	0.022	0.20	0.296	0.298	0.196	0.17 to 0.23	105	70 to 130	0.923	20
AY11751	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.107	0.107	0.0962	0.085 to 0.115	100	70 to 130	0.112	20
AY11751	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.123	0.119	0.0965	0.085 to 0.115	97.1	70 to 130	3.28	20
AY11751	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.102	0.101	0.105	0.085 to 0.115	102	70 to 130	1.71	20
AY11751	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.111	0.108	0.103	0.085 to 0.115	104	70 to 130	2.99	20
AY11751	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.0998	0.0999	0.105	0.085 to 0.115	99.8	70 to 130	0.142	20
AY11751	Calcium, Total	mg/L	-0.00316	0.22	5.00	81.0	81.0	5.12	4.25 to 5.75	96.2	70 to 130	0.0061820	
AY11751	Lead, Total	mg/L	-0.000000080	0.0022	0.10	0.0963	0.0939	0.0976	0.085 to 0.115	96.3	70 to 130	2.53	20
AY11751	Mercury, Total by CVAA	mg/L	0.0000335	0.0005	0.004	0.00408	0.00407	0.00410	0.0034 to 0.0046	102	70 to 130	0.0368	20
AY11751	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0889	0.0877	0.0908	0.085 to 0.115	88.9	70 to 130	1.34	20
AY11751	Boron, Total	mg/L	0.000864	0.044	1.00	1.16	1.17	0.987	0.85 to 1.15	99.8	70 to 130	0.733	20
AY11751	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.101	0.0935	0.0998	0.085 to 0.115	101	70 to 130	7.78	20
AY11751	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0921	0.0896	0.0926	0.085 to 0.115	92.1	70 to 130	2.81	20
AY11751	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0952	0.0923	0.0995	0.085 to 0.115	95.2	70 to 130	3.10	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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY11750

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY11751	Solids, Dissolved	mg/L	-1.00	25			429	52.0	40 to 60		0.351	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY11751

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	0.00698	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.0258	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	0.160	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	76.2	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	0.0861	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	J 0.00736	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	426	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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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:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY11751

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY11751	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0987	0.0950	0.0993	0.085 to 0.115		98.7	70 to 130	3.79	20
AY11751	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.107	0.107	0.0962	0.085 to 0.115		100	70 to 130	0.112	20
AY11751	Lithium, Total	mg/L	-0.0000207	0.022	0.20	0.296	0.298	0.196	0.17 to 0.23		105	70 to 130	0.923	20
AY11751	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.111	0.108	0.103	0.085 to 0.115		104	70 to 130	2.99	20
AY11751	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.0998	0.0999	0.105	0.085 to 0.115		99.8	70 to 130	0.142	20
AY11751	Calcium, Total	mg/L	-0.00316	0.22	5.00	81.0	81.0	5.12	4.25 to 5.75		96.2	70 to 130	0.0061820	
AY11751	Lead, Total	mg/L	-0.000000080	0.0022	0.10	0.0963	0.0939	0.0976	0.085 to 0.115		96.3	70 to 130	2.53	20
AY11751	Mercury, Total by CVAA	mg/L	0.0000335	0.0005	0.004	0.00408	0.00407	0.00410	0.0034 to 0.0046		102	70 to 130	0.0368	20
AY11751	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.123	0.119	0.0965	0.085 to 0.115		97.1	70 to 130	3.28	20
AY11751	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.102	0.101	0.105	0.085 to 0.115		102	70 to 130	1.71	20
AY11751	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0889	0.0877	0.0908	0.085 to 0.115		88.9	70 to 130	1.34	20
AY11751	Boron, Total	mg/L	0.000864	0.044	1.00	1.16	1.17	0.987	0.85 to 1.15		99.8	70 to 130	0.733	20
AY11751	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.101	0.0935	0.0998	0.085 to 0.115		101	70 to 130	7.78	20
AY11751	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0921	0.0896	0.0926	0.085 to 0.115		92.1	70 to 130	2.81	20
AY11751	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0952	0.0923	0.0995	0.085 to 0.115		95.2	70 to 130	3.10	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY11751

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY11751	Solids, Dissolved	mg/L	-1.00	25			429	52.0	40 to 60		0.351	5

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Laboratory certification ID: E571114

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**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY11752

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.214	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	J 0.0255	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	47.0	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	J 0.0130	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	246	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY11752

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY11761	Calcium, Total	mg/L	-0.00262	0.22	5.00	4.98	5.02	5.05	4.25 to 5.75	99.6	70 to 130	0.811	20
AY11761	Lead, Total	mg/L	-0.00000080	0.0022	0.10	0.0950	0.0961	0.0976	0.085 to 0.115	95.0	70 to 130	1.09	20
AY11761	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0890	0.0893	0.0908	0.085 to 0.115	89.0	70 to 130	0.378	20
AY11761	Arsenic, Total	mg/L	0.0000724	0.0022	0.10	0.0994	0.0999	0.103	0.085 to 0.115	99.4	70 to 130	0.519	20
AY11761	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.0988	0.0964	0.0998	0.085 to 0.115	98.8	70 to 130	2.44	20
AY11761	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.0970	0.0990	0.0962	0.085 to 0.115	97.0	70 to 130	1.99	20
AY11761	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.0952	0.0960	0.0965	0.085 to 0.115	95.2	70 to 130	0.788	20
AY11761	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00405	0.00407	0.00407	0.0034 to 0.0046	101	70 to 130	0.537	20
AY11761	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0916	0.0927	0.0926	0.085 to 0.115	91.6	70 to 130	1.15	20
AY11761	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	2.27	20
AY11761	Lithium, Total	mg/L	-0.0000428	0.022	0.20	0.196	0.197	0.194	0.17 to 0.23	98.1	70 to 130	0.181	20
AY11761	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0936	0.0951	0.0995	0.085 to 0.115	93.6	70 to 130	1.60	20
AY11761	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.100	0.101	0.105	0.085 to 0.115	100	70 to 130	1.16	20
AY11761	Boron, Total	mg/L	0.00116	0.044	1.00	0.990	0.983	0.983	0.85 to 1.15	99.0	70 to 130	0.772	20
AY11761	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0993	0.0988	0.0993	0.085 to 0.115	99.3	70 to 130	0.563	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY11752

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY11760	Solids, Dissolved	mg/L	-1.00	25			368	52.0	40 to 60			0.409	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY11753

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	0.0253	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.163	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	J 0.0781	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	34.8	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	J 0.0489	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	235	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY11753

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY11761	Lead, Total	mg/L	-0.00000080	0.0022	0.10	0.0950	0.0961	0.0976	0.085 to 0.115	95.0	70 to 130	1.09	20	
AY11761	Calcium, Total	mg/L	-0.00262	0.22	5.00	4.98	5.02	5.05	4.25 to 5.75	99.6	70 to 130	0.811	20	
AY11761	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0916	0.0927	0.0926	0.085 to 0.115	91.6	70 to 130	1.15	20	
AY11761	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	2.27	20	
AY11761	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0890	0.0893	0.0908	0.085 to 0.115	89.0	70 to 130	0.378	20	
AY11761	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.0994	0.0999	0.103	0.085 to 0.115	99.4	70 to 130	0.519	20	
AY11761	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.0952	0.0960	0.0965	0.085 to 0.115	95.2	70 to 130	0.788	20	
AY11761	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00405	0.00407	0.00407	0.0034 to 0.0046	101	70 to 130	0.537	20	
AY11761	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.0988	0.0964	0.0998	0.085 to 0.115	98.8	70 to 130	2.44	20	
AY11761	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.0970	0.0990	0.0962	0.085 to 0.115	97.0	70 to 130	1.99	20	
AY11761	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.100	0.101	0.105	0.085 to 0.115	100	70 to 130	1.16	20	
AY11761	Boron, Total	mg/L	0.00116	0.044	1.00	0.990	0.983	0.983	0.85 to 1.15	99.0	70 to 130	0.772	20	
AY11761	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0993	0.0988	0.0993	0.085 to 0.115	99.3	70 to 130	0.563	20	
AY11761	Lithium, Total	mg/L	-0.0000428	0.022	0.20	0.196	0.197	0.194	0.17 to 0.23	98.1	70 to 130	0.181	20	
AY11761	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0936	0.0951	0.0995	0.085 to 0.115	93.6	70 to 130	1.60	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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY11753

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY11760	Solids, Dissolved	mg/L	-1.00	25			368	52.0	40 to 60		0.409	5

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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:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

**Customer Account:** WMWGORAP  
**Sample Date:** 15-May-18  
**Customer ID:**  
**Delivery Date:** 17-May-18

**Description:** Gorgas Ash Pond - MW-13

**Laboratory ID Number:** AY11754

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.172	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	44.3	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	0.0101	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	209	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY11754

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			MB	Limit					Limit	Rec	Limit	Prec		
AY11761	Lead, Total	mg/L	-0.00000080	0.0022	0.10	0.0950	0.0961	0.0976	0.085 to 0.115	95.0	70 to 130	1.09	20	
AY11761	Calcium, Total	mg/L	-0.00262	0.22	5.00	4.98	5.02	5.05	4.25 to 5.75	99.6	70 to 130	0.811	20	
AY11761	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.0988	0.0964	0.0998	0.085 to 0.115	98.8	70 to 130	2.44	20	
AY11761	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.0970	0.0990	0.0962	0.085 to 0.115	97.0	70 to 130	1.99	20	
AY11761	Lithium, Total	mg/L	-0.0000428	0.022	0.20	0.196	0.197	0.194	0.17 to 0.23	98.1	70 to 130	0.181	20	
AY11761	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0936	0.0951	0.0995	0.085 to 0.115	93.6	70 to 130	1.60	20	
AY11761	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.0952	0.0960	0.0965	0.085 to 0.115	95.2	70 to 130	0.788	20	
AY11761	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00405	0.00407	0.00407	0.0034 to 0.0046	101	70 to 130	0.537	20	
AY11761	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.100	0.101	0.105	0.085 to 0.115	100	70 to 130	1.16	20	
AY11761	Boron, Total	mg/L	0.00116	0.044	1.00	0.990	0.983	0.983	0.85 to 1.15	99.0	70 to 130	0.772	20	
AY11761	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0993	0.0988	0.0993	0.085 to 0.115	99.3	70 to 130	0.563	20	
AY11761	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0916	0.0927	0.0926	0.085 to 0.115	91.6	70 to 130	1.15	20	
AY11761	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	2.27	20	
AY11761	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0890	0.0893	0.0908	0.085 to 0.115	89.0	70 to 130	0.378	20	
AY11761	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.0994	0.0999	0.103	0.085 to 0.115	99.4	70 to 130	0.519	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY11754

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY11760	Solids, Dissolved	mg/L	-1.00	25			368	52.0	40 to 60		0.409	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AY11755

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.176	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	44.5	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	0.0101	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	207	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AY11755

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AY11761	Calcium, Total	mg/L	-0.00262	0.22	5.00	4.98	5.02	5.05	4.25 to 5.75		99.6	70 to 130		0.811	20
AY11761	Lead, Total	mg/L	-0.00000080	0.0022	0.10	0.0950	0.0961	0.0976	0.085 to 0.115		95.0	70 to 130		1.09	20
AY11761	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0890	0.0893	0.0908	0.085 to 0.115		89.0	70 to 130		0.378	20
AY11761	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.0994	0.0999	0.103	0.085 to 0.115		99.4	70 to 130		0.519	20
AY11761	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.0952	0.0960	0.0965	0.085 to 0.115		95.2	70 to 130		0.788	20
AY11761	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00405	0.00407	0.00407	0.0034 to 0.0046		101	70 to 130		0.537	20
AY11761	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0916	0.0927	0.0926	0.085 to 0.115		91.6	70 to 130		1.15	20
AY11761	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.101	0.103	0.105	0.085 to 0.115		101	70 to 130		2.27	20
AY11761	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.100	0.101	0.105	0.085 to 0.115		100	70 to 130		1.16	20
AY11761	Boron, Total	mg/L	0.00116	0.044	1.00	0.990	0.983	0.983	0.85 to 1.15		99.0	70 to 130		0.772	20
AY11761	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0993	0.0988	0.0993	0.085 to 0.115		99.3	70 to 130		0.563	20
AY11761	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.0988	0.0964	0.0998	0.085 to 0.115		98.8	70 to 130		2.44	20
AY11761	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.0970	0.0990	0.0962	0.085 to 0.115		97.0	70 to 130		1.99	20
AY11761	Lithium, Total	mg/L	-0.0000428	0.022	0.20	0.196	0.197	0.194	0.17 to 0.23		98.1	70 to 130		0.181	20
AY11761	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0936	0.0951	0.0995	0.085 to 0.115		93.6	70 to 130		1.60	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-13 Dup

Laboratory ID Number: AY11755

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY11760	Solids, Dissolved	mg/L	-1.00	25			368	52.0	40 to 60		0.409	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY11756

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	J 0.00112	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.286	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	39.9	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	J 0.0330	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	225	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY11756

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			Limit	MB					Limit	Rec	Limit	Prec		
AY11761	Lead, Total	mg/L	-0.00000080	0.0022	0.10	0.0950	0.0961	0.0976	0.085 to 0.115		95.0	70 to 130	1.09	20
AY11761	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.0952	0.0960	0.0965	0.085 to 0.115		95.2	70 to 130	0.788	20
AY11761	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00405	0.00407	0.00407	0.0034 to 0.0046		101	70 to 130	0.537	20
AY11761	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0890	0.0893	0.0908	0.085 to 0.115		89.0	70 to 130	0.378	20
AY11761	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.0994	0.0999	0.103	0.085 to 0.115		99.4	70 to 130	0.519	20
AY11761	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.0988	0.0964	0.0998	0.085 to 0.115		98.8	70 to 130	2.44	20
AY11761	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.0970	0.0990	0.0962	0.085 to 0.115		97.0	70 to 130	1.99	20
AY11761	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0916	0.0927	0.0926	0.085 to 0.115		91.6	70 to 130	1.15	20
AY11761	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.101	0.103	0.105	0.085 to 0.115		101	70 to 130	2.27	20
AY11761	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.100	0.101	0.105	0.085 to 0.115		100	70 to 130	1.16	20
AY11761	Boron, Total	mg/L	0.00116	0.044	1.00	0.990	0.983	0.983	0.85 to 1.15		99.0	70 to 130	0.772	20
AY11761	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0993	0.0988	0.0993	0.085 to 0.115		99.3	70 to 130	0.563	20
AY11761	Lithium, Total	mg/L	-0.0000428	0.022	0.20	0.196	0.197	0.194	0.17 to 0.23		98.1	70 to 130	0.181	20
AY11761	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0936	0.0951	0.0995	0.085 to 0.115		93.6	70 to 130	1.60	20
AY11761	Calcium, Total	mg/L	-0.00262	0.22	5.00	4.98	5.02	5.05	4.25 to 5.75		99.6	70 to 130	0.811	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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY11756

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY11760	Solids, Dissolved	mg/L	-1.00	25			368	52.0	40 to 60			0.409	5

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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:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY11757

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.315	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	J 0.0247	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	33.5	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	J 0.0337	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	216	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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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:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY11757

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY11761	Calcium, Total	mg/L	-0.00262	0.22	5.00	4.98	5.02	5.05	4.25 to 5.75	99.6	70 to 130	0.811	20
AY11761	Lead, Total	mg/L	-0.00000080	0.0022	0.10	0.0950	0.0961	0.0976	0.085 to 0.115	95.0	70 to 130	1.09	20
AY11761	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.0988	0.0964	0.0998	0.085 to 0.115	98.8	70 to 130	2.44	20
AY11761	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.0970	0.0990	0.0962	0.085 to 0.115	97.0	70 to 130	1.99	20
AY11761	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.0952	0.0960	0.0965	0.085 to 0.115	95.2	70 to 130	0.788	20
AY11761	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00405	0.00407	0.00407	0.0034 to 0.0046	101	70 to 130	0.537	20
AY11761	Lithium, Total	mg/L	-0.0000428	0.022	0.20	0.196	0.197	0.194	0.17 to 0.23	98.1	70 to 130	0.181	20
AY11761	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0936	0.0951	0.0995	0.085 to 0.115	93.6	70 to 130	1.60	20
AY11761	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0916	0.0927	0.0926	0.085 to 0.115	91.6	70 to 130	1.15	20
AY11761	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	2.27	20
AY11761	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.100	0.101	0.105	0.085 to 0.115	100	70 to 130	1.16	20
AY11761	Boron, Total	mg/L	0.00116	0.044	1.00	0.990	0.983	0.983	0.85 to 1.15	99.0	70 to 130	0.772	20
AY11761	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0993	0.0988	0.0993	0.085 to 0.115	99.3	70 to 130	0.563	20
AY11761	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0890	0.0893	0.0908	0.085 to 0.115	89.0	70 to 130	0.378	20
AY11761	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.0994	0.0999	0.103	0.085 to 0.115	99.4	70 to 130	0.519	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY11757

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY11760	Solids, Dissolved	mg/L	-1.00	25			368	52.0	40 to 60		0.409	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY11758

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	0.0876	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.0505	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	1.23	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		10.15	1.015	5.075	92.1	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	0.172	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.0374	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		50	658	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY11758

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY11761	Calcium, Total	mg/L	-0.00262	0.22	5.00	4.98	5.02	5.05	4.25 to 5.75	99.6	70 to 130	0.811	20
AY11761	Lead, Total	mg/L	-0.00000080	0.0022	0.10	0.0950	0.0961	0.0976	0.085 to 0.115	95.0	70 to 130	1.09	20
AY11761	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.0988	0.0964	0.0998	0.085 to 0.115	98.8	70 to 130	2.44	20
AY11761	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.0970	0.0990	0.0962	0.085 to 0.115	97.0	70 to 130	1.99	20
AY11761	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0890	0.0893	0.0908	0.085 to 0.115	89.0	70 to 130	0.378	20
AY11761	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.0994	0.0999	0.103	0.085 to 0.115	99.4	70 to 130	0.519	20
AY11761	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.0952	0.0960	0.0965	0.085 to 0.115	95.2	70 to 130	0.788	20
AY11761	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00405	0.00407	0.00407	0.0034 to 0.0046	101	70 to 130	0.537	20
AY11761	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.100	0.101	0.105	0.085 to 0.115	100	70 to 130	1.16	20
AY11761	Boron, Total	mg/L	0.00116	0.044	1.00	0.990	0.983	0.983	0.85 to 1.15	99.0	70 to 130	0.772	20
AY11761	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0993	0.0988	0.0993	0.085 to 0.115	99.3	70 to 130	0.563	20
AY11761	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0916	0.0927	0.0926	0.085 to 0.115	91.6	70 to 130	1.15	20
AY11761	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	2.27	20
AY11761	Lithium, Total	mg/L	-0.0000428	0.022	0.20	0.196	0.197	0.194	0.17 to 0.23	98.1	70 to 130	0.181	20
AY11761	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0936	0.0951	0.0995	0.085 to 0.115	93.6	70 to 130	1.60	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY11758

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY11760	Solids, Dissolved	mg/L	-1.00	25			368	52.0	40 to 60			0.409	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY11759

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY11759

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY11761	Calcium, Total	mg/L	-0.00262	0.22	5.00	4.98	5.02	5.05	4.25 to 5.75	99.6	70 to 130	0.811	20
AY11761	Lead, Total	mg/L	-0.00000080	0.0022	0.10	0.0950	0.0961	0.0976	0.085 to 0.115	95.0	70 to 130	1.09	20
AY11761	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0890	0.0893	0.0908	0.085 to 0.115	89.0	70 to 130	0.378	20
AY11761	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.0994	0.0999	0.103	0.085 to 0.115	99.4	70 to 130	0.519	20
AY11761	Lithium, Total	mg/L	-0.0000428	0.022	0.20	0.196	0.197	0.194	0.17 to 0.23	98.1	70 to 130	0.181	20
AY11761	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0936	0.0951	0.0995	0.085 to 0.115	93.6	70 to 130	1.60	20
AY11761	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0916	0.0927	0.0926	0.085 to 0.115	91.6	70 to 130	1.15	20
AY11761	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	2.27	20
AY11761	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.0952	0.0960	0.0965	0.085 to 0.115	95.2	70 to 130	0.788	20
AY11761	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00405	0.00407	0.00407	0.0034 to 0.0046	101	70 to 130	0.537	20
AY11761	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.0988	0.0964	0.0998	0.085 to 0.115	98.8	70 to 130	2.44	20
AY11761	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.0970	0.0990	0.0962	0.085 to 0.115	97.0	70 to 130	1.99	20
AY11761	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.100	0.101	0.105	0.085 to 0.115	100	70 to 130	1.16	20
AY11761	Boron, Total	mg/L	0.00116	0.044	1.00	0.990	0.983	0.983	0.85 to 1.15	99.0	70 to 130	0.772	20
AY11761	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0993	0.0988	0.0993	0.085 to 0.115	99.3	70 to 130	0.563	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:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY11759

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY11760	Solids, Dissolved	mg/L	-1.00	25			368	52.0	40 to 60			0.409	5

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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:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY11760

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.0658	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	0.147	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	0.588	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	J 0.0451	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	J 0.00547	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	365	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY11760

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY11761	Calcium, Total	mg/L	-0.00262	0.22	5.00	4.98	5.02	5.05	4.25 to 5.75	99.6	70 to 130	0.811	20
AY11761	Lead, Total	mg/L	-0.00000080	0.0022	0.10	0.0950	0.0961	0.0976	0.085 to 0.115	95.0	70 to 130	1.09	20
AY11761	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0890	0.0893	0.0908	0.085 to 0.115	89.0	70 to 130	0.378	20
AY11761	Arsenic, Total	mg/L	0.0000724	0.0022	0.10	0.0994	0.0999	0.103	0.085 to 0.115	99.4	70 to 130	0.519	20
AY11761	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.100	0.101	0.105	0.085 to 0.115	100	70 to 130	1.16	20
AY11761	Boron, Total	mg/L	0.00116	0.044	1.00	0.990	0.983	0.983	0.85 to 1.15	99.0	70 to 130	0.772	20
AY11761	Cobalt, Total	mg/L	0.0000718	0.0044	0.10	0.0993	0.0988	0.0993	0.085 to 0.115	99.3	70 to 130	0.563	20
AY11761	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.0952	0.0960	0.0965	0.085 to 0.115	95.2	70 to 130	0.788	20
AY11761	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00405	0.00407	0.00407	0.0034 to 0.0046	101	70 to 130	0.537	20
AY11761	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0916	0.0927	0.0926	0.085 to 0.115	91.6	70 to 130	1.15	20
AY11761	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	2.27	20
AY11761	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.0988	0.0964	0.0998	0.085 to 0.115	98.8	70 to 130	2.44	20
AY11761	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.0970	0.0990	0.0962	0.085 to 0.115	97.0	70 to 130	1.99	20
AY11761	Lithium, Total	mg/L	-0.0000428	0.022	0.20	0.196	0.197	0.194	0.17 to 0.23	98.1	70 to 130	0.181	20
AY11761	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0936	0.0951	0.0995	0.085 to 0.115	93.6	70 to 130	1.60	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY11760

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY11760	Solids, Dissolved	mg/L	-1.00	25			368	52.0	40 to 60			0.409	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY11761

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	GAS	5/24/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	GAS	5/24/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/21/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	GMW	5/21/2018	SM 2540C		1			05/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY11761

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
			MB	Limit						Rec	Limit		
AY11761	Calcium, Total	mg/L	-0.00262	0.22	5.00	4.98	5.02	5.05	4.25 to 5.75	99.6	70 to 130	0.811	20
AY11761	Lead, Total	mg/L	-0.00000080	0.0022	0.10	0.0950	0.0961	0.0976	0.085 to 0.115	95.0	70 to 130	1.09	20
AY11761	Cadmium, Total	mg/L	0.0000112	0.00066	0.10	0.0988	0.0964	0.0998	0.085 to 0.115	98.8	70 to 130	2.44	20
AY11761	Molybdenum, Total	mg/L	0.0000145	0.0044	0.10	0.0970	0.0990	0.0962	0.085 to 0.115	97.0	70 to 130	1.99	20
AY11761	Chromium, Total	mg/L	0.0000159	0.0044	0.10	0.0916	0.0927	0.0926	0.085 to 0.115	91.6	70 to 130	1.15	20
AY11761	Selenium, Total	mg/L	0.00000159	0.0044	0.10	0.101	0.103	0.105	0.085 to 0.115	101	70 to 130	2.27	20
AY11761	Antimony, Total	mg/L	0.0000454	0.00132	0.10	0.0890	0.0893	0.0908	0.085 to 0.115	89.0	70 to 130	0.378	20
AY11761	Arsenic, Total	mg/L	0.00000724	0.0022	0.10	0.0994	0.0999	0.103	0.085 to 0.115	99.4	70 to 130	0.519	20
AY11761	Lithium, Total	mg/L	-0.0000428	0.022	0.20	0.196	0.197	0.194	0.17 to 0.23	98.1	70 to 130	0.181	20
AY11761	Thallium, Total	mg/L	0.00000578	0.00044	0.10	0.0936	0.0951	0.0995	0.085 to 0.115	93.6	70 to 130	1.60	20
AY11761	Barium, Total	mg/L	-0.00000309	0.0044	0.10	0.0952	0.0960	0.0965	0.085 to 0.115	95.2	70 to 130	0.788	20
AY11761	Mercury, Total by CVAA	mg/L	0.0000272	0.0005	0.004	0.00405	0.00407	0.00407	0.0034 to 0.0046	101	70 to 130	0.537	20
AY11761	Beryllium, Total	mg/L	0.0000389	0.00132	0.10	0.100	0.101	0.105	0.085 to 0.115	100	70 to 130	1.16	20
AY11761	Boron, Total	mg/L	0.00116	0.044	1.00	0.990	0.983	0.983	0.85 to 1.15	99.0	70 to 130	0.772	20
AY11761	Cobalt, Total	mg/L	0.00000718	0.0044	0.10	0.0993	0.0988	0.0993	0.085 to 0.115	99.3	70 to 130	0.563	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

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**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY11761

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY11760	Solids, Dissolved	mg/L	-1.00	25			368	52.0	40 to 60		0.409	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY11762

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	J 0.00114	mg/L
* Barium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	0.343	mg/L
* Beryllium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	5/24/2018	EPA 200.7		2.03	0.02	0.1	J 0.0356	mg/L
* Calcium, Total	RDA	5/24/2018	EPA 200.7		2.03	0.1	0.5	45.3	mg/L
* Cadmium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Cobalt, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Chromium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	ABB	5/30/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	5/24/2018	EPA 200.7		2.03	0.01	0.05	J 0.0391	mg/L
* Molybdenum, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	J 0.00515	mg/L
* Lead, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	DLJ	5/22/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	GMW	5/24/2018	SM 2540C		1		25	301	mg/L
Filter Completion Date	TDM	5/23/2018	SM 2540C		1			5/22/2018	Date

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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:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY11762

Sample	Analysis	Units	MB	MB			MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike	MS				Limit	Rec	Limit	Prec		
AY11762	Antimony, Total	mg/L	0.0000315	0.00132	0.10	0.0900	0.0913	0.0914	0.085 to 0.115	90.0	70 to 130	1.49	20		
AY11762	Chromium, Total	mg/L	0.0000141	0.0044	0.10	0.0908	0.0932	0.0911	0.085 to 0.115	90.8	70 to 130	2.61	20		
AY11762	Mercury, Total by CVAA	mg/L	0.0000264	0.0005	0.004	0.00409	0.00407	0.00409	0.0034 to 0.0046	102	70 to 130	0.456	20		
AY11762	Lithium, Total	mg/L	-0.0000412	0.022	0.20	0.253	0.253	0.193	0.17 to 0.23	107	70 to 130	0.138	20		
AY11762	Cobalt, Total	mg/L	0.0000365	0.0044	0.10	0.0971	0.0989	0.0986	0.085 to 0.115	97.1	70 to 130	1.79	20		
AY11762	Thallium, Total	mg/L	0.0000711	0.00044	0.10	0.0939	0.0964	0.0987	0.085 to 0.115	93.9	70 to 130	2.67	20		
AY11762	Beryllium, Total	mg/L	0.0000439	0.00132	0.10	0.100	0.102	0.112	0.085 to 0.115	100	70 to 130	2.09	20		
AY11762	Cadmium, Total	mg/L	0.0000126	0.00066	0.10	0.0980	0.0982	0.0995	0.085 to 0.115	98.0	70 to 130	0.197	20		
AY11762	Calcium, Total	mg/L	-0.00378	0.22	5.00	50.1	50.0	5.00	4.25 to 5.75	96.9	70 to 130	0.204	20		
AY11762	Molybdenum, Total	mg/L	0.0000210	0.0044	0.10	0.102	0.107	0.0960	0.085 to 0.115	97.2	70 to 130	4.53	20		
AY11762	Arsenic, Total	mg/L	0.0000202	0.0022	0.10	0.101	0.105	0.102	0.085 to 0.115	100	70 to 130	3.14	20		
AY11762	Selenium, Total	mg/L	0.0000279	0.0044	0.10	0.101	0.104	0.104	0.085 to 0.115	101	70 to 130	2.49	20		
AY11762	Barium, Total	mg/L	-0.0000183	0.0044	0.10	0.438	0.444	0.0969	0.085 to 0.115	94.3	70 to 130	1.53	20		
AY11762	Boron, Total	mg/L	0.000829	0.044	1.00	1.02	1.03	0.972	0.85 to 1.15	98.1	70 to 130	1.03	20		
AY11762	Lead, Total	mg/L	0.00000102	0.0022	0.10	0.0950	0.0976	0.0976	0.085 to 0.115	95.0	70 to 130	2.78	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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-May-18  
 Customer ID:  
 Delivery Date: 17-May-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY11762

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY11875	Solids, Dissolved	mg/L	2.00	25			4880	53.0	40 to 60		0.102	5

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:**

CC:

## 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
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



Field Complete  
 Lab Complete

Outside Lab

Lab ETA 05/16/2018 11:00

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	Che George		Greg Dyer
	Nick Pitts		Gorgas Ash Pond

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

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17	5/15/18	11:55	3	Groundwater		AY11742
MW-21	05/15/2018	14:40	3	Groundwater		AY11743
MW-15	05/15/2018	18:20	3	Groundwater		AY11744

Relinquished By <div style="text-align: center;"></div>	Received By <div style="text-align: center;">Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o=ou, email=sgcopela@southernco.com, c=US Date: 2018.05.16 10:56:51 -05'00'</small></div>	Date/Time <div style="text-align: center;">05/16/2018 10:56</div>

SmarTroll ID <span style="border: 1px solid black; padding: 2px;">5141-26150-1-1</span>	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID <span style="border: 1px solid black; padding: 2px;">3901-20009-2-1</span>	
Cooler Temp <span style="border: 1px solid black; padding: 2px;">3.2 degrees C</span>	
Thermometer ID <span style="border: 1px solid black; padding: 2px;">5408-27568-2-2</span>	pH Strip ID <span style="border: 1px solid black; padding: 2px;">5881-30155-10-9</span>



# Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA **05/17/2018 08:30**

Requested Complete Date Site Representative Collector	Routine	Results To Requested By Location	Dustin Brooks, Greg Dyer
	Che George		Greg Dyer
	Ben Rothschild		Gorgas 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	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	5/14/18	14:20	3	Groundwater		AY11745
MW-6S DUP	05/14/2018	14:20	3	Sample Duplicate		AY11746
MW-6D	05/14/2018	15:20	3	Groundwater		AY11747
FB-1	05/14/2018	15:50	3	Field Blank		AY11748
MW-7	05/15/2018	08:50	3	Groundwater		AY11749
MW-8	05/15/2018	10:16	3	Groundwater		AY11750
MW-9	05/15/2018	11:52	3	Groundwater		AY11751
MW-11	05/15/2018	13:20	3	Groundwater		AY11752
MW-12	05/15/2018	15:30	3	Groundwater		AY11753
MW-13	05/15/2018	16:51	3	Groundwater		AY11754
MW-13 DUP	05/15/2018	16:51	3	Sample Duplicate		AY11755
MW-14	05/16/2018	09:44	3	Groundwater		AY11756
MW-16D	05/16/2018	11:27	3	Groundwater		AY11757
MW-18	05/16/2018	13:02	3	Groundwater		AY11758
MW-19	05/16/2018	14:22	3	Groundwater		AY11762
FB-2	05/16/2018	15:15	3	Field Blank		AY11759
MW-2	05/16/2018	15:47	3	Groundwater		AY11760
EB-1	05/16/2018	16:25	3	Equipment Blank		AY11761

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2018.05.17 10:55:29 -05'00'</small>	05/17/2018 10:55

SmarTroll ID **6496-34170-1-1**  
Turbidity ID **4677-23343-4-2**

All metals and radiological bottles have pH < 2

Cooler Temp **0.6 degrees C**  
Thermometer ID **5408-27568-2-2**  
pH Strip ID **5881-30155-10-9**



# Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete  
 Lab Complete

Outside Lab

Lab ETA 05/16/2018 11:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Nick Pitts	Location	Gorgas Ash Pond

Bottles	1	2	3	4	5	6	7	8
	Radium	1 L	N/A	N/A	N/A	N/A	N/A	N/A
	Anions	250 mL	N/A	N/A	N/A	N/A	N/A	N/A

Comments: All samples outsourced to Test America.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-17	5/15/18	11:55	2	Groundwater		AY11763
MW-21	05/15/2018	14:40	2	Groundwater		AY11764
MW-15	05/15/2018	18:20	2	Groundwater		AY11765

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou., email=sgcopela@southernco.com, c=US Date: 2018.05.16 10:59:07 -05'00'</small>	05/16/2018 10:59

SmarTroll ID	5141-26150-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/> Cooler Temp Thermometer ID pH Strip ID	
Turbidity ID	3901-20009-2-1		3.2 degrees C
			5408-27568-2-2
		5881-30155-10-9	





# Chain of Custody

## Groundwater

APC General Testing Laboratory

Field Complete  
 Lab Complete

Outside Lab

Lab ETA **05/17/2018 08:30**

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Gorgas Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	Anions	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium Duplicate Collected at MW-6D and MW-18. All samples outsourced to Test America.

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	5/14/18	14:20	2	Groundwater		AY11766
MW-6S DUP	05/14/2018	14:20	2	Sample Duplicate		AY11767
MW-6D	05/14/2018	15:20	4	Groundwater		AY11768
FB-1	05/14/2018	15:50	2	Field Blank		AY11769
MW-7	05/15/2018	08:50	2	Groundwater		AY11770
MW-8	05/15/2018	10:16	2	Groundwater		AY11771
MW-9	05/15/2018	11:52	2	Groundwater		AY11772
MW-11	05/15/2018	13:20	2	Groundwater		AY11773
MW-12	05/15/2018	15:30	2	Groundwater		AY11774
MW-13	05/15/2018	16:51	2	Groundwater		AY11775
MW-13 DUP	05/15/2018	16:51	2	Sample Duplicate		AY11776
MW-14	05/16/2018	09:44	2	Groundwater		AY11777
MW-16D	05/16/2018	11:27	2	Groundwater		AY11778
MW-18	05/16/2018	13:02	4	Groundwater		AY11779
MW-19	05/16/2018	14:22	2	Groundwater		AY11780
FB-2	05/16/2018	15:15	2	Field Blank		AY11781
MW-2	05/16/2018	15:47	2	Groundwater		AY11782
EB-1	05/16/2018	16:25	2	Equipment Blank		AY11783

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernco.com, c=US Date: 2018.05.17 08:21:30 -05'00'</small>	05/17/2018 08:21

SmarTroll ID **6496-34170-1-1**  
Turbidity ID **4677-23343-4-2**

All metals and radiological bottles have pH < 2   
Cooler Temp **0.6 degrees C**  
Thermometer ID **5408-27568-2-2**  
pH Strip ID **5881-30155-10-9**

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-153840-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond 1151

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

6/4/2018 5:40:41 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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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 Gorgas

TestAmerica Job ID: 400-153840-1  
SDG: Gorgas Ash Pond 1151

**Job ID: 400-153840-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-153840-1

#### General Chemistry

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 399810 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 399807 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: AY11766 MW-6S (400-153840-1), AY11767 MW-6S DUP (400-153840-2), AY11768 MW-6D (400-153840-3), AY11770 MW-7 (400-153840-5), AY11772 MW-9 (400-153840-7), (400-153840-B-1 MS), (400-153840-B-1 MSD), AY11779 MW-18 (400-153840-14), AY11763 MW-17 (400-153840-19), AY11764 MW-21 (400-153840-20), (400-153882-B-1), (400-153882-B-1 MS) and (400-153882-B-1 MSD). Elevated reporting limits (RLs) are provided.



# Method Summary

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

TestAmerica Job ID: 400-153840-1  
SDG: Gorgas Ash Pond 1151

Method	Method Description	Protocol	Laboratory
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001



# Sample Summary

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

TestAmerica Job ID: 400-153840-1  
SDG: Gorgas Ash Pond 1151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-153840-1	AY11766 MW-6S	Water	05/14/18 14:20	05/18/18 09:10
400-153840-2	AY11767 MW-6S DUP	Water	05/14/18 14:20	05/18/18 09:10
400-153840-3	AY11768 MW-6D	Water	05/14/18 15:20	05/18/18 09:10
400-153840-4	AY11769 FB-1	Water	05/14/18 15:50	05/18/18 09:10
400-153840-5	AY11770 MW-7	Water	05/15/18 08:50	05/18/18 09:10
400-153840-6	AY11771 MW-8	Water	05/15/18 10:16	05/18/18 09:10
400-153840-7	AY11772 MW-9	Water	05/15/18 11:52	05/18/18 09:10
400-153840-8	AY11773 MW-11	Water	05/15/18 13:20	05/18/18 09:10
400-153840-9	AY11774 MW-12	Water	05/15/18 15:30	05/18/18 09:10
400-153840-10	AY11775 MW-13	Water	05/15/18 16:51	05/18/18 09:10
400-153840-11	AY11776 MW-13 DUP	Water	05/15/18 16:51	05/18/18 09:10
400-153840-12	AY11777 MW-14	Water	05/16/18 09:44	05/18/18 09:10
400-153840-13	AY11778 MW-16D	Water	05/16/18 11:27	05/18/18 09:10
400-153840-14	AY11779 MW-18	Water	05/16/18 13:02	05/18/18 09:10
400-153840-15	AY11780 MW-19	Water	05/16/18 14:22	05/18/18 09:10
400-153840-16	AY11781 FB-2	Water	05/16/18 15:15	05/18/18 09:10
400-153840-17	AY11782 MW-2	Water	05/16/18 15:47	05/18/18 09:10
400-153840-18	AY11783 EB-1	Water	05/16/18 16:25	05/18/18 09:10
400-153840-19	AY11763 MW-17	Water	05/15/18 11:55	05/18/18 09:10
400-153840-20	AY11764 MW-21	Water	05/15/18 14:40	05/18/18 09:10
400-153840-21	AY11765 MW-15	Water	05/15/18 18:20	05/18/18 09:10

# Client Sample Results

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11766 MW-6S**

**Lab Sample ID: 400-153840-1**

Date Collected: 05/14/18 14:20

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		2.0	0.60	mg/L			05/30/18 11:26	1
Fluoride	0.13		0.10	0.032	mg/L			05/22/18 14:44	1
Sulfate	210	F1	50	14	mg/L			06/03/18 11:55	10

**Client Sample ID: AY11767 MW-6S DUP**

**Lab Sample ID: 400-153840-2**

Date Collected: 05/14/18 14:20

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		2.0	0.60	mg/L			05/30/18 11:28	1
Fluoride	0.13		0.10	0.032	mg/L			05/22/18 14:50	1
Sulfate	210		50	14	mg/L			06/03/18 12:08	10

**Client Sample ID: AY11768 MW-6D**

**Lab Sample ID: 400-153840-3**

Date Collected: 05/14/18 15:20

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.0		2.0	0.60	mg/L			05/30/18 11:28	1
Fluoride	0.13		0.10	0.032	mg/L			05/22/18 14:52	1
Sulfate	46		10	2.8	mg/L			06/03/18 12:08	2

**Client Sample ID: AY11769 FB-1**

**Lab Sample ID: 400-153840-4**

Date Collected: 05/14/18 15:50

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/30/18 11:28	1
Fluoride	<0.032		0.10	0.032	mg/L			05/22/18 14:56	1
Sulfate	<1.4		5.0	1.4	mg/L			06/03/18 11:30	1

**Client Sample ID: AY11770 MW-7**

**Lab Sample ID: 400-153840-5**

Date Collected: 05/15/18 08:50

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			05/30/18 11:28	1
Fluoride	0.090	J	0.10	0.032	mg/L			05/22/18 14:58	1
Sulfate	120		25	7.0	mg/L			06/03/18 12:08	5



# Client Sample Results

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

TestAmerica Job ID: 400-153840-1  
SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11771 MW-8**

**Lab Sample ID: 400-153840-6**

Date Collected: 05/15/18 10:16

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	0.60	mg/L			05/30/18 11:28	1
Fluoride	0.10		0.10	0.032	mg/L			05/22/18 15:01	1
Sulfate	2.5	J	5.0	1.4	mg/L			06/03/18 11:30	1

**Client Sample ID: AY11772 MW-9**

**Lab Sample ID: 400-153840-7**

Date Collected: 05/15/18 11:52

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.1		2.0	0.60	mg/L			05/30/18 11:28	1
Fluoride	0.14		0.10	0.032	mg/L			05/22/18 15:03	1
Sulfate	130		25	7.0	mg/L			06/03/18 12:08	5

**Client Sample ID: AY11773 MW-11**

**Lab Sample ID: 400-153840-8**

Date Collected: 05/15/18 13:20

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.9		2.0	0.60	mg/L			06/04/18 07:11	1
Fluoride	0.14		0.10	0.032	mg/L			05/22/18 15:05	1
Sulfate	23		5.0	1.4	mg/L			06/03/18 11:30	1

**Client Sample ID: AY11774 MW-12**

**Lab Sample ID: 400-153840-9**

Date Collected: 05/15/18 15:30

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.4		2.0	0.60	mg/L			06/04/18 07:11	1
Fluoride	0.23		0.10	0.032	mg/L			05/22/18 15:14	1
Sulfate	14	F1	5.0	1.4	mg/L			06/03/18 13:27	1

**Client Sample ID: AY11775 MW-13**

**Lab Sample ID: 400-153840-10**

Date Collected: 05/15/18 16:51

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.2		2.0	0.60	mg/L			06/04/18 07:11	1
Fluoride	0.17		0.10	0.032	mg/L			05/22/18 15:18	1
Sulfate	11		5.0	1.4	mg/L			06/03/18 13:27	1

**Client Sample ID: AY11776 MW-13 DUP**

**Lab Sample ID: 400-153840-11**

Date Collected: 05/15/18 16:51

Matrix: Water

Date Received: 05/18/18 09:10

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.6		2.0	0.60	mg/L			06/04/18 07:14	1

TestAmerica Pensacola

# Client Sample Results

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

## Client Sample ID: AY11776 MW-13 DUP

## Lab Sample ID: 400-153840-11

Date Collected: 05/15/18 16:51

Matrix: Water

Date Received: 05/18/18 09:10

### General Chemistry (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.17		0.10	0.032	mg/L			05/22/18 15:20	1
Sulfate	11		5.0	1.4	mg/L			06/03/18 13:27	1

## Client Sample ID: AY11777 MW-14

## Lab Sample ID: 400-153840-12

Date Collected: 05/16/18 09:44

Matrix: Water

Date Received: 05/18/18 09:10

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.5		2.0	0.60	mg/L			06/04/18 07:14	1
Fluoride	0.17		0.10	0.032	mg/L			05/22/18 15:23	1
Sulfate	13		5.0	1.4	mg/L			06/03/18 13:34	1

## Client Sample ID: AY11778 MW-16D

## Lab Sample ID: 400-153840-13

Date Collected: 05/16/18 11:27

Matrix: Water

Date Received: 05/18/18 09:10

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.0		2.0	0.60	mg/L			06/04/18 07:14	1
Fluoride	0.12		0.10	0.032	mg/L			05/22/18 15:25	1
Sulfate	13		5.0	1.4	mg/L			06/03/18 13:34	1

## Client Sample ID: AY11779 MW-18

## Lab Sample ID: 400-153840-14

Date Collected: 05/16/18 13:02

Matrix: Water

Date Received: 05/18/18 09:10

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22		2.0	0.60	mg/L			06/04/18 07:14	1
Fluoride	0.43		0.10	0.032	mg/L			05/22/18 15:27	1
Sulfate	260		5.0	1.4	mg/L			06/03/18 14:01	10

## Client Sample ID: AY11780 MW-19

## Lab Sample ID: 400-153840-15

Date Collected: 05/16/18 14:22

Matrix: Water

Date Received: 05/18/18 09:10

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		2.0	0.60	mg/L			06/04/18 07:14	1
Fluoride	0.36		0.10	0.032	mg/L			05/22/18 15:29	1
Sulfate	6.0		5.0	1.4	mg/L			06/03/18 13:34	1

## Client Sample ID: AY11781 FB-2

## Lab Sample ID: 400-153840-16

Date Collected: 05/16/18 15:15

Matrix: Water

Date Received: 05/18/18 09:10

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/04/18 07:21	1
Fluoride	<0.032		0.10	0.032	mg/L			05/22/18 15:33	1

TestAmerica Pensacola

# Client Sample Results

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11781 FB-2**

**Lab Sample ID: 400-153840-16**

Date Collected: 05/16/18 15:15

Matrix: Water

Date Received: 05/18/18 09:10

**General Chemistry (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/03/18 13:38	1

**Client Sample ID: AY11782 MW-2**

**Lab Sample ID: 400-153840-17**

Date Collected: 05/16/18 15:47

Matrix: Water

Date Received: 05/18/18 09:10

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	12		2.0	0.60	mg/L			06/04/18 07:21	1
Fluoride	1.1		0.10	0.032	mg/L			05/22/18 15:35	1
Sulfate	34		5.0	1.4	mg/L			06/03/18 13:38	1

**Client Sample ID: AY11783 EB-1**

**Lab Sample ID: 400-153840-18**

Date Collected: 05/16/18 16:25

Matrix: Water

Date Received: 05/18/18 09:10

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/04/18 07:21	1
Fluoride	<0.032		0.10	0.032	mg/L			05/23/18 12:43	1
Sulfate	<1.4		5.0	1.4	mg/L			06/03/18 13:38	1

**Client Sample ID: AY11763 MW-17**

**Lab Sample ID: 400-153840-19**

Date Collected: 05/15/18 11:55

Matrix: Water

Date Received: 05/18/18 09:10

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		2.0	0.60	mg/L			06/04/18 07:14	1
Fluoride	0.27		0.10	0.032	mg/L			05/23/18 13:16	1
Sulfate	54		10	2.8	mg/L			06/03/18 14:01	2

**Client Sample ID: AY11764 MW-21**

**Lab Sample ID: 400-153840-20**

Date Collected: 05/15/18 14:40

Matrix: Water

Date Received: 05/18/18 09:10

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	27		2.0	0.60	mg/L			06/04/18 07:14	1
Fluoride	0.24		0.10	0.032	mg/L			05/23/18 12:51	1
Sulfate	110		25	7.0	mg/L			06/03/18 14:01	5

**Client Sample ID: AY11765 MW-15**

**Lab Sample ID: 400-153840-21**

Date Collected: 05/15/18 18:20

Matrix: Water

Date Received: 05/18/18 09:10

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.8		2.0	0.60	mg/L			06/04/18 07:14	1
Fluoride	0.57		0.10	0.032	mg/L			05/23/18 12:54	1
Sulfate	13		5.0	1.4	mg/L			06/03/18 13:34	1

TestAmerica Pensacola

# Definitions/Glossary

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

TestAmerica Job ID: 400-153840-1  
SDG: Gorgas Ash Pond 1151

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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 Gorgas

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11766 MW-6S**

**Lab Sample ID: 400-153840-1**

**Date Collected: 05/14/18 14:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399389	05/30/18 11:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 14:44	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	399807	06/03/18 11:55	RRC	TAL PEN

**Client Sample ID: AY11767 MW-6S DUP**

**Lab Sample ID: 400-153840-2**

**Date Collected: 05/14/18 14:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399389	05/30/18 11:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 14:50	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	399807	06/03/18 12:08	RRC	TAL PEN

**Client Sample ID: AY11768 MW-6D**

**Lab Sample ID: 400-153840-3**

**Date Collected: 05/14/18 15:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399389	05/30/18 11:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 14:52	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	399807	06/03/18 12:08	RRC	TAL PEN

**Client Sample ID: AY11769 FB-1**

**Lab Sample ID: 400-153840-4**

**Date Collected: 05/14/18 15:50**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399389	05/30/18 11:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 14:56	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399807	06/03/18 11:30	RRC	TAL PEN

**Client Sample ID: AY11770 MW-7**

**Lab Sample ID: 400-153840-5**

**Date Collected: 05/15/18 08:50**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399389	05/30/18 11:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 14:58	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	399807	06/03/18 12:08	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-153840-1  
SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11771 MW-8**

**Lab Sample ID: 400-153840-6**

**Date Collected: 05/15/18 10:16**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399389	05/30/18 11:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:01	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399807	06/03/18 11:30	RRC	TAL PEN

**Client Sample ID: AY11772 MW-9**

**Lab Sample ID: 400-153840-7**

**Date Collected: 05/15/18 11:52**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399389	05/30/18 11:28	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:03	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	399807	06/03/18 12:08	RRC	TAL PEN

**Client Sample ID: AY11773 MW-11**

**Lab Sample ID: 400-153840-8**

**Date Collected: 05/15/18 13:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:11	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:05	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399807	06/03/18 11:30	RRC	TAL PEN

**Client Sample ID: AY11774 MW-12**

**Lab Sample ID: 400-153840-9**

**Date Collected: 05/15/18 15:30**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:11	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:14	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399810	06/03/18 13:27	RRC	TAL PEN

**Client Sample ID: AY11775 MW-13**

**Lab Sample ID: 400-153840-10**

**Date Collected: 05/15/18 16:51**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:11	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:18	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399810	06/03/18 13:27	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-153840-1  
SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11776 MW-13 DUP**

**Lab Sample ID: 400-153840-11**

**Date Collected: 05/15/18 16:51**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:20	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399810	06/03/18 13:27	RRC	TAL PEN

**Client Sample ID: AY11777 MW-14**

**Lab Sample ID: 400-153840-12**

**Date Collected: 05/16/18 09:44**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:23	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399810	06/03/18 13:34	RRC	TAL PEN

**Client Sample ID: AY11778 MW-16D**

**Lab Sample ID: 400-153840-13**

**Date Collected: 05/16/18 11:27**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:25	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399810	06/03/18 13:34	RRC	TAL PEN

**Client Sample ID: AY11779 MW-18**

**Lab Sample ID: 400-153840-14**

**Date Collected: 05/16/18 13:02**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:27	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	399810	06/03/18 14:01	RRC	TAL PEN

**Client Sample ID: AY11780 MW-19**

**Lab Sample ID: 400-153840-15**

**Date Collected: 05/16/18 14:22**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:29	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399810	06/03/18 13:34	RRC	TAL PEN

TestAmerica Pensacola



# Lab Chronicle

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11781 FB-2**

**Lab Sample ID: 400-153840-16**

**Date Collected: 05/16/18 15:15**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:21	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:33	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399810	06/03/18 13:38	RRC	TAL PEN

**Client Sample ID: AY11782 MW-2**

**Lab Sample ID: 400-153840-17**

**Date Collected: 05/16/18 15:47**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:21	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398562	05/22/18 15:35	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399810	06/03/18 13:38	RRC	TAL PEN

**Client Sample ID: AY11783 EB-1**

**Lab Sample ID: 400-153840-18**

**Date Collected: 05/16/18 16:25**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:21	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398694	05/23/18 12:43	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399810	06/03/18 13:38	RRC	TAL PEN

**Client Sample ID: AY11763 MW-17**

**Lab Sample ID: 400-153840-19**

**Date Collected: 05/15/18 11:55**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398694	05/23/18 13:16	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	399810	06/03/18 14:01	RRC	TAL PEN

**Client Sample ID: AY11764 MW-21**

**Lab Sample ID: 400-153840-20**

**Date Collected: 05/15/18 14:40**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398694	05/23/18 12:51	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	399810	06/03/18 14:01	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-153840-1  
SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11765 MW-15**

**Lab Sample ID: 400-153840-21**

**Date Collected: 05/15/18 18:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	399828	06/04/18 07:14	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	398694	05/23/18 12:54	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	399810	06/03/18 13:34	RRC	TAL PEN

#### Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# QC Association Summary

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

## General Chemistry

### Analysis Batch: 398562

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-1	AY11766 MW-6S	Total/NA	Water	SM 4500 F C	
400-153840-2	AY11767 MW-6S DUP	Total/NA	Water	SM 4500 F C	
400-153840-3	AY11768 MW-6D	Total/NA	Water	SM 4500 F C	
400-153840-4	AY11769 FB-1	Total/NA	Water	SM 4500 F C	
400-153840-5	AY11770 MW-7	Total/NA	Water	SM 4500 F C	
400-153840-6	AY11771 MW-8	Total/NA	Water	SM 4500 F C	
400-153840-7	AY11772 MW-9	Total/NA	Water	SM 4500 F C	
400-153840-8	AY11773 MW-11	Total/NA	Water	SM 4500 F C	
400-153840-9	AY11774 MW-12	Total/NA	Water	SM 4500 F C	
400-153840-10	AY11775 MW-13	Total/NA	Water	SM 4500 F C	
400-153840-11	AY11776 MW-13 DUP	Total/NA	Water	SM 4500 F C	
400-153840-12	AY11777 MW-14	Total/NA	Water	SM 4500 F C	
400-153840-13	AY11778 MW-16D	Total/NA	Water	SM 4500 F C	
400-153840-14	AY11779 MW-18	Total/NA	Water	SM 4500 F C	
400-153840-15	AY11780 MW-19	Total/NA	Water	SM 4500 F C	
400-153840-16	AY11781 FB-2	Total/NA	Water	SM 4500 F C	
400-153840-17	AY11782 MW-2	Total/NA	Water	SM 4500 F C	
MB 400-398562/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-398562/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-153840-1 MS	AY11766 MW-6S	Total/NA	Water	SM 4500 F C	
400-153840-1 MSD	AY11766 MW-6S	Total/NA	Water	SM 4500 F C	
400-153840-9 DU	AY11774 MW-12	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 398694

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-18	AY11783 EB-1	Total/NA	Water	SM 4500 F C	
400-153840-19	AY11763 MW-17	Total/NA	Water	SM 4500 F C	
400-153840-20	AY11764 MW-21	Total/NA	Water	SM 4500 F C	
400-153840-21	AY11765 MW-15	Total/NA	Water	SM 4500 F C	
MB 400-398694/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-398694/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-153840-18 MS	AY11783 EB-1	Total/NA	Water	SM 4500 F C	
400-153840-18 MSD	AY11783 EB-1	Total/NA	Water	SM 4500 F C	
400-153840-19 DU	AY11763 MW-17	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 399389

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-1	AY11766 MW-6S	Total/NA	Water	SM 4500 Cl- E	
400-153840-2	AY11767 MW-6S DUP	Total/NA	Water	SM 4500 Cl- E	
400-153840-3	AY11768 MW-6D	Total/NA	Water	SM 4500 Cl- E	
400-153840-4	AY11769 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-153840-5	AY11770 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-153840-6	AY11771 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-153840-7	AY11772 MW-9	Total/NA	Water	SM 4500 Cl- E	
MB 400-399389/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-399389/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-399389/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-153840-1 MS	AY11766 MW-6S	Total/NA	Water	SM 4500 Cl- E	
400-153840-1 MSD	AY11766 MW-6S	Total/NA	Water	SM 4500 Cl- E	

# QC Association Summary

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

## General Chemistry (Continued)

### Analysis Batch: 399807

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-1	AY11766 MW-6S	Total/NA	Water	SM 4500 SO4 E	
400-153840-2	AY11767 MW-6S DUP	Total/NA	Water	SM 4500 SO4 E	
400-153840-3	AY11768 MW-6D	Total/NA	Water	SM 4500 SO4 E	
400-153840-4	AY11769 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-153840-5	AY11770 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-153840-6	AY11771 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-153840-7	AY11772 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-153840-8	AY11773 MW-11	Total/NA	Water	SM 4500 SO4 E	
MB 400-399807/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-399807/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-399807/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-153840-1 MS	AY11766 MW-6S	Total/NA	Water	SM 4500 SO4 E	
400-153840-1 MSD	AY11766 MW-6S	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 399810

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-9	AY11774 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-153840-10	AY11775 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-153840-11	AY11776 MW-13 DUP	Total/NA	Water	SM 4500 SO4 E	
400-153840-12	AY11777 MW-14	Total/NA	Water	SM 4500 SO4 E	
400-153840-13	AY11778 MW-16D	Total/NA	Water	SM 4500 SO4 E	
400-153840-14	AY11779 MW-18	Total/NA	Water	SM 4500 SO4 E	
400-153840-15	AY11780 MW-19	Total/NA	Water	SM 4500 SO4 E	
400-153840-16	AY11781 FB-2	Total/NA	Water	SM 4500 SO4 E	
400-153840-17	AY11782 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-153840-18	AY11783 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-153840-19	AY11763 MW-17	Total/NA	Water	SM 4500 SO4 E	
400-153840-20	AY11764 MW-21	Total/NA	Water	SM 4500 SO4 E	
400-153840-21	AY11765 MW-15	Total/NA	Water	SM 4500 SO4 E	
MB 400-399810/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-399810/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-399810/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-153840-9 MS	AY11774 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-153840-9 MSD	AY11774 MW-12	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 399828

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-8	AY11773 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-153840-9	AY11774 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-153840-10	AY11775 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-153840-11	AY11776 MW-13 DUP	Total/NA	Water	SM 4500 Cl- E	
400-153840-12	AY11777 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-153840-13	AY11778 MW-16D	Total/NA	Water	SM 4500 Cl- E	
400-153840-14	AY11779 MW-18	Total/NA	Water	SM 4500 Cl- E	
400-153840-15	AY11780 MW-19	Total/NA	Water	SM 4500 Cl- E	
400-153840-16	AY11781 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-153840-17	AY11782 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-153840-18	AY11783 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-153840-19	AY11763 MW-17	Total/NA	Water	SM 4500 Cl- E	
400-153840-20	AY11764 MW-21	Total/NA	Water	SM 4500 Cl- E	
400-153840-21	AY11765 MW-15	Total/NA	Water	SM 4500 Cl- E	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-153840-1  
SDG: Gorgas Ash Pond 1151

## General Chemistry (Continued)

### Analysis Batch: 399828 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 400-399828/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-399828/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-399828/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-153840-8 MS	AY11773 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-153840-8 MSD	AY11773 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-153840-11 MS	AY11776 MW-13 DUP	Total/NA	Water	SM 4500 Cl- E	
400-153840-11 MSD	AY11776 MW-13 DUP	Total/NA	Water	SM 4500 Cl- E	

# QC Sample Results

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

## Method: SM 4500 Cl- E - Chloride, Total

**Lab Sample ID: MB 400-399389/6**  
**Matrix: Water**  
**Analysis Batch: 399389**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			05/30/18 11:25	1

**Lab Sample ID: LCS 400-399389/7**  
**Matrix: Water**  
**Analysis Batch: 399389**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.0		mg/L		103	90 - 110

**Lab Sample ID: MRL 400-399389/3**  
**Matrix: Water**  
**Analysis Batch: 399389**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.34	J	mg/L		67	50 - 150

**Lab Sample ID: 400-153840-1 MS**  
**Matrix: Water**  
**Analysis Batch: 399389**

**Client Sample ID: AY11766 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20		10.0	30.0		mg/L		95	73 - 120

**Lab Sample ID: 400-153840-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 399389**

**Client Sample ID: AY11766 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Chloride	20		10.0	30.1		mg/L		97	73 - 120	1	8

**Lab Sample ID: MB 400-399828/6**  
**Matrix: Water**  
**Analysis Batch: 399828**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			06/04/18 07:11	1

**Lab Sample ID: LCS 400-399828/7**  
**Matrix: Water**  
**Analysis Batch: 399828**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	30.6		mg/L		102	90 - 110

**Lab Sample ID: MRL 400-399828/3**  
**Matrix: Water**  
**Analysis Batch: 399828**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.88	J	mg/L		94	50 - 150

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

**Lab Sample ID: 400-153840-8 MS**  
**Matrix: Water**  
**Analysis Batch: 399828**

**Client Sample ID: AY11773 MW-11**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	6.9		10.0	17.5		mg/L		106	73 - 120

**Lab Sample ID: 400-153840-8 MSD**  
**Matrix: Water**  
**Analysis Batch: 399828**

**Client Sample ID: AY11773 MW-11**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	6.9		10.0	17.6		mg/L		107	73 - 120	1	8

**Lab Sample ID: 400-153840-11 MS**  
**Matrix: Water**  
**Analysis Batch: 399828**

**Client Sample ID: AY11776 MW-13 DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.6		10.0	14.1		mg/L		105	73 - 120

**Lab Sample ID: 400-153840-11 MSD**  
**Matrix: Water**  
**Analysis Batch: 399828**

**Client Sample ID: AY11776 MW-13 DUP**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.6		10.0	13.8		mg/L		103	73 - 120	2	8

## Method: SM 4500 F C - Fluoride

**Lab Sample ID: MB 400-398562/3**  
**Matrix: Water**  
**Analysis Batch: 398562**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			05/22/18 14:31	1

**Lab Sample ID: LCS 400-398562/4**  
**Matrix: Water**  
**Analysis Batch: 398562**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.99		mg/L		100	90 - 110

**Lab Sample ID: 400-153840-1 MS**  
**Matrix: Water**  
**Analysis Batch: 398562**

**Client Sample ID: AY11766 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.13		1.00	1.19		mg/L		106	75 - 125



# QC Sample Results

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

## Method: SM 4500 F C - Fluoride (Continued)

**Lab Sample ID: 400-153840-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 398562**

**Client Sample ID: AY11766 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.13		1.00	1.19		mg/L		106	75 - 125	0	4

**Lab Sample ID: 400-153840-9 DU**  
**Matrix: Water**  
**Analysis Batch: 398562**

**Client Sample ID: AY11774 MW-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.23		0.230		mg/L		0	4

**Lab Sample ID: MB 400-398694/3**  
**Matrix: Water**  
**Analysis Batch: 398694**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			05/23/18 12:30	1

**Lab Sample ID: LCS 400-398694/4**  
**Matrix: Water**  
**Analysis Batch: 398694**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	3.99		mg/L		100	90 - 110

**Lab Sample ID: 400-153840-18 MS**  
**Matrix: Water**  
**Analysis Batch: 398694**

**Client Sample ID: AY11783 EB-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	1.08		mg/L		108	75 - 125

**Lab Sample ID: 400-153840-18 MSD**  
**Matrix: Water**  
**Analysis Batch: 398694**

**Client Sample ID: AY11783 EB-1**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	1.08		mg/L		108	75 - 125	0	4

**Lab Sample ID: 400-153840-19 DU**  
**Matrix: Water**  
**Analysis Batch: 398694**

**Client Sample ID: AY11763 MW-17**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.27		0.270		mg/L		0	4

# QC Sample Results

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

## Method: SM 4500 SO4 E - Sulfate, Total

**Lab Sample ID: MB 400-399807/6**  
**Matrix: Water**  
**Analysis Batch: 399807**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/03/18 11:18	1

**Lab Sample ID: LCS 400-399807/7**  
**Matrix: Water**  
**Analysis Batch: 399807**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.0		mg/L		100	90 - 110

**Lab Sample ID: MRL 400-399807/3**  
**Matrix: Water**  
**Analysis Batch: 399807**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	3.83	J	mg/L		77	50 - 150

**Lab Sample ID: 400-153840-1 MS**  
**Matrix: Water**  
**Analysis Batch: 399807**

**Client Sample ID: AY11766 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	210	F1	100	216	F1	mg/L		2	77 - 128

**Lab Sample ID: 400-153840-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 399807**

**Client Sample ID: AY11766 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	Limit
Sulfate	210	F1	100	214	F1	mg/L		-0.1	77 - 128	1	5

**Lab Sample ID: MB 400-399810/6**  
**Matrix: Water**  
**Analysis Batch: 399810**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			06/03/18 13:27	1

**Lab Sample ID: LCS 400-399810/7**  
**Matrix: Water**  
**Analysis Batch: 399810**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.0		mg/L		100	90 - 110

**Lab Sample ID: MRL 400-399810/3**  
**Matrix: Water**  
**Analysis Batch: 399810**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.18	J	mg/L		84	50 - 150

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

**Lab Sample ID: 400-153840-9 MS**  
**Matrix: Water**  
**Analysis Batch: 399810**

**Client Sample ID: AY11774 MW-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	14	F1	10.0	22.1	F1	mg/L		76	77 - 128

**Lab Sample ID: 400-153840-9 MSD**  
**Matrix: Water**  
**Analysis Batch: 399810**

**Client Sample ID: AY11774 MW-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	14	F1	10.0	22.6		mg/L		81	77 - 128	2	5

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

**Chain of Custody Record**



<b>Client Information</b> Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgcpelala@southernco.com Project #: 40007143 CCR Site: Gorgas Ash Pond 1151		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): Job #: 153840	
<b>Due Date Requested:</b> TAT Requested (days): Routine PO #: WO #: Project #: SSONW#:		<b>Analysis Requested</b> 9315_R4226, 9320_R4228, 9320_R4228, R228R4228_GFPc SM 4500 F.C SM 4500 C.L.E SM 4500 S.O4.E Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N	
<b>Sample Identification</b> Sample ID: AY11765 Sample Date: 5/14/18 Sample Time: 1420 Sample Type (C=Comp, G=grab): G Matrix (W=Water, S=Soil, O=Other, B=Gas, A=Air): Water Preservation Code:		Total Number of Containers: 2 Special Instructions/Note:	
AY11766 5/14/18 1420 G Water		2 MW-6S	
AY11767 5/14/18 1420 G Water		2 MW-6S Dup (Sample Duplicate)	
AY11768 5/14/18 1520 G Water		4 MW-6D	
AY11769 5/14/18 1550 G Water		2 FB-1 (Field Blank)	
AY11770 5/15/18 0850 G Water		2 MW-7	
AY11771 5/15/18 1016 G Water		2 MW-8	
AY11772 5/15/18 1152 G Water		2 MW-9	
AY11773 5/15/18 1320 G Water		2 MW-11	
AY11774 5/15/18 1530 G Water		2 MW-12	
AY11775 5/15/18 1651 G Water		2 MW-13	
AY11776 5/15/18 1651 G Water		2 MW-13 Dup (Sample Duplicate)	
AY11777 5/16/18 0944 G Water		2 MW-14	
AY11778 5/16/18 1127 G Water		2 MW-16D	
AY11779 5/16/18 1302 G Water		4 MW-18	
AY11780 5/16/18 1422 G Water		2 MW-19	
AY11781 5/16/18 1515 G Water		2 FB-2 (Field Blank)	
AY11782 5/16/18 1547 G Water		2 MW-2	
AY11783 5/16/18 1625 G Water		2 EB-1 (Equipment Blank)	
<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant Deliverable Requested: I, II, III, IV, Other (specify)		Method of Shipment:	
Empty Kit Relinquished by: Relinquished by: Sarah Copeland Relinquished by:		Date/Time: 5/18/18 09:10 Date/Time:	
Relinquished by:		Date/Time:	
Relinquished by:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature (°C and Other Remarks): 17°C JL 8	





**Chain of Custody Record**

<b>Client Information</b> Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Callera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgoppela@southernco.com Project Name: CCR Site: Gorgas Ash Pond 1151		<b>Lab P.M.</b> Whitmore, Cheyenne R E-Mail: Cheyenne.whitmore@testamericainc.com		<b>Carrier Tracking Note(s)</b> COC No: 400-56525-24537.1 Page: Page 2 of 2 Job #: 153840	
<b>Due Date Requested:</b> TAT Requested (days): Routine PO #: WO #: Project #: 40007143 SSOW#:		<b>Analysis Requested</b> 9315_R4226_9320_R4228_R4228Ra228_GFPc SM 4500 SO4_E SM 4500 Cl_E SM 4500 F_C		<b>Preservation Codes:</b> A- HCL B- NaOH C- Zn Acetate D- Nitric Acid E- NaHSO4 F- MeOH G- Ammonia H- Ascorbic Acid I- Ice J- DI Water K- EDTA L- EDA Other:	
<b>Sample Identification</b> AY11763 AY11764 AY11765		<b>Sample Date</b> 5/15/18 5/15/18 5/15/18		<b>Sample Time</b> 1155 1440 1820	
<b>Sample Type</b> (C=Comp, G=grab) G G G		<b>Matrix</b> (Water, Sealed, On-site, BT=Trace, A=Air) Water Water Water		<b>Field Filtered Sample (Yes or No)</b> X X X	
<b>Perform MS/MSD (Yes or No)</b> N		<b>Field Filtered Sample (Yes or No)</b> X X X		<b>Total Number of Containers</b> 2 2 2	
<b>Special Instructions/Note:</b> MW-17 MW-21 MW-15					
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)					
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Sarah Copeland Date/Time: 5/16/2018, 0920 Company: APC Relinquished by: _____ Date/Time: _____ Company: _____ Relinquished by: _____ Date/Time: _____ Company: _____					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Cooler Temperature(s) °C and Other Remarks:					



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-153840-1  
SDG Number: Gorgas Ash Pond 1151

**Login Number: 153840**

**List Number: 1**

**Creator: Whitmire, Cheyenne R**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-153840-1  
 SDG: Gorgas Ash Pond 1151

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	06-30-18
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-19





# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-153840-2

TestAmerica Sample Delivery Group: Gorgas Ash Pond 1151

Client Project/Site: CCR Plant Gorgas

For:

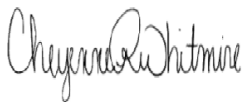
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

6/28/2018 4:22:33 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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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 Gorgas

TestAmerica Job ID: 400-153840-2  
SDG: Gorgas Ash Pond 1151

**Job ID: 400-153840-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-153840-2

#### RAD

Method(s) 904.0, 9320: Ra-228 Prep Batch 160-371429. The following samples did not meet the requested limit (RL) due to the reduced sample volume (see prep NCM 160-141727). The sample aliquots were reduced due to limited sample volume due to re-extract. The data have been reported with this narrative. AY11766 MW-6S (400-153840-1), AY11767 MW-6S DUP (400-153840-2), AY11768 MW-6D (400-153840-3[DUJ]), AY11769 FB-1 (400-153840-4), AY11770 MW-7 (400-153840-5), AY11771 MW-8 (400-153840-6), AY11772 MW-9 (400-153840-7), AY11773 MW-11 (400-153840-8), AY11774 MW-12 (400-153840-9), AY11775 MW-13 (400-153840-10) and (MB 160-371429/17-A)

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-367445: Sample aliquots reduced due to limited sample volume. AY11776 MW-13 DUP (400-153840-11), AY11777 MW-14 (400-153840-12), AY11778 MW-16D (400-153840-13), AY11779 MW-18 (400-153840-14), AY11779 MW-18 (400-153840-14[DUJ]), AY11780 MW-19 (400-153840-15), AY11781 FB-2 (400-153840-16), AY11782 MW-2 (400-153840-17), AY11783 EB-1 (400-153840-18), AY11763 MW-17 (400-153840-19), AY11764 MW-21 (400-153840-20) and AY11765 MW-15 (400-153840-21)

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-367516: Sample aliquots reduced due to limited sample volume. AY11766 MW-6S (400-153840-1), AY11767 MW-6S DUP (400-153840-2), AY11768 MW-6D (400-153840-3), AY11768 MW-6D (400-153840-3[DUJ]), AY11769 FB-1 (400-153840-4), AY11770 MW-7 (400-153840-5), AY11771 MW-8 (400-153840-6), AY11772 MW-9 (400-153840-7), AY11773 MW-11 (400-153840-8), AY11774 MW-12 (400-153840-9) and AY11775 MW-13 (400-153840-10)

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-371429: Sample aliquots reduced due to limited sample volume due to re-extract. AY11766 MW-6S (400-153840-1), AY11767 MW-6S DUP (400-153840-2), AY11768 MW-6D (400-153840-3), AY11768 MW-6D (400-153840-3[DUJ]), AY11769 FB-1 (400-153840-4), AY11770 MW-7 (400-153840-5), AY11771 MW-8 (400-153840-6), AY11772 MW-9 (400-153840-7), AY11773 MW-11 (400-153840-8), AY11774 MW-12 (400-153840-9) and AY11775 MW-13 (400-153840-10)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-367440: Sample aliquots reduced due to limited sample volume. AY11776 MW-13 DUP (400-153840-11), AY11777 MW-14 (400-153840-12), AY11778 MW-16D (400-153840-13), AY11779 MW-18 (400-153840-14), AY11779 MW-18 (400-153840-14[DUJ]), AY11780 MW-19 (400-153840-15), AY11781 FB-2 (400-153840-16), AY11782 MW-2 (400-153840-17), AY11783 EB-1 (400-153840-18), AY11763 MW-17 (400-153840-19), AY11764 MW-21 (400-153840-20) and AY11765 MW-15 (400-153840-21)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-367507: Sample aliquots reduced due to limited sample volume. AY11766 MW-6S (400-153840-1), AY11767 MW-6S DUP (400-153840-2), AY11768 MW-6D (400-153840-3), AY11768 MW-6D (400-153840-3[DUJ]), AY11769 FB-1 (400-153840-4), AY11770 MW-7 (400-153840-5), AY11771 MW-8 (400-153840-6), AY11772 MW-9 (400-153840-7), AY11773 MW-11 (400-153840-8), AY11774 MW-12 (400-153840-9) and AY11775 MW-13 (400-153840-10)

# Method Summary

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

TestAmerica Job ID: 400-153840-2  
SDG: Gorgas Ash Pond 1151

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 = 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 Gorgas

TestAmerica Job ID: 400-153840-2  
SDG: Gorgas Ash Pond 1151

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-153840-1	AY11766 MW-6S	Water	05/14/18 14:20	05/18/18 09:10
400-153840-2	AY11767 MW-6S DUP	Water	05/14/18 14:20	05/18/18 09:10
400-153840-3	AY11768 MW-6D	Water	05/14/18 15:20	05/18/18 09:10
400-153840-4	AY11769 FB-1	Water	05/14/18 15:50	05/18/18 09:10
400-153840-5	AY11770 MW-7	Water	05/15/18 08:50	05/18/18 09:10
400-153840-6	AY11771 MW-8	Water	05/15/18 10:16	05/18/18 09:10
400-153840-7	AY11772 MW-9	Water	05/15/18 11:52	05/18/18 09:10
400-153840-8	AY11773 MW-11	Water	05/15/18 13:20	05/18/18 09:10
400-153840-9	AY11774 MW-12	Water	05/15/18 15:30	05/18/18 09:10
400-153840-10	AY11775 MW-13	Water	05/15/18 16:51	05/18/18 09:10
400-153840-11	AY11776 MW-13 DUP	Water	05/15/18 16:51	05/18/18 09:10
400-153840-12	AY11777 MW-14	Water	05/16/18 09:44	05/18/18 09:10
400-153840-13	AY11778 MW-16D	Water	05/16/18 11:27	05/18/18 09:10
400-153840-14	AY11779 MW-18	Water	05/16/18 13:02	05/18/18 09:10
400-153840-15	AY11780 MW-19	Water	05/16/18 14:22	05/18/18 09:10
400-153840-16	AY11781 FB-2	Water	05/16/18 15:15	05/18/18 09:10
400-153840-17	AY11782 MW-2	Water	05/16/18 15:47	05/18/18 09:10
400-153840-18	AY11783 EB-1	Water	05/16/18 16:25	05/18/18 09:10
400-153840-19	AY11763 MW-17	Water	05/15/18 11:55	05/18/18 09:10
400-153840-20	AY11764 MW-21	Water	05/15/18 14:40	05/18/18 09:10
400-153840-21	AY11765 MW-15	Water	05/15/18 18:20	05/18/18 09:10

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11766 MW-6S**

**Lab Sample ID: 400-153840-1**

**Date Collected: 05/14/18 14:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.200		0.129	0.130	1.00	0.170	pCi/L	05/25/18 11:07	06/20/18 08:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					05/25/18 11:07	06/20/18 08:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.369	U G	0.556	0.557	1.00	1.06	pCi/L	06/20/18 11:15	06/25/18 15:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					06/20/18 11:15	06/25/18 15:06	1
Y Carrier	94.6		40 - 110					06/20/18 11:15	06/25/18 15:06	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	-0.169	U	0.571	0.572	5.00	1.06	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11767 MW-6S DUP**

**Lab Sample ID: 400-153840-2**

**Date Collected: 05/14/18 14:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.138	U	0.117	0.118	1.00	0.175	pCi/L	05/25/18 11:07	06/20/18 08:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/25/18 11:07	06/20/18 08:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.110	U G	0.691	0.691	1.00	1.20	pCi/L	06/20/18 11:15	06/25/18 15:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					06/20/18 11:15	06/25/18 15:06	1
Y Carrier	93.8		40 - 110					06/20/18 11:15	06/25/18 15:06	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	0.248	U	0.701	0.701	5.00	1.20	pCi/L		06/28/18 12:54	1



# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11768 MW-6D**

**Lab Sample ID: 400-153840-3**

**Date Collected: 05/14/18 15:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.344		0.147	0.150	1.00	0.159	pCi/L	05/25/18 11:07	06/20/18 08:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					05/25/18 11:07	06/20/18 08:32	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.261	U	0.507	0.507	1.00	0.963	pCi/L	06/20/18 11:15	06/25/18 15:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					06/20/18 11:15	06/25/18 15:06	1
Y Carrier	95.7		40 - 110					06/20/18 11:15	06/25/18 15:06	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	0.0830	U	0.528	0.529	5.00	0.963	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11769 FB-1**

**Lab Sample ID: 400-153840-4**

**Date Collected: 05/14/18 15:50**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0719	U	0.0940	0.0942	1.00	0.157	pCi/L	05/25/18 11:07	06/20/18 08:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.7		40 - 110					05/25/18 11:07	06/20/18 08:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.131	U G	0.562	0.562	1.00	1.03	pCi/L	06/20/18 11:15	06/25/18 15:06	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					06/20/18 11:15	06/25/18 15:06	1
Y Carrier	94.6		40 - 110					06/20/18 11:15	06/25/18 15:06	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	-0.0593	U	0.570	0.570	5.00	1.03	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11770 MW-7**

**Lab Sample ID: 400-153840-5**

**Date Collected: 05/15/18 08:50**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0480	U	0.0798	0.0799	1.00	0.140	pCi/L	05/25/18 11:07	06/20/18 08:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					05/25/18 11:07	06/20/18 08:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0169	U G	0.671	0.671	1.00	1.19	pCi/L	06/20/18 11:15	06/25/18 15:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					06/20/18 11:15	06/25/18 15:08	1
Y Carrier	95.7		40 - 110					06/20/18 11:15	06/25/18 15:08	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0311	U	0.676	0.676	5.00	1.19	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11771 MW-8**

**Lab Sample ID: 400-153840-6**

**Date Collected: 05/15/18 10:16**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.104	U	0.111	0.112	1.00	0.175	pCi/L	05/25/18 11:07	06/20/18 08:36	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					05/25/18 11:07	06/20/18 08:36	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.705	U G	0.577	0.580	1.00	1.15	pCi/L	06/20/18 11:15	06/25/18 15:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					06/20/18 11:15	06/25/18 15:08	1
Y Carrier	93.8		40 - 110					06/20/18 11:15	06/25/18 15:08	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.601	U	0.588	0.591	5.00	1.15	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11772 MW-9**

**Lab Sample ID: 400-153840-7**

**Date Collected: 05/15/18 11:52**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.218		0.120	0.121	1.00	0.148	pCi/L	05/25/18 11:07	06/20/18 08:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					05/25/18 11:07	06/20/18 08:38	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.680	U G	0.532	0.535	1.00	1.06	pCi/L	06/20/18 11:15	06/25/18 15:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					06/20/18 11:15	06/25/18 15:08	1
Y Carrier	98.3		40 - 110					06/20/18 11:15	06/25/18 15:08	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.462	U	0.545	0.549	5.00	1.06	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11773 MW-11**

**Lab Sample ID: 400-153840-8**

**Date Collected: 05/15/18 13:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.112	U	0.106	0.107	1.00	0.164	pCi/L	05/25/18 11:07	06/20/18 08:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					05/25/18 11:07	06/20/18 08:38	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.344	U G	0.576	0.577	1.00	1.09	pCi/L	06/20/18 11:15	06/25/18 15:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					06/20/18 11:15	06/25/18 15:08	1
Y Carrier	96.8		40 - 110					06/20/18 11:15	06/25/18 15:08	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	-0.232	U	0.586	0.587	5.00	1.09	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11774 MW-12**

**Lab Sample ID: 400-153840-9**

**Date Collected: 05/15/18 15:30**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.326		0.142	0.145	1.00	0.157	pCi/L	05/25/18 11:07	06/20/18 08:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/25/18 11:07	06/20/18 08:38	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.108	U G	0.626	0.626	1.00	1.11	pCi/L	06/20/18 11:15	06/25/18 15:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					06/20/18 11:15	06/25/18 15:08	1
Y Carrier	89.3		40 - 110					06/20/18 11:15	06/25/18 15:08	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.433	U	0.642	0.643	5.00	1.11	pCi/L		06/28/18 12:54	1



# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11775 MW-13**

**Lab Sample ID: 400-153840-10**

**Date Collected: 05/15/18 16:51**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.179		0.109	0.110	1.00	0.139	pCi/L	05/25/18 11:07	06/20/18 08:38	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	108		40 - 110					05/25/18 11:07	06/20/18 08:38	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.122	U G	0.597	0.597	1.00	1.08	pCi/L	06/20/18 11:15	06/25/18 15:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					06/20/18 11:15	06/25/18 15:08	1
Y Carrier	96.4		40 - 110					06/20/18 11:15	06/25/18 15:08	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0571	U	0.607	0.607	5.00	1.08	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11776 MW-13 DUP**

**Lab Sample ID: 400-153840-11**

**Date Collected: 05/15/18 16:51**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.130	U	0.0991	0.0997	1.00	0.139	pCi/L	05/25/18 09:41	06/20/18 05:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					05/25/18 09:41	06/20/18 05:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.932		0.339	0.350	1.00	0.466	pCi/L	05/25/18 10:10	06/15/18 09:31	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					05/25/18 10:10	06/15/18 09:31	1
Y Carrier	86.7		40 - 110					05/25/18 10:10	06/15/18 09:31	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	1.06		0.353	0.364	5.00	0.466	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11777 MW-14**

**Lab Sample ID: 400-153840-12**

**Date Collected: 05/16/18 09:44**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.238		0.123	0.125	1.00	0.142	pCi/L	05/25/18 09:41	06/20/18 05:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					05/25/18 09:41	06/20/18 05:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.832		0.321	0.330	1.00	0.439	pCi/L	05/25/18 10:10	06/15/18 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	96.2		40 - 110					05/25/18 10:10	06/15/18 09:32	1
Y Carrier	92.3		40 - 110					05/25/18 10:10	06/15/18 09:32	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	1.07		0.344	0.353	5.00	0.439	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11778 MW-16D**

**Lab Sample ID: 400-153840-13**

**Date Collected: 05/16/18 11:27**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0365	U	0.0663	0.0664	1.00	0.120	pCi/L	05/25/18 09:41	06/20/18 05:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/25/18 09:41	06/20/18 05:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.173	U	0.308	0.308	1.00	0.521	pCi/L	05/25/18 10:10	06/15/18 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					05/25/18 10:10	06/15/18 09:32	1
Y Carrier	88.2		40 - 110					05/25/18 10:10	06/15/18 09:32	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	0.209	U	0.315	0.315	5.00	0.521	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11779 MW-18**

**Lab Sample ID: 400-153840-14**

Date Collected: 05/16/18 13:02

Matrix: Water

Date Received: 05/18/18 09:10

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.320		0.141	0.144	1.00	0.154	pCi/L	05/25/18 09:41	06/20/18 05:58	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/25/18 09:41	06/20/18 05:58	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.718		0.335	0.341	1.00	0.486	pCi/L	05/25/18 10:10	06/15/18 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/25/18 10:10	06/15/18 09:32	1
Y Carrier	82.6		40 - 110					05/25/18 10:10	06/15/18 09:32	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	1.04		0.363	0.370	5.00	0.486	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11780 MW-19**

**Lab Sample ID: 400-153840-15**

**Date Collected: 05/16/18 14:22**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.358		0.159	0.163	1.00	0.182	pCi/L	05/25/18 09:41	06/20/18 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					05/25/18 09:41	06/20/18 06:02	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.757		0.313	0.320	1.00	0.445	pCi/L	05/25/18 10:10	06/15/18 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	105		40 - 110					05/25/18 10:10	06/15/18 09:32	1
Y Carrier	93.1		40 - 110					05/25/18 10:10	06/15/18 09:32	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	1.12		0.351	0.359	5.00	0.445	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11781 FB-2**

**Lab Sample ID: 400-153840-16**

**Date Collected: 05/16/18 15:15**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0925	U	0.115	0.116	1.00	0.191	pCi/L	05/25/18 09:41	06/20/18 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/25/18 09:41	06/20/18 06:02	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.636		0.384	0.388	1.00	0.593	pCi/L	05/25/18 10:10	06/15/18 09:32	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					05/25/18 10:10	06/15/18 09:32	1
Y Carrier	86.4		40 - 110					05/25/18 10:10	06/15/18 09:32	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	0.729		0.401	0.405	5.00	0.593	pCi/L		06/28/18 12:54	1



# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11782 MW-2**

**Lab Sample ID: 400-153840-17**

**Date Collected: 05/16/18 15:47**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.223		0.141	0.143	1.00	0.191	pCi/L	05/25/18 09:41	06/20/18 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					05/25/18 09:41	06/20/18 06:02	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.22		0.355	0.372	1.00	0.458	pCi/L	05/25/18 10:10	06/15/18 09:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					05/25/18 10:10	06/15/18 09:33	1
Y Carrier	94.2		40 - 110					05/25/18 10:10	06/15/18 09:33	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	1.44		0.382	0.399	5.00	0.458	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11783 EB-1**

**Lab Sample ID: 400-153840-18**

**Date Collected: 05/16/18 16:25**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0957	U	0.113	0.113	1.00	0.185	pCi/L	05/25/18 09:41	06/20/18 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/25/18 09:41	06/20/18 06:02	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.674		0.324	0.330	1.00	0.480	pCi/L	05/25/18 10:10	06/15/18 09:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	103		40 - 110					05/25/18 10:10	06/15/18 09:33	1
Y Carrier	96.1		40 - 110					05/25/18 10:10	06/15/18 09:33	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	0.769		0.343	0.349	5.00	0.480	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11763 MW-17**

**Lab Sample ID: 400-153840-19**

**Date Collected: 05/15/18 11:55**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.149	U	0.118	0.119	1.00	0.170	pCi/L	05/25/18 09:41	06/20/18 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/25/18 09:41	06/20/18 06:02	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.377	U	0.326	0.327	1.00	0.522	pCi/L	05/25/18 10:10	06/15/18 09:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.3		40 - 110					05/25/18 10:10	06/15/18 09:33	1
Y Carrier	86.0		40 - 110					05/25/18 10:10	06/15/18 09:33	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
<b>Combined Radium 226 + 228</b>	<b>0.526</b>		0.347	0.348	5.00	0.522	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11764 MW-21**

**Lab Sample ID: 400-153840-20**

**Date Collected: 05/15/18 14:40**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.261		0.142	0.144	1.00	0.181	pCi/L	05/25/18 09:41	06/20/18 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					05/25/18 09:41	06/20/18 06:02	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	1.44		0.431	0.450	1.00	0.563	pCi/L	05/25/18 10:10	06/15/18 09:33	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.7		40 - 110					05/25/18 10:10	06/15/18 09:33	1
Y Carrier	76.6		40 - 110					05/25/18 10:10	06/15/18 09:33	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	1.70		0.454	0.472	5.00	0.563	pCi/L		06/28/18 12:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11765 MW-15**

**Lab Sample ID: 400-153840-21**

**Date Collected: 05/15/18 18:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.0687	U	0.0944	0.0946	1.00	0.159	pCi/L	05/25/18 09:41	06/20/18 06:02	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					05/25/18 09:41	06/20/18 06:02	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.760		0.286	0.294	1.00	0.385	pCi/L	05/25/18 10:10	06/15/18 09:34	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	107		40 - 110					05/25/18 10:10	06/15/18 09:34	1
Y Carrier	89.0		40 - 110					05/25/18 10:10	06/15/18 09:34	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.829		0.301	0.309	5.00	0.385	pCi/L		06/28/18 12:54	1

## Definitions/Glossary

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

TestAmerica Job ID: 400-153840-2  
SDG: Gorgas Ash Pond 1151

### Qualifiers

#### Rad

Qualifier	Qualifier Description
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.
α	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 Gorgas

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11766 MW-6S**

**Lab Sample ID: 400-153840-1**

**Date Collected: 05/14/18 14:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367507	05/25/18 11:07	TJT	TAL SL
Total/NA	Analysis	9315		1	371320	06/20/18 08:32	KLS	TAL SL
Total/NA	Prep	PrecSep_0			371429	06/20/18 11:15	JLC	TAL SL
Total/NA	Analysis	9320		1	372340	06/25/18 15:06	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11767 MW-6S DUP**

**Lab Sample ID: 400-153840-2**

**Date Collected: 05/14/18 14:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367507	05/25/18 11:07	TJT	TAL SL
Total/NA	Analysis	9315		1	371320	06/20/18 08:32	KLS	TAL SL
Total/NA	Prep	PrecSep_0			371429	06/20/18 11:15	JLC	TAL SL
Total/NA	Analysis	9320		1	372340	06/25/18 15:06	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11768 MW-6D**

**Lab Sample ID: 400-153840-3**

**Date Collected: 05/14/18 15:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367507	05/25/18 11:07	TJT	TAL SL
Total/NA	Analysis	9315		1	371320	06/20/18 08:32	KLS	TAL SL
Total/NA	Prep	PrecSep_0			371429	06/20/18 11:15	JLC	TAL SL
Total/NA	Analysis	9320		1	372340	06/25/18 15:06	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11769 FB-1**

**Lab Sample ID: 400-153840-4**

**Date Collected: 05/14/18 15:50**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367507	05/25/18 11:07	TJT	TAL SL
Total/NA	Analysis	9315		1	371315	06/20/18 08:36	KLS	TAL SL
Total/NA	Prep	PrecSep_0			371429	06/20/18 11:15	JLC	TAL SL
Total/NA	Analysis	9320		1	372340	06/25/18 15:06	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL



# Lab Chronicle

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

TestAmerica Job ID: 400-153840-2  
SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11770 MW-7**

**Lab Sample ID: 400-153840-5**

**Date Collected: 05/15/18 08:50**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367507	05/25/18 11:07	TJT	TAL SL
Total/NA	Analysis	9315		1	371315	06/20/18 08:36	KLS	TAL SL
Total/NA	Prep	PrecSep_0			371429	06/20/18 11:15	JLC	TAL SL
Total/NA	Analysis	9320		1	372347	06/25/18 15:08	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11771 MW-8**

**Lab Sample ID: 400-153840-6**

**Date Collected: 05/15/18 10:16**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367507	05/25/18 11:07	TJT	TAL SL
Total/NA	Analysis	9315		1	371315	06/20/18 08:36	KLS	TAL SL
Total/NA	Prep	PrecSep_0			371429	06/20/18 11:15	JLC	TAL SL
Total/NA	Analysis	9320		1	372347	06/25/18 15:08	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11772 MW-9**

**Lab Sample ID: 400-153840-7**

**Date Collected: 05/15/18 11:52**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367507	05/25/18 11:07	TJT	TAL SL
Total/NA	Analysis	9315		1	371315	06/20/18 08:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			371429	06/20/18 11:15	JLC	TAL SL
Total/NA	Analysis	9320		1	372347	06/25/18 15:08	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11773 MW-11**

**Lab Sample ID: 400-153840-8**

**Date Collected: 05/15/18 13:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367507	05/25/18 11:07	TJT	TAL SL
Total/NA	Analysis	9315		1	371315	06/20/18 08:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			371429	06/20/18 11:15	JLC	TAL SL
Total/NA	Analysis	9320		1	372347	06/25/18 15:08	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11774 MW-12**

**Lab Sample ID: 400-153840-9**

**Date Collected: 05/15/18 15:30**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367507	05/25/18 11:07	TJT	TAL SL
Total/NA	Analysis	9315		1	371315	06/20/18 08:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			371429	06/20/18 11:15	JLC	TAL SL
Total/NA	Analysis	9320		1	372347	06/25/18 15:08	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11775 MW-13**

**Lab Sample ID: 400-153840-10**

**Date Collected: 05/15/18 16:51**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367507	05/25/18 11:07	TJT	TAL SL
Total/NA	Analysis	9315		1	371315	06/20/18 08:38	KLS	TAL SL
Total/NA	Prep	PrecSep_0			371429	06/20/18 11:15	JLC	TAL SL
Total/NA	Analysis	9320		1	372347	06/25/18 15:08	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11776 MW-13 DUP**

**Lab Sample ID: 400-153840-11**

**Date Collected: 05/15/18 16:51**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371316	06/20/18 05:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370621	06/15/18 09:31	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11777 MW-14**

**Lab Sample ID: 400-153840-12**

**Date Collected: 05/16/18 09:44**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371316	06/20/18 05:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370621	06/15/18 09:32	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-153840-2  
SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11778 MW-16D**

**Lab Sample ID: 400-153840-13**

**Date Collected: 05/16/18 11:27**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371316	06/20/18 05:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370621	06/15/18 09:32	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11779 MW-18**

**Lab Sample ID: 400-153840-14**

**Date Collected: 05/16/18 13:02**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371316	06/20/18 05:58	RTM	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370621	06/15/18 09:32	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11780 MW-19**

**Lab Sample ID: 400-153840-15**

**Date Collected: 05/16/18 14:22**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371320	06/20/18 06:02	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370621	06/15/18 09:32	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11781 FB-2**

**Lab Sample ID: 400-153840-16**

**Date Collected: 05/16/18 15:15**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371320	06/20/18 06:02	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370621	06/15/18 09:32	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11782 MW-2**

**Lab Sample ID: 400-153840-17**

**Date Collected: 05/16/18 15:47**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371320	06/20/18 06:02	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370621	06/15/18 09:33	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11783 EB-1**

**Lab Sample ID: 400-153840-18**

**Date Collected: 05/16/18 16:25**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371320	06/20/18 06:02	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370621	06/15/18 09:33	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11763 MW-17**

**Lab Sample ID: 400-153840-19**

**Date Collected: 05/15/18 11:55**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371320	06/20/18 06:02	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370621	06/15/18 09:33	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

**Client Sample ID: AY11764 MW-21**

**Lab Sample ID: 400-153840-20**

**Date Collected: 05/15/18 14:40**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371320	06/20/18 06:02	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370621	06/15/18 09:33	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-153840-2  
SDG: Gorgas Ash Pond 1151

**Client Sample ID: AY11765 MW-15**

**Lab Sample ID: 400-153840-21**

**Date Collected: 05/15/18 18:20**

**Matrix: Water**

**Date Received: 05/18/18 09:10**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			367440	05/25/18 09:41	TJT	TAL SL
Total/NA	Analysis	9315		1	371320	06/20/18 06:02	KLS	TAL SL
Total/NA	Prep	PrecSep_0			367445	05/25/18 10:10	TJT	TAL SL
Total/NA	Analysis	9320		1	370622	06/15/18 09:34	ALS	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	373042	06/28/18 12:54	RTM	TAL SL

#### Laboratory References:

TAL SL = 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 Gorgas

TestAmerica Job ID: 400-153840-2  
SDG: Gorgas Ash Pond 1151

## Rad

### Prep Batch: 367440

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-11	AY11776 MW-13 DUP	Total/NA	Water	PrecSep-21	
400-153840-12	AY11777 MW-14	Total/NA	Water	PrecSep-21	
400-153840-13	AY11778 MW-16D	Total/NA	Water	PrecSep-21	
400-153840-14	AY11779 MW-18	Total/NA	Water	PrecSep-21	
400-153840-15	AY11780 MW-19	Total/NA	Water	PrecSep-21	
400-153840-16	AY11781 FB-2	Total/NA	Water	PrecSep-21	
400-153840-17	AY11782 MW-2	Total/NA	Water	PrecSep-21	
400-153840-18	AY11783 EB-1	Total/NA	Water	PrecSep-21	
400-153840-19	AY11763 MW-17	Total/NA	Water	PrecSep-21	
400-153840-20	AY11764 MW-21	Total/NA	Water	PrecSep-21	
400-153840-21	AY11765 MW-15	Total/NA	Water	PrecSep-21	
MB 160-367440/18-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-367440/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-153840-14 DU	AY11779 MW-18	Total/NA	Water	PrecSep-21	

### Prep Batch: 367445

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-11	AY11776 MW-13 DUP	Total/NA	Water	PrecSep_0	
400-153840-12	AY11777 MW-14	Total/NA	Water	PrecSep_0	
400-153840-13	AY11778 MW-16D	Total/NA	Water	PrecSep_0	
400-153840-14	AY11779 MW-18	Total/NA	Water	PrecSep_0	
400-153840-15	AY11780 MW-19	Total/NA	Water	PrecSep_0	
400-153840-16	AY11781 FB-2	Total/NA	Water	PrecSep_0	
400-153840-17	AY11782 MW-2	Total/NA	Water	PrecSep_0	
400-153840-18	AY11783 EB-1	Total/NA	Water	PrecSep_0	
400-153840-19	AY11763 MW-17	Total/NA	Water	PrecSep_0	
400-153840-20	AY11764 MW-21	Total/NA	Water	PrecSep_0	
400-153840-21	AY11765 MW-15	Total/NA	Water	PrecSep_0	
MB 160-367445/18-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-367445/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-153840-14 DU	AY11779 MW-18	Total/NA	Water	PrecSep_0	

### Prep Batch: 367507

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-1	AY11766 MW-6S	Total/NA	Water	PrecSep-21	
400-153840-2	AY11767 MW-6S DUP	Total/NA	Water	PrecSep-21	
400-153840-3	AY11768 MW-6D	Total/NA	Water	PrecSep-21	
400-153840-4	AY11769 FB-1	Total/NA	Water	PrecSep-21	
400-153840-5	AY11770 MW-7	Total/NA	Water	PrecSep-21	
400-153840-6	AY11771 MW-8	Total/NA	Water	PrecSep-21	
400-153840-7	AY11772 MW-9	Total/NA	Water	PrecSep-21	
400-153840-8	AY11773 MW-11	Total/NA	Water	PrecSep-21	
400-153840-9	AY11774 MW-12	Total/NA	Water	PrecSep-21	
400-153840-10	AY11775 MW-13	Total/NA	Water	PrecSep-21	
MB 160-367507/19-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-367507/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-153840-3 DU	AY11768 MW-6D	Total/NA	Water	PrecSep-21	

### Prep Batch: 371429

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-1	AY11766 MW-6S	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-153840-2  
SDG: Gorgas Ash Pond 1151

## Rad (Continued)

### Prep Batch: 371429 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-153840-2	AY11767 MW-6S DUP	Total/NA	Water	PrecSep_0	
400-153840-3	AY11768 MW-6D	Total/NA	Water	PrecSep_0	
400-153840-4	AY11769 FB-1	Total/NA	Water	PrecSep_0	
400-153840-5	AY11770 MW-7	Total/NA	Water	PrecSep_0	
400-153840-6	AY11771 MW-8	Total/NA	Water	PrecSep_0	
400-153840-7	AY11772 MW-9	Total/NA	Water	PrecSep_0	
400-153840-8	AY11773 MW-11	Total/NA	Water	PrecSep_0	
400-153840-9	AY11774 MW-12	Total/NA	Water	PrecSep_0	
400-153840-10	AY11775 MW-13	Total/NA	Water	PrecSep_0	
MB 160-371429/17-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-371429/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-153840-3 DU	AY11768 MW-6D	Total/NA	Water	PrecSep_0	

# QC Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

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

**Lab Sample ID: MB 160-367440/18-A**  
**Matrix: Water**  
**Analysis Batch: 371315**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 367440**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1084	U	0.120	0.120	1.00	0.192	pCi/L	05/25/18 09:41	06/20/18 08:28	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		40 - 110					05/25/18 09:41	06/20/18 08:28	1

**Lab Sample ID: LCS 160-367440/1-A**  
**Matrix: Water**  
**Analysis Batch: 371316**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 367440**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.7	13.83		1.47	1.00	0.158	pCi/L	88	68 - 137
Carrier	LCS %Yield	LCS Qualifier	Limits						
Ba Carrier	103		40 - 110						

**Lab Sample ID: 400-153840-14 DU**  
**Matrix: Water**  
**Analysis Batch: 371320**

**Client Sample ID: AY11779 MW-18**  
**Prep Type: Total/NA**  
**Prep Batch: 367440**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.320		0.1968		0.134	1.00	0.184	pCi/L	0.44	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	97.6		40 - 110							

**Lab Sample ID: MB 160-367507/19-A**  
**Matrix: Water**  
**Analysis Batch: 371315**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 367507**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.1126	U	0.107	0.108	1.00	0.166	pCi/L	05/25/18 11:07	06/20/18 08:38	1
Carrier	MB %Yield	MB Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					05/25/18 11:07	06/20/18 08:38	1

**Lab Sample ID: LCS 160-367507/1-A**  
**Matrix: Water**  
**Analysis Batch: 371320**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 367507**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	15.7	15.52		1.64	1.00	0.178	pCi/L	99	68 - 137

TestAmerica Pensacola



# QC Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

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

**Lab Sample ID: LCS 160-367507/1-A**  
**Matrix: Water**  
**Analysis Batch: 371320**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 367507**

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	101		40 - 110

**Lab Sample ID: 400-153840-3 DU**  
**Matrix: Water**  
**Analysis Batch: 371320**

**Client Sample ID: AY11768 MW-6D**  
**Prep Type: Total/NA**  
**Prep Batch: 367507**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-226	0.344		0.2931		0.147	1.00	0.174	pCi/L	0.17	1

Carrier	DU %Yield	DU Qualifier	Limits
Ba Carrier	109		40 - 110

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

**Lab Sample ID: MB 160-367445/18-A**  
**Matrix: Water**  
**Analysis Batch: 370622**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 367445**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.9892		0.391	0.402	1.00	0.552	pCi/L	05/25/18 10:10	06/15/18 09:34	1

Carrier	MB %Yield	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	82.0		40 - 110	05/25/18 10:10	06/15/18 09:34	1
Y Carrier	71.0		40 - 110	05/25/18 10:10	06/15/18 09:34	1

**Lab Sample ID: LCS 160-367445/1-A**  
**Matrix: Water**  
**Analysis Batch: 370621**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 367445**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	8.23	8.609		1.00	1.00	0.367	pCi/L	105	56 - 140

Carrier	LCS %Yield	LCS Qualifier	Limits
Ba Carrier	103		40 - 110
Y Carrier	84.1		40 - 110

**Lab Sample ID: 400-153840-14 DU**  
**Matrix: Water**  
**Analysis Batch: 370621**

**Client Sample ID: AY11779 MW-18**  
**Prep Type: Total/NA**  
**Prep Batch: 367445**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.718		0.5807		0.316	1.00	0.465	pCi/L	0.21	1

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

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

**Lab Sample ID: 400-153840-14 DU**  
**Matrix: Water**  
**Analysis Batch: 370621**

**Client Sample ID: AY11779 MW-18**  
**Prep Type: Total/NA**  
**Prep Batch: 367445**

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	97.6		40 - 110
Y Carrier	91.6		40 - 110

**Lab Sample ID: MB 160-371429/17-A**  
**Matrix: Water**  
**Analysis Batch: 372347**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 371429**

Analyte	MB MB		Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier								
Radium-228	-0.5368	U G	0.667	0.669	1.00	1.27	pCi/L	06/20/18 11:15	06/25/18 15:08	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	93.8		40 - 110					06/20/18 11:15	06/25/18 15:08	1
Y Carrier	92.3		40 - 110					06/20/18 11:15	06/25/18 15:08	1

**Lab Sample ID: LCS 160-371429/1-A**  
**Matrix: Water**  
**Analysis Batch: 372340**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 371429**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	
									%Rec	Limits
Radium-228	24.8	24.88		2.92	1.00	1.01	pCi/L	100	56 - 140	
Carrier	LCS %Yield	LCS Qualifier	Limits							
Ba Carrier	99.1		40 - 110							
Y Carrier	92.7		40 - 110							

**Lab Sample ID: 400-153840-3 DU**  
**Matrix: Water**  
**Analysis Batch: 372340**

**Client Sample ID: AY11768 MW-6D**  
**Prep Type: Total/NA**  
**Prep Batch: 371429**

Analyte	Sample Sample		DU DU		Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	Limit
	Result	Qual	Result	Qual						
Radium-228	-0.261	U	-0.08605	U G	0.700	1.00	1.27	pCi/L	0.14	1
Carrier	DU %Yield	DU Qualifier	Limits							
Ba Carrier	104		40 - 110							
Y Carrier	97.6		40 - 110							

# QC Sample Results

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-153840-3 DU**  
**Matrix: Water**  
**Analysis Batch: 373042**

**Client Sample ID: AY11768 MW-6D**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	0.0830	U	0.2070	U	0.715	5.00	1.27	pCi/L	0.1	

**Lab Sample ID: 400-153840-14 DU**  
**Matrix: Water**  
**Analysis Batch: 373042**

**Client Sample ID: AY11779 MW-18**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Combined Radium 226 + 228	1.04		0.7775		0.343	5.00	0.465	pCi/L	0.37	



**Chain of Custody Record**



<b>Client Information</b> Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgcopella@southernco.com Project #: 40007143 CCR Site: Gorgas Ash Pond 1151		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): Job #: 153840	
<b>Due Date Requested:</b> TAT Requested (days): Routine PO #: WO #: Project #: SSONW#:		<b>Analysis Requested</b> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N Total Number of Containers:	
<b>Sample Identification</b> Sample ID: AY11765 Sample Date: 5/14/18 Sample Time: 1420 Sample Type (C=Comp, G=grab): G Matrix (W=Water, S=Soil, O=Other, B=Bio, T=Trace, A=Air): Water Preservation Code:		SM 4500 F.C SM 4500 C.L.M SM 4500 S.O.L.E 9315_R4226, 9320_R4228, R228R4228_G.F.P.C	
Special Instructions/Note: 2 MW-6S 2 MW-6S Dup (Sample Duplicate) 4 MW-6D 2 FB-1 (Field Blank) 2 MW-7 2 MW-8 2 MW-9 2 MW-11 2 MW-12 2 MW-13 2 MW-13 Dup (Sample Duplicate) 2 MW-14 2 MW-16D 4 MW-18 2 MW-19 2 FB-2 (Field Blank) 2 MW-2 2 EB-1 (Equipment Blank)		Preservation Codes: A-HCL B-NaOH C-Zn Acetate D-Nitric Acid E-NH4SCl F-MeOH G-Archlor H-Acetic Acid I-Fe J-DI Water K-EDTA L-EDA Other: M-Hexane N-Nitric O2 O-N2O2 P-N2O3 Q-N2SO3 R-N2SO4 S-N2SO4 T-TSP Dodecahydrate U-Acetone V-MCAA W-ph 4.5 Z-other (specify)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months	
<b>Empty Kit Relinquished by:</b> Relinquished by: Sarah Copeland Relinquished by:		<b>Time:</b> Date/Time: 5/18/2018, 0920 Date/Time: Date/Time:	
<b>Relinquished by:</b> Relinquished by:		Received by: [Signature] Date/Time: 5/18/18 0910 Company: APC	
<b>Relinquished by:</b> Relinquished by:		Received by: [Signature] Date/Time: 5/18/18 0910 Company: APC	
<b>Custody Seals Intact:</b> Custody Seal No.: Δ Yes Δ No		Cooler Temperature (°C and Other Remarks): 17°C JL 8	





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

## Chain of Custody Record



<b>Client Information</b> Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Callera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgoppela@southernco.com Project Name: CCR Site: Gorgas Ash Pond 1151		<b>Lab PM:</b> Whitmire, Cheyenne R E-Mail: Cheyenne.whitmire@testamericainc.com		<b>Carrier Tracking Note(s)</b> COC No: 400-56525-24537.1 Page: Page 2 of 2 Job #: 153840									
<b>Due Date Requested:</b> TAT Requested (days): Routine PO #: WO #: Project #: 40007143 SSOW#:		<b>Analysis Requested</b> 9315_R4226_9320_R4228_R4228Ra228_GFPc SM 4500 SO4_m SM 4500 Cl_m SM 4500 F_c Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> N Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> N											
<b>Sample Identification</b> AY11763 AY11764 AY11765		<b>Sample Date</b> 5/15/18 5/15/18 5/15/18		<b>Sample Time</b> 1155 1440 1820		<b>Sample Type (C=Comp, G=grab)</b> G G G		<b>Matrix (Weather, Sealed, On-site/Off, BT=Trace, A=Air)</b> Water Water Water		<b>Preservation Code:</b> MW-17 MW-21 MW-15		<b>Special Instructions/Note:</b>	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		<b>Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)</b> <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months				<b>Special Instructions/QC Requirements:</b>		<b>Empty Kit Relinquished by:</b> Relinquished by: Sarah Copeland Relinquished by: _____ Relinquished by: _____		<b>Method of Shipment:</b> Date/Time: 5/18/18 0930 Received by: _____ Company: APC Date/Time: _____ Received by: _____ Company: _____ Date/Time: _____ Received by: _____ Company: _____			
<b>Custody Seals Intact:</b> <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No		<b>Custody Seal No.:</b>		<b>Cooler Temperature(s) °C and Other Remarks:</b>									



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-153840-2  
SDG Number: Gorgas Ash Pond 1151

**Login Number: 153840**

**List Number: 1**

**Creator: Whitmire, Cheyenne R**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	1.7°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-153840-2  
SDG Number: Gorgas Ash Pond 1151

**Login Number: 153840**  
**List Number: 2**  
**Creator: Press, Nicholas B**

**List Source: TestAmerica St. Louis**  
**List Creation: 05/22/18 10:05 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	12,12
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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-153840-2  
 SDG: Gorgas Ash Pond 1151

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	State Program	9	2510	06-30-18
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-18-14	09-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-18

## Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18 *
ANAB	DoD ELAP		L2305	04-06-19
Arizona	State Program	9	AZ0813	12-08-18
California	State Program	9	2886	06-30-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18 *
Illinois	NELAP	5	200023	11-30-18
Iowa	State Program	7	373	12-01-18
Kansas	NELAP	7	E-10236	10-31-18
Kentucky (DW)	State Program	4	90125	12-31-18
Louisiana	NELAP	6	04080	06-30-18 *
Louisiana (DW)	NELAP	6	LA180017	12-31-18
Maryland	State Program	3	310	09-30-18
Michigan	State Program	5	9005	06-30-18 *
Missouri	State Program	7	780	06-30-18 *

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



# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-153840-2  
SDG: Gorgas Ash Pond 1151

## Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Nevada	State Program	9	MO000542018-1	07-31-18 *
New Jersey	NELAP	2	MO002	06-30-18 *
New York	NELAP	2	11616	03-31-19
North Dakota	State Program	8	R207	06-30-18 *
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18 *
Pennsylvania	NELAP	3	68-00540	02-28-19
South Carolina	State Program	4	85002001	06-30-18 *
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-19
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18 *

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

TestAmerica Pensacola

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-2	5/16/2018 15:30	635.5	uS/cm	Conductivity
GS-AP-MW-2	5/16/2018 15:30	146.31	ft	Depth to Water Detail
GS-AP-MW-2	5/16/2018 15:30	0.83	mg/L	DO
GS-AP-MW-2	5/16/2018 15:30	-38.6	mv	Oxidation Reduction Potention
GS-AP-MW-2	5/16/2018 15:30	9.07	pH	pH
GS-AP-MW-2	5/16/2018 15:30	19.33	C	Temperature
GS-AP-MW-2	5/16/2018 15:30	1.3	NTU	Turbidity
GS-AP-MW-2	5/16/2018 15:35	631.9	uS/cm	Conductivity
GS-AP-MW-2	5/16/2018 15:35	146.5	ft	Depth to Water Detail
GS-AP-MW-2	5/16/2018 15:35	0.37	mg/L	DO
GS-AP-MW-2	5/16/2018 15:35	-38.8	mv	Oxidation Reduction Potention
GS-AP-MW-2	5/16/2018 15:35	9.23	pH	pH
GS-AP-MW-2	5/16/2018 15:35	18.92	C	Temperature
GS-AP-MW-2	5/16/2018 15:35	1.45	NTU	Turbidity
GS-AP-MW-2	5/16/2018 15:40	630.2	uS/cm	Conductivity
GS-AP-MW-2	5/16/2018 15:40	146.55	ft	Depth to Water Detail
GS-AP-MW-2	5/16/2018 15:40	0.3	mg/L	DO
GS-AP-MW-2	5/16/2018 15:40	-40.7	mv	Oxidation Reduction Potention
GS-AP-MW-2	5/16/2018 15:40	9.27	pH	pH
GS-AP-MW-2	5/16/2018 15:40	18.9	C	Temperature
GS-AP-MW-2	5/16/2018 15:40	1.38	NTU	Turbidity
GS-AP-MW-2	5/16/2018 15:45	628.6	uS/cm	Conductivity
GS-AP-MW-2	5/16/2018 15:45	146.57	ft	Depth to Water Detail
GS-AP-MW-2	5/16/2018 15:45	0.3	mg/L	DO
GS-AP-MW-2	5/16/2018 15:45	-41.8	mv	Oxidation Reduction Potention
GS-AP-MW-2	5/16/2018 15:45	9.28	pH	pH
GS-AP-MW-2	5/16/2018 15:45	18.98	C	Temperature
GS-AP-MW-2	5/16/2018 15:45	1.7	NTU	Turbidity

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-6D	5/14/2018 15:01	502.3	uS/cm	Conductivity
GS-AP-MW-6D	5/14/2018 15:01	12.74	ft	Depth to Water Detail
GS-AP-MW-6D	5/14/2018 15:01	0.12	mg/L	DO
GS-AP-MW-6D	5/14/2018 15:01	-165.9	mv	Oxidation Reduction Potention
GS-AP-MW-6D	5/14/2018 15:01	7.39	pH	pH
GS-AP-MW-6D	5/14/2018 15:01	17.85	C	Temperature
GS-AP-MW-6D	5/14/2018 15:01	0.62	NTU	Turbidity
GS-AP-MW-6D	5/14/2018 15:06	503.5	uS/cm	Conductivity
GS-AP-MW-6D	5/14/2018 15:06	12.75	ft	Depth to Water Detail
GS-AP-MW-6D	5/14/2018 15:06	0.1	mg/L	DO
GS-AP-MW-6D	5/14/2018 15:06	-163.4	mv	Oxidation Reduction Potention
GS-AP-MW-6D	5/14/2018 15:06	7.38	pH	pH
GS-AP-MW-6D	5/14/2018 15:06	17.72	C	Temperature
GS-AP-MW-6D	5/14/2018 15:06	0.21	NTU	Turbidity
GS-AP-MW-6D	5/14/2018 15:11	505.8	uS/cm	Conductivity
GS-AP-MW-6D	5/14/2018 15:11	12.75	ft	Depth to Water Detail
GS-AP-MW-6D	5/14/2018 15:11	0.11	mg/L	DO
GS-AP-MW-6D	5/14/2018 15:11	-159.6	mv	Oxidation Reduction Potention
GS-AP-MW-6D	5/14/2018 15:11	7.37	pH	pH
GS-AP-MW-6D	5/14/2018 15:11	17.83	C	Temperature
GS-AP-MW-6D	5/14/2018 15:11	0.17	NTU	Turbidity
GS-AP-MW-6D	5/14/2018 15:16	504.7	uS/cm	Conductivity
GS-AP-MW-6D	5/14/2018 15:16	12.75	ft	Depth to Water Detail
GS-AP-MW-6D	5/14/2018 15:16	0.12	mg/L	DO
GS-AP-MW-6D	5/14/2018 15:16	-156.6	mv	Oxidation Reduction Potention
GS-AP-MW-6D	5/14/2018 15:16	7.36	pH	pH
GS-AP-MW-6D	5/14/2018 15:16	17.72	C	Temperature
GS-AP-MW-6D	5/14/2018 15:16	0.27	NTU	Turbidity

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-6S	5/14/2018 13:18	697.3	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 13:18	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 13:18	2.92	mg/L	DO
GS-AP-MW-6S	5/14/2018 13:18	-120.5	mv	Oxidation Reduction Potention
GS-AP-MW-6S	5/14/2018 13:18	6.77	pH	pH
GS-AP-MW-6S	5/14/2018 13:18	17.33	C	Temperature
GS-AP-MW-6S	5/14/2018 13:18	2.92	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 13:23	698.7	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 13:23	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 13:23	2.5	mg/L	DO
GS-AP-MW-6S	5/14/2018 13:23	-118.1	mv	Oxidation Reduction Potention
GS-AP-MW-6S	5/14/2018 13:23	6.82	pH	pH
GS-AP-MW-6S	5/14/2018 13:23	17.15	C	Temperature
GS-AP-MW-6S	5/14/2018 13:23	2.74	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 13:28	700.5	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 13:28	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 13:28	2.14	mg/L	DO
GS-AP-MW-6S	5/14/2018 13:28	-115.5	mv	Oxidation Reduction Potention
GS-AP-MW-6S	5/14/2018 13:28	6.83	pH	pH
GS-AP-MW-6S	5/14/2018 13:28	17.19	C	Temperature
GS-AP-MW-6S	5/14/2018 13:28	2.72	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 13:33	701.6	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 13:33	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 13:33	1.95	mg/L	DO
GS-AP-MW-6S	5/14/2018 13:33	-113.1	mv	Oxidation Reduction Potention
GS-AP-MW-6S	5/14/2018 13:33	6.84	pH	pH
GS-AP-MW-6S	5/14/2018 13:33	17.12	C	Temperature
GS-AP-MW-6S	5/14/2018 13:33	1.34	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 13:38	703.2	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 13:38	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 13:38	1.66	mg/L	DO
GS-AP-MW-6S	5/14/2018 13:38	-110.9	mv	Oxidation Reduction Potention
GS-AP-MW-6S	5/14/2018 13:38	6.84	pH	pH
GS-AP-MW-6S	5/14/2018 13:38	17.14	C	Temperature
GS-AP-MW-6S	5/14/2018 13:38	2.12	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 13:43	701.5	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 13:43	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 13:43	1.41	mg/L	DO
GS-AP-MW-6S	5/14/2018 13:43	-109.2	mv	Oxidation Reduction Potention
GS-AP-MW-6S	5/14/2018 13:43	6.85	pH	pH
GS-AP-MW-6S	5/14/2018 13:43	17.19	C	Temperature
GS-AP-MW-6S	5/14/2018 13:43	3.32	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 13:48	701.9	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 13:48	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 13:48	1.22	mg/L	DO

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-6S	5/14/2018 13:48	-107.1	mv	Oxidation Reduction Potential
GS-AP-MW-6S	5/14/2018 13:48	6.85	pH	pH
GS-AP-MW-6S	5/14/2018 13:48	17.14	C	Temperature
GS-AP-MW-6S	5/14/2018 13:48	2.38	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 13:53	699.9	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 13:53	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 13:53	1.05	mg/L	DO
GS-AP-MW-6S	5/14/2018 13:53	-104.4	mv	Oxidation Reduction Potential
GS-AP-MW-6S	5/14/2018 13:53	6.85	pH	pH
GS-AP-MW-6S	5/14/2018 13:53	17.05	C	Temperature
GS-AP-MW-6S	5/14/2018 13:53	2.24	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 13:58	700	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 13:58	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 13:58	0.91	mg/L	DO
GS-AP-MW-6S	5/14/2018 13:58	-101.9	mv	Oxidation Reduction Potential
GS-AP-MW-6S	5/14/2018 13:58	6.84	pH	pH
GS-AP-MW-6S	5/14/2018 13:58	17.03	C	Temperature
GS-AP-MW-6S	5/14/2018 13:58	2.25	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 14:03	699.3	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 14:03	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 14:03	0.78	mg/L	DO
GS-AP-MW-6S	5/14/2018 14:03	-99.8	mv	Oxidation Reduction Potential
GS-AP-MW-6S	5/14/2018 14:03	6.84	pH	pH
GS-AP-MW-6S	5/14/2018 14:03	17.14	C	Temperature
GS-AP-MW-6S	5/14/2018 14:03	1.99	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 14:08	695.2	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 14:08	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 14:08	0.66	mg/L	DO
GS-AP-MW-6S	5/14/2018 14:08	-97.5	mv	Oxidation Reduction Potential
GS-AP-MW-6S	5/14/2018 14:08	6.84	pH	pH
GS-AP-MW-6S	5/14/2018 14:08	17.21	C	Temperature
GS-AP-MW-6S	5/14/2018 14:08	1.94	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 14:13	691.5	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 14:13	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 14:13	0.56	mg/L	DO
GS-AP-MW-6S	5/14/2018 14:13	-94.6	mv	Oxidation Reduction Potential
GS-AP-MW-6S	5/14/2018 14:13	6.83	pH	pH
GS-AP-MW-6S	5/14/2018 14:13	17.19	C	Temperature
GS-AP-MW-6S	5/14/2018 14:13	2.02	NTU	Turbidity
GS-AP-MW-6S	5/14/2018 14:18	689.8	uS/cm	Conductivity
GS-AP-MW-6S	5/14/2018 14:18	18.04	ft	Depth to Water Detail
GS-AP-MW-6S	5/14/2018 14:18	0.5	mg/L	DO
GS-AP-MW-6S	5/14/2018 14:18	-90.9	mv	Oxidation Reduction Potential
GS-AP-MW-6S	5/14/2018 14:18	6.82	pH	pH
GS-AP-MW-6S	5/14/2018 14:18	17.07	C	Temperature

**Alabama Power Company  
Plant Gorgas Ash Pond**

<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-6S	5/14/2018 14:18	2.03	NTU	Turbidity

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-7	5/15/2018 8:33	547	uS/cm	Conductivity
GS-AP-MW-7	5/15/2018 8:33	9.09	ft	Depth to Water Detail
GS-AP-MW-7	5/15/2018 8:33	0.63	mg/L	DO
GS-AP-MW-7	5/15/2018 8:33	-235.8	mv	Oxidation Reduction Potention
GS-AP-MW-7	5/15/2018 8:33	7.74	pH	pH
GS-AP-MW-7	5/15/2018 8:33	19.32	C	Temperature
GS-AP-MW-7	5/15/2018 8:33	1.34	NTU	Turbidity
GS-AP-MW-7	5/15/2018 8:38	548.3	uS/cm	Conductivity
GS-AP-MW-7	5/15/2018 8:38	9.11	ft	Depth to Water Detail
GS-AP-MW-7	5/15/2018 8:38	0.51	mg/L	DO
GS-AP-MW-7	5/15/2018 8:38	-215.5	mv	Oxidation Reduction Potention
GS-AP-MW-7	5/15/2018 8:38	7.7	pH	pH
GS-AP-MW-7	5/15/2018 8:38	19.24	C	Temperature
GS-AP-MW-7	5/15/2018 8:38	0.5	NTU	Turbidity
GS-AP-MW-7	5/15/2018 8:43	548.4	uS/cm	Conductivity
GS-AP-MW-7	5/15/2018 8:43	9.12	ft	Depth to Water Detail
GS-AP-MW-7	5/15/2018 8:43	0.43	mg/L	DO
GS-AP-MW-7	5/15/2018 8:43	-208	mv	Oxidation Reduction Potention
GS-AP-MW-7	5/15/2018 8:43	7.7	pH	pH
GS-AP-MW-7	5/15/2018 8:43	19.23	C	Temperature
GS-AP-MW-7	5/15/2018 8:43	0.46	NTU	Turbidity
GS-AP-MW-7	5/15/2018 8:48	548.6	uS/cm	Conductivity
GS-AP-MW-7	5/15/2018 8:48	9.13	ft	Depth to Water Detail
GS-AP-MW-7	5/15/2018 8:48	0.42	mg/L	DO
GS-AP-MW-7	5/15/2018 8:48	-200.1	mv	Oxidation Reduction Potention
GS-AP-MW-7	5/15/2018 8:48	7.69	pH	pH
GS-AP-MW-7	5/15/2018 8:48	19.32	C	Temperature
GS-AP-MW-7	5/15/2018 8:48	0.34	NTU	Turbidity



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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-8	5/15/2018 9:58	129.6	uS/cm	Conductivity
GS-AP-MW-8	5/15/2018 9:58	44.65	ft	Depth to Water Detail
GS-AP-MW-8	5/15/2018 9:58	0.89	mg/L	DO
GS-AP-MW-8	5/15/2018 9:58	131.4	mv	Oxidation Reduction Potention
GS-AP-MW-8	5/15/2018 9:58	5.85	pH	pH
GS-AP-MW-8	5/15/2018 9:58	20.93	C	Temperature
GS-AP-MW-8	5/15/2018 9:58	3.63	NTU	Turbidity
GS-AP-MW-8	5/15/2018 10:03	129.4	uS/cm	Conductivity
GS-AP-MW-8	5/15/2018 10:03	44.83	ft	Depth to Water Detail
GS-AP-MW-8	5/15/2018 10:03	0.79	mg/L	DO
GS-AP-MW-8	5/15/2018 10:03	131.1	mv	Oxidation Reduction Potention
GS-AP-MW-8	5/15/2018 10:03	5.85	pH	pH
GS-AP-MW-8	5/15/2018 10:03	20.79	C	Temperature
GS-AP-MW-8	5/15/2018 10:03	2.35	NTU	Turbidity
GS-AP-MW-8	5/15/2018 10:08	129.1	uS/cm	Conductivity
GS-AP-MW-8	5/15/2018 10:08	44.96	ft	Depth to Water Detail
GS-AP-MW-8	5/15/2018 10:08	0.74	mg/L	DO
GS-AP-MW-8	5/15/2018 10:08	130.3	mv	Oxidation Reduction Potention
GS-AP-MW-8	5/15/2018 10:08	5.84	pH	pH
GS-AP-MW-8	5/15/2018 10:08	20.75	C	Temperature
GS-AP-MW-8	5/15/2018 10:08	2.06	NTU	Turbidity
GS-AP-MW-8	5/15/2018 10:13	129.1	uS/cm	Conductivity
GS-AP-MW-8	5/15/2018 10:13	45.05	ft	Depth to Water Detail
GS-AP-MW-8	5/15/2018 10:13	0.69	mg/L	DO
GS-AP-MW-8	5/15/2018 10:13	129.3	mv	Oxidation Reduction Potention
GS-AP-MW-8	5/15/2018 10:13	5.84	pH	pH
GS-AP-MW-8	5/15/2018 10:13	20.79	C	Temperature
GS-AP-MW-8	5/15/2018 10:13	1.97	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-9	5/15/2018 11:24	636.9	uS/cm	Conductivity
GS-AP-MW-9	5/15/2018 11:24	45.55	ft	Depth to Water Detail
GS-AP-MW-9	5/15/2018 11:24	0.48	mg/L	DO
GS-AP-MW-9	5/15/2018 11:24	-127.2	mv	Oxidation Reduction Potention
GS-AP-MW-9	5/15/2018 11:24	6.82	pH	pH
GS-AP-MW-9	5/15/2018 11:24	20.64	C	Temperature
GS-AP-MW-9	5/15/2018 11:24	1.79	NTU	Turbidity
GS-AP-MW-9	5/15/2018 11:29	640.4	uS/cm	Conductivity
GS-AP-MW-9	5/15/2018 11:29	45.81	ft	Depth to Water Detail
GS-AP-MW-9	5/15/2018 11:29	0.33	mg/L	DO
GS-AP-MW-9	5/15/2018 11:29	-106.4	mv	Oxidation Reduction Potention
GS-AP-MW-9	5/15/2018 11:29	6.79	pH	pH
GS-AP-MW-9	5/15/2018 11:29	20.49	C	Temperature
GS-AP-MW-9	5/15/2018 11:29	0.88	NTU	Turbidity
GS-AP-MW-9	5/15/2018 11:34	638.3	uS/cm	Conductivity
GS-AP-MW-9	5/15/2018 11:34	46.05	ft	Depth to Water Detail
GS-AP-MW-9	5/15/2018 11:34	0.29	mg/L	DO
GS-AP-MW-9	5/15/2018 11:34	-95	mv	Oxidation Reduction Potention
GS-AP-MW-9	5/15/2018 11:34	6.78	pH	pH
GS-AP-MW-9	5/15/2018 11:34	20.53	C	Temperature
GS-AP-MW-9	5/15/2018 11:34	0.79	NTU	Turbidity
GS-AP-MW-9	5/15/2018 11:39	637	uS/cm	Conductivity
GS-AP-MW-9	5/15/2018 11:39	46.24	ft	Depth to Water Detail
GS-AP-MW-9	5/15/2018 11:39	0.28	mg/L	DO
GS-AP-MW-9	5/15/2018 11:39	-86.7	mv	Oxidation Reduction Potention
GS-AP-MW-9	5/15/2018 11:39	6.78	pH	pH
GS-AP-MW-9	5/15/2018 11:39	20.37	C	Temperature
GS-AP-MW-9	5/15/2018 11:39	0.76	NTU	Turbidity
GS-AP-MW-9	5/15/2018 11:44	635.3	uS/cm	Conductivity
GS-AP-MW-9	5/15/2018 11:44	46.34	ft	Depth to Water Detail
GS-AP-MW-9	5/15/2018 11:44	0.27	mg/L	DO
GS-AP-MW-9	5/15/2018 11:44	-80.3	mv	Oxidation Reduction Potention
GS-AP-MW-9	5/15/2018 11:44	6.78	pH	pH
GS-AP-MW-9	5/15/2018 11:44	20.18	C	Temperature
GS-AP-MW-9	5/15/2018 11:44	0.44	NTU	Turbidity
GS-AP-MW-9	5/15/2018 11:49	634.6	uS/cm	Conductivity
GS-AP-MW-9	5/15/2018 11:49	46.4	ft	Depth to Water Detail
GS-AP-MW-9	5/15/2018 11:49	0.3	mg/L	DO
GS-AP-MW-9	5/15/2018 11:49	-76.3	mv	Oxidation Reduction Potention
GS-AP-MW-9	5/15/2018 11:49	6.78	pH	pH
GS-AP-MW-9	5/15/2018 11:49	20.29	C	Temperature
GS-AP-MW-9	5/15/2018 11:49	0.51	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-11	5/15/2018 12:51	419.2	uS/cm	Conductivity
GS-AP-MW-11	5/15/2018 12:51	87.74	ft	Depth to Water Detail
GS-AP-MW-11	5/15/2018 12:51	0.64	mg/L	DO
GS-AP-MW-11	5/15/2018 12:51	-14.7	mv	Oxidation Reduction Potention
GS-AP-MW-11	5/15/2018 12:51	7.04	pH	pH
GS-AP-MW-11	5/15/2018 12:51	18.97	C	Temperature
GS-AP-MW-11	5/15/2018 12:51	0.41	NTU	Turbidity
GS-AP-MW-11	5/15/2018 12:56	420	uS/cm	Conductivity
GS-AP-MW-11	5/15/2018 12:56	88.14	ft	Depth to Water Detail
GS-AP-MW-11	5/15/2018 12:56	0.38	mg/L	DO
GS-AP-MW-11	5/15/2018 12:56	-8.2	mv	Oxidation Reduction Potention
GS-AP-MW-11	5/15/2018 12:56	7.02	pH	pH
GS-AP-MW-11	5/15/2018 12:56	18.91	C	Temperature
GS-AP-MW-11	5/15/2018 12:56	0.23	NTU	Turbidity
GS-AP-MW-11	5/15/2018 13:01	418.8	uS/cm	Conductivity
GS-AP-MW-11	5/15/2018 13:01	88.51	ft	Depth to Water Detail
GS-AP-MW-11	5/15/2018 13:01	0.3	mg/L	DO
GS-AP-MW-11	5/15/2018 13:01	-5.9	mv	Oxidation Reduction Potention
GS-AP-MW-11	5/15/2018 13:01	7.02	pH	pH
GS-AP-MW-11	5/15/2018 13:01	18.78	C	Temperature
GS-AP-MW-11	5/15/2018 13:01	0.23	NTU	Turbidity
GS-AP-MW-11	5/15/2018 13:06	419	uS/cm	Conductivity
GS-AP-MW-11	5/15/2018 13:06	88.76	ft	Depth to Water Detail
GS-AP-MW-11	5/15/2018 13:06	0.28	mg/L	DO
GS-AP-MW-11	5/15/2018 13:06	-5.3	mv	Oxidation Reduction Potention
GS-AP-MW-11	5/15/2018 13:06	7.01	pH	pH
GS-AP-MW-11	5/15/2018 13:06	18.75	C	Temperature
GS-AP-MW-11	5/15/2018 13:06	0.2	NTU	Turbidity
GS-AP-MW-11	5/15/2018 13:11	418.9	uS/cm	Conductivity
GS-AP-MW-11	5/15/2018 13:11	88.91	ft	Depth to Water Detail
GS-AP-MW-11	5/15/2018 13:11	0.27	mg/L	DO
GS-AP-MW-11	5/15/2018 13:11	-6.4	mv	Oxidation Reduction Potention
GS-AP-MW-11	5/15/2018 13:11	7.01	pH	pH
GS-AP-MW-11	5/15/2018 13:11	18.75	C	Temperature
GS-AP-MW-11	5/15/2018 13:11	0.18	NTU	Turbidity
GS-AP-MW-11	5/15/2018 13:16	419.6	uS/cm	Conductivity
GS-AP-MW-11	5/15/2018 13:16	89.03	ft	Depth to Water Detail
GS-AP-MW-11	5/15/2018 13:16	0.26	mg/L	DO
GS-AP-MW-11	5/15/2018 13:16	-9.6	mv	Oxidation Reduction Potention
GS-AP-MW-11	5/15/2018 13:16	7.01	pH	pH
GS-AP-MW-11	5/15/2018 13:16	18.7	C	Temperature
GS-AP-MW-11	5/15/2018 13:16	0.17	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-12	5/15/2018 14:17	389.4	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 14:17	70.9	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 14:17	0.93	mg/L	DO
GS-AP-MW-12	5/15/2018 14:17	-183.2	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 14:17	7.71	pH	pH
GS-AP-MW-12	5/15/2018 14:17	22.09	C	Temperature
GS-AP-MW-12	5/15/2018 14:17	0.63	NTU	Turbidity
GS-AP-MW-12	5/15/2018 14:22	393.3	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 14:22	71.37	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 14:22	0.65	mg/L	DO
GS-AP-MW-12	5/15/2018 14:22	-152.4	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 14:22	7.72	pH	pH
GS-AP-MW-12	5/15/2018 14:22	22.18	C	Temperature
GS-AP-MW-12	5/15/2018 14:22	0.72	NTU	Turbidity
GS-AP-MW-12	5/15/2018 14:27	395.6	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 14:27	71.96	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 14:27	0.45	mg/L	DO
GS-AP-MW-12	5/15/2018 14:27	-160.8	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 14:27	7.73	pH	pH
GS-AP-MW-12	5/15/2018 14:27	21.75	C	Temperature
GS-AP-MW-12	5/15/2018 14:27	0.57	NTU	Turbidity
GS-AP-MW-12	5/15/2018 14:32	395.7	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 14:32	72.41	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 14:32	0.35	mg/L	DO
GS-AP-MW-12	5/15/2018 14:32	-166.8	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 14:32	7.75	pH	pH
GS-AP-MW-12	5/15/2018 14:32	21.63	C	Temperature
GS-AP-MW-12	5/15/2018 14:32	0.63	NTU	Turbidity
GS-AP-MW-12	5/15/2018 14:37	395.5	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 14:37	72.78	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 14:37	0.33	mg/L	DO
GS-AP-MW-12	5/15/2018 14:37	-169.6	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 14:37	7.76	pH	pH
GS-AP-MW-12	5/15/2018 14:37	21.02	C	Temperature
GS-AP-MW-12	5/15/2018 14:37	0.55	NTU	Turbidity
GS-AP-MW-12	5/15/2018 14:42	396.3	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 14:42	73.16	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 14:42	0.32	mg/L	DO
GS-AP-MW-12	5/15/2018 14:42	-172.5	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 14:42	7.76	pH	pH
GS-AP-MW-12	5/15/2018 14:42	21.35	C	Temperature
GS-AP-MW-12	5/15/2018 14:42	0.58	NTU	Turbidity
GS-AP-MW-12	5/15/2018 14:47	395.6	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 14:47	73.47	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 14:47	0.33	mg/L	DO

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-12	5/15/2018 14:47	-173.1	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 14:47	7.76	pH	pH
GS-AP-MW-12	5/15/2018 14:47	21.24	C	Temperature
GS-AP-MW-12	5/15/2018 14:47	0.56	NTU	Turbidity
GS-AP-MW-12	5/15/2018 14:52	395.2	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 14:52	73.8	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 14:52	0.34	mg/L	DO
GS-AP-MW-12	5/15/2018 14:52	-173.6	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 14:52	7.76	pH	pH
GS-AP-MW-12	5/15/2018 14:52	21.34	C	Temperature
GS-AP-MW-12	5/15/2018 14:52	0.6	NTU	Turbidity
GS-AP-MW-12	5/15/2018 14:57	394.8	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 14:57	73.97	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 14:57	0.39	mg/L	DO
GS-AP-MW-12	5/15/2018 14:57	-173.1	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 14:57	7.75	pH	pH
GS-AP-MW-12	5/15/2018 14:57	21.42	C	Temperature
GS-AP-MW-12	5/15/2018 14:57	0.53	NTU	Turbidity
GS-AP-MW-12	5/15/2018 15:03	393	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 15:03	74.22	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 15:03	0.39	mg/L	DO
GS-AP-MW-12	5/15/2018 15:03	-172.2	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 15:03	7.74	pH	pH
GS-AP-MW-12	5/15/2018 15:03	21.33	C	Temperature
GS-AP-MW-12	5/15/2018 15:03	0.51	NTU	Turbidity
GS-AP-MW-12	5/15/2018 15:08	392	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 15:08	74.44	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 15:08	0.41	mg/L	DO
GS-AP-MW-12	5/15/2018 15:08	-171.6	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 15:08	7.73	pH	pH
GS-AP-MW-12	5/15/2018 15:08	21.4	C	Temperature
GS-AP-MW-12	5/15/2018 15:08	0.49	NTU	Turbidity
GS-AP-MW-12	5/15/2018 15:13	388.7	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 15:13	74.61	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 15:13	0.43	mg/L	DO
GS-AP-MW-12	5/15/2018 15:13	-170.6	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 15:13	7.72	pH	pH
GS-AP-MW-12	5/15/2018 15:13	21.37	C	Temperature
GS-AP-MW-12	5/15/2018 15:13	0.48	NTU	Turbidity
GS-AP-MW-12	5/15/2018 15:18	388.4	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 15:18	74.76	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 15:18	0.42	mg/L	DO
GS-AP-MW-12	5/15/2018 15:18	-170.1	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 15:18	7.7	pH	pH
GS-AP-MW-12	5/15/2018 15:18	21.32	C	Temperature

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-12	5/15/2018 15:18	0.48	NTU	Turbidity
GS-AP-MW-12	5/15/2018 15:23	387.2	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 15:23	74.91	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 15:23	0.45	mg/L	DO
GS-AP-MW-12	5/15/2018 15:23	-169.3	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 15:23	7.7	pH	pH
GS-AP-MW-12	5/15/2018 15:23	21.37	C	Temperature
GS-AP-MW-12	5/15/2018 15:23	0.42	NTU	Turbidity
GS-AP-MW-12	5/15/2018 15:28	386.8	uS/cm	Conductivity
GS-AP-MW-12	5/15/2018 15:28	75.05	ft	Depth to Water Detail
GS-AP-MW-12	5/15/2018 15:28	0.43	mg/L	DO
GS-AP-MW-12	5/15/2018 15:28	-168.8	mv	Oxidation Reduction Potention
GS-AP-MW-12	5/15/2018 15:28	7.69	pH	pH
GS-AP-MW-12	5/15/2018 15:28	21.17	C	Temperature
GS-AP-MW-12	5/15/2018 15:28	0.45	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-13	5/15/2018 16:33	359.2	uS/cm	Conductivity
GS-AP-MW-13	5/15/2018 16:33	71.18	ft	Depth to Water Detail
GS-AP-MW-13	5/15/2018 16:33	0.22	mg/L	DO
GS-AP-MW-13	5/15/2018 16:33	16.2	mv	Oxidation Reduction Potention
GS-AP-MW-13	5/15/2018 16:33	6.8	pH	pH
GS-AP-MW-13	5/15/2018 16:33	17.63	C	Temperature
GS-AP-MW-13	5/15/2018 16:33	0.63	NTU	Turbidity
GS-AP-MW-13	5/15/2018 16:38	361.1	uS/cm	Conductivity
GS-AP-MW-13	5/15/2018 16:38	71.19	ft	Depth to Water Detail
GS-AP-MW-13	5/15/2018 16:38	0.19	mg/L	DO
GS-AP-MW-13	5/15/2018 16:38	19.1	mv	Oxidation Reduction Potention
GS-AP-MW-13	5/15/2018 16:38	6.8	pH	pH
GS-AP-MW-13	5/15/2018 16:38	17.49	C	Temperature
GS-AP-MW-13	5/15/2018 16:38	0.46	NTU	Turbidity
GS-AP-MW-13	5/15/2018 16:43	361.7	uS/cm	Conductivity
GS-AP-MW-13	5/15/2018 16:43	71.19	ft	Depth to Water Detail
GS-AP-MW-13	5/15/2018 16:43	0.19	mg/L	DO
GS-AP-MW-13	5/15/2018 16:43	17.7	mv	Oxidation Reduction Potention
GS-AP-MW-13	5/15/2018 16:43	6.8	pH	pH
GS-AP-MW-13	5/15/2018 16:43	17.45	C	Temperature
GS-AP-MW-13	5/15/2018 16:43	0.46	NTU	Turbidity
GS-AP-MW-13	5/15/2018 16:48	363.3	uS/cm	Conductivity
GS-AP-MW-13	5/15/2018 16:48	71.19	ft	Depth to Water Detail
GS-AP-MW-13	5/15/2018 16:48	0.18	mg/L	DO
GS-AP-MW-13	5/15/2018 16:48	16.9	mv	Oxidation Reduction Potention
GS-AP-MW-13	5/15/2018 16:48	6.8	pH	pH
GS-AP-MW-13	5/15/2018 16:48	17.41	C	Temperature
GS-AP-MW-13	5/15/2018 16:48	0.48	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-14	5/16/2018 9:02	398.7	uS/cm	Conductivity
GS-AP-MW-14	5/16/2018 9:02	101.71	ft	Depth to Water Detail
GS-AP-MW-14	5/16/2018 9:02	0.98	mg/L	DO
GS-AP-MW-14	5/16/2018 9:02	-132.9	mv	Oxidation Reduction Potention
GS-AP-MW-14	5/16/2018 9:02	7.24	pH	pH
GS-AP-MW-14	5/16/2018 9:02	18.05	C	Temperature
GS-AP-MW-14	5/16/2018 9:02	0.99	NTU	Turbidity
GS-AP-MW-14	5/16/2018 9:07	422.6	uS/cm	Conductivity
GS-AP-MW-14	5/16/2018 9:07	102.31	ft	Depth to Water Detail
GS-AP-MW-14	5/16/2018 9:07	0.69	mg/L	DO
GS-AP-MW-14	5/16/2018 9:07	-127.7	mv	Oxidation Reduction Potention
GS-AP-MW-14	5/16/2018 9:07	7.23	pH	pH
GS-AP-MW-14	5/16/2018 9:07	17.94	C	Temperature
GS-AP-MW-14	5/16/2018 9:07	0.98	NTU	Turbidity
GS-AP-MW-14	5/16/2018 9:12	424.9	uS/cm	Conductivity
GS-AP-MW-14	5/16/2018 9:12	102.65	ft	Depth to Water Detail
GS-AP-MW-14	5/16/2018 9:12	0.55	mg/L	DO
GS-AP-MW-14	5/16/2018 9:12	-124.7	mv	Oxidation Reduction Potention
GS-AP-MW-14	5/16/2018 9:12	7.24	pH	pH
GS-AP-MW-14	5/16/2018 9:12	17.97	C	Temperature
GS-AP-MW-14	5/16/2018 9:12	0.98	NTU	Turbidity
GS-AP-MW-14	5/16/2018 9:17	422.3	uS/cm	Conductivity
GS-AP-MW-14	5/16/2018 9:17	103.05	ft	Depth to Water Detail
GS-AP-MW-14	5/16/2018 9:17	0.49	mg/L	DO
GS-AP-MW-14	5/16/2018 9:17	-120.9	mv	Oxidation Reduction Potention
GS-AP-MW-14	5/16/2018 9:17	7.23	pH	pH
GS-AP-MW-14	5/16/2018 9:17	17.85	C	Temperature
GS-AP-MW-14	5/16/2018 9:17	0.66	NTU	Turbidity
GS-AP-MW-14	5/16/2018 9:22	417.9	uS/cm	Conductivity
GS-AP-MW-14	5/16/2018 9:22	103.34	ft	Depth to Water Detail
GS-AP-MW-14	5/16/2018 9:22	0.48	mg/L	DO
GS-AP-MW-14	5/16/2018 9:22	-116.4	mv	Oxidation Reduction Potention
GS-AP-MW-14	5/16/2018 9:22	7.2	pH	pH
GS-AP-MW-14	5/16/2018 9:22	18.02	C	Temperature
GS-AP-MW-14	5/16/2018 9:22	0.67	NTU	Turbidity
GS-AP-MW-14	5/16/2018 9:27	414.6	uS/cm	Conductivity
GS-AP-MW-14	5/16/2018 9:27	103.56	ft	Depth to Water Detail
GS-AP-MW-14	5/16/2018 9:27	0.47	mg/L	DO
GS-AP-MW-14	5/16/2018 9:27	-112.2	mv	Oxidation Reduction Potention
GS-AP-MW-14	5/16/2018 9:27	7.18	pH	pH
GS-AP-MW-14	5/16/2018 9:27	17.99	C	Temperature
GS-AP-MW-14	5/16/2018 9:27	0.49	NTU	Turbidity
GS-AP-MW-14	5/16/2018 9:32	411.9	uS/cm	Conductivity
GS-AP-MW-14	5/16/2018 9:32	103.74	ft	Depth to Water Detail
GS-AP-MW-14	5/16/2018 9:32	0.49	mg/L	DO



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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-14	5/16/2018 9:32	-107.7	mv	Oxidation Reduction Potential
GS-AP-MW-14	5/16/2018 9:32	7.15	pH	pH
GS-AP-MW-14	5/16/2018 9:32	17.91	C	Temperature
GS-AP-MW-14	5/16/2018 9:32	0.38	NTU	Turbidity
GS-AP-MW-14	5/16/2018 9:37	408.6	uS/cm	Conductivity
GS-AP-MW-14	5/16/2018 9:37	103.88	ft	Depth to Water Detail
GS-AP-MW-14	5/16/2018 9:37	0.5	mg/L	DO
GS-AP-MW-14	5/16/2018 9:37	-103.8	mv	Oxidation Reduction Potential
GS-AP-MW-14	5/16/2018 9:37	7.13	pH	pH
GS-AP-MW-14	5/16/2018 9:37	18.12	C	Temperature
GS-AP-MW-14	5/16/2018 9:37	0.29	NTU	Turbidity
GS-AP-MW-14	5/16/2018 9:42	407	uS/cm	Conductivity
GS-AP-MW-14	5/16/2018 9:42	103.99	ft	Depth to Water Detail
GS-AP-MW-14	5/16/2018 9:42	0.5	mg/L	DO
GS-AP-MW-14	5/16/2018 9:42	-100.5	mv	Oxidation Reduction Potential
GS-AP-MW-14	5/16/2018 9:42	7.12	pH	pH
GS-AP-MW-14	5/16/2018 9:42	18.16	C	Temperature
GS-AP-MW-14	5/16/2018 9:42	0.3	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	5/15/2018 15:46	614.3	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 15:46	81.48	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 15:46	1.12	mg/L	DO
GS-AP-MW-15	5/15/2018 15:46	-37.3	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 15:46	10.26	pH	pH
GS-AP-MW-15	5/15/2018 15:46	21.37	C	Temperature
GS-AP-MW-15	5/15/2018 15:46	1.64	NTU	Turbidity
GS-AP-MW-15	5/15/2018 15:51	953.6	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 15:51	82.45	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 15:51	0.81	mg/L	DO
GS-AP-MW-15	5/15/2018 15:51	-31.7	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 15:51	10.76	pH	pH
GS-AP-MW-15	5/15/2018 15:51	20.66	C	Temperature
GS-AP-MW-15	5/15/2018 15:51	1.18	NTU	Turbidity
GS-AP-MW-15	5/15/2018 15:56	1135.6	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 15:56	82.88	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 15:56	0.44	mg/L	DO
GS-AP-MW-15	5/15/2018 15:56	-39	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 15:56	11.25	pH	pH
GS-AP-MW-15	5/15/2018 15:56	20.49	C	Temperature
GS-AP-MW-15	5/15/2018 15:56	1.38	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:01	1176.6	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:01	83.45	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:01	0.34	mg/L	DO
GS-AP-MW-15	5/15/2018 16:01	-38.9	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 16:01	11.39	pH	pH
GS-AP-MW-15	5/15/2018 16:01	20.44	C	Temperature
GS-AP-MW-15	5/15/2018 16:01	0.67	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:06	1189.7	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:06	84.02	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:06	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 16:06	-37.3	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 16:06	11.44	pH	pH
GS-AP-MW-15	5/15/2018 16:06	20.35	C	Temperature
GS-AP-MW-15	5/15/2018 16:06	1.2	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:11	1190.2	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:11	84.48	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:11	0.3	mg/L	DO
GS-AP-MW-15	5/15/2018 16:11	-35.2	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 16:11	11.46	pH	pH
GS-AP-MW-15	5/15/2018 16:11	20.22	C	Temperature
GS-AP-MW-15	5/15/2018 16:11	0.52	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:16	1184.1	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:16	84.99	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:16	0.3	mg/L	DO

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	5/15/2018 16:16	-33.8	mv	Oxidation Reduction Potential
GS-AP-MW-15	5/15/2018 16:16	11.47	pH	pH
GS-AP-MW-15	5/15/2018 16:16	20.17	C	Temperature
GS-AP-MW-15	5/15/2018 16:16	0.51	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:21	1186.7	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:21	85.33	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:21	0.3	mg/L	DO
GS-AP-MW-15	5/15/2018 16:21	-32.4	mv	Oxidation Reduction Potential
GS-AP-MW-15	5/15/2018 16:21	11.48	pH	pH
GS-AP-MW-15	5/15/2018 16:21	19.8	C	Temperature
GS-AP-MW-15	5/15/2018 16:21	0.63	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:26	1181	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:26	85.83	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:26	0.3	mg/L	DO
GS-AP-MW-15	5/15/2018 16:26	-31.7	mv	Oxidation Reduction Potential
GS-AP-MW-15	5/15/2018 16:26	11.47	pH	pH
GS-AP-MW-15	5/15/2018 16:26	19.79	C	Temperature
GS-AP-MW-15	5/15/2018 16:26	0.66	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:31	1178.8	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:31	86.14	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:31	0.3	mg/L	DO
GS-AP-MW-15	5/15/2018 16:31	-31.4	mv	Oxidation Reduction Potential
GS-AP-MW-15	5/15/2018 16:31	11.47	pH	pH
GS-AP-MW-15	5/15/2018 16:31	19.72	C	Temperature
GS-AP-MW-15	5/15/2018 16:31	0.47	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:36	1172.7	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:36	86.44	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:36	0.3	mg/L	DO
GS-AP-MW-15	5/15/2018 16:36	-30.4	mv	Oxidation Reduction Potential
GS-AP-MW-15	5/15/2018 16:36	11.47	pH	pH
GS-AP-MW-15	5/15/2018 16:36	19.63	C	Temperature
GS-AP-MW-15	5/15/2018 16:36	0.72	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:41	1165.8	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:41	86.73	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:41	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 16:41	-29.3	mv	Oxidation Reduction Potential
GS-AP-MW-15	5/15/2018 16:41	11.47	pH	pH
GS-AP-MW-15	5/15/2018 16:41	19.46	C	Temperature
GS-AP-MW-15	5/15/2018 16:41	1.25	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:46	1161.8	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:46	87.02	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:46	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 16:46	-29.5	mv	Oxidation Reduction Potential
GS-AP-MW-15	5/15/2018 16:46	11.47	pH	pH
GS-AP-MW-15	5/15/2018 16:46	19.44	C	Temperature

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	5/15/2018 16:46	1.26	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:51	1154.6	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:51	87.28	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:51	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 16:51	-29.1	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 16:51	11.46	pH	pH
GS-AP-MW-15	5/15/2018 16:51	19.31	C	Temperature
GS-AP-MW-15	5/15/2018 16:51	1.58	NTU	Turbidity
GS-AP-MW-15	5/15/2018 16:56	1147.6	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 16:56	87.57	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 16:56	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 16:56	-29.1	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 16:56	11.46	pH	pH
GS-AP-MW-15	5/15/2018 16:56	19.23	C	Temperature
GS-AP-MW-15	5/15/2018 16:56	0.5	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:01	1129.8	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:01	87.75	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:01	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 17:01	-29.4	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:01	11.45	pH	pH
GS-AP-MW-15	5/15/2018 17:01	19.18	C	Temperature
GS-AP-MW-15	5/15/2018 17:01	0.72	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:06	1112.6	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:06	87.99	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:06	0.32	mg/L	DO
GS-AP-MW-15	5/15/2018 17:06	-29.8	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:06	11.44	pH	pH
GS-AP-MW-15	5/15/2018 17:06	19.24	C	Temperature
GS-AP-MW-15	5/15/2018 17:06	0.81	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:11	1089.3	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:11	88.18	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:11	0.32	mg/L	DO
GS-AP-MW-15	5/15/2018 17:11	-30.3	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:11	11.41	pH	pH
GS-AP-MW-15	5/15/2018 17:11	19.28	C	Temperature
GS-AP-MW-15	5/15/2018 17:11	0.77	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:17	1058.3	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:17	88.34	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:17	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 17:17	-30.8	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:17	11.39	pH	pH
GS-AP-MW-15	5/15/2018 17:17	19.28	C	Temperature
GS-AP-MW-15	5/15/2018 17:17	0.51	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:22	1015.7	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:22	88.52	ft	Depth to Water Detail

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	5/15/2018 17:22	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 17:22	-30.7	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:22	11.36	pH	pH
GS-AP-MW-15	5/15/2018 17:22	19.15	C	Temperature
GS-AP-MW-15	5/15/2018 17:22	0.61	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:27	971.6	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:27	88.7	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:27	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 17:27	-30.7	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:27	11.32	pH	pH
GS-AP-MW-15	5/15/2018 17:27	18.93	C	Temperature
GS-AP-MW-15	5/15/2018 17:27	0.8	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:32	933	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:32	88.84	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:32	0.32	mg/L	DO
GS-AP-MW-15	5/15/2018 17:32	-31.7	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:32	11.27	pH	pH
GS-AP-MW-15	5/15/2018 17:32	18.81	C	Temperature
GS-AP-MW-15	5/15/2018 17:32	0.99	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:37	907	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:37	89.03	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:37	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 17:37	-32.8	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:37	11.23	pH	pH
GS-AP-MW-15	5/15/2018 17:37	18.76	C	Temperature
GS-AP-MW-15	5/15/2018 17:37	0.57	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:42	872.2	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:42	89.2	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:42	0.32	mg/L	DO
GS-AP-MW-15	5/15/2018 17:42	-33	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:42	11.18	pH	pH
GS-AP-MW-15	5/15/2018 17:42	18.61	C	Temperature
GS-AP-MW-15	5/15/2018 17:42	0.61	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:47	832.9	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:47	89.35	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:47	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 17:47	-34.2	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:47	11.12	pH	pH
GS-AP-MW-15	5/15/2018 17:47	18.59	C	Temperature
GS-AP-MW-15	5/15/2018 17:47	1	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:52	797.4	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:52	89.45	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:52	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 17:52	-34.5	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:52	11.05	pH	pH

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	5/15/2018 17:52	18.55	C	Temperature
GS-AP-MW-15	5/15/2018 17:52	0.58	NTU	Turbidity
GS-AP-MW-15	5/15/2018 17:57	767.8	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 17:57	89.5	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 17:57	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 17:57	-34.3	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 17:57	10.97	pH	pH
GS-AP-MW-15	5/15/2018 17:57	18.54	C	Temperature
GS-AP-MW-15	5/15/2018 17:57	1.03	NTU	Turbidity
GS-AP-MW-15	5/15/2018 18:02	736.8	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 18:02	89.65	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 18:02	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 18:02	-34.6	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 18:02	10.89	pH	pH
GS-AP-MW-15	5/15/2018 18:02	18.55	C	Temperature
GS-AP-MW-15	5/15/2018 18:02	0.69	NTU	Turbidity
GS-AP-MW-15	5/15/2018 18:07	715	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 18:07	89.77	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 18:07	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 18:07	-34.6	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 18:07	10.82	pH	pH
GS-AP-MW-15	5/15/2018 18:07	18.53	C	Temperature
GS-AP-MW-15	5/15/2018 18:07	0.81	NTU	Turbidity
GS-AP-MW-15	5/15/2018 18:12	697.6	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 18:12	89.86	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 18:12	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 18:12	-34.5	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 18:12	10.76	pH	pH
GS-AP-MW-15	5/15/2018 18:12	18.58	C	Temperature
GS-AP-MW-15	5/15/2018 18:12	0.39	NTU	Turbidity
GS-AP-MW-15	5/15/2018 18:17	681.7	uS/cm	Conductivity
GS-AP-MW-15	5/15/2018 18:17	89.95	ft	Depth to Water Detail
GS-AP-MW-15	5/15/2018 18:17	0.31	mg/L	DO
GS-AP-MW-15	5/15/2018 18:17	-34.2	mv	Oxidation Reduction Potention
GS-AP-MW-15	5/15/2018 18:17	10.71	pH	pH
GS-AP-MW-15	5/15/2018 18:17	18.72	C	Temperature
GS-AP-MW-15	5/15/2018 18:17	0.42	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-16D	5/16/2018 10:50	367	uS/cm	Conductivity
GS-AP-MW-16D	5/16/2018 10:50	138.46	ft	Depth to Water Detail
GS-AP-MW-16D	5/16/2018 10:50	3.57	mg/L	DO
GS-AP-MW-16D	5/16/2018 10:50	-73.9	mv	Oxidation Reduction Potention
GS-AP-MW-16D	5/16/2018 10:50	7.3	pH	pH
GS-AP-MW-16D	5/16/2018 10:50	19.28	C	Temperature
GS-AP-MW-16D	5/16/2018 10:50	0.42	NTU	Turbidity
GS-AP-MW-16D	5/16/2018 10:55	371.2	uS/cm	Conductivity
GS-AP-MW-16D	5/16/2018 10:55	138.92	ft	Depth to Water Detail
GS-AP-MW-16D	5/16/2018 10:55	1.5	mg/L	DO
GS-AP-MW-16D	5/16/2018 10:55	-98	mv	Oxidation Reduction Potention
GS-AP-MW-16D	5/16/2018 10:55	7.41	pH	pH
GS-AP-MW-16D	5/16/2018 10:55	19.15	C	Temperature
GS-AP-MW-16D	5/16/2018 10:55	0.32	NTU	Turbidity
GS-AP-MW-16D	5/16/2018 11:00	372.1	uS/cm	Conductivity
GS-AP-MW-16D	5/16/2018 11:00	139.3	ft	Depth to Water Detail
GS-AP-MW-16D	5/16/2018 11:00	0.96	mg/L	DO
GS-AP-MW-16D	5/16/2018 11:00	-88.7	mv	Oxidation Reduction Potention
GS-AP-MW-16D	5/16/2018 11:00	7.43	pH	pH
GS-AP-MW-16D	5/16/2018 11:00	19.1	C	Temperature
GS-AP-MW-16D	5/16/2018 11:00	0.33	NTU	Turbidity
GS-AP-MW-16D	5/16/2018 11:05	372.1	uS/cm	Conductivity
GS-AP-MW-16D	5/16/2018 11:05	139.57	ft	Depth to Water Detail
GS-AP-MW-16D	5/16/2018 11:05	0.78	mg/L	DO
GS-AP-MW-16D	5/16/2018 11:05	-85.9	mv	Oxidation Reduction Potention
GS-AP-MW-16D	5/16/2018 11:05	7.44	pH	pH
GS-AP-MW-16D	5/16/2018 11:05	19.19	C	Temperature
GS-AP-MW-16D	5/16/2018 11:05	0.29	NTU	Turbidity
GS-AP-MW-16D	5/16/2018 11:10	372.6	uS/cm	Conductivity
GS-AP-MW-16D	5/16/2018 11:10	139.81	ft	Depth to Water Detail
GS-AP-MW-16D	5/16/2018 11:10	0.67	mg/L	DO
GS-AP-MW-16D	5/16/2018 11:10	-85	mv	Oxidation Reduction Potention
GS-AP-MW-16D	5/16/2018 11:10	7.44	pH	pH
GS-AP-MW-16D	5/16/2018 11:10	19.33	C	Temperature
GS-AP-MW-16D	5/16/2018 11:10	0.17	NTU	Turbidity
GS-AP-MW-16D	5/16/2018 11:15	372.1	uS/cm	Conductivity
GS-AP-MW-16D	5/16/2018 11:15	140.01	ft	Depth to Water Detail
GS-AP-MW-16D	5/16/2018 11:15	0.65	mg/L	DO
GS-AP-MW-16D	5/16/2018 11:15	-84.6	mv	Oxidation Reduction Potention
GS-AP-MW-16D	5/16/2018 11:15	7.44	pH	pH
GS-AP-MW-16D	5/16/2018 11:15	19.37	C	Temperature
GS-AP-MW-16D	5/16/2018 11:15	0.17	NTU	Turbidity
GS-AP-MW-16D	5/16/2018 11:20	371.9	uS/cm	Conductivity
GS-AP-MW-16D	5/16/2018 11:20	140.16	ft	Depth to Water Detail
GS-AP-MW-16D	5/16/2018 11:20	0.63	mg/L	DO

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-16D	5/16/2018 11:20	-83.2	mv	Oxidation Reduction Potention
GS-AP-MW-16D	5/16/2018 11:20	7.44	pH	pH
GS-AP-MW-16D	5/16/2018 11:20	19.35	C	Temperature
GS-AP-MW-16D	5/16/2018 11:20	0.19	NTU	Turbidity
GS-AP-MW-16D	5/16/2018 11:25	371.6	uS/cm	Conductivity
GS-AP-MW-16D	5/16/2018 11:25	140.29	ft	Depth to Water Detail
GS-AP-MW-16D	5/16/2018 11:25	0.64	mg/L	DO
GS-AP-MW-16D	5/16/2018 11:25	-82	mv	Oxidation Reduction Potention
GS-AP-MW-16D	5/16/2018 11:25	7.45	pH	pH
GS-AP-MW-16D	5/16/2018 11:25	19.37	C	Temperature
GS-AP-MW-16D	5/16/2018 11:25	0.16	NTU	Turbidity



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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-17	5/15/2018 11:19	1080.2	uS/cm	Conductivity
GS-AP-MW-17	5/15/2018 11:19	177.29	ft	Depth to Water Detail
GS-AP-MW-17	5/15/2018 11:19	7.5	mg/L	DO
GS-AP-MW-17	5/15/2018 11:19	62.4	mv	Oxidation Reduction Potention
GS-AP-MW-17	5/15/2018 11:19	7.48	pH	pH
GS-AP-MW-17	5/15/2018 11:19	21.57	C	Temperature
GS-AP-MW-17	5/15/2018 11:19	1.17	NTU	Turbidity
GS-AP-MW-17	5/15/2018 11:24	1025.9	uS/cm	Conductivity
GS-AP-MW-17	5/15/2018 11:24	177.29	ft	Depth to Water Detail
GS-AP-MW-17	5/15/2018 11:24	2.58	mg/L	DO
GS-AP-MW-17	5/15/2018 11:24	-189.7	mv	Oxidation Reduction Potention
GS-AP-MW-17	5/15/2018 11:24	7.76	pH	pH
GS-AP-MW-17	5/15/2018 11:24	20.34	C	Temperature
GS-AP-MW-17	5/15/2018 11:24	1.69	NTU	Turbidity
GS-AP-MW-17	5/15/2018 11:29	1091.2	uS/cm	Conductivity
GS-AP-MW-17	5/15/2018 11:29	177.32	ft	Depth to Water Detail
GS-AP-MW-17	5/15/2018 11:29	0.59	mg/L	DO
GS-AP-MW-17	5/15/2018 11:29	-209.9	mv	Oxidation Reduction Potention
GS-AP-MW-17	5/15/2018 11:29	7.99	pH	pH
GS-AP-MW-17	5/15/2018 11:29	20.31	C	Temperature
GS-AP-MW-17	5/15/2018 11:29	2.54	NTU	Turbidity
GS-AP-MW-17	5/15/2018 11:34	1108.5	uS/cm	Conductivity
GS-AP-MW-17	5/15/2018 11:34	177.32	ft	Depth to Water Detail
GS-AP-MW-17	5/15/2018 11:34	0.34	mg/L	DO
GS-AP-MW-17	5/15/2018 11:34	-187.5	mv	Oxidation Reduction Potention
GS-AP-MW-17	5/15/2018 11:34	8.16	pH	pH
GS-AP-MW-17	5/15/2018 11:34	20.39	C	Temperature
GS-AP-MW-17	5/15/2018 11:34	1.81	NTU	Turbidity
GS-AP-MW-17	5/15/2018 11:39	1099.4	uS/cm	Conductivity
GS-AP-MW-17	5/15/2018 11:39	177.34	ft	Depth to Water Detail
GS-AP-MW-17	5/15/2018 11:39	0.27	mg/L	DO
GS-AP-MW-17	5/15/2018 11:39	-167.1	mv	Oxidation Reduction Potention
GS-AP-MW-17	5/15/2018 11:39	8.23	pH	pH
GS-AP-MW-17	5/15/2018 11:39	20.63	C	Temperature
GS-AP-MW-17	5/15/2018 11:39	1.21	NTU	Turbidity
GS-AP-MW-17	5/15/2018 11:44	1089.8	uS/cm	Conductivity
GS-AP-MW-17	5/15/2018 11:44	177.34	ft	Depth to Water Detail
GS-AP-MW-17	5/15/2018 11:44	0.26	mg/L	DO
GS-AP-MW-17	5/15/2018 11:44	-150.7	mv	Oxidation Reduction Potention
GS-AP-MW-17	5/15/2018 11:44	8.26	pH	pH
GS-AP-MW-17	5/15/2018 11:44	20.69	C	Temperature
GS-AP-MW-17	5/15/2018 11:44	0.95	NTU	Turbidity
GS-AP-MW-17	5/15/2018 11:49	1072.6	uS/cm	Conductivity
GS-AP-MW-17	5/15/2018 11:49	177.35	ft	Depth to Water Detail
GS-AP-MW-17	5/15/2018 11:49	0.25	mg/L	DO

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-17	5/15/2018 11:49	-135.7	mv	Oxidation Reduction Potention
GS-AP-MW-17	5/15/2018 11:49	8.27	pH	pH
GS-AP-MW-17	5/15/2018 11:49	20.83	C	Temperature
GS-AP-MW-17	5/15/2018 11:49	1.13	NTU	Turbidity
GS-AP-MW-17	5/15/2018 11:54	1054.8	uS/cm	Conductivity
GS-AP-MW-17	5/15/2018 11:54	177.35	ft	Depth to Water Detail
GS-AP-MW-17	5/15/2018 11:54	0.24	mg/L	DO
GS-AP-MW-17	5/15/2018 11:54	-121.5	mv	Oxidation Reduction Potention
GS-AP-MW-17	5/15/2018 11:54	8.3	pH	pH
GS-AP-MW-17	5/15/2018 11:54	20.57	C	Temperature
GS-AP-MW-17	5/15/2018 11:54	1.24	NTU	Turbidity

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-18	5/16/2018 12:44	959.2	uS/cm	Conductivity
GS-AP-MW-18	5/16/2018 12:44	49.45	ft	Depth to Water Detail
GS-AP-MW-18	5/16/2018 12:44	0.18	mg/L	DO
GS-AP-MW-18	5/16/2018 12:44	-154.6	mv	Oxidation Reduction Potention
GS-AP-MW-18	5/16/2018 12:44	7.47	pH	pH
GS-AP-MW-18	5/16/2018 12:44	18.03	C	Temperature
GS-AP-MW-18	5/16/2018 12:44	0.61	NTU	Turbidity
GS-AP-MW-18	5/16/2018 12:49	954.4	uS/cm	Conductivity
GS-AP-MW-18	5/16/2018 12:49	49.46	ft	Depth to Water Detail
GS-AP-MW-18	5/16/2018 12:49	0.16	mg/L	DO
GS-AP-MW-18	5/16/2018 12:49	-146.6	mv	Oxidation Reduction Potention
GS-AP-MW-18	5/16/2018 12:49	7.46	pH	pH
GS-AP-MW-18	5/16/2018 12:49	17.96	C	Temperature
GS-AP-MW-18	5/16/2018 12:49	0.13	NTU	Turbidity
GS-AP-MW-18	5/16/2018 12:54	954.1	uS/cm	Conductivity
GS-AP-MW-18	5/16/2018 12:54	49.47	ft	Depth to Water Detail
GS-AP-MW-18	5/16/2018 12:54	0.16	mg/L	DO
GS-AP-MW-18	5/16/2018 12:54	-141.9	mv	Oxidation Reduction Potention
GS-AP-MW-18	5/16/2018 12:54	7.47	pH	pH
GS-AP-MW-18	5/16/2018 12:54	17.9	C	Temperature
GS-AP-MW-18	5/16/2018 12:54	0.12	NTU	Turbidity
GS-AP-MW-18	5/16/2018 12:59	954.7	uS/cm	Conductivity
GS-AP-MW-18	5/16/2018 12:59	49.48	ft	Depth to Water Detail
GS-AP-MW-18	5/16/2018 12:59	0.17	mg/L	DO
GS-AP-MW-18	5/16/2018 12:59	-139.3	mv	Oxidation Reduction Potention
GS-AP-MW-18	5/16/2018 12:59	7.47	pH	pH
GS-AP-MW-18	5/16/2018 12:59	17.98	C	Temperature
GS-AP-MW-18	5/16/2018 12:59	0.14	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-19	5/16/2018 14:04	494.8	uS/cm	Conductivity
GS-AP-MW-19	5/16/2018 14:04	112.52	ft	Depth to Water Detail
GS-AP-MW-19	5/16/2018 14:04	0.24	mg/L	DO
GS-AP-MW-19	5/16/2018 14:04	-194.3	mv	Oxidation Reduction Potention
GS-AP-MW-19	5/16/2018 14:04	8.21	pH	pH
GS-AP-MW-19	5/16/2018 14:04	18.56	C	Temperature
GS-AP-MW-19	5/16/2018 14:04	0.38	NTU	Turbidity
GS-AP-MW-19	5/16/2018 14:09	495.4	uS/cm	Conductivity
GS-AP-MW-19	5/16/2018 14:09	112.53	ft	Depth to Water Detail
GS-AP-MW-19	5/16/2018 14:09	0.2	mg/L	DO
GS-AP-MW-19	5/16/2018 14:09	-193.5	mv	Oxidation Reduction Potention
GS-AP-MW-19	5/16/2018 14:09	8.18	pH	pH
GS-AP-MW-19	5/16/2018 14:09	18.43	C	Temperature
GS-AP-MW-19	5/16/2018 14:09	0.34	NTU	Turbidity
GS-AP-MW-19	5/16/2018 14:14	499.5	uS/cm	Conductivity
GS-AP-MW-19	5/16/2018 14:14	112.54	ft	Depth to Water Detail
GS-AP-MW-19	5/16/2018 14:14	0.2	mg/L	DO
GS-AP-MW-19	5/16/2018 14:14	-202.5	mv	Oxidation Reduction Potention
GS-AP-MW-19	5/16/2018 14:14	8.28	pH	pH
GS-AP-MW-19	5/16/2018 14:14	18.39	C	Temperature
GS-AP-MW-19	5/16/2018 14:14	0.42	NTU	Turbidity
GS-AP-MW-19	5/16/2018 14:19	507.1	uS/cm	Conductivity
GS-AP-MW-19	5/16/2018 14:19	112.54	ft	Depth to Water Detail
GS-AP-MW-19	5/16/2018 14:19	0.21	mg/L	DO
GS-AP-MW-19	5/16/2018 14:19	-184.9	mv	Oxidation Reduction Potention
GS-AP-MW-19	5/16/2018 14:19	8.12	pH	pH
GS-AP-MW-19	5/16/2018 14:19	18.36	C	Temperature
GS-AP-MW-19	5/16/2018 14:19	0.35	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-21	5/15/2018 13:07	984.6	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:07	159.97	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:07	4.09	mg/L	DO
GS-AP-MW-21	5/15/2018 13:07	75	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:07	11.26	pH	pH
GS-AP-MW-21	5/15/2018 13:07	20.77	C	Temperature
GS-AP-MW-21	5/15/2018 13:07	2.63	NTU	Turbidity
GS-AP-MW-21	5/15/2018 13:12	1650.1	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:12	160.18	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:12	2.33	mg/L	DO
GS-AP-MW-21	5/15/2018 13:12	61.8	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:12	11.64	pH	pH
GS-AP-MW-21	5/15/2018 13:12	20.33	C	Temperature
GS-AP-MW-21	5/15/2018 13:12	6.04	NTU	Turbidity
GS-AP-MW-21	5/15/2018 13:17	1970.9	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:17	160.2	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:17	1.87	mg/L	DO
GS-AP-MW-21	5/15/2018 13:17	55.4	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:17	11.83	pH	pH
GS-AP-MW-21	5/15/2018 13:17	20.44	C	Temperature
GS-AP-MW-21	5/15/2018 13:17	4.93	NTU	Turbidity
GS-AP-MW-21	5/15/2018 13:22	1992.6	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:22	160.25	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:22	1.77	mg/L	DO
GS-AP-MW-21	5/15/2018 13:22	57.8	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:22	11.9	pH	pH
GS-AP-MW-21	5/15/2018 13:22	20.17	C	Temperature
GS-AP-MW-21	5/15/2018 13:22	3.59	NTU	Turbidity
GS-AP-MW-21	5/15/2018 13:27	1926.9	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:27	160.3	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:27	1.66	mg/L	DO
GS-AP-MW-21	5/15/2018 13:27	57.5	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:27	11.9	pH	pH
GS-AP-MW-21	5/15/2018 13:27	20.16	C	Temperature
GS-AP-MW-21	5/15/2018 13:27	4.22	NTU	Turbidity
GS-AP-MW-21	5/15/2018 13:32	1816.3	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:32	160.3	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:32	1.56	mg/L	DO
GS-AP-MW-21	5/15/2018 13:32	50.4	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:32	11.88	pH	pH
GS-AP-MW-21	5/15/2018 13:32	20.13	C	Temperature
GS-AP-MW-21	5/15/2018 13:32	3.02	NTU	Turbidity
GS-AP-MW-21	5/15/2018 13:37	1691.6	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:37	160.3	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:37	1.43	mg/L	DO

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-21	5/15/2018 13:37	38.4	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:37	11.86	pH	pH
GS-AP-MW-21	5/15/2018 13:37	19.58	C	Temperature
GS-AP-MW-21	5/15/2018 13:37	1.85	NTU	Turbidity
GS-AP-MW-21	5/15/2018 13:42	1595.2	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:42	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:42	1.34	mg/L	DO
GS-AP-MW-21	5/15/2018 13:42	29.7	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:42	11.81	pH	pH
GS-AP-MW-21	5/15/2018 13:42	19.8	C	Temperature
GS-AP-MW-21	5/15/2018 13:42	1.91	NTU	Turbidity
GS-AP-MW-21	5/15/2018 13:47	1514.8	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:47	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:47	1.27	mg/L	DO
GS-AP-MW-21	5/15/2018 13:47	22.1	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:47	11.76	pH	pH
GS-AP-MW-21	5/15/2018 13:47	20.04	C	Temperature
GS-AP-MW-21	5/15/2018 13:47	1.53	NTU	Turbidity
GS-AP-MW-21	5/15/2018 13:52	1420.2	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:52	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:52	1.18	mg/L	DO
GS-AP-MW-21	5/15/2018 13:52	17.6	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:52	11.7	pH	pH
GS-AP-MW-21	5/15/2018 13:52	20.22	C	Temperature
GS-AP-MW-21	5/15/2018 13:52	1.59	NTU	Turbidity
GS-AP-MW-21	5/15/2018 13:57	1346.1	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 13:57	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 13:57	1.12	mg/L	DO
GS-AP-MW-21	5/15/2018 13:57	14.3	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 13:57	11.65	pH	pH
GS-AP-MW-21	5/15/2018 13:57	20.25	C	Temperature
GS-AP-MW-21	5/15/2018 13:57	1.3	NTU	Turbidity
GS-AP-MW-21	5/15/2018 14:02	1278.9	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 14:02	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 14:02	1.06	mg/L	DO
GS-AP-MW-21	5/15/2018 14:02	12.5	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 14:02	11.6	pH	pH
GS-AP-MW-21	5/15/2018 14:02	20.35	C	Temperature
GS-AP-MW-21	5/15/2018 14:02	1.71	NTU	Turbidity
GS-AP-MW-21	5/15/2018 14:07	1204.8	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 14:07	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 14:07	1.01	mg/L	DO
GS-AP-MW-21	5/15/2018 14:07	11	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 14:07	11.54	pH	pH
GS-AP-MW-21	5/15/2018 14:07	20.39	C	Temperature

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-21	5/15/2018 14:07	1.7	NTU	Turbidity
GS-AP-MW-21	5/15/2018 14:12	1199	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 14:12	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 14:12	1	mg/L	DO
GS-AP-MW-21	5/15/2018 14:12	9.8	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 14:12	11.5	pH	pH
GS-AP-MW-21	5/15/2018 14:12	20.41	C	Temperature
GS-AP-MW-21	5/15/2018 14:12	2.2	NTU	Turbidity
GS-AP-MW-21	5/15/2018 14:17	1141.2	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 14:17	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 14:17	0.94	mg/L	DO
GS-AP-MW-21	5/15/2018 14:17	9.2	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 14:17	11.46	pH	pH
GS-AP-MW-21	5/15/2018 14:17	20.22	C	Temperature
GS-AP-MW-21	5/15/2018 14:17	1.71	NTU	Turbidity
GS-AP-MW-21	5/15/2018 14:22	1110.5	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 14:22	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 14:22	0.92	mg/L	DO
GS-AP-MW-21	5/15/2018 14:22	9.1	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 14:22	11.41	pH	pH
GS-AP-MW-21	5/15/2018 14:22	20.41	C	Temperature
GS-AP-MW-21	5/15/2018 14:22	1.57	NTU	Turbidity
GS-AP-MW-21	5/15/2018 14:27	1063.9	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 14:27	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 14:27	0.87	mg/L	DO
GS-AP-MW-21	5/15/2018 14:27	8.3	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 14:27	11.36	pH	pH
GS-AP-MW-21	5/15/2018 14:27	20.37	C	Temperature
GS-AP-MW-21	5/15/2018 14:27	1.63	NTU	Turbidity
GS-AP-MW-21	5/15/2018 14:32	1019.7	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 14:32	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 14:32	0.83	mg/L	DO
GS-AP-MW-21	5/15/2018 14:32	7.3	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 14:32	11.3	pH	pH
GS-AP-MW-21	5/15/2018 14:32	20.41	C	Temperature
GS-AP-MW-21	5/15/2018 14:32	1.24	NTU	Turbidity
GS-AP-MW-21	5/15/2018 14:37	1043.6	uS/cm	Conductivity
GS-AP-MW-21	5/15/2018 14:37	160.35	ft	Depth to Water Detail
GS-AP-MW-21	5/15/2018 14:37	0.85	mg/L	DO
GS-AP-MW-21	5/15/2018 14:37	6	mv	Oxidation Reduction Potention
GS-AP-MW-21	5/15/2018 14:37	11.26	pH	pH
GS-AP-MW-21	5/15/2018 14:37	20.35	C	Temperature
GS-AP-MW-21	5/15/2018 14:37	1.67	NTU	Turbidity

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


## Analytical Report



**Sample Group :** WMWGORAP\_1171  
**Project/Site :** Gorgas Ash Pond  
Parrish, AL 35580  
**For :** Southern Company Services  
3535 Colonnade Parkway  
Birmingham, AL 35243  
**Attention :** Dustin Brooks & Greg Dyer  
**Released By :** Laura Midkiff  
lbmidkif@southernco.com  
(205) 664-6197

The following data has been reviewed and approved by:

**Quality Control:**  **Laura Midkiff**  
Digitally signed by Laura Midkiff  
DN: cn=Laura Midkiff, o=Alabama Power  
Company, ou=Environmental Affairs,  
email=lbmidkif@southernco.com, c=US  
Date: 2018.11.16 14:01:55 -0600

**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: 2018.11.16 16:02:45 -0600





Metals ICP

Gorgas Ash Pond

WMWGORAP\_1171

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>
AY24772	632071	WMWGORAP_1171
AY24773	632071	WMWGORAP_1171
AY24774	632071	WMWGORAP_1171
AY24775	632071	WMWGORAP_1171
AY24776	632071	WMWGORAP_1171
AY24777	632071	WMWGORAP_1171
AY24778	632071	WMWGORAP_1171
AY24779	632071	WMWGORAP_1171
AY24780	632071	WMWGORAP_1171
AY24781	632071	WMWGORAP_1171
AY24782	632072	WMWGORAP_1171
AY24783	632072	WMWGORAP_1171
AY24784	632072	WMWGORAP_1171
AY24785	632072	WMWGORAP_1171
AY24786	632072	WMWGORAP_1171
AY24787	632072	WMWGORAP_1171
AY24788	632072	WMWGORAP_1171
AY24789	632072	WMWGORAP_1171
AY24790	632072	WMWGORAP_1171
AY24791	632072	WMWGORAP_1171
AY24792	632073	WMWGORAP_1171

4. All of the above samples were analyzed by EPA 200.7 and prepared by EPA 1638.
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:

- 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:
  - AY24791 Calcium MS/MSD spike level is 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. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects except for the following:

<u>Sample ID</u>	<u>Dilution</u>	<u>Analyte</u>
AY24784	x20.3	Calcium
AY24791	x20.3	Calcium
AY24791MS	x20.3	Calcium
AY24791MSD	x20.3	Calcium

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



Metals ICPMS

Gorgas Ash Pond

WMWGORAP\_1171

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>
AY24772	630984	WMWGORAP_1171
AY24773	630984	WMWGORAP_1171
AY24774	630984	WMWGORAP_1171
AY24775	630984	WMWGORAP_1171
AY24776	630984	WMWGORAP_1171
AY24777	630984	WMWGORAP_1171
AY24778	630984	WMWGORAP_1171
AY24779	630984	WMWGORAP_1171
AY24780	630984	WMWGORAP_1171
AY24781	630984	WMWGORAP_1171
AY24782	630985	WMWGORAP_1171
AY24783	630985	WMWGORAP_1171
AY24784	630985	WMWGORAP_1171
AY24785	630985	WMWGORAP_1171
AY24786	630985	WMWGORAP_1171
AY24787	630985	WMWGORAP_1171
AY24788	630985	WMWGORAP_1171
AY24789	630985	WMWGORAP_1171
AY24790	630985	WMWGORAP_1171
AY24791	630985	WMWGORAP_1171
AY24792	630986	WMWGORAP_1171

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



### General Quality Control Procedures:

- All 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 at a x5.075 dilution to compensate for potential matrix effects
  8. The raw data results are shown with dilution factors included.



Mercury

Gorgas Ash Pond

WMWGORAP\_1171

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>
AY24772	630700	WMWGORAP_1171
AY24773	630700	WMWGORAP_1171
AY24774	630700	WMWGORAP_1171
AY24775	630700	WMWGORAP_1171
AY24776	630700	WMWGORAP_1171
AY24777	630700	WMWGORAP_1171
AY24778	630700	WMWGORAP_1171
AY24779	630700	WMWGORAP_1171
AY24780	630700	WMWGORAP_1171
AY24781	630700	WMWGORAP_1171
AY24782	630701	WMWGORAP_1171
AY24783	630701	WMWGORAP_1171
AY24784	630701	WMWGORAP_1171
AY24785	630701	WMWGORAP_1171
AY24786	630701	WMWGORAP_1171
AY24787	630701	WMWGORAP_1171
AY24788	630701	WMWGORAP_1171
AY24789	630701	WMWGORAP_1171
AY24790	630701	WMWGORAP_1171
AY24791	630701	WMWGORAP_1171
AY24792	630702	WMWGORAP_1171

4. All of the above samples were analyzed and prepared by EPA 245.1.
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:

- 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.
  9. The QC associated with sample AY24792 is from Project WMWGORG\_1173.



TDS

Gorgas Ash Pond

WMWGORAP\_1171

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>
AY24772	630663	WMWGORAP_1171
AY24773	630663	WMWGORAP_1171
AY24774	630663	WMWGORAP_1171
AY24775	630663	WMWGORAP_1171
AY24776	630663	WMWGORAP_1171
AY24777	630663	WMWGORAP_1171
AY24778	630664	WMWGORAP_1171
AY24779	630664	WMWGORAP_1171
AY24780	630664	WMWGORAP_1171
AY24781	630664	WMWGORAP_1171
AY24782	630663	WMWGORAP_1171
AY24783	630663	WMWGORAP_1171
AY24784	630664	WMWGORAP_1171
AY24785	630664	WMWGORAP_1171
AY24786	630664	WMWGORAP_1171
AY24787	630664	WMWGORAP_1171
AY24788	630913	WMWGORAP_1171
AY24789	630913	WMWGORAP_1171
AY24790	630913	WMWGORAP_1171
AY24791	630664	WMWGORAP_1171
AY24792	630664	WMWGORAP_1171

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%, except for the following:
  - Precision was outside of the acceptable limits for samples AY24792 and AY24839, but the results were below the reporting limit. Therefore, the results are acceptable.
- 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:
  - AY24776
  - AY24781
  - AY24792
- The QC associated with samples AY24788-90 is from Project WMWGORG\_1173.

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY24772

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.00832	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.118	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	J 0.000794	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	1.05	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	68.9	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.0300	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	J 0.00644	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	404	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY24772

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
				Limit	Spike					Rec	Limit		
AY24781	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.0978	0.0977	0.0971	0.085 to 0.115	97.8	70 to 130	0.102	20
AY24781	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0991	0.0965	0.0975	0.085 to 0.115	99.1	70 to 130	2.66	20
AY24781	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	2.93	20
AY24781	Boron, Total	mg/L	0.000350	0.044	1.00	0.973	0.958	0.984	0.85 to 1.15	97.3	70 to 130	1.52	20
AY24781	Calcium, Total	mg/L	0.000580	0.22	5.00	4.98	4.91	5.02	4.25 to 5.75	99.5	70 to 130	1.31	20
AY24781	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0934	0.0984	0.104	0.085 to 0.115	93.4	70 to 130	5.21	20
AY24781	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	1.94	20
AY24781	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0998	0.0987	0.0988	0.085 to 0.115	99.8	70 to 130	1.11	20
AY24781	Mercury, Total by CVAA	mg/L	0.000237	0.0005	0.004	0.00372	0.00373	0.00360	0.0034 to 0.0046	93.1	70 to 130	0.0322	20
AY24781	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.0995	0.107	0.114	0.085 to 0.115	99.5	70 to 130	7.26	20
AY24781	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.0930	0.0896	0.0911	0.085 to 0.115	93.0	70 to 130	3.72	20
AY24781	Lithium, Total	mg/L	-0.000295	0.022	0.20	0.200	0.195	0.198	0.17 to 0.23	99.8	70 to 130	2.35	20
AY24781	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.102	0.102	0.108	0.085 to 0.115	102	70 to 130	0.00	20
AY24781	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0876	0.0886	0.0910	0.085 to 0.115	87.6	70 to 130	1.14	20
AY24781	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0871	0.0890	0.0990	0.085 to 0.115	87.1	70 to 130	2.16	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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY24772

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY24777	Solids, Dissolved	mg/L	-3.00	25			70.7	55.0	40 to 60			4.07	5

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, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6S DUP

Laboratory ID Number: AY24773

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.00833	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.118	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	1.08	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	71.8	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.0343	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	J 0.00762	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	422	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6S DUP

Laboratory ID Number: AY24773

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24781	Lithium, Total	mg/L	-0.000295	0.022	0.20	0.200	0.195	0.198	0.17 to 0.23	99.8	70 to 130	2.35	20
AY24781	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.0930	0.0896	0.0911	0.085 to 0.115	93.0	70 to 130	3.72	20
AY24781	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.0995	0.107	0.114	0.085 to 0.115	99.5	70 to 130	7.26	20
AY24781	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.102	0.102	0.108	0.085 to 0.115	102	70 to 130	0.00	20
AY24781	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0876	0.0886	0.0910	0.085 to 0.115	87.6	70 to 130	1.14	20
AY24781	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0871	0.0890	0.0990	0.085 to 0.115	87.1	70 to 130	2.16	20
AY24781	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.0978	0.0977	0.0971	0.085 to 0.115	97.8	70 to 130	0.102	20
AY24781	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0991	0.0965	0.0975	0.085 to 0.115	99.1	70 to 130	2.66	20
AY24781	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	2.93	20
AY24781	Boron, Total	mg/L	0.000350	0.044	1.00	0.973	0.958	0.984	0.85 to 1.15	97.3	70 to 130	1.52	20
AY24781	Calcium, Total	mg/L	0.000580	0.22	5.00	4.98	4.91	5.02	4.25 to 5.75	99.5	70 to 130	1.31	20
AY24781	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0934	0.0984	0.104	0.085 to 0.115	93.4	70 to 130	5.21	20
AY24781	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	1.94	20
AY24781	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0998	0.0987	0.0988	0.085 to 0.115	99.8	70 to 130	1.11	20
AY24781	Mercury, Total by CVAA	mg/L	0.000237	0.0005	0.004	0.00372	0.00373	0.00360	0.0034 to 0.0046	93.1	70 to 130	0.0322	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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6S DUP

Laboratory ID Number: AY24773

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY24777	Solids, Dissolved	mg/L	-3.00	25			70.7	55.0	40 to 60		4.07	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY24774

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0758	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.896	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	1.06	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	53.9	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.236	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	J 0.00538	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	309	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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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, 2019

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY24774

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY24781	Lithium, Total	mg/L	-0.000295	0.022	0.20	0.200	0.195	0.198	0.17 to 0.23	99.8	70 to 130	2.35	20
AY24781	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.0930	0.0896	0.0911	0.085 to 0.115	93.0	70 to 130	3.72	20
AY24781	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.0978	0.0977	0.0971	0.085 to 0.115	97.8	70 to 130	0.102	20
AY24781	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0991	0.0965	0.0975	0.085 to 0.115	99.1	70 to 130	2.66	20
AY24781	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.102	0.102	0.108	0.085 to 0.115	102	70 to 130	0.00	20
AY24781	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0876	0.0886	0.0910	0.085 to 0.115	87.6	70 to 130	1.14	20
AY24781	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0871	0.0890	0.0990	0.085 to 0.115	87.1	70 to 130	2.16	20
AY24781	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0934	0.0984	0.104	0.085 to 0.115	93.4	70 to 130	5.21	20
AY24781	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	1.94	20
AY24781	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0998	0.0987	0.0988	0.085 to 0.115	99.8	70 to 130	1.11	20
AY24781	Mercury, Total by CVAA	mg/L	0.000237	0.0005	0.004	0.00372	0.00373	0.00360	0.0034 to 0.0046	93.1	70 to 130	0.0322	20
AY24781	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	2.93	20
AY24781	Boron, Total	mg/L	0.000350	0.044	1.00	0.973	0.958	0.984	0.85 to 1.15	97.3	70 to 130	1.52	20
AY24781	Calcium, Total	mg/L	0.000580	0.22	5.00	4.98	4.91	5.02	4.25 to 5.75	99.5	70 to 130	1.31	20
AY24781	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.0995	0.107	0.114	0.085 to 0.115	99.5	70 to 130	7.26	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY24774

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY24777	Solids, Dissolved	mg/L	-3.00	25			70.7	55.0	40 to 60			4.07	5

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY24775

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.217	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0490	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	1.53	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	12.5	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.155	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.168	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	333	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY24775

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24781	Lithium, Total	mg/L	-0.000295	0.022	0.20	0.200	0.195	0.198	0.17 to 0.23	99.8	70 to 130	2.35	20
AY24781	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.0930	0.0896	0.0911	0.085 to 0.115	93.0	70 to 130	3.72	20
AY24781	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.0978	0.0977	0.0971	0.085 to 0.115	97.8	70 to 130	0.102	20
AY24781	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0991	0.0965	0.0975	0.085 to 0.115	99.1	70 to 130	2.66	20
AY24781	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	2.93	20
AY24781	Boron, Total	mg/L	0.000350	0.044	1.00	0.973	0.958	0.984	0.85 to 1.15	97.3	70 to 130	1.52	20
AY24781	Calcium, Total	mg/L	0.000580	0.22	5.00	4.98	4.91	5.02	4.25 to 5.75	99.5	70 to 130	1.31	20
AY24781	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.102	0.102	0.108	0.085 to 0.115	102	70 to 130	0.00	20
AY24781	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0876	0.0886	0.0910	0.085 to 0.115	87.6	70 to 130	1.14	20
AY24781	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0871	0.0890	0.0990	0.085 to 0.115	87.1	70 to 130	2.16	20
AY24781	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0934	0.0984	0.104	0.085 to 0.115	93.4	70 to 130	5.21	20
AY24781	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	1.94	20
AY24781	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0998	0.0987	0.0988	0.085 to 0.115	99.8	70 to 130	1.11	20
AY24781	Mercury, Total by CVAA	mg/L	0.000237	0.0005	0.004	0.00372	0.00373	0.00360	0.0034 to 0.0046	93.1	70 to 130	0.0322	20
AY24781	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.0995	0.107	0.114	0.085 to 0.115	99.5	70 to 130	7.26	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.

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY24775

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY24777	Solids, Dissolved	mg/L	-3.00	25			70.7	55.0	40 to 60			4.07	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY24776

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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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, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY24776

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24781	Lithium, Total	mg/L	-0.000295	0.022	0.20	0.200	0.195	0.198	0.17 to 0.23	99.8	70 to 130	2.35	20
AY24781	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.0995	0.107	0.114	0.085 to 0.115	99.5	70 to 130	7.26	20
AY24781	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.102	0.102	0.108	0.085 to 0.115	102	70 to 130	0.00	20
AY24781	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0876	0.0886	0.0910	0.085 to 0.115	87.6	70 to 130	1.14	20
AY24781	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0871	0.0890	0.0990	0.085 to 0.115	87.1	70 to 130	2.16	20
AY24781	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	2.93	20
AY24781	Boron, Total	mg/L	0.000350	0.044	1.00	0.973	0.958	0.984	0.85 to 1.15	97.3	70 to 130	1.52	20
AY24781	Calcium, Total	mg/L	0.000580	0.22	5.00	4.98	4.91	5.02	4.25 to 5.75	99.5	70 to 130	1.31	20
AY24781	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0934	0.0984	0.104	0.085 to 0.115	93.4	70 to 130	5.21	20
AY24781	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	1.94	20
AY24781	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0998	0.0987	0.0988	0.085 to 0.115	99.8	70 to 130	1.11	20
AY24781	Mercury, Total by CVAA	mg/L	0.000237	0.0005	0.004	0.00372	0.00373	0.00360	0.0034 to 0.0046	93.1	70 to 130	0.0322	20
AY24781	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.0978	0.0977	0.0971	0.085 to 0.115	97.8	70 to 130	0.102	20
AY24781	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0991	0.0965	0.0975	0.085 to 0.115	99.1	70 to 130	2.66	20
AY24781	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.0930	0.0896	0.0911	0.085 to 0.115	93.0	70 to 130	3.72	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY24776

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY24777	Solids, Dissolved	mg/L	-3.00	25			70.7	55.0	40 to 60			4.07	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY24777

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	J 0.00940	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	3.21	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	76.7	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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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, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY24777

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24781	Lithium, Total	mg/L	-0.000295	0.022	0.20	0.200	0.195	0.198	0.17 to 0.23	99.8	70 to 130	2.35	20
AY24781	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.0995	0.107	0.114	0.085 to 0.115	99.5	70 to 130	7.26	20
AY24781	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.0978	0.0977	0.0971	0.085 to 0.115	97.8	70 to 130	0.102	20
AY24781	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0991	0.0965	0.0975	0.085 to 0.115	99.1	70 to 130	2.66	20
AY24781	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	2.93	20
AY24781	Boron, Total	mg/L	0.000350	0.044	1.00	0.973	0.958	0.984	0.85 to 1.15	97.3	70 to 130	1.52	20
AY24781	Calcium, Total	mg/L	0.000580	0.22	5.00	4.98	4.91	5.02	4.25 to 5.75	99.5	70 to 130	1.31	20
AY24781	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0934	0.0984	0.104	0.085 to 0.115	93.4	70 to 130	5.21	20
AY24781	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	1.94	20
AY24781	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0998	0.0987	0.0988	0.085 to 0.115	99.8	70 to 130	1.11	20
AY24781	Mercury, Total by CVAA	mg/L	0.000237	0.0005	0.004	0.00372	0.00373	0.00360	0.0034 to 0.0046	93.1	70 to 130	0.0322	20
AY24781	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.0930	0.0896	0.0911	0.085 to 0.115	93.0	70 to 130	3.72	20
AY24781	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.102	0.102	0.108	0.085 to 0.115	102	70 to 130	0.00	20
AY24781	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0876	0.0886	0.0910	0.085 to 0.115	87.6	70 to 130	1.14	20
AY24781	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0871	0.0890	0.0990	0.085 to 0.115	87.1	70 to 130	2.16	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY24777

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY24777	Solids, Dissolved	mg/L	-3.00	25			70.7	55.0	40 to 60		4.07	5

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CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY24778

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	J 0.00473	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0282	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	J 0.000893	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	J 0.100	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	71.2	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.0676	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	J 0.00425	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	417	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY24778

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24781	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.0995	0.107	0.114	0.085 to 0.115	99.5	70 to 130	7.26	20
AY24781	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.0930	0.0896	0.0911	0.085 to 0.115	93.0	70 to 130	3.72	20
AY24781	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	2.93	20
AY24781	Boron, Total	mg/L	0.000350	0.044	1.00	0.973	0.958	0.984	0.85 to 1.15	97.3	70 to 130	1.52	20
AY24781	Calcium, Total	mg/L	0.000580	0.22	5.00	4.98	4.91	5.02	4.25 to 5.75	99.5	70 to 130	1.31	20
AY24781	Lithium, Total	mg/L	-0.000295	0.022	0.20	0.200	0.195	0.198	0.17 to 0.23	99.8	70 to 130	2.35	20
AY24781	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.102	0.102	0.108	0.085 to 0.115	102	70 to 130	0.00	20
AY24781	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0876	0.0886	0.0910	0.085 to 0.115	87.6	70 to 130	1.14	20
AY24781	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0871	0.0890	0.0990	0.085 to 0.115	87.1	70 to 130	2.16	20
AY24781	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.0978	0.0977	0.0971	0.085 to 0.115	97.8	70 to 130	0.102	20
AY24781	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0991	0.0965	0.0975	0.085 to 0.115	99.1	70 to 130	2.66	20
AY24781	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0934	0.0984	0.104	0.085 to 0.115	93.4	70 to 130	5.21	20
AY24781	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	1.94	20
AY24781	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0998	0.0987	0.0988	0.085 to 0.115	99.8	70 to 130	1.11	20
AY24781	Mercury, Total by CVAA	mg/L	0.000237	0.0005	0.004	0.00372	0.00373	0.00360	0.0034 to 0.0046	93.1	70 to 130	0.0322	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY24778

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY24792	Solids, Dissolved	mg/L	-3.00	25			0.0000	55.0	40 to 60		0.00	5

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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, 2019

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY24779

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.233	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	J 0.0221	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	47.7	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	J 0.0120	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	242	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY24779

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24781	Lithium, Total	mg/L	-0.000295	0.022	0.20	0.200	0.195	0.198	0.17 to 0.23	99.8	70 to 130	2.35	20
AY24781	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.0930	0.0896	0.0911	0.085 to 0.115	93.0	70 to 130	3.72	20
AY24781	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.0995	0.107	0.114	0.085 to 0.115	99.5	70 to 130	7.26	20
AY24781	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.102	0.102	0.108	0.085 to 0.115	102	70 to 130	0.00	20
AY24781	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0876	0.0886	0.0910	0.085 to 0.115	87.6	70 to 130	1.14	20
AY24781	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0871	0.0890	0.0990	0.085 to 0.115	87.1	70 to 130	2.16	20
AY24781	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.0978	0.0977	0.0971	0.085 to 0.115	97.8	70 to 130	0.102	20
AY24781	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0991	0.0965	0.0975	0.085 to 0.115	99.1	70 to 130	2.66	20
AY24781	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0934	0.0984	0.104	0.085 to 0.115	93.4	70 to 130	5.21	20
AY24781	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	1.94	20
AY24781	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0998	0.0987	0.0988	0.085 to 0.115	99.8	70 to 130	1.11	20
AY24781	Mercury, Total by CVAA	mg/L	0.000237	0.0005	0.004	0.00372	0.00373	0.00360	0.0034 to 0.0046	93.1	70 to 130	0.0322	20
AY24781	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	2.93	20
AY24781	Boron, Total	mg/L	0.000350	0.044	1.00	0.973	0.958	0.984	0.85 to 1.15	97.3	70 to 130	1.52	20
AY24781	Calcium, Total	mg/L	0.000580	0.22	5.00	4.98	4.91	5.02	4.25 to 5.75	99.5	70 to 130	1.31	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.

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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, 2019

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY24779

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY24792	Solids, Dissolved	mg/L	-3.00	25			0.0000	55.0	40 to 60			0.00	5

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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, 2019

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY24780

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0203	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.159	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	J 0.0570	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	35.6	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.0341	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	211	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY24780

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY24781	Lithium, Total	mg/L	-0.000295	0.022	0.20	0.200	0.195	0.198	0.17 to 0.23	99.8	70 to 130	2.35	20
AY24781	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.0995	0.107	0.114	0.085 to 0.115	99.5	70 to 130	7.26	20
AY24781	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.0930	0.0896	0.0911	0.085 to 0.115	93.0	70 to 130	3.72	20
AY24781	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.102	0.102	0.108	0.085 to 0.115	102	70 to 130	0.00	20
AY24781	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0876	0.0886	0.0910	0.085 to 0.115	87.6	70 to 130	1.14	20
AY24781	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0871	0.0890	0.0990	0.085 to 0.115	87.1	70 to 130	2.16	20
AY24781	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.0978	0.0977	0.0971	0.085 to 0.115	97.8	70 to 130	0.102	20
AY24781	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0991	0.0965	0.0975	0.085 to 0.115	99.1	70 to 130	2.66	20
AY24781	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0934	0.0984	0.104	0.085 to 0.115	93.4	70 to 130	5.21	20
AY24781	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	1.94	20
AY24781	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0998	0.0987	0.0988	0.085 to 0.115	99.8	70 to 130	1.11	20
AY24781	Mercury, Total by CVAA	mg/L	0.000237	0.0005	0.004	0.00372	0.00373	0.00360	0.0034 to 0.0046	93.1	70 to 130	0.0322	20
AY24781	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	2.93	20
AY24781	Boron, Total	mg/L	0.000350	0.044	1.00	0.973	0.958	0.984	0.85 to 1.15	97.3	70 to 130	1.52	20
AY24781	Calcium, Total	mg/L	0.000580	0.22	5.00	4.98	4.91	5.02	4.25 to 5.75	99.5	70 to 130	1.31	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY24780

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY24792	Solids, Dissolved	mg/L	-3.00	25			0.0000	55.0	40 to 60	0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY24781

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY24781

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24781	Lithium, Total	mg/L	-0.000295	0.022	0.20	0.200	0.195	0.198	0.17 to 0.23	99.8	70 to 130	2.35	20
AY24781	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.0930	0.0896	0.0911	0.085 to 0.115	93.0	70 to 130	3.72	20
AY24781	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.0995	0.107	0.114	0.085 to 0.115	99.5	70 to 130	7.26	20
AY24781	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.0978	0.0977	0.0971	0.085 to 0.115	97.8	70 to 130	0.102	20
AY24781	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0991	0.0965	0.0975	0.085 to 0.115	99.1	70 to 130	2.66	20
AY24781	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.101	0.104	0.102	0.085 to 0.115	101	70 to 130	2.93	20
AY24781	Boron, Total	mg/L	0.000350	0.044	1.00	0.973	0.958	0.984	0.85 to 1.15	97.3	70 to 130	1.52	20
AY24781	Calcium, Total	mg/L	0.000580	0.22	5.00	4.98	4.91	5.02	4.25 to 5.75	99.5	70 to 130	1.31	20
AY24781	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.102	0.102	0.108	0.085 to 0.115	102	70 to 130	0.00	20
AY24781	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0876	0.0886	0.0910	0.085 to 0.115	87.6	70 to 130	1.14	20
AY24781	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0871	0.0890	0.0990	0.085 to 0.115	87.1	70 to 130	2.16	20
AY24781	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0934	0.0984	0.104	0.085 to 0.115	93.4	70 to 130	5.21	20
AY24781	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.104	0.102	0.107	0.085 to 0.115	104	70 to 130	1.94	20
AY24781	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0998	0.0987	0.0988	0.085 to 0.115	99.8	70 to 130	1.11	20
AY24781	Mercury, Total by CVAA	mg/L	0.000237	0.0005	0.004	0.00372	0.00373	0.00360	0.0034 to 0.0046	93.1	70 to 130	0.0322	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY24781

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY24792	Solids, Dissolved	mg/L	-3.00	25			0.0000	55.0	40 to 60		0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY24782

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0123	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.133	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	J 0.0700	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	6.28	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.297	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0525	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		50	448	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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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, 2019

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY24782

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit
				Limit	Spike					Limit	Prec		
AY24791	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0949	0.0978	0.0975	0.085 to 0.115	94.9	70 to 130	3.01	20
AY24791	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.102	0.0840	0.104	0.085 to 0.115	102	70 to 130	19.4	20
AY24791	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.118	0.120	0.108	0.085 to 0.115	102	70 to 130	1.68	20
AY24791	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0909	0.0981	0.0990	0.085 to 0.115	90.9	70 to 130	7.62	20
AY24791	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.0975	0.0967	0.102	0.085 to 0.115	97.5	70 to 130	0.824	20
AY24791	Calcium, Total	mg/L	0.00191	0.22	5.00	213	228	4.94	4.25 to 5.75	124	70 to 130	7.13	20
AY24791	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.133	0.134	0.0911	0.085 to 0.115	88.1	70 to 130	0.749	20
AY24791	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.141	0.145	0.0971	0.085 to 0.115	98.2	70 to 130	2.80	20
AY24791	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0945	0.0979	0.0988	0.085 to 0.115	94.5	70 to 130	3.53	20
AY24791	Lithium, Total	mg/L	-0.000347	0.022	0.200	0.535	0.524	0.197	0.17 to 0.23	114	70 to 130	2.08	20
AY24791	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0896	0.0972	0.0910	0.085 to 0.115	89.6	70 to 130	8.14	20
AY24791	Mercury, Total by CVAA	mg/L	0.000150	0.0005	0.004	0.00361	0.00376	0.00370	0.0034 to 0.0046	90.3	70 to 130	4.07	20
AY24791	Boron, Total	mg/L	0.000287	0.044	1.00	3.05	3.01	0.964	0.85 to 1.15	100	70 to 130	1.32	20
AY24791	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.103	0.0983	0.107	0.085 to 0.115	103	70 to 130	4.67	20
AY24791	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.116	0.106	0.114	0.085 to 0.115	116	70 to 130	9.01	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY24782

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec		
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY24777	Solids, Dissolved	mg/L	-3.00	25			70.7	55.0	40 to 60		4.07	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY24783

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	J 0.00180	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0682	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	J 0.0842	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	3.38	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.0606	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	J 0.00376	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		50	462	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY24783

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY24791	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0949	0.0978	0.0975	0.085 to 0.115	94.9	70 to 130	3.01	20
AY24791	Beryllium, Total	mg/L	0.0000000	0.00132	0.100	0.102	0.0840	0.104	0.085 to 0.115	102	70 to 130	19.4	20
AY24791	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.118	0.120	0.108	0.085 to 0.115	102	70 to 130	1.68	20
AY24791	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0909	0.0981	0.0990	0.085 to 0.115	90.9	70 to 130	7.62	20
AY24791	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.0975	0.0967	0.102	0.085 to 0.115	97.5	70 to 130	0.824	20
AY24791	Calcium, Total	mg/L	0.00191	0.22	5.00	213	228	4.94	4.25 to 5.75	124	70 to 130	7.13	20
AY24791	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.133	0.134	0.0911	0.085 to 0.115	88.1	70 to 130	0.749	20
AY24791	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.141	0.145	0.0971	0.085 to 0.115	98.2	70 to 130	2.80	20
AY24791	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0945	0.0979	0.0988	0.085 to 0.115	94.5	70 to 130	3.53	20
AY24791	Lithium, Total	mg/L	-0.000347	0.022	0.200	0.535	0.524	0.197	0.17 to 0.23	114	70 to 130	2.08	20
AY24791	Boron, Total	mg/L	0.000287	0.044	1.00	3.05	3.01	0.964	0.85 to 1.15	100	70 to 130	1.32	20
AY24791	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.103	0.0983	0.107	0.085 to 0.115	103	70 to 130	4.67	20
AY24791	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.116	0.106	0.114	0.085 to 0.115	116	70 to 130	9.01	20
AY24791	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0896	0.0972	0.0910	0.085 to 0.115	89.6	70 to 130	8.14	20
AY24791	Mercury, Total by CVAA	mg/L	0.000150	0.0005	0.004	0.00361	0.00376	0.00370	0.0034 to 0.0046	90.3	70 to 130	4.07	20

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Laboratory certification ID: E571114

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**Comments:**

Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY24783

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY24777	Solids, Dissolved	mg/L	-3.00	25			70.7	55.0	40 to 60		4.07	5

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CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY24784

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0158	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0436	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	2.12	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		20.3	2.03	10.15	203	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.314	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0425	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		50	1030	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY24784

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY24791	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0949	0.0978	0.0975	0.085 to 0.115	94.9	70 to 130	3.01	20
AY24791	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.102	0.0840	0.104	0.085 to 0.115	102	70 to 130	19.4	20
AY24791	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.141	0.145	0.0971	0.085 to 0.115	98.2	70 to 130	2.80	20
AY24791	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0945	0.0979	0.0988	0.085 to 0.115	94.5	70 to 130	3.53	20
AY24791	Lithium, Total	mg/L	-0.000347	0.022	0.200	0.535	0.524	0.197	0.17 to 0.23	114	70 to 130	2.08	20
AY24791	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.118	0.120	0.108	0.085 to 0.115	102	70 to 130	1.68	20
AY24791	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0909	0.0981	0.0990	0.085 to 0.115	90.9	70 to 130	7.62	20
AY24791	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0896	0.0972	0.0910	0.085 to 0.115	89.6	70 to 130	8.14	20
AY24791	Mercury, Total by CVAA	mg/L	0.000150	0.0005	0.004	0.00361	0.00376	0.00370	0.0034 to 0.0046	90.3	70 to 130	4.07	20
AY24791	Boron, Total	mg/L	0.000287	0.044	1.00	3.05	3.01	0.964	0.85 to 1.15	100	70 to 130	1.32	20
AY24791	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.103	0.0983	0.107	0.085 to 0.115	103	70 to 130	4.67	20
AY24791	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.116	0.106	0.114	0.085 to 0.115	116	70 to 130	9.01	20
AY24791	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.0975	0.0967	0.102	0.085 to 0.115	97.5	70 to 130	0.824	20
AY24791	Calcium, Total	mg/L	0.00191	0.22	5.00	213	228	4.94	4.25 to 5.75	124	70 to 130	7.13	20
AY24791	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.133	0.134	0.0911	0.085 to 0.115	88.1	70 to 130	0.749	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY24784

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY24792	Solids, Dissolved	mg/L	-3.00	25			0.0000	55.0	40 to 60			0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

CC:



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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY24785

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	J 0.00216	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.350	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	J 0.0363	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	40.9	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.0406	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	J 0.00593	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	303	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY24785

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24791	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0949	0.0978	0.0975	0.085 to 0.115	94.9	70 to 130	3.01	20
AY24791	Beryllium, Total	mg/L	0.0000000	0.00132	0.100	0.102	0.0840	0.104	0.085 to 0.115	102	70 to 130	19.4	20
AY24791	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.118	0.120	0.108	0.085 to 0.115	102	70 to 130	1.68	20
AY24791	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0909	0.0981	0.0990	0.085 to 0.115	90.9	70 to 130	7.62	20
AY24791	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0896	0.0972	0.0910	0.085 to 0.115	89.6	70 to 130	8.14	20
AY24791	Mercury, Total by CVAA	mg/L	0.000150	0.0005	0.004	0.00361	0.00376	0.00370	0.0034 to 0.0046	90.3	70 to 130	4.07	20
AY24791	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.141	0.145	0.0971	0.085 to 0.115	98.2	70 to 130	2.80	20
AY24791	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0945	0.0979	0.0988	0.085 to 0.115	94.5	70 to 130	3.53	20
AY24791	Lithium, Total	mg/L	-0.000347	0.022	0.200	0.535	0.524	0.197	0.17 to 0.23	114	70 to 130	2.08	20
AY24791	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.0975	0.0967	0.102	0.085 to 0.115	97.5	70 to 130	0.824	20
AY24791	Calcium, Total	mg/L	0.00191	0.22	5.00	213	228	4.94	4.25 to 5.75	124	70 to 130	7.13	20
AY24791	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.133	0.134	0.0911	0.085 to 0.115	88.1	70 to 130	0.749	20
AY24791	Boron, Total	mg/L	0.000287	0.044	1.00	3.05	3.01	0.964	0.85 to 1.15	100	70 to 130	1.32	20
AY24791	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.103	0.0983	0.107	0.085 to 0.115	103	70 to 130	4.67	20
AY24791	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.116	0.106	0.114	0.085 to 0.115	116	70 to 130	9.01	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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY24785

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit	Limit
AY24792	Solids, Dissolved	mg/L	-3.00	25			0.0000	55.0	40 to 60		0.00	5

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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, 2019

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY24786

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0909	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	J 0.0764	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	4.40	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.219	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0610	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		50	520	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY24786

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit	
				Limit	Spike					Rec	Limit		
AY24791	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0949	0.0978	0.0975	0.085 to 0.115	94.9	70 to 130	3.01	20
AY24791	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.102	0.0840	0.104	0.085 to 0.115	102	70 to 130	19.4	20
AY24791	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.118	0.120	0.108	0.085 to 0.115	102	70 to 130	1.68	20
AY24791	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0909	0.0981	0.0990	0.085 to 0.115	90.9	70 to 130	7.62	20
AY24791	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.0975	0.0967	0.102	0.085 to 0.115	97.5	70 to 130	0.824	20
AY24791	Calcium, Total	mg/L	0.00191	0.22	5.00	213	228	4.94	4.25 to 5.75	124	70 to 130	7.13	20
AY24791	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.133	0.134	0.0911	0.085 to 0.115	88.1	70 to 130	0.749	20
AY24791	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.141	0.145	0.0971	0.085 to 0.115	98.2	70 to 130	2.80	20
AY24791	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0945	0.0979	0.0988	0.085 to 0.115	94.5	70 to 130	3.53	20
AY24791	Lithium, Total	mg/L	-0.000347	0.022	0.200	0.535	0.524	0.197	0.17 to 0.23	114	70 to 130	2.08	20
AY24791	Boron, Total	mg/L	0.000287	0.044	1.00	3.05	3.01	0.964	0.85 to 1.15	100	70 to 130	1.32	20
AY24791	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.103	0.0983	0.107	0.085 to 0.115	103	70 to 130	4.67	20
AY24791	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.116	0.106	0.114	0.085 to 0.115	116	70 to 130	9.01	20
AY24791	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0896	0.0972	0.0910	0.085 to 0.115	89.6	70 to 130	8.14	20
AY24791	Mercury, Total by CVAA	mg/L	0.000150	0.0005	0.004	0.00361	0.00376	0.00370	0.0034 to 0.0046	90.3	70 to 130	4.07	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY24786

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY24792	Solids, Dissolved	mg/L	-3.00	25			0.0000	55.0	40 to 60			0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY24787

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0846	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	J 0.00138	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	0.169	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	0.714	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.0511	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	J 0.00919	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	430	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY24787

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24791	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0949	0.0978	0.0975	0.085 to 0.115	94.9	70 to 130	3.01	20
AY24791	Beryllium, Total	mg/L	0.0000000	0.00132	0.100	0.102	0.0840	0.104	0.085 to 0.115	102	70 to 130	19.4	20
AY24791	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0896	0.0972	0.0910	0.085 to 0.115	89.6	70 to 130	8.14	20
AY24791	Mercury, Total by CVAA	mg/L	0.000150	0.0005	0.004	0.00361	0.00376	0.00370	0.0034 to 0.0046	90.3	70 to 130	4.07	20
AY24791	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.118	0.120	0.108	0.085 to 0.115	102	70 to 130	1.68	20
AY24791	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0909	0.0981	0.0990	0.085 to 0.115	90.9	70 to 130	7.62	20
AY24791	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.0975	0.0967	0.102	0.085 to 0.115	97.5	70 to 130	0.824	20
AY24791	Calcium, Total	mg/L	0.00191	0.22	5.00	213	228	4.94	4.25 to 5.75	124	70 to 130	7.13	20
AY24791	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.133	0.134	0.0911	0.085 to 0.115	88.1	70 to 130	0.749	20
AY24791	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.141	0.145	0.0971	0.085 to 0.115	98.2	70 to 130	2.80	20
AY24791	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0945	0.0979	0.0988	0.085 to 0.115	94.5	70 to 130	3.53	20
AY24791	Lithium, Total	mg/L	-0.000347	0.022	0.200	0.535	0.524	0.197	0.17 to 0.23	114	70 to 130	2.08	20
AY24791	Boron, Total	mg/L	0.000287	0.044	1.00	3.05	3.01	0.964	0.85 to 1.15	100	70 to 130	1.32	20
AY24791	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.103	0.0983	0.107	0.085 to 0.115	103	70 to 130	4.67	20
AY24791	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.116	0.106	0.114	0.085 to 0.115	116	70 to 130	9.01	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY24787

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY24792	Solids, Dissolved	mg/L	-3.00	25			0.0000	55.0	40 to 60		0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY24788

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.165	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	41.8	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/25/2018	SM 2540C		1		25	208	mg/L
Filter Completion Date	CRB	10/22/2018	SM 2540C		1			10/22/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY24788

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY24791	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0949	0.0978	0.0975	0.085 to 0.115		94.9	70 to 130	3.01	20
AY24791	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.118	0.120	0.108	0.085 to 0.115		102	70 to 130	1.68	20
AY24791	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0909	0.0981	0.0990	0.085 to 0.115		90.9	70 to 130	7.62	20
AY24791	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.102	0.0840	0.104	0.085 to 0.115		102	70 to 130	19.4	20
AY24791	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.141	0.145	0.0971	0.085 to 0.115		98.2	70 to 130	2.80	20
AY24791	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0945	0.0979	0.0988	0.085 to 0.115		94.5	70 to 130	3.53	20
AY24791	Lithium, Total	mg/L	-0.000347	0.022	0.200	0.535	0.524	0.197	0.17 to 0.23		114	70 to 130	2.08	20
AY24791	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.0975	0.0967	0.102	0.085 to 0.115		97.5	70 to 130	0.824	20
AY24791	Calcium, Total	mg/L	0.00191	0.22	5.00	213	228	4.94	4.25 to 5.75		124	70 to 130	7.13	20
AY24791	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.133	0.134	0.0911	0.085 to 0.115		88.1	70 to 130	0.749	20
AY24791	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0896	0.0972	0.0910	0.085 to 0.115		89.6	70 to 130	8.14	20
AY24791	Mercury, Total by CVAA	mg/L	0.000150	0.0005	0.004	0.00361	0.00376	0.00370	0.0034 to 0.0046		90.3	70 to 130	4.07	20
AY24791	Boron, Total	mg/L	0.000287	0.044	1.00	3.05	3.01	0.964	0.85 to 1.15		100	70 to 130	1.32	20
AY24791	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.103	0.0983	0.107	0.085 to 0.115		103	70 to 130	4.67	20
AY24791	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.116	0.106	0.114	0.085 to 0.115		116	70 to 130	9.01	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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY24788

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY24839	Solids, Dissolved	mg/L	-9.00	25			0.67	56.0	40 to 60		0.00	5

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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, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY24789

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	J 0.00132	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.314	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	39.3	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.0327	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/25/2018	SM 2540C		1		25	199	mg/L
Filter Completion Date	CRB	10/22/2018	SM 2540C		1			10/22/2018	Date

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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, 2019

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY24789

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike				Limit	Rec	Limit	Prec		
AY24791	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0949	0.0978	0.0975	0.085 to 0.115	94.9	70 to 130	3.01	20	
AY24791	Beryllium, Total	mg/L	0.0000000	0.00132	0.100	0.102	0.0840	0.104	0.085 to 0.115	102	70 to 130	19.4	20	
AY24791	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0896	0.0972	0.0910	0.085 to 0.115	89.6	70 to 130	8.14	20	
AY24791	Mercury, Total by CVAA	mg/L	0.000150	0.0005	0.004	0.00361	0.00376	0.00370	0.0034 to 0.0046	90.3	70 to 130	4.07	20	
AY24791	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.118	0.120	0.108	0.085 to 0.115	102	70 to 130	1.68	20	
AY24791	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0909	0.0981	0.0990	0.085 to 0.115	90.9	70 to 130	7.62	20	
AY24791	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.141	0.145	0.0971	0.085 to 0.115	98.2	70 to 130	2.80	20	
AY24791	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0945	0.0979	0.0988	0.085 to 0.115	94.5	70 to 130	3.53	20	
AY24791	Lithium, Total	mg/L	-0.000347	0.022	0.200	0.535	0.524	0.197	0.17 to 0.23	114	70 to 130	2.08	20	
AY24791	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.0975	0.0967	0.102	0.085 to 0.115	97.5	70 to 130	0.824	20	
AY24791	Calcium, Total	mg/L	0.00191	0.22	5.00	213	228	4.94	4.25 to 5.75	124	70 to 130	7.13	20	
AY24791	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.133	0.134	0.0911	0.085 to 0.115	88.1	70 to 130	0.749	20	
AY24791	Boron, Total	mg/L	0.000287	0.044	1.00	3.05	3.01	0.964	0.85 to 1.15	100	70 to 130	1.32	20	
AY24791	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.103	0.0983	0.107	0.085 to 0.115	103	70 to 130	4.67	20	
AY24791	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.116	0.106	0.114	0.085 to 0.115	116	70 to 130	9.01	20	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY24789

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Prec	Limit
AY24839	Solids, Dissolved	mg/L	-9.00	25			0.67	56.0	40 to 60		0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY24790

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.331	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	J 0.00109	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	J 0.0251	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	32.0	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.0336	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/25/2018	SM 2540C		1		25	191	mg/L
Filter Completion Date	CRB	10/22/2018	SM 2540C		1			10/22/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY24790

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24791	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0949	0.0978	0.0975	0.085 to 0.115	94.9	70 to 130	3.01	20
AY24791	Beryllium, Total	mg/L	0.0000000	0.00132	0.100	0.102	0.0840	0.104	0.085 to 0.115	102	70 to 130	19.4	20
AY24791	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0896	0.0972	0.0910	0.085 to 0.115	89.6	70 to 130	8.14	20
AY24791	Mercury, Total by CVAA	mg/L	0.000150	0.0005	0.004	0.00361	0.00376	0.00370	0.0034 to 0.0046	90.3	70 to 130	4.07	20
AY24791	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.118	0.120	0.108	0.085 to 0.115	102	70 to 130	1.68	20
AY24791	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0909	0.0981	0.0990	0.085 to 0.115	90.9	70 to 130	7.62	20
AY24791	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.0975	0.0967	0.102	0.085 to 0.115	97.5	70 to 130	0.824	20
AY24791	Calcium, Total	mg/L	0.00191	0.22	5.00	213	228	4.94	4.25 to 5.75	124	70 to 130	7.13	20
AY24791	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.133	0.134	0.0911	0.085 to 0.115	88.1	70 to 130	0.749	20
AY24791	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.141	0.145	0.0971	0.085 to 0.115	98.2	70 to 130	2.80	20
AY24791	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0945	0.0979	0.0988	0.085 to 0.115	94.5	70 to 130	3.53	20
AY24791	Lithium, Total	mg/L	-0.000347	0.022	0.200	0.535	0.524	0.197	0.17 to 0.23	114	70 to 130	2.08	20
AY24791	Boron, Total	mg/L	0.000287	0.044	1.00	3.05	3.01	0.964	0.85 to 1.15	100	70 to 130	1.32	20
AY24791	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.103	0.0983	0.107	0.085 to 0.115	103	70 to 130	4.67	20
AY24791	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.116	0.106	0.114	0.085 to 0.115	116	70 to 130	9.01	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.

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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, 2019

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY24790

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Rec	Limit	Limit	
AY24839	Solids, Dissolved	mg/L	-9.00	25			0.67	56.0	40 to 60			0.00	5

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments:

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-18 DUP

Laboratory ID Number: AY24791

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0156	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0428	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	2.05	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		20.3	2.03	10.15	206	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	0.307	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	0.0449	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	1060	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: Recovery for Calcium is out of spec. Spike amount is less than 30% of the sample amount. LBM 11/13/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-18 DUP

Laboratory ID Number: AY24791

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24791	Chromium, Total	mg/L	0.0000181	0.0044	0.100	0.0949	0.0978	0.0975	0.085 to 0.115	94.9	70 to 130	3.01	20
AY24791	Arsenic, Total	mg/L	0.0000351	0.0022	0.100	0.118	0.120	0.108	0.085 to 0.115	102	70 to 130	1.68	20
AY24791	Thallium, Total	mg/L	0.0000184	0.00044	0.100	0.0909	0.0981	0.0990	0.085 to 0.115	90.9	70 to 130	7.62	20
AY24791	Antimony, Total	mg/L	0.0000660	0.00176	0.100	0.0975	0.0967	0.102	0.085 to 0.115	97.5	70 to 130	0.824	20
AY24791	Calcium, Total	mg/L	0.00191	0.22	5.00	213	228	4.94	4.25 to 5.75	124	70 to 130	7.13	20
AY24791	Molybdenum, Total	mg/L	0.0000288	0.0044	0.100	0.133	0.134	0.0911	0.085 to 0.115	88.1	70 to 130	0.749	20
AY24791	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.102	0.0840	0.104	0.085 to 0.115	102	70 to 130	19.4	20
AY24791	Barium, Total	mg/L	0.0000519	0.0044	0.100	0.141	0.145	0.0971	0.085 to 0.115	98.2	70 to 130	2.80	20
AY24791	Cobalt, Total	mg/L	0.0000288	0.0044	0.100	0.0945	0.0979	0.0988	0.085 to 0.115	94.5	70 to 130	3.53	20
AY24791	Lithium, Total	mg/L	-0.000347	0.022	0.200	0.535	0.524	0.197	0.17 to 0.23	114	70 to 130	2.08	20
AY24791	Lead, Total	mg/L	0.0000206	0.0022	0.100	0.0896	0.0972	0.0910	0.085 to 0.115	89.6	70 to 130	8.14	20
AY24791	Mercury, Total by CVAA	mg/L	0.000150	0.0005	0.004	0.00361	0.00376	0.00370	0.0034 to 0.0046	90.3	70 to 130	4.07	20
AY24791	Boron, Total	mg/L	0.000287	0.044	1.00	3.05	3.01	0.964	0.85 to 1.15	100	70 to 130	1.32	20
AY24791	Cadmium, Total	mg/L	0.0000222	0.00066	0.100	0.103	0.0983	0.107	0.085 to 0.115	103	70 to 130	4.67	20
AY24791	Selenium, Total	mg/L	0.0000539	0.0044	0.100	0.116	0.106	0.114	0.085 to 0.115	116	70 to 130	9.01	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, 2019

Comments: Recovery for Calcium is out of spec. Spike amount is less than 30% of the sample amount. LBM 11/13/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-18 DUP

Laboratory ID Number: AY24791

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY24792	Solids, Dissolved	mg/L	-3.00	25			0.0000	55.0	40 to 60	0.00	5

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CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY24792

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Arsenic, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Barium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Beryllium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0006	0.003	U Not Detected	mg/L
* Boron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.02	0.1	U Not Detected	mg/L
* Calcium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Cadmium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0003	0.001	U Not Detected	mg/L
* Antimony, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0008	0.003	U Not Detected	mg/L
* Cobalt, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.005	U Not Detected	mg/L
* Chromium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Mercury, Total by CVAA	GAS	10/25/2018	EPA 245.1		1	0.00025	0.0005	U Not Detected	mg/L
* Lithium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.02	U Not Detected	mg/L
* Molybdenum, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Lead, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Selenium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.002	0.01	U Not Detected	mg/L
* Thallium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.0002	0.001	U Not Detected	mg/L
<b>General Characteristics</b>									
* Solids, Dissolved	CRB	10/24/2018	SM 2540C		1		25	U Not Detected	mg/L
Filter Completion Date	CRB	10/19/2018	SM 2540C		1			10/19/2018	Date

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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, 2019

Comments: Precision failed for TDS, but the results were below the reporting limit. Therefore, the result is acceptable. LBM 11/13/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY24792

Sample	Analysis	Units	MB	MB			MS	MSD	LCS	LCS		Rec		Prec	Limit
				Limit	Spike	MS				Limit	Rec	Limit	Prec		
AY24792	Chromium, Total	mg/L	0.0000271	0.0044	0.100	0.0960	0.103	0.0959	0.085 to 0.115	96.0	70 to 130	7.04	20		
AY24792	Beryllium, Total	mg/L	0.000000	0.00132	0.100	0.0967	0.101	0.100	0.085 to 0.115	96.7	70 to 130	4.35	20		
AY24792	Thallium, Total	mg/L	0.0000187	0.00044	0.100	0.0856	0.0903	0.0982	0.085 to 0.115	85.6	70 to 130	5.34	20		
AY24792	Barium, Total	mg/L	0.00000182	0.0044	0.100	0.0931	0.0991	0.100	0.085 to 0.115	93.1	70 to 130	6.24	20		
AY24792	Antimony, Total	mg/L	0.0000727	0.00176	0.100	0.102	0.105	0.101	0.085 to 0.115	102	70 to 130	2.90	20		
AY24792	Arsenic, Total	mg/L	0.0000104	0.0022	0.100	0.0980	0.107	0.105	0.085 to 0.115	98.0	70 to 130	8.78	20		
AY24792	Boron, Total	mg/L	0.000697	0.044	1.00	0.976	0.943	0.971	0.85 to 1.15	97.6	70 to 130	3.37	20		
AY24792	Lead, Total	mg/L	0.0000215	0.0022	0.100	0.0860	0.0899	0.0889	0.085 to 0.115	86.0	70 to 130	4.43	20		
AY24792	Cadmium, Total	mg/L	0.000	0.00066	0.100	0.104	0.110	0.107	0.085 to 0.115	104	70 to 130	5.61	20		
AY24792	Cobalt, Total	mg/L	0.0000177	0.0044	0.100	0.102	0.103	0.0996	0.085 to 0.115	102	70 to 130	0.976	20		
AY24792	Lithium, Total	mg/L	-0.000368	0.022	0.20	0.202	0.197	0.199	0.17 to 0.23	101	70 to 130	2.27	20		
AY24792	Molybdenum, Total	mg/L	0.0000219	0.0044	0.100	0.0916	0.0929	0.0925	0.085 to 0.115	91.6	70 to 130	1.41	20		
AY24792	Calcium, Total	mg/L	-0.000235	0.22	5.00	4.95	4.84	4.89	4.25 to 5.75	99.1	70 to 130	2.37	20		
AY24792	Selenium, Total	mg/L	0.0000555	0.0044	0.100	0.0990	0.0951	0.113	0.085 to 0.115	99.0	70 to 130	4.02	20		
AY24843	Mercury, Total by CVAA	mg/L	0.000152	0.0005	0.004	0.00387	0.00388	0.00377	0.0034 to 0.0046	96.8	70 to 130	0.312	20		

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

Comments: Precision failed for TDS, but the results were below the reporting limit. Therefore, the result is acceptable. LBM 11/13/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY24792

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	Rec	Prec	
			Limit	Limit			Duplicate	LCS	Limit	Limit	
AY24792	Solids, Dissolved	mg/L	-3.00	25			0.0000	55.0	40 to 60	0.00	5

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.

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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, 2019

Comments: Precision failed for TDS, but the results were below the reporting limit. Therefore, the result is acceptable. LBM 11/13/18

CC:



## 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
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



# Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA 10/18/2018 08:45

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Gorgas 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	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	10/15/18	12:13	3	Groundwater		AY24772
MW-6S DUP	10/15/2018	12:13	3	Sample Duplicate		AY24773
MW-6D	10/15/2018	13:24	3	Groundwater		AY24774
MW-7	10/15/2018	14:37	3	Groundwater		AY24775
FB-1	10/15/2018	15:25	3	Field Blank		AY24776
MW-8	10/16/2018	09:47	3	Groundwater		AY24777
MW-9	10/16/2018	11:27	3	Groundwater		AY24778
MW-11	10/16/2018	13:10	3	Groundwater		AY24779
MW-12	10/16/2018	15:26	3	Groundwater		AY24780
EB-1	10/16/2018	16:50	3	Equipment Blank		AY24781

Relinquished By	Received By	Date/Time
		10/18/2018 09:39

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	Cooler Temp
Sample Event	1171	5408-27568-2-2
		Thermometer ID
		6959-37698-30-19 & 6959-37697-30-18
		pH Strip ID



# Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete  
 Lab Complete

Outside Lab

Lab ETA 10/18/2018 10:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Gorgas 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	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	10/15/18	12:15	3	Groundwater		AY24782
MW-17	10/15/2018	15:11	3	Groundwater		AY24783
MW-18	10/16/2018	10:33	3	Groundwater		AY24784
MW-19	10/16/2018	11:51	3	Groundwater		AY24785
MW-21	10/16/2018	14:31	3	Groundwater		AY24786
MW-2	10/16/2018	16:20	3	Groundwater		AY24787
MW-13	10/17/2018	09:16	3	Groundwater		AY24788
MW-14	10/17/2018	10:33	3	Groundwater		AY24789
MW-16D	10/17/2018	12:53	3	Groundwater		AY24790
MW-18DUP	10/16/2018	10:33	3	Sample Duplicate		AY24791
FB-2	10/16/2018	13:55	3	Field Blank		AY24792

Relinquished By	Received By	Date/Time
		10/18/2018 09:41

SmarTroll ID	4696-23443-3-2
Turbidity ID	5160-26211-1-1
Sample Event	1171

All metals and radiological bottles have pH < 2

Cooler Temp	0.3 degrees C
Thermometer ID	5408-27568-2-2
pH Strip ID	6959-37697-30-18



# Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete  
 Lab Complete

Outside Lab

Lab ETA 10/18/2018 08:45

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Gorgas Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	Anions	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium Duplicate Collected at MW-6D

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	10/15/18	12:13	2	Groundwater		AY24793
MW-6S DUP	10/15/2018	12:13	2	Sample Duplicate		AY24794
MW-6D	10/15/2018	13:24	4	Groundwater		AY24795
MW-7	10/15/2018	14:37	2	Groundwater		AY24796
FB-1	10/15/2018	15:25	2	Field Blank		AY24797
MW-8	10/16/2018	09:47	2	Groundwater		AY24798
MW-9	10/16/2018	11:27	2	Groundwater		AY24799
MW-11	10/16/2018	13:10	2	Groundwater		AY24800
MW-12	10/16/2018	15:26	2	Groundwater		AY24801
EB-1	10/16/2018	16:50	2	Equipment Blank		AY24802

Relinquished By	Received By	Date/Time
		10/18/2018 09:39

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	Cooler Temp
Sample Event	1171	5408-27568-2-2
		Thermometer ID
		6959-37697-30-18 & 6959-37698-30-19
		pH Strip ID



# Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete

Outside Lab

Lab Complete

Lab ETA 10/18/2018 10:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Gorgas Ash Pond

Bottles	1	Radium	1 L	3	N/A	N/A	5	N/A	N/A	7	N/A	N/A
	2	Anions	250 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments: Radium Duplicate collected MW-19; Test America

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	10/15/18	12:15	2	Groundwater		AY24803
MW-17	10/15/2018	15:11	2	Groundwater		AY24804
MW-18	10/16/2018	10:33	2	Groundwater		AY24805
MW-19	10/16/2018	11:51	4	Groundwater		AY24806
MW-21	10/16/2018	14:31	2	Groundwater		AY24807
MW-2	10/16/2018	16:20	2	Groundwater		AY24808
MW-13	10/17/2018	09:16	2	Groundwater		AY24809
MW-14	10/17/2018	10:33	2	Groundwater		AY24810
MW-16D	10/17/2018	12:53	2	Groundwater		AY24811
MW-18DUP	10/16/2018	10:33	2	Sample Duplicate		AY24812
FB-2	10/16/2018	13:55	2	Field Blank		AY24813

Relinquished By	Received By	Date/Time
		10/18/2018 09:41

SmarTroll ID	4696-23443-3-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	5160-26211-1-1	Cooler Temp
Sample Event	1171	Thermometer ID
		pH Strip ID
		0.3 degrees C
		5408-27568-2-2
		6959-37697-30-18

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-160968-1

TestAmerica Sample Delivery Group: Gorgas Ash Pond 1171

Client Project/Site: CCR - Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:

11/5/2018 5:23:11 PM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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[www.testamericainc.com](http://www.testamericainc.com)

*The test results in this report meet all 2003 NELAC and 2009 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.*

*This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.*

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

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# Case Narrative

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

**Job ID: 400-160968-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-160968-1

#### General Chemistry

Method(s) SM 4500 F C: The sample duplicate precision for the following sample associated with analytical batch 417824 was outside control limits: (400-160851-A-4 DU). The associated Laboratory Control Sample(LCS) met acceptance criteria.

Method(s) SM 4500 SO4 E: Do to the concentration of sulfates in the sample the MS/MSD were diluted after the spike. The spike amounts were adjusted for the dilution factor. (400-160930-C-1 MS) and (400-160930-C-1 MSD)

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 417786 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: Do to the concentration of sulfates in the parent sample the MS/MSD were diluted after the spike. The spike amounts were adjusted by the dilution factor. (400-160968-B-4 MS) and (400-160968-B-4 MSD)

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 418151 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: AY24793 MW-6S (400-160968-1), AY24794 MW-6S DUP (400-160968-2), AY24795 MW-6D (400-160968-3), AY24796 MW-7 (400-160968-4), AY24799 MW-9 (400-160968-7), AY24805 MW-18 (400-160968-13), AY24807 MW-21 (400-160968-15), AY24808 MW-2 (400-160968-16), AY24812 MW-18 DUP (400-160968-20), (400-160968-B-4 MS), (400-160968-B-4 MSD), (400-160930-C-1), (400-160930-C-1 MS) and (400-160930-C-1 MSD). Elevated reporting limits (RLs) are provided.



# Detection Summary

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

## Client Sample ID: AY24793 MW-6S

## Lab Sample ID: 400-160968-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.14		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	170		50	14	mg/L	10		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24794 MW-6S DUP

## Lab Sample ID: 400-160968-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.14		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	200		50	14	mg/L	10		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24795 MW-6D

## Lab Sample ID: 400-160968-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	7.0		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.16		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	37		10	2.8	mg/L	2		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24796 MW-7

## Lab Sample ID: 400-160968-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	5.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.11		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	130		50	14	mg/L	10		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24797 FB-1

## Lab Sample ID: 400-160968-5

No Detections.

## Client Sample ID: AY24798 MW-8

## Lab Sample ID: 400-160968-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.3		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.090	J	0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	2.4	J	5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24799 MW-9

## Lab Sample ID: 400-160968-7

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.15		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	120		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24800 MW-11

## Lab Sample ID: 400-160968-8

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	8.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.16		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	22		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Detection Summary

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

## Client Sample ID: AY24801 MW-12

## Lab Sample ID: 400-160968-9

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	3.1		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.23		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	13		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24802 EB-1

## Lab Sample ID: 400-160968-10

No Detections.

## Client Sample ID: AY24803 MW-15

## Lab Sample ID: 400-160968-11

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.6		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.77		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	14		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24804 MW-17

## Lab Sample ID: 400-160968-12

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	10		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.23		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	34		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24805 MW-18

## Lab Sample ID: 400-160968-13

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	35		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.64		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	520		100	28	mg/L	20		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24806 MW-19

## Lab Sample ID: 400-160968-14

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.37		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	5.6		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24807 MW-21

## Lab Sample ID: 400-160968-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	31		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.25		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	160		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA

## Client Sample ID: AY24808 MW-2

## Lab Sample ID: 400-160968-16

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	20		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	1.0		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	90		25	7.0	mg/L	5		SM 4500 SO4 E	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

## Detection Summary

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

### Client Sample ID: AY24809 MW-13

### Lab Sample ID: 400-160968-17

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.3		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.19		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	12		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

### Client Sample ID: AY24810 MW-14

### Lab Sample ID: 400-160968-18

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	6.9		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.18		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	13		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

### Client Sample ID: AY24811 MW-16D

### Lab Sample ID: 400-160968-19

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	2.2		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.13		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	13		5.0	1.4	mg/L	1		SM 4500 SO4 E	Total/NA

### Client Sample ID: AY24812 MW-18 DUP

### Lab Sample ID: 400-160968-20

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloride	36		2.0	1.4	mg/L	1		SM 4500 Cl- E	Total/NA
Fluoride	0.63		0.10	0.032	mg/L	1		SM 4500 F C	Total/NA
Sulfate	540		100	28	mg/L	20		SM 4500 SO4 E	Total/NA

### Client Sample ID: AY24813 FB-2

### Lab Sample ID: 400-160968-21

No Detections.

This Detection Summary does not include radiochemical test results.

TestAmerica Pensacola

# Method Summary

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

Method	Method Description	Protocol	Laboratory
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 F C	Fluoride	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN

**Protocol References:**

SM = "Standard Methods For The Examination Of Water And Wastewater"

**Laboratory References:**

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001



# Sample Summary

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-160968-1	AY24793 MW-6S	Water	10/15/18 12:13	10/23/18 17:20
400-160968-2	AY24794 MW-6S DUP	Water	10/15/18 12:13	10/23/18 17:20
400-160968-3	AY24795 MW-6D	Water	10/15/18 13:24	10/23/18 17:20
400-160968-4	AY24796 MW-7	Water	10/15/18 14:37	10/23/18 17:20
400-160968-5	AY24797 FB-1	Water	10/15/18 15:25	10/23/18 17:20
400-160968-6	AY24798 MW-8	Water	10/16/18 09:47	10/23/18 17:20
400-160968-7	AY24799 MW-9	Water	10/16/18 11:27	10/23/18 17:20
400-160968-8	AY24800 MW-11	Water	10/16/18 13:10	10/23/18 17:20
400-160968-9	AY24801 MW-12	Water	10/16/18 15:26	10/23/18 17:20
400-160968-10	AY24802 EB-1	Water	10/16/18 16:50	10/23/18 17:20
400-160968-11	AY24803 MW-15	Water	10/15/18 12:15	10/23/18 17:20
400-160968-12	AY24804 MW-17	Water	10/15/18 15:11	10/23/18 17:20
400-160968-13	AY24805 MW-18	Water	10/16/18 10:33	10/23/18 17:20
400-160968-14	AY24806 MW-19	Water	10/16/18 11:51	10/23/18 17:20
400-160968-15	AY24807 MW-21	Water	10/16/18 14:31	10/23/18 17:20
400-160968-16	AY24808 MW-2	Water	10/16/18 16:20	10/23/18 17:20
400-160968-17	AY24809 MW-13	Water	10/17/18 09:16	10/23/18 17:20
400-160968-18	AY24810 MW-14	Water	10/17/18 10:33	10/23/18 17:20
400-160968-19	AY24811 MW-16D	Water	10/17/18 12:53	10/23/18 17:20
400-160968-20	AY24812 MW-18 DUP	Water	10/16/18 10:33	10/23/18 17:20
400-160968-21	AY24813 FB-2	Water	10/16/18 13:55	10/23/18 17:20

# Client Sample Results

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24793 MW-6S**

**Lab Sample ID: 400-160968-1**

Date Collected: 10/15/18 12:13

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		2.0	1.4	mg/L			11/01/18 11:26	1
Fluoride	0.14		0.10	0.032	mg/L			10/31/18 09:22	1
Sulfate	170		50	14	mg/L			11/02/18 14:28	10

**Client Sample ID: AY24794 MW-6S DUP**

**Lab Sample ID: 400-160968-2**

Date Collected: 10/15/18 12:13

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		2.0	1.4	mg/L			11/01/18 11:26	1
Fluoride	0.14		0.10	0.032	mg/L			10/31/18 09:29	1
Sulfate	200		50	14	mg/L			11/02/18 14:32	10

**Client Sample ID: AY24795 MW-6D**

**Lab Sample ID: 400-160968-3**

Date Collected: 10/15/18 13:24

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	7.0		2.0	1.4	mg/L			11/01/18 11:26	1
Fluoride	0.16		0.10	0.032	mg/L			10/31/18 10:01	1
Sulfate	37		10	2.8	mg/L			10/31/18 09:15	2

**Client Sample ID: AY24796 MW-7**

**Lab Sample ID: 400-160968-4**

Date Collected: 10/15/18 14:37

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.1		2.0	1.4	mg/L			11/01/18 11:29	1
Fluoride	0.11		0.10	0.032	mg/L			10/31/18 09:33	1
Sulfate	130		50	14	mg/L			11/02/18 14:27	10

**Client Sample ID: AY24797 FB-1**

**Lab Sample ID: 400-160968-5**

Date Collected: 10/15/18 15:25

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			11/01/18 11:29	1
Fluoride	<0.032		0.10	0.032	mg/L			10/31/18 10:17	1
Sulfate	<1.4		5.0	1.4	mg/L			10/31/18 08:47	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24798 MW-8**

**Lab Sample ID: 400-160968-6**

Date Collected: 10/16/18 09:47

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	1.4	mg/L			11/01/18 11:29	1
Fluoride	0.090	J	0.10	0.032	mg/L			10/31/18 10:19	1
Sulfate	2.4	J	5.0	1.4	mg/L			10/31/18 08:47	1

**Client Sample ID: AY24799 MW-9**

**Lab Sample ID: 400-160968-7**

Date Collected: 10/16/18 11:27

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		2.0	1.4	mg/L			11/01/18 11:29	1
Fluoride	0.15		0.10	0.032	mg/L			10/31/18 12:36	1
Sulfate	120		25	7.0	mg/L			11/02/18 14:32	5

**Client Sample ID: AY24800 MW-11**

**Lab Sample ID: 400-160968-8**

Date Collected: 10/16/18 13:10

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	8.1		2.0	1.4	mg/L			11/01/18 11:29	1
Fluoride	0.16		0.10	0.032	mg/L			10/31/18 10:10	1
Sulfate	22		5.0	1.4	mg/L			10/31/18 08:47	1

**Client Sample ID: AY24801 MW-12**

**Lab Sample ID: 400-160968-9**

Date Collected: 10/16/18 15:26

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.1		2.0	1.4	mg/L			11/01/18 11:36	1
Fluoride	0.23		0.10	0.032	mg/L			10/31/18 10:04	1
Sulfate	13		5.0	1.4	mg/L			10/31/18 08:42	1

**Client Sample ID: AY24802 EB-1**

**Lab Sample ID: 400-160968-10**

Date Collected: 10/16/18 16:50

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			11/01/18 11:36	1
Fluoride	<0.032		0.10	0.032	mg/L			10/31/18 12:32	1
Sulfate	<1.4		5.0	1.4	mg/L			10/31/18 08:47	1

**Client Sample ID: AY24803 MW-15**

**Lab Sample ID: 400-160968-11**

Date Collected: 10/15/18 12:15

Matrix: Water

Date Received: 10/23/18 17:20

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		2.0	1.4	mg/L			11/01/18 11:29	1

TestAmerica Pensacola

# Client Sample Results

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24803 MW-15**

**Lab Sample ID: 400-160968-11**

Date Collected: 10/15/18 12:15

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	0.77		0.10	0.032	mg/L			10/31/18 09:37	1
Sulfate	14		5.0	1.4	mg/L			11/02/18 13:55	1

**Client Sample ID: AY24804 MW-17**

**Lab Sample ID: 400-160968-12**

Date Collected: 10/15/18 15:11

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	10		2.0	1.4	mg/L			11/01/18 11:29	1
Fluoride	0.23		0.10	0.032	mg/L			10/31/18 09:43	1
Sulfate	34		5.0	1.4	mg/L			11/02/18 13:55	1

**Client Sample ID: AY24805 MW-18**

**Lab Sample ID: 400-160968-13**

Date Collected: 10/16/18 10:33

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	35		2.0	1.4	mg/L			11/01/18 11:36	1
Fluoride	0.64		0.10	0.032	mg/L			10/31/18 10:13	1
Sulfate	520		100	28	mg/L			10/31/18 09:15	20

**Client Sample ID: AY24806 MW-19**

**Lab Sample ID: 400-160968-14**

Date Collected: 10/16/18 11:51

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.2		2.0	1.4	mg/L			11/01/18 11:36	1
Fluoride	0.37		0.10	0.032	mg/L			10/31/18 12:34	1
Sulfate	5.6		5.0	1.4	mg/L			10/31/18 08:47	1

**Client Sample ID: AY24807 MW-21**

**Lab Sample ID: 400-160968-15**

Date Collected: 10/16/18 14:31

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	31		2.0	1.4	mg/L			11/01/18 11:36	1
Fluoride	0.25		0.10	0.032	mg/L			10/31/18 09:41	1
Sulfate	160		25	7.0	mg/L			11/02/18 14:32	5

**Client Sample ID: AY24808 MW-2**

**Lab Sample ID: 400-160968-16**

Date Collected: 10/16/18 16:20

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		2.0	1.4	mg/L			11/01/18 11:36	1
Fluoride	1.0		0.10	0.032	mg/L			10/31/18 10:06	1

TestAmerica Pensacola



# Client Sample Results

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24808 MW-2**

**Lab Sample ID: 400-160968-16**

Date Collected: 10/16/18 16:20

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	90		25	7.0	mg/L			11/02/18 14:32	5

**Client Sample ID: AY24809 MW-13**

**Lab Sample ID: 400-160968-17**

Date Collected: 10/17/18 09:16

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.3		2.0	1.4	mg/L			11/01/18 13:05	1
Fluoride	0.19		0.10	0.032	mg/L			10/31/18 09:59	1
Sulfate	12		5.0	1.4	mg/L			11/02/18 14:00	1

**Client Sample ID: AY24810 MW-14**

**Lab Sample ID: 400-160968-18**

Date Collected: 10/17/18 10:33

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.9		2.0	1.4	mg/L			11/01/18 13:08	1
Fluoride	0.18		0.10	0.032	mg/L			10/31/18 09:45	1
Sulfate	13		5.0	1.4	mg/L			11/02/18 14:00	1

**Client Sample ID: AY24811 MW-16D**

**Lab Sample ID: 400-160968-19**

Date Collected: 10/17/18 12:53

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.2		2.0	1.4	mg/L			11/01/18 13:08	1
Fluoride	0.13		0.10	0.032	mg/L			10/31/18 09:54	1
Sulfate	13		5.0	1.4	mg/L			11/02/18 14:00	1

**Client Sample ID: AY24812 MW-18 DUP**

**Lab Sample ID: 400-160968-20**

Date Collected: 10/16/18 10:33

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	36		2.0	1.4	mg/L			11/01/18 11:36	1
Fluoride	0.63		0.10	0.032	mg/L			10/31/18 12:38	1
Sulfate	540		100	28	mg/L			11/02/18 14:36	20

**Client Sample ID: AY24813 FB-2**

**Lab Sample ID: 400-160968-21**

Date Collected: 10/16/18 13:55

Matrix: Water

Date Received: 10/23/18 17:20

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			11/01/18 11:36	1
Fluoride	<0.032		0.10	0.032	mg/L			10/31/18 12:24	1
Sulfate	<1.4		5.0	1.4	mg/L			10/31/18 08:47	1

TestAmerica Pensacola

# Definitions/Glossary

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
F5	Duplicate RPD exceeds limit, and one or both sample results are less than 5 times RL. The data are considered valid because the absolute difference is less than the RL.
4	MS, MSD: The analyte present in the original sample is greater than 4 times the matrix spike concentration; therefore, control limits are not applicable.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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 Gorgas

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24793 MW-6S**  
**Date Collected: 10/15/18 12:13**  
**Date Received: 10/23/18 17:20**

**Lab Sample ID: 400-160968-1**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 09:22	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	418151	11/02/18 14:28	RRC	TAL PEN

**Client Sample ID: AY24794 MW-6S DUP**  
**Date Collected: 10/15/18 12:13**  
**Date Received: 10/23/18 17:20**

**Lab Sample ID: 400-160968-2**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 09:29	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	418151	11/02/18 14:32	RRC	TAL PEN

**Client Sample ID: AY24795 MW-6D**  
**Date Collected: 10/15/18 13:24**  
**Date Received: 10/23/18 17:20**

**Lab Sample ID: 400-160968-3**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:26	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 10:01	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	417786	10/31/18 09:15	RRC	TAL PEN

**Client Sample ID: AY24796 MW-7**  
**Date Collected: 10/15/18 14:37**  
**Date Received: 10/23/18 17:20**

**Lab Sample ID: 400-160968-4**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 09:33	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	418151	11/02/18 14:27	RRC	TAL PEN

**Client Sample ID: AY24797 FB-1**  
**Date Collected: 10/15/18 15:25**  
**Date Received: 10/23/18 17:20**

**Lab Sample ID: 400-160968-5**  
**Matrix: Water**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 10:17	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	417786	10/31/18 08:47	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24798 MW-8**

**Lab Sample ID: 400-160968-6**

**Date Collected: 10/16/18 09:47**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 10:19	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	417786	10/31/18 08:47	RRC	TAL PEN

**Client Sample ID: AY24799 MW-9**

**Lab Sample ID: 400-160968-7**

**Date Collected: 10/16/18 11:27**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417824	10/31/18 12:36	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	418151	11/02/18 14:32	RRC	TAL PEN

**Client Sample ID: AY24800 MW-11**

**Lab Sample ID: 400-160968-8**

**Date Collected: 10/16/18 13:10**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 10:10	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	417786	10/31/18 08:47	RRC	TAL PEN

**Client Sample ID: AY24801 MW-12**

**Lab Sample ID: 400-160968-9**

**Date Collected: 10/16/18 15:26**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 10:04	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	417786	10/31/18 08:42	RRC	TAL PEN

**Client Sample ID: AY24802 EB-1**

**Lab Sample ID: 400-160968-10**

**Date Collected: 10/16/18 16:50**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417824	10/31/18 12:32	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	417786	10/31/18 08:47	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24803 MW-15**

**Lab Sample ID: 400-160968-11**

**Date Collected: 10/15/18 12:15**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 09:37	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	418151	11/02/18 13:55	RRC	TAL PEN

**Client Sample ID: AY24804 MW-17**

**Lab Sample ID: 400-160968-12**

**Date Collected: 10/15/18 15:11**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:29	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 09:43	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	418151	11/02/18 13:55	RRC	TAL PEN

**Client Sample ID: AY24805 MW-18**

**Lab Sample ID: 400-160968-13**

**Date Collected: 10/16/18 10:33**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 10:13	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	417786	10/31/18 09:15	RRC	TAL PEN

**Client Sample ID: AY24806 MW-19**

**Lab Sample ID: 400-160968-14**

**Date Collected: 10/16/18 11:51**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417824	10/31/18 12:34	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	417786	10/31/18 08:47	RRC	TAL PEN

**Client Sample ID: AY24807 MW-21**

**Lab Sample ID: 400-160968-15**

**Date Collected: 10/16/18 14:31**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 09:41	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	418151	11/02/18 14:32	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24808 MW-2**

**Lab Sample ID: 400-160968-16**

**Date Collected: 10/16/18 16:20**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 10:06	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	418151	11/02/18 14:32	RRC	TAL PEN

**Client Sample ID: AY24809 MW-13**

**Lab Sample ID: 400-160968-17**

**Date Collected: 10/17/18 09:16**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417973	11/01/18 13:05	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 09:59	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	418151	11/02/18 14:00	RRC	TAL PEN

**Client Sample ID: AY24810 MW-14**

**Lab Sample ID: 400-160968-18**

**Date Collected: 10/17/18 10:33**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417973	11/01/18 13:08	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 09:45	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	418151	11/02/18 14:00	RRC	TAL PEN

**Client Sample ID: AY24811 MW-16D**

**Lab Sample ID: 400-160968-19**

**Date Collected: 10/17/18 12:53**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417973	11/01/18 13:08	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417785	10/31/18 09:54	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	418151	11/02/18 14:00	RRC	TAL PEN

**Client Sample ID: AY24812 MW-18 DUP**

**Lab Sample ID: 400-160968-20**

**Date Collected: 10/16/18 10:33**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417824	10/31/18 12:38	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		20	418151	11/02/18 14:36	RRC	TAL PEN

# Lab Chronicle

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24813 FB-2**

**Lab Sample ID: 400-160968-21**

**Date Collected: 10/16/18 13:55**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	417947	11/01/18 11:36	RRC	TAL PEN
Total/NA	Analysis	SM 4500 F C		1	417824	10/31/18 12:24	BAB	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	417786	10/31/18 08:47	RRC	TAL PEN

#### Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

# QC Association Summary

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

## General Chemistry

### Analysis Batch: 417785

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-1	AY24793 MW-6S	Total/NA	Water	SM 4500 F C	
400-160968-2	AY24794 MW-6S DUP	Total/NA	Water	SM 4500 F C	
400-160968-3	AY24795 MW-6D	Total/NA	Water	SM 4500 F C	
400-160968-4	AY24796 MW-7	Total/NA	Water	SM 4500 F C	
400-160968-5	AY24797 FB-1	Total/NA	Water	SM 4500 F C	
400-160968-6	AY24798 MW-8	Total/NA	Water	SM 4500 F C	
400-160968-8	AY24800 MW-11	Total/NA	Water	SM 4500 F C	
400-160968-9	AY24801 MW-12	Total/NA	Water	SM 4500 F C	
400-160968-11	AY24803 MW-15	Total/NA	Water	SM 4500 F C	
400-160968-12	AY24804 MW-17	Total/NA	Water	SM 4500 F C	
400-160968-13	AY24805 MW-18	Total/NA	Water	SM 4500 F C	
400-160968-15	AY24807 MW-21	Total/NA	Water	SM 4500 F C	
400-160968-16	AY24808 MW-2	Total/NA	Water	SM 4500 F C	
400-160968-17	AY24809 MW-13	Total/NA	Water	SM 4500 F C	
400-160968-18	AY24810 MW-14	Total/NA	Water	SM 4500 F C	
400-160968-19	AY24811 MW-16D	Total/NA	Water	SM 4500 F C	
MB 400-417785/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-417785/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-160968-1 MS	AY24793 MW-6S	Total/NA	Water	SM 4500 F C	
400-160968-1 MSD	AY24793 MW-6S	Total/NA	Water	SM 4500 F C	
400-160968-19 DU	AY24811 MW-16D	Total/NA	Water	SM 4500 F C	

### Analysis Batch: 417786

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-3	AY24795 MW-6D	Total/NA	Water	SM 4500 SO4 E	
400-160968-5	AY24797 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-160968-6	AY24798 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-160968-8	AY24800 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-160968-9	AY24801 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-160968-10	AY24802 EB-1	Total/NA	Water	SM 4500 SO4 E	
400-160968-13	AY24805 MW-18	Total/NA	Water	SM 4500 SO4 E	
400-160968-14	AY24806 MW-19	Total/NA	Water	SM 4500 SO4 E	
400-160968-21	AY24813 FB-2	Total/NA	Water	SM 4500 SO4 E	
MB 400-417786/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-417786/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-417786/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-160968-9 MS	AY24801 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-160968-9 MSD	AY24801 MW-12	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 417824

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-7	AY24799 MW-9	Total/NA	Water	SM 4500 F C	
400-160968-10	AY24802 EB-1	Total/NA	Water	SM 4500 F C	
400-160968-14	AY24806 MW-19	Total/NA	Water	SM 4500 F C	
400-160968-20	AY24812 MW-18 DUP	Total/NA	Water	SM 4500 F C	
400-160968-21	AY24813 FB-2	Total/NA	Water	SM 4500 F C	
MB 400-417824/3	Method Blank	Total/NA	Water	SM 4500 F C	
LCS 400-417824/4	Lab Control Sample	Total/NA	Water	SM 4500 F C	
400-160968-21 MS	AY24813 FB-2	Total/NA	Water	SM 4500 F C	
400-160968-21 MSD	AY24813 FB-2	Total/NA	Water	SM 4500 F C	
400-160851-A-4 DU	Duplicate	Total/NA	Water	SM 4500 F C	

TestAmerica Pensacola



# QC Association Summary

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

## Analysis Batch: 417947

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-1	AY24793 MW-6S	Total/NA	Water	SM 4500 Cl- E	
400-160968-2	AY24794 MW-6S DUP	Total/NA	Water	SM 4500 Cl- E	
400-160968-3	AY24795 MW-6D	Total/NA	Water	SM 4500 Cl- E	
400-160968-4	AY24796 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-160968-5	AY24797 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-160968-6	AY24798 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-160968-7	AY24799 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-160968-8	AY24800 MW-11	Total/NA	Water	SM 4500 Cl- E	
400-160968-9	AY24801 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-160968-10	AY24802 EB-1	Total/NA	Water	SM 4500 Cl- E	
400-160968-11	AY24803 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-160968-12	AY24804 MW-17	Total/NA	Water	SM 4500 Cl- E	
400-160968-13	AY24805 MW-18	Total/NA	Water	SM 4500 Cl- E	
400-160968-14	AY24806 MW-19	Total/NA	Water	SM 4500 Cl- E	
400-160968-15	AY24807 MW-21	Total/NA	Water	SM 4500 Cl- E	
400-160968-16	AY24808 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-160968-20	AY24812 MW-18 DUP	Total/NA	Water	SM 4500 Cl- E	
400-160968-21	AY24813 FB-2	Total/NA	Water	SM 4500 Cl- E	
MB 400-417947/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-417947/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-417947/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-160968-1 MS	AY24793 MW-6S	Total/NA	Water	SM 4500 Cl- E	
400-160968-1 MSD	AY24793 MW-6S	Total/NA	Water	SM 4500 Cl- E	

## Analysis Batch: 417973

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-17	AY24809 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-160968-18	AY24810 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-160968-19	AY24811 MW-16D	Total/NA	Water	SM 4500 Cl- E	
MB 400-417973/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-417973/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-417973/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-160957-F-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-160957-F-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

## Analysis Batch: 418151

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-1	AY24793 MW-6S	Total/NA	Water	SM 4500 SO4 E	
400-160968-2	AY24794 MW-6S DUP	Total/NA	Water	SM 4500 SO4 E	
400-160968-4	AY24796 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-160968-7	AY24799 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-160968-11	AY24803 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-160968-12	AY24804 MW-17	Total/NA	Water	SM 4500 SO4 E	
400-160968-15	AY24807 MW-21	Total/NA	Water	SM 4500 SO4 E	
400-160968-16	AY24808 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-160968-17	AY24809 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-160968-18	AY24810 MW-14	Total/NA	Water	SM 4500 SO4 E	
400-160968-19	AY24811 MW-16D	Total/NA	Water	SM 4500 SO4 E	
400-160968-20	AY24812 MW-18 DUP	Total/NA	Water	SM 4500 SO4 E	
MB 400-418151/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-418151/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-418151/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-160968-4 MS	AY24796 MW-7	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

## General Chemistry (Continued)

### Analysis Batch: 418151 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-4 MSD	AY24796 MW-7	Total/NA	Water	SM 4500 SO4 E	

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- 2
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# QC Sample Results

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

## Method: SM 4500 Cl- E - Chloride, Total

**Lab Sample ID: MB 400-417947/6**  
**Matrix: Water**  
**Analysis Batch: 417947**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			11/01/18 11:26	1

**Lab Sample ID: LCS 400-417947/7**  
**Matrix: Water**  
**Analysis Batch: 417947**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.6		mg/L		105	90 - 110

**Lab Sample ID: MRL 400-417947/3**  
**Matrix: Water**  
**Analysis Batch: 417947**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.38	J	mg/L		69	50 - 150

**Lab Sample ID: 400-160968-1 MS**  
**Matrix: Water**  
**Analysis Batch: 417947**

**Client Sample ID: AY24793 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	20		10.0	30.3		mg/L		98	73 - 120

**Lab Sample ID: 400-160968-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 417947**

**Client Sample ID: AY24793 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	20		10.0	30.2		mg/L		97	73 - 120	0	8

**Lab Sample ID: MB 400-417973/6**  
**Matrix: Water**  
**Analysis Batch: 417973**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<1.4		2.0	1.4	mg/L			11/01/18 13:05	1

**Lab Sample ID: LCS 400-417973/7**  
**Matrix: Water**  
**Analysis Batch: 417973**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.9		mg/L		106	90 - 110

**Lab Sample ID: MRL 400-417973/3**  
**Matrix: Water**  
**Analysis Batch: 417973**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.00	J	mg/L		50	50 - 150

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

**Lab Sample ID: 400-160957-F-1 MS**  
**Matrix: Water**  
**Analysis Batch: 417973**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	21		10.0	30.7		mg/L		100	73 - 120

**Lab Sample ID: 400-160957-F-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 417973**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	21		10.0	30.7		mg/L		100	73 - 120	0	8

## Method: SM 4500 F C - Fluoride

**Lab Sample ID: MB 400-417785/3**  
**Matrix: Water**  
**Analysis Batch: 417785**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			10/31/18 09:11	1

**Lab Sample ID: LCS 400-417785/4**  
**Matrix: Water**  
**Analysis Batch: 417785**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.34		mg/L		109	90 - 110

**Lab Sample ID: 400-160968-1 MS**  
**Matrix: Water**  
**Analysis Batch: 417785**

**Client Sample ID: AY24793 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	0.14		1.00	1.25		mg/L		111	75 - 125

**Lab Sample ID: 400-160968-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 417785**

**Client Sample ID: AY24793 MW-6S**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	0.14		1.00	1.25		mg/L		111	75 - 125	0	4

**Lab Sample ID: 400-160968-19 DU**  
**Matrix: Water**  
**Analysis Batch: 417785**

**Client Sample ID: AY24811 MW-16D**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.13		0.130		mg/L		0	4

# QC Sample Results

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

## Method: SM 4500 F C - Fluoride (Continued)

**Lab Sample ID: MB 400-417824/3**  
**Matrix: Water**  
**Analysis Batch: 417824**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Fluoride	<0.032		0.10	0.032	mg/L			10/31/18 12:10	1

**Lab Sample ID: LCS 400-417824/4**  
**Matrix: Water**  
**Analysis Batch: 417824**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	4.00	4.26		mg/L		107	90 - 110

**Lab Sample ID: 400-160968-21 MS**  
**Matrix: Water**  
**Analysis Batch: 417824**

**Client Sample ID: AY24813 FB-2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Fluoride	<0.032		1.00	1.10		mg/L		110	75 - 125

**Lab Sample ID: 400-160968-21 MSD**  
**Matrix: Water**  
**Analysis Batch: 417824**

**Client Sample ID: AY24813 FB-2**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Fluoride	<0.032		1.00	1.10		mg/L		110	75 - 125	0	4

**Lab Sample ID: 400-160851-A-4 DU**  
**Matrix: Water**  
**Analysis Batch: 417824**

**Client Sample ID: Duplicate**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
Fluoride	0.12		0.130	F5	mg/L		8	4

## Method: SM 4500 SO4 E - Sulfate, Total

**Lab Sample ID: MB 400-417786/6**  
**Matrix: Water**  
**Analysis Batch: 417786**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			10/31/18 08:36	1

**Lab Sample ID: LCS 400-417786/7**  
**Matrix: Water**  
**Analysis Batch: 417786**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.8		mg/L		98	90 - 110

# QC Sample Results

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

## Method: SM 4500 SO4 E - Sulfate, Total (Continued)

**Lab Sample ID: MRL 400-417786/3**  
**Matrix: Water**  
**Analysis Batch: 417786**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.11	J	mg/L		82	50 - 150

**Lab Sample ID: 400-160968-9 MS**  
**Matrix: Water**  
**Analysis Batch: 417786**

**Client Sample ID: AY24801 MW-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	13		10.0	20.6		mg/L		79	77 - 128

**Lab Sample ID: 400-160968-9 MSD**  
**Matrix: Water**  
**Analysis Batch: 417786**

**Client Sample ID: AY24801 MW-12**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	13		10.0	20.9		mg/L		82	77 - 128	2	5

**Lab Sample ID: MB 400-418151/6**  
**Matrix: Water**  
**Analysis Batch: 418151**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			11/02/18 13:49	1

**Lab Sample ID: LCS 400-418151/7**  
**Matrix: Water**  
**Analysis Batch: 418151**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	15.2		mg/L		101	90 - 110

**Lab Sample ID: MRL 400-418151/3**  
**Matrix: Water**  
**Analysis Batch: 418151**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.36	J	mg/L		87	50 - 150

**Lab Sample ID: 400-160968-4 MS**  
**Matrix: Water**  
**Analysis Batch: 418151**

**Client Sample ID: AY24796 MW-7**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	130		10.0	134	4	mg/L		24	77 - 128

**Lab Sample ID: 400-160968-4 MSD**  
**Matrix: Water**  
**Analysis Batch: 418151**

**Client Sample ID: AY24796 MW-7**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	130		10.0	134	4	mg/L		26	77 - 128	0	5

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-160968-1  
SDG: Gorgas Ash Pond 1171

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**Chain of Custody Record**

<b>Client Information</b>		Client Contact: Laura Mickliff		Phone:		Sampled By: Ben Rothschild		Carrier Tracking No(s):		COC No: 400-56525-24537.1	
Company: Alabama Power General Test Laboratory		Address: 744 County Rd 87 GSC #8		City: Calera		State/Zip: AL, 35040		Phone: 205-664-6197 (Tel)		E-Mail: bmickliff@southernco.com	
Project Name: CCR		Site: Gorgas Ash Pond 1171		Project #: 40007143		SSOW#:		Due Date Requested:		Analysis Requested	
TAI Requested (days):		Routine		Field Filtered Sample (Yes or No)		Perform MS/MSD (Yes or No)		SM 4500 F.C.		SM 4500 CLE	
PO #:		WO #:		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)		Matrix (W=Water, S=solid, O=Wastewater, B=Sludge, AAU)	
Sample Identification		Sample Date		Sample Time		Sample Type		Matrix		Preservation Code	
AY24793	10/15/18	12:13	G	Water							
AY24794	10/15/18	12:13	G	Water							
AY24795	10/15/18	13:24	G	Water							
AY24796	10/15/18	14:37	G	Water							
AY24797	10/15/18	15:26	G	Water							
AY24798	10/16/18	09:47	G	Water							
AY24799	10/16/18	11:27	G	Water							
AY24800	10/16/18	13:10	G	Water							
AY24801	10/16/18	15:26	G	Water							
AY24802	10/16/18	16:50	G	Water							
Total Number of Containers		2		MW-6S						Special Instructions/Note:	
2		MW-6S DUP (Duplicate)									
4		MW-6D									
2		MW-7									
2		FB-1 (Field Blank)									
		MW-8									
		MW-9									
		MW-11									
		MW-12									
		EB-1 (Equipment Blank)									
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		<input type="checkbox"/> Return To Client		<input type="checkbox"/> Disposal By Lab		<input type="checkbox"/> Archive For		Months			
Special Instructions/QC Requirements:											
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:					
Relinquished by: Laura Mickliff		Date/Time: 10/18/2018, 16:35				Company: APC					
Relinquished by:		Date/Time:				Company:					
Relinquished by:		Date/Time:				Company:					
Custody Seals Intact:		Custody Seal No.:									
Δ Yes Δ No											



10/23/18  
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 1-20-18

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## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-160968-1  
SDG Number: Gorgas Ash Pond 1171

**Login Number: 160968**

**List Number: 1**

**Creator: Johnson, Jeremy N**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	24.5°C 24.4°C 25.4°C IR8, 1.2°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Accreditation/Certification Summary

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

TestAmerica Job ID: 400-160968-1  
 SDG: Gorgas Ash Pond 1171

### Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-18 *
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-16	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

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

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-160968-2

TestAmerica Sample Delivery Group: Gorgas Ash Pond 1171

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Laura Midkiff



Authorized for release by:

11/27/2018 11:36:14 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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results through  
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*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 Gorgas

TestAmerica Job ID: 400-160968-2  
SDG: Gorgas Ash Pond 1171

**Job ID: 400-160968-2**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-160968-2

#### RAD

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-397516: The following samples were prepared at a reduced aliquot due to limited sample volume. AY24793 MW-6S (400-160968-1), AY24794 MW-6S DUP (400-160968-2), AY24795 MW-6D (400-160968-3), AY24795 MW-6D (400-160968-3[DUJ]), AY24796 MW-7 (400-160968-4), AY24797 FB-1 (400-160968-5), AY24798 MW-8 (400-160968-6), AY24799 MW-9 (400-160968-7), AY24800 MW-11 (400-160968-8), AY24801 MW-12 (400-160968-9), AY24802 EB-1 (400-160968-10), AY24803 MW-15 (400-160968-11), AY24804 MW-17 (400-160968-12), AY24805 MW-18 (400-160968-13), AY24806 MW-19 (400-160968-14), AY24806 MW-19 (400-160968-14[DUJ]), AY24807 MW-21 (400-160968-15), AY24808 MW-2 (400-160968-16), AY24809 MW-13 (400-160968-17), AY24810 MW-14 (400-160968-18), AY24811 MW-16D (400-160968-19) and AY24812 MW-18 DUP (400-160968-20)

Method(s) PrecSep\_0: Radium 228 Prep Batch 160-398030: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: AY24813 FB-2 (400-160968-21). 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 160-397464: The following samples were prepared at a reduced aliquot due to limited sample volume. AY24793 MW-6S (400-160968-1), AY24794 MW-6S DUP (400-160968-2), AY24795 MW-6D (400-160968-3), AY24795 MW-6D (400-160968-3[DUJ]), AY24796 MW-7 (400-160968-4), AY24797 FB-1 (400-160968-5), AY24798 MW-8 (400-160968-6), AY24799 MW-9 (400-160968-7), AY24800 MW-11 (400-160968-8), AY24801 MW-12 (400-160968-9), AY24802 EB-1 (400-160968-10), AY24803 MW-15 (400-160968-11), AY24804 MW-17 (400-160968-12), AY24805 MW-18 (400-160968-13), AY24806 MW-19 (400-160968-14), AY24806 MW-19 (400-160968-14[DUJ]), AY24807 MW-21 (400-160968-15), AY24808 MW-2 (400-160968-16), AY24809 MW-13 (400-160968-17), AY24810 MW-14 (400-160968-18), AY24811 MW-16D (400-160968-19) and AY24812 MW-18 DUP (400-160968-20)

Method(s) PrecSep-21: Radium 226 Prep Batch 160-398027: Insufficient sample volume was available to perform a sample duplicate (DUP) for the following samples: AY24813 FB-2 (400-160968-21). 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 Gorgas

TestAmerica Job ID: 400-160968-2  
SDG: Gorgas Ash Pond 1171

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 = 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 Gorgas

TestAmerica Job ID: 400-160968-2  
SDG: Gorgas Ash Pond 1171

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-160968-1	AY24793 MW-6S	Water	10/15/18 12:13	10/23/18 17:20
400-160968-2	AY24794 MW-6S DUP	Water	10/15/18 12:13	10/23/18 17:20
400-160968-3	AY24795 MW-6D	Water	10/15/18 13:24	10/23/18 17:20
400-160968-4	AY24796 MW-7	Water	10/15/18 14:37	10/23/18 17:20
400-160968-5	AY24797 FB-1	Water	10/15/18 15:25	10/23/18 17:20
400-160968-6	AY24798 MW-8	Water	10/16/18 09:47	10/23/18 17:20
400-160968-7	AY24799 MW-9	Water	10/16/18 11:27	10/23/18 17:20
400-160968-8	AY24800 MW-11	Water	10/16/18 13:10	10/23/18 17:20
400-160968-9	AY24801 MW-12	Water	10/16/18 15:26	10/23/18 17:20
400-160968-10	AY24802 EB-1	Water	10/16/18 16:50	10/23/18 17:20
400-160968-11	AY24803 MW-15	Water	10/15/18 12:15	10/23/18 17:20
400-160968-12	AY24804 MW-17	Water	10/15/18 15:11	10/23/18 17:20
400-160968-13	AY24805 MW-18	Water	10/16/18 10:33	10/23/18 17:20
400-160968-14	AY24806 MW-19	Water	10/16/18 11:51	10/23/18 17:20
400-160968-15	AY24807 MW-21	Water	10/16/18 14:31	10/23/18 17:20
400-160968-16	AY24808 MW-2	Water	10/16/18 16:20	10/23/18 17:20
400-160968-17	AY24809 MW-13	Water	10/17/18 09:16	10/23/18 17:20
400-160968-18	AY24810 MW-14	Water	10/17/18 10:33	10/23/18 17:20
400-160968-19	AY24811 MW-16D	Water	10/17/18 12:53	10/23/18 17:20
400-160968-20	AY24812 MW-18 DUP	Water	10/16/18 10:33	10/23/18 17:20
400-160968-21	AY24813 FB-2	Water	10/16/18 13:55	10/23/18 17:20



# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24793 MW-6S**

**Lab Sample ID: 400-160968-1**

**Date Collected: 10/15/18 12:13**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.423		0.133	0.138	1.00	0.0979	pCi/L	10/26/18 10:22	11/21/18 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					10/26/18 10:22	11/21/18 09:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.369	U	0.301	0.303	1.00	0.478	pCi/L	10/26/18 12:41	11/14/18 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					10/26/18 12:41	11/14/18 14:51	1
Y Carrier	84.1		40 - 110					10/26/18 12:41	11/14/18 14:51	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.792		0.329	0.333	5.00	0.478	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24794 MW-6S DUP**

**Lab Sample ID: 400-160968-2**

**Date Collected: 10/15/18 12:13**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.444		0.138	0.144	1.00	0.103	pCi/L	10/26/18 10:22	11/21/18 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/26/18 10:22	11/21/18 09:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0955	U	0.270	0.271	1.00	0.470	pCi/L	10/26/18 12:41	11/14/18 14:51	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/26/18 12:41	11/14/18 14:51	1
Y Carrier	84.5		40 - 110					10/26/18 12:41	11/14/18 14:51	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.540		0.303	0.307	5.00	0.470	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24795 MW-6D**

**Lab Sample ID: 400-160968-3**

**Date Collected: 10/15/18 13:24**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.422		0.132	0.137	1.00	0.0897	pCi/L	10/26/18 10:22	11/21/18 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					10/26/18 10:22	11/21/18 09:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.234	U	0.258	0.258	1.00	0.422	pCi/L	10/26/18 12:41	11/14/18 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	106		40 - 110					10/26/18 12:41	11/14/18 14:52	1
Y Carrier	86.4		40 - 110					10/26/18 12:41	11/14/18 14:52	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.656		0.290	0.292	5.00	0.422	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24796 MW-7**

**Lab Sample ID: 400-160968-4**

**Date Collected: 10/15/18 14:37**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.220		0.104	0.106	1.00	0.107	pCi/L	10/26/18 10:22	11/21/18 09:45	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					10/26/18 10:22	11/21/18 09:45	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0882	U	0.315	0.315	1.00	0.547	pCi/L	10/26/18 12:41	11/14/18 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	98.8		40 - 110					10/26/18 12:41	11/14/18 14:52	1
Y Carrier	87.1		40 - 110					10/26/18 12:41	11/14/18 14:52	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.309	U	0.332	0.332	5.00	0.547	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24797 FB-1**

**Lab Sample ID: 400-160968-5**

**Date Collected: 10/15/18 15:25**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.335		0.121	0.125	1.00	0.107	pCi/L	10/26/18 10:22	11/21/18 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					10/26/18 10:22	11/21/18 09:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0884	U	0.284	0.284	1.00	0.494	pCi/L	10/26/18 12:41	11/14/18 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	104		40 - 110					10/26/18 12:41	11/14/18 14:52	1
Y Carrier	83.4		40 - 110					10/26/18 12:41	11/14/18 14:52	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.423	U	0.309	0.310	5.00	0.494	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24798 MW-8**

**Lab Sample ID: 400-160968-6**

**Date Collected: 10/16/18 09:47**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.279		0.118	0.120	1.00	0.129	pCi/L	10/26/18 10:22	11/21/18 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					10/26/18 10:22	11/21/18 09:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0785	U	0.269	0.269	1.00	0.498	pCi/L	10/26/18 12:41	11/14/18 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.4		40 - 110					10/26/18 12:41	11/14/18 14:52	1
Y Carrier	84.9		40 - 110					10/26/18 12:41	11/14/18 14:52	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.200	U	0.294	0.295	5.00	0.498	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24799 MW-9**

**Lab Sample ID: 400-160968-7**

Date Collected: 10/16/18 11:27

Matrix: Water

Date Received: 10/23/18 17:20

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.219		0.103	0.105	1.00	0.110	pCi/L	10/26/18 10:22	11/21/18 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/26/18 10:22	11/21/18 09:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.542		0.296	0.300	1.00	0.437	pCi/L	10/26/18 12:41	11/14/18 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/26/18 12:41	11/14/18 14:52	1
Y Carrier	84.5		40 - 110					10/26/18 12:41	11/14/18 14:52	1

### Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.761		0.313	0.318	5.00	0.437	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24800 MW-11**

**Lab Sample ID: 400-160968-8**

**Date Collected: 10/16/18 13:10**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.425		0.139	0.144	1.00	0.117	pCi/L	10/26/18 10:22	11/21/18 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/26/18 10:22	11/21/18 09:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.118	U	0.280	0.281	1.00	0.524	pCi/L	10/26/18 12:41	11/14/18 14:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/26/18 12:41	11/14/18 14:52	1
Y Carrier	82.2		40 - 110					10/26/18 12:41	11/14/18 14:52	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.307	U	0.313	0.316	5.00	0.524	pCi/L		11/26/18 15:24	1



# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24801 MW-12**

**Lab Sample ID: 400-160968-9**

**Date Collected: 10/16/18 15:26**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.291		0.123	0.126	1.00	0.129	pCi/L	10/26/18 10:22	11/21/18 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					10/26/18 10:22	11/21/18 09:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.130	U	0.289	0.289	1.00	0.496	pCi/L	10/26/18 12:41	11/14/18 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					10/26/18 12:41	11/14/18 14:53	1
Y Carrier	84.1		40 - 110					10/26/18 12:41	11/14/18 14:53	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.421	U	0.314	0.315	5.00	0.496	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24802 EB-1**

**Lab Sample ID: 400-160968-10**

**Date Collected: 10/16/18 16:50**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.229		0.111	0.112	1.00	0.121	pCi/L	10/26/18 10:22	11/21/18 09:46	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					10/26/18 10:22	11/21/18 09:46	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.152	U	0.249	0.249	1.00	0.485	pCi/L	10/26/18 12:41	11/14/18 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	100		40 - 110					10/26/18 12:41	11/14/18 14:53	1
Y Carrier	77.4		40 - 110					10/26/18 12:41	11/14/18 14:53	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.0772	U	0.273	0.273	5.00	0.485	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24803 MW-15**

**Lab Sample ID: 400-160968-11**

**Date Collected: 10/15/18 12:15**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.495		0.161	0.167	1.00	0.145	pCi/L	10/26/18 10:22	11/21/18 09:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					10/26/18 10:22	11/21/18 09:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.213	U	0.280	0.281	1.00	0.467	pCi/L	10/26/18 12:41	11/14/18 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					10/26/18 12:41	11/14/18 14:53	1
Y Carrier	84.5		40 - 110					10/26/18 12:41	11/14/18 14:53	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.708		0.323	0.327	5.00	0.467	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24804 MW-17**

**Lab Sample ID: 400-160968-12**

**Date Collected: 10/15/18 15:11**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.318		0.144	0.146	1.00	0.160	pCi/L	10/26/18 10:22	11/21/18 09:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					10/26/18 10:22	11/21/18 09:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.119	U	0.308	0.309	1.00	0.574	pCi/L	10/26/18 12:41	11/14/18 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	94.1		40 - 110					10/26/18 12:41	11/14/18 14:53	1
Y Carrier	81.1		40 - 110					10/26/18 12:41	11/14/18 14:53	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.199	U	0.340	0.342	5.00	0.574	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24805 MW-18**

**Lab Sample ID: 400-160968-13**

**Date Collected: 10/16/18 10:33**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.372		0.155	0.159	1.00	0.172	pCi/L	10/26/18 10:22	11/21/18 09:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					10/26/18 10:22	11/21/18 09:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.407	U	0.333	0.335	1.00	0.529	pCi/L	10/26/18 12:41	11/14/18 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					10/26/18 12:41	11/14/18 14:53	1
Y Carrier	83.7		40 - 110					10/26/18 12:41	11/14/18 14:53	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.779		0.367	0.371	5.00	0.529	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24806 MW-19**

**Lab Sample ID: 400-160968-14**

**Date Collected: 10/16/18 11:51**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.537		0.162	0.169	1.00	0.121	pCi/L	10/26/18 10:22	11/21/18 09:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/26/18 10:22	11/21/18 09:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.319	U	0.278	0.279	1.00	0.442	pCi/L	10/26/18 12:41	11/14/18 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/26/18 12:41	11/14/18 14:53	1
Y Carrier	82.6		40 - 110					10/26/18 12:41	11/14/18 14:53	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.856		0.322	0.326	5.00	0.442	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24807 MW-21**

**Lab Sample ID: 400-160968-15**

**Date Collected: 10/16/18 14:31**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.537		0.157	0.164	1.00	0.109	pCi/L	10/26/18 10:22	11/21/18 09:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/26/18 10:22	11/21/18 09:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.0486	U	0.314	0.314	1.00	0.551	pCi/L	10/26/18 12:41	11/14/18 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/26/18 12:41	11/14/18 14:53	1
Y Carrier	81.9		40 - 110					10/26/18 12:41	11/14/18 14:53	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.586		0.351	0.354	5.00	0.551	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24808 MW-2**

**Lab Sample ID: 400-160968-16**

**Date Collected: 10/16/18 16:20**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.394		0.152	0.156	1.00	0.162	pCi/L	10/26/18 10:22	11/21/18 09:50	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					10/26/18 10:22	11/21/18 09:50	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.342	U	0.327	0.329	1.00	0.530	pCi/L	10/26/18 12:41	11/14/18 14:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.9		40 - 110					10/26/18 12:41	11/14/18 14:53	1
Y Carrier	84.1		40 - 110					10/26/18 12:41	11/14/18 14:53	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.736		0.361	0.364	5.00	0.530	pCi/L		11/26/18 15:24	1



# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24809 MW-13**

**Lab Sample ID: 400-160968-17**

**Date Collected: 10/17/18 09:16**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.356		0.129	0.133	1.00	0.116	pCi/L	10/26/18 10:22	11/21/18 09:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/26/18 10:22	11/21/18 09:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.126	U	0.244	0.244	1.00	0.419	pCi/L	10/26/18 12:41	11/14/18 14:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	102		40 - 110					10/26/18 12:41	11/14/18 14:54	1
Y Carrier	81.5		40 - 110					10/26/18 12:41	11/14/18 14:54	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.482		0.276	0.278	5.00	0.419	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24810 MW-14**

**Lab Sample ID: 400-160968-18**

**Date Collected: 10/17/18 10:33**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.332		0.125	0.128	1.00	0.115	pCi/L	10/26/18 10:22	11/21/18 09:52	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/26/18 10:22	11/21/18 09:52	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.231	U	0.235	0.236	1.00	0.474	pCi/L	10/26/18 12:41	11/14/18 14:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	101		40 - 110					10/26/18 12:41	11/14/18 14:54	1
Y Carrier	82.6		40 - 110					10/26/18 12:41	11/14/18 14:54	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.101	U	0.266	0.268	5.00	0.474	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24811 MW-16D**

**Lab Sample ID: 400-160968-19**

**Date Collected: 10/17/18 12:53**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.254		0.111	0.113	1.00	0.116	pCi/L	10/26/18 10:22	11/21/18 09:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					10/26/18 10:22	11/21/18 09:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.114	U	0.250	0.250	1.00	0.432	pCi/L	10/26/18 12:41	11/14/18 14:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	109		40 - 110					10/26/18 12:41	11/14/18 14:54	1
Y Carrier	81.5		40 - 110					10/26/18 12:41	11/14/18 14:54	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.368	U	0.274	0.274	5.00	0.432	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24812 MW-18 DUP**

**Lab Sample ID: 400-160968-20**

**Date Collected: 10/16/18 10:33**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.349		0.128	0.132	1.00	0.113	pCi/L	10/26/18 10:22	11/21/18 09:53	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					10/26/18 10:22	11/21/18 09:53	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	-0.0604	U	0.280	0.280	1.00	0.513	pCi/L	10/26/18 12:41	11/14/18 14:54	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	99.1		40 - 110					10/26/18 12:41	11/14/18 14:54	1
Y Carrier	83.4		40 - 110					10/26/18 12:41	11/14/18 14:54	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.289	U	0.308	0.310	5.00	0.513	pCi/L		11/26/18 15:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24813 FB-2**

**Lab Sample ID: 400-160968-21**

**Date Collected: 10/16/18 13:55**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-226	0.126	U	0.0920	0.0927	1.00	0.128	pCi/L	10/29/18 11:40	11/20/18 11:18	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					10/29/18 11:40	11/20/18 11:18	1

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

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.331	U	0.331	0.332	1.00	0.536	pCi/L	10/29/18 11:58	11/12/18 16:29	1
Carrier	%Yield	Qualifier	Limits					Prepared	Analyzed	Dil Fac
Ba Carrier	97.6		40 - 110					10/29/18 11:58	11/12/18 16:29	1
Y Carrier	75.5		40 - 110					10/29/18 11:58	11/12/18 16:29	1

**Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Combined Radium 226 + 228	0.457	U	0.344	0.345	5.00	0.536	pCi/L		11/26/18 15:24	1

# Definitions/Glossary

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

TestAmerica Job ID: 400-160968-2  
SDG: Gorgas Ash Pond 1171

## Qualifiers

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
▫	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
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 Gorgas

TestAmerica Job ID: 400-160968-2  
SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24793 MW-6S**

**Lab Sample ID: 400-160968-1**

**Date Collected: 10/15/18 12:13**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402011	11/21/18 09:45	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:51	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24794 MW-6S DUP**

**Lab Sample ID: 400-160968-2**

**Date Collected: 10/15/18 12:13**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402011	11/21/18 09:45	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:51	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24795 MW-6D**

**Lab Sample ID: 400-160968-3**

**Date Collected: 10/15/18 13:24**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402011	11/21/18 09:45	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:52	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24796 MW-7**

**Lab Sample ID: 400-160968-4**

**Date Collected: 10/15/18 14:37**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402011	11/21/18 09:45	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:52	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-160968-2  
SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24797 FB-1**

**Lab Sample ID: 400-160968-5**

**Date Collected: 10/15/18 15:25**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402011	11/21/18 09:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:52	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24798 MW-8**

**Lab Sample ID: 400-160968-6**

**Date Collected: 10/16/18 09:47**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402011	11/21/18 09:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:52	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24799 MW-9**

**Lab Sample ID: 400-160968-7**

**Date Collected: 10/16/18 11:27**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402011	11/21/18 09:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:52	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24800 MW-11**

**Lab Sample ID: 400-160968-8**

**Date Collected: 10/16/18 13:10**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402011	11/21/18 09:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:52	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL



# Lab Chronicle

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

TestAmerica Job ID: 400-160968-2  
SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24801 MW-12**

**Lab Sample ID: 400-160968-9**

**Date Collected: 10/16/18 15:26**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402011	11/21/18 09:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24802 EB-1**

**Lab Sample ID: 400-160968-10**

**Date Collected: 10/16/18 16:50**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402011	11/21/18 09:46	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24803 MW-15**

**Lab Sample ID: 400-160968-11**

**Date Collected: 10/15/18 12:15**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402004	11/21/18 09:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24804 MW-17**

**Lab Sample ID: 400-160968-12**

**Date Collected: 10/15/18 15:11**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402004	11/21/18 09:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24805 MW-18**

**Lab Sample ID: 400-160968-13**

**Date Collected: 10/16/18 10:33**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402004	11/21/18 09:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24806 MW-19**

**Lab Sample ID: 400-160968-14**

**Date Collected: 10/16/18 11:51**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402004	11/21/18 09:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24807 MW-21**

**Lab Sample ID: 400-160968-15**

**Date Collected: 10/16/18 14:31**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402004	11/21/18 09:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24808 MW-2**

**Lab Sample ID: 400-160968-16**

**Date Collected: 10/16/18 16:20**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402004	11/21/18 09:50	KLS	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:53	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24809 MW-13**

**Lab Sample ID: 400-160968-17**

**Date Collected: 10/17/18 09:16**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402132	11/21/18 09:52	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24810 MW-14**

**Lab Sample ID: 400-160968-18**

**Date Collected: 10/17/18 10:33**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402132	11/21/18 09:52	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24811 MW-16D**

**Lab Sample ID: 400-160968-19**

**Date Collected: 10/17/18 12:53**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402132	11/21/18 09:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400865	11/14/18 14:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

**Client Sample ID: AY24812 MW-18 DUP**

**Lab Sample ID: 400-160968-20**

**Date Collected: 10/16/18 10:33**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			397464	10/26/18 10:22	JLC	TAL SL
Total/NA	Analysis	9315		1	402132	11/21/18 09:53	CDR	TAL SL
Total/NA	Prep	PrecSep_0			397516	10/26/18 12:41	JLC	TAL SL
Total/NA	Analysis	9320		1	400866	11/14/18 14:54	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-160968-2  
SDG: Gorgas Ash Pond 1171

**Client Sample ID: AY24813 FB-2**

**Lab Sample ID: 400-160968-21**

**Date Collected: 10/16/18 13:55**

**Matrix: Water**

**Date Received: 10/23/18 17:20**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	PrecSep-21			398027	10/29/18 11:40	JLC	TAL SL
Total/NA	Analysis	9315		1	401803	11/20/18 11:18	CDR	TAL SL
Total/NA	Prep	PrecSep_0			398030	10/29/18 11:58	JLC	TAL SL
Total/NA	Analysis	9320		1	400470	11/12/18 16:29	CDR	TAL SL
Total/NA	Analysis	Ra226_Ra228		1	402686	11/26/18 15:24	RTM	TAL SL

#### Laboratory References:

TAL SL = 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 Gorgas

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

## Rad

### Prep Batch: 397464

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-1	AY24793 MW-6S	Total/NA	Water	PrecSep-21	
400-160968-2	AY24794 MW-6S DUP	Total/NA	Water	PrecSep-21	
400-160968-3	AY24795 MW-6D	Total/NA	Water	PrecSep-21	
400-160968-4	AY24796 MW-7	Total/NA	Water	PrecSep-21	
400-160968-5	AY24797 FB-1	Total/NA	Water	PrecSep-21	
400-160968-6	AY24798 MW-8	Total/NA	Water	PrecSep-21	
400-160968-7	AY24799 MW-9	Total/NA	Water	PrecSep-21	
400-160968-8	AY24800 MW-11	Total/NA	Water	PrecSep-21	
400-160968-9	AY24801 MW-12	Total/NA	Water	PrecSep-21	
400-160968-10	AY24802 EB-1	Total/NA	Water	PrecSep-21	
400-160968-11	AY24803 MW-15	Total/NA	Water	PrecSep-21	
400-160968-12	AY24804 MW-17	Total/NA	Water	PrecSep-21	
400-160968-13	AY24805 MW-18	Total/NA	Water	PrecSep-21	
400-160968-14	AY24806 MW-19	Total/NA	Water	PrecSep-21	
400-160968-15	AY24807 MW-21	Total/NA	Water	PrecSep-21	
400-160968-16	AY24808 MW-2	Total/NA	Water	PrecSep-21	
400-160968-17	AY24809 MW-13	Total/NA	Water	PrecSep-21	
400-160968-18	AY24810 MW-14	Total/NA	Water	PrecSep-21	
400-160968-19	AY24811 MW-16D	Total/NA	Water	PrecSep-21	
400-160968-20	AY24812 MW-18 DUP	Total/NA	Water	PrecSep-21	
MB 160-397464/24-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-397464/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
400-160968-3 DU	AY24795 MW-6D	Total/NA	Water	PrecSep-21	
400-160968-14 DU	AY24806 MW-19	Total/NA	Water	PrecSep-21	

### Prep Batch: 397516

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-1	AY24793 MW-6S	Total/NA	Water	PrecSep_0	
400-160968-2	AY24794 MW-6S DUP	Total/NA	Water	PrecSep_0	
400-160968-3	AY24795 MW-6D	Total/NA	Water	PrecSep_0	
400-160968-4	AY24796 MW-7	Total/NA	Water	PrecSep_0	
400-160968-5	AY24797 FB-1	Total/NA	Water	PrecSep_0	
400-160968-6	AY24798 MW-8	Total/NA	Water	PrecSep_0	
400-160968-7	AY24799 MW-9	Total/NA	Water	PrecSep_0	
400-160968-8	AY24800 MW-11	Total/NA	Water	PrecSep_0	
400-160968-9	AY24801 MW-12	Total/NA	Water	PrecSep_0	
400-160968-10	AY24802 EB-1	Total/NA	Water	PrecSep_0	
400-160968-11	AY24803 MW-15	Total/NA	Water	PrecSep_0	
400-160968-12	AY24804 MW-17	Total/NA	Water	PrecSep_0	
400-160968-13	AY24805 MW-18	Total/NA	Water	PrecSep_0	
400-160968-14	AY24806 MW-19	Total/NA	Water	PrecSep_0	
400-160968-15	AY24807 MW-21	Total/NA	Water	PrecSep_0	
400-160968-16	AY24808 MW-2	Total/NA	Water	PrecSep_0	
400-160968-17	AY24809 MW-13	Total/NA	Water	PrecSep_0	
400-160968-18	AY24810 MW-14	Total/NA	Water	PrecSep_0	
400-160968-19	AY24811 MW-16D	Total/NA	Water	PrecSep_0	
400-160968-20	AY24812 MW-18 DUP	Total/NA	Water	PrecSep_0	
MB 160-397516/24-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-397516/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
400-160968-3 DU	AY24795 MW-6D	Total/NA	Water	PrecSep_0	
400-160968-14 DU	AY24806 MW-19	Total/NA	Water	PrecSep_0	

TestAmerica Pensacola

# QC Association Summary

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

## Prep Batch: 398027

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-21	AY24813 FB-2	Total/NA	Water	PrecSep-21	
MB 160-398027/11-A	Method Blank	Total/NA	Water	PrecSep-21	
LCS 160-398027/1-A	Lab Control Sample	Total/NA	Water	PrecSep-21	
LCSD 160-398027/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep-21	

## Prep Batch: 398030

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-160968-21	AY24813 FB-2	Total/NA	Water	PrecSep_0	
MB 160-398030/11-A	Method Blank	Total/NA	Water	PrecSep_0	
LCS 160-398030/1-A	Lab Control Sample	Total/NA	Water	PrecSep_0	
LCSD 160-398030/2-A	Lab Control Sample Dup	Total/NA	Water	PrecSep_0	



# QC Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

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

**Lab Sample ID: MB 160-397464/24-A**  
**Matrix: Water**  
**Analysis Batch: 402132**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 397464**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.2420		0.107	0.110	1.00	0.107	pCi/L	10/26/18 10:22	11/21/18 09:53	1
Carrier	MB MB		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110							
	101				10/26/18 10:22	11/21/18 09:53	1			

**Lab Sample ID: LCS 160-397464/1-A**  
**Matrix: Water**  
**Analysis Batch: 402011**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 397464**

Analyte	Spike Added	LCS Result	LCS Qual	Total	RL	MDC	Unit	%Rec	%Rec. Limits
				Uncert. (2σ+/-)					
Radium-226	15.1	12.80		1.35	1.00	0.125	pCi/L	85	68 - 137
Carrier	LCS LCS		Limits		Prepared	Analyzed	Dil Fac		
Ba Carrier	%Yield	Qualifier	40 - 110						
	97.9				10/26/18 10:22	11/21/18 09:53	1		

**Lab Sample ID: 400-160968-3 DU**  
**Matrix: Water**  
**Analysis Batch: 402011**

**Client Sample ID: AY24795 MW-6D**  
**Prep Type: Total/NA**  
**Prep Batch: 397464**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	0.422		0.3933		0.147	1.00	0.134	pCi/L	0.10	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110							
	93.2				10/26/18 10:22	11/21/18 09:53	1			

**Lab Sample ID: 400-160968-14 DU**  
**Matrix: Water**  
**Analysis Batch: 402004**

**Client Sample ID: AY24806 MW-19**  
**Prep Type: Total/NA**  
**Prep Batch: 397464**

Analyte	Sample Sample		DU	DU	Total	RL	MDC	Unit	RER	RER
	Result	Qual	Result	Qual	Uncert. (2σ+/-)					Limit
Radium-226	0.537		0.4835		0.162	1.00	0.129	pCi/L	0.16	1
Carrier	DU DU		Limits		Prepared	Analyzed	Dil Fac			
Ba Carrier	%Yield	Qualifier	40 - 110							
	97.1				10/29/18 11:40	11/20/18 11:18	1			

**Lab Sample ID: MB 160-398027/11-A**  
**Matrix: Water**  
**Analysis Batch: 401803**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 398027**

Analyte	MB MB		Count	Total	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
	Result	Qualifier	Uncert. (2σ+/-)	Uncert. (2σ+/-)						
Radium-226	0.2707		0.172	0.174	1.00	0.234	pCi/L	10/29/18 11:40	11/20/18 11:18	1

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

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

**Lab Sample ID: MB 160-398027/11-A**  
**Matrix: Water**  
**Analysis Batch: 401803**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 398027**

Carrier	<i>MB</i> %Yield	<i>MB</i> Qualifier	Limits
Ba Carrier	95.9		40 - 110

Prepared	Analyzed	Dil Fac
10/29/18 11:40	11/20/18 11:18	1

**Lab Sample ID: LCS 160-398027/1-A**  
**Matrix: Water**  
**Analysis Batch: 401803**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 398027**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-226	22.7	21.18		2.22	1.00	0.203	pCi/L	93	68 - 137

Carrier	<i>LCS</i> %Yield	<i>LCS</i> Qualifier	Limits
Ba Carrier	90.9		40 - 110

**Lab Sample ID: LCSD 160-398027/2-A**  
**Matrix: Water**  
**Analysis Batch: 401803**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 398027**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Radium-226	22.7	22.04		2.32	1.00	0.216	pCi/L	97	68 - 137	0.19	1

Carrier	<i>LCSD</i> %Yield	<i>LCSD</i> Qualifier	Limits
Ba Carrier	90.6		40 - 110

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

**Lab Sample ID: MB 160-397516/24-A**  
**Matrix: Water**  
**Analysis Batch: 400866**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 397516**

Analyte	<i>MB</i> Result	<i>MB</i> Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.1642	U	0.287	0.288	1.00	0.488	pCi/L	10/26/18 12:41	11/14/18 14:55	1

Carrier	<i>MB</i> %Yield	<i>MB</i> Qualifier	Limits
Ba Carrier	101		40 - 110
Y Carrier	81.5		40 - 110

Carrier	Prepared	Analyzed	Dil Fac
Ba Carrier	10/26/18 12:41	11/14/18 14:55	1
Y Carrier	10/26/18 12:41	11/14/18 14:55	1

**Lab Sample ID: LCS 160-397516/1-A**  
**Matrix: Water**  
**Analysis Batch: 400866**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 397516**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Radium-228	12.3	10.97		1.33	1.00	0.524	pCi/L	89	56 - 140

TestAmerica Pensacola



# QC Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

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

**Lab Sample ID: LCS 160-397516/1-A**  
**Matrix: Water**  
**Analysis Batch: 400865**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 397516**

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	97.9		40 - 110
Y Carrier	81.1		40 - 110

**Lab Sample ID: 400-160968-3 DU**  
**Matrix: Water**  
**Analysis Batch: 400865**

**Client Sample ID: AY24795 MW-6D**  
**Prep Type: Total/NA**  
**Prep Batch: 397516**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.234	U	0.1410	U	0.297	1.00	0.509	pCi/L	0.17	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	93.2		40 - 110
Y Carrier	81.1		40 - 110

**Lab Sample ID: 400-160968-14 DU**  
**Matrix: Water**  
**Analysis Batch: 400865**

**Client Sample ID: AY24806 MW-19**  
**Prep Type: Total/NA**  
**Prep Batch: 397516**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
Radium-228	0.319	U	-0.1429	U	0.262	1.00	0.502	pCi/L	0.85	1

	DU	DU	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	97.1		40 - 110
Y Carrier	81.1		40 - 110

**Lab Sample ID: MB 160-398030/11-A**  
**Matrix: Water**  
**Analysis Batch: 400470**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 398030**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Radium-228	0.3114	U	0.522	0.523	1.00	0.883	pCi/L	10/29/18 11:58	11/12/18 16:29	1

	MB	MB	Limits	Prepared	Analyzed	Dil Fac
Carrier	%Yield	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Ba Carrier	95.9		40 - 110	10/29/18 11:58	11/12/18 16:29	1
Y Carrier	74.0		40 - 110	10/29/18 11:58	11/12/18 16:29	1

**Lab Sample ID: LCS 160-398030/1-A**  
**Matrix: Water**  
**Analysis Batch: 400470**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 398030**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec Limits
Radium-228	18.4	19.82		2.34	1.00	0.710	pCi/L	107	56 - 140

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

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

**Lab Sample ID: LCS 160-398030/1-A**  
**Matrix: Water**  
**Analysis Batch: 400470**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 398030**

	LCS	LCS	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	90.9		40 - 110
Y Carrier	77.0		40 - 110

**Lab Sample ID: LCSD 160-398030/2-A**  
**Matrix: Water**  
**Analysis Batch: 400470**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**  
**Prep Batch: 398030**

Analyte	Spike Added	LCSD Result	LCSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits		RER	RER Limit
									56 - 140	0.12	1	
Radium-228	18.4	19.28		2.31	1.00	0.844	pCi/L	105				

	LCSD	LCSD	
Carrier	%Yield	Qualifier	Limits
Ba Carrier	90.6		40 - 110
Y Carrier	77.8		40 - 110

## Method: Ra226\_Ra228 - Combined Radium-226 and Radium-228

**Lab Sample ID: 400-160968-3 DU**  
**Matrix: Water**  
**Analysis Batch: 402686**

**Client Sample ID: AY24795 MW-6D**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
										0.20
Combined Radium 226 + 228	0.656		0.5343		0.331	5.00	0.509	pCi/L		

**Lab Sample ID: 400-160968-14 DU**  
**Matrix: Water**  
**Analysis Batch: 402686**

**Client Sample ID: AY24806 MW-19**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qual	DU Result	DU Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	RER	RER Limit
									0.81	
Combined Radium 226 + 228	0.856		0.3407	U	0.308	5.00	0.502	pCi/L		

**Chain of Custody Record**

Client Information		Lab PM		Carrier Tracking No(s)		COC No	
Client Contact: Laura Mickliff		Whitnire, Cheyenne R		400-56525-24537.1		Page: Page 1 of 2	
Company: Alabama Power General Test Laboratory		E-Mail: Cheyenne.Whitnire@lestamericantc.com		Job #:		Job #:	
Address: 744 County Rd 87 GSC #8		Due Date Requested:		Analysis Requested		Preservation Codes:	
City: Calera		TAI Requested (days): Routine		Perform MS/MSD (Yes or No)		A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO4 F - MeOH G - Amchlor H - Ascorbic Acid I - IB J - Water K - EDTA L - EDA Other:	
State/Zip: AL, 35040		PO #:		Field Filtered Sample (Yes or No)		M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - None W - Ph-45 X - EDTA Y - EDA Z - Other (specify)	
Phone: 205-664-6197 (Tel)		WO #:		SM 4500 F.C.		Total Number of Containers	
Email: lmickliff@southernco.com		Project #: 40007143		SM 4500 CLE		2 MW-6S	
Project Name: CCR		Site: Gorgas Ash Pond 1171		SM 4500 S04 E		2 MW-6S DUP (Duplicate)	
Sample Identification		Sample Date		Sample Time		Sample Type (C-Comp, G-grab)	
AY24793		10/15/18		12.13		G Water	
AY24794		10/15/18		12.13		G Water	
AY24795		10/15/18		13.24		G Water	
AY24796		10/15/18		14.37		G Water	
AY24797		10/15/18		15.26		G Water	
AY24798		10/16/18		09.47		G Water	
AY24799		10/16/18		11.27		G Water	
AY24800		10/16/18		13.10		G Water	
AY24801		10/16/18		15.26		G Water	
AY24802		10/16/18		16.50		G Water	
Special Instructions/Note:		Special Instructions/Note:		Special Instructions/Note:		Special Instructions/Note:	
						2 MW-6S	
						2 MW-6S DUP (Duplicate)	
						4 MW-6D	
						2 MW-7	
						2 EB-1 (Field Blank)	
						2 MW-8	
						MW-9	
						MW-11	
						MW-12	
						EB-1 (Equipment Blank)	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Special Instructions/QC Requirements:			
Empty Kit Relinquished by:		Date:		Time:		Method of Shipment:	
Relinquished by: Laura Mickliff		Date/Time: 10/18/2018, 16:35		Company: APC		Date/Time: 10/23/18	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Custody Seals Intact: Δ Yes Δ No		Custody Seal No.:		Cooler Temperature(s) °C and Other Remarks: 1.20 11.28			







## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-160968-2  
SDG Number: Gorgas Ash Pond 1171

**Login Number: 160968**

**List Number: 1**

**Creator: Johnson, Jeremy N**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	Not present
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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	24.5°C 24.4°C 25.4°C IR8, 1.2°C IR-8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-160968-2  
SDG Number: Gorgas Ash Pond 1171

**Login Number: 160968**

**List Number: 2**

**Creator: Hellm, Michael**

**List Source: TestAmerica St. Louis**

**List Creation: 10/25/18 10:05 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	15.0
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	

## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-160968-2  
SDG Number: Gorgas Ash Pond 1171

**Login Number: 160968**

**List Number: 3**

**Creator: Hellm, Michael**

**List Source: TestAmerica St. Louis**

**List Creation: 10/25/18 10:08 AM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	False	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	15.0
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 <6mm (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 Gorgas

TestAmerica Job ID: 400-160968-2  
 SDG: Gorgas Ash Pond 1171

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-19
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-19
Iowa	State Program	7	367	08-01-20
Kansas	NELAP	7	E-10253	10-31-18 *
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA180023	12-31-18
Maryland	State Program	3	233	09-30-19
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-19
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-19
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-15	09-30-19
US Fish & Wildlife	Federal		LE058448-0	07-31-19
USDA	Federal		P330-18-00148	05-17-21
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

## Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-19
ANAB	DoD ELAP		L2305	04-06-19
Arizona	State Program	9	AZ0813	12-08-18 *
California	State Program	9	2886	06-30-19
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-19
Illinois	NELAP	5	200023	11-30-18 *
Iowa	State Program	7	373	12-01-18 *
Kansas	NELAP	7	E-10236	10-31-18 *
Kentucky (DW)	State Program	4	90125	12-31-18
Louisiana	NELAP	6	04080	06-30-19
Louisiana (DW)	NELAP	6	LA180017	12-31-18 *
Maryland	State Program	3	310	09-30-19
Michigan	State Program	5	9005	06-30-18 *
Missouri	State Program	7	780	06-30-19
Nevada	State Program	9	MO000542018-1	07-31-19

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



## Accreditation/Certification Summary

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

TestAmerica Job ID: 400-160968-2  
SDG: Gorgas Ash Pond 1171

### Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New Jersey	NELAP	2	MO002	06-30-19
New York	NELAP	2	11616	03-31-19
North Dakota	State Program	8	R207	06-30-19
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-19
Pennsylvania	NELAP	3	68-00540	02-28-19
South Carolina	State Program	4	85002001	06-30-19
Texas	NELAP	6	T104704193-18-12	07-31-19
US Fish & Wildlife	Federal		058448	07-31-19
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542018-10	07-31-19
Virginia	NELAP	3	460230	06-14-19
Washington	State Program	10	C592	08-30-19
West Virginia DEP	State Program	3	381	08-31-19

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-2	10/16/2018 15:57	706.2	uS/cm	Conductivity
GS-AP-MW-2	10/16/2018 15:57	146.65	ft	Depth to Water Detail
GS-AP-MW-2	10/16/2018 15:57	0.68	mg/L	DO
GS-AP-MW-2	10/16/2018 15:57	-55.7	mv	Oxidation Reduction Potention
GS-AP-MW-2	10/16/2018 15:57	9.35	pH	pH
GS-AP-MW-2	10/16/2018 15:57	17.68	C	Temperature
GS-AP-MW-2	10/16/2018 15:57	1.6	NTU	Turbidity
GS-AP-MW-2	10/16/2018 16:02	715.6	uS/cm	Conductivity
GS-AP-MW-2	10/16/2018 16:02	146.65	ft	Depth to Water Detail
GS-AP-MW-2	10/16/2018 16:02	0.5	mg/L	DO
GS-AP-MW-2	10/16/2018 16:02	-51	mv	Oxidation Reduction Potention
GS-AP-MW-2	10/16/2018 16:02	9.38	pH	pH
GS-AP-MW-2	10/16/2018 16:02	17.59	C	Temperature
GS-AP-MW-2	10/16/2018 16:02	2.08	NTU	Turbidity
GS-AP-MW-2	10/16/2018 16:07	715.9	uS/cm	Conductivity
GS-AP-MW-2	10/16/2018 16:07	146.65	ft	Depth to Water Detail
GS-AP-MW-2	10/16/2018 16:07	0.45	mg/L	DO
GS-AP-MW-2	10/16/2018 16:07	-50.4	mv	Oxidation Reduction Potention
GS-AP-MW-2	10/16/2018 16:07	9.37	pH	pH
GS-AP-MW-2	10/16/2018 16:07	17.47	C	Temperature
GS-AP-MW-2	10/16/2018 16:07	1.89	NTU	Turbidity
GS-AP-MW-2	10/16/2018 16:12	708.9	uS/cm	Conductivity
GS-AP-MW-2	10/16/2018 16:12	146.65	ft	Depth to Water Detail
GS-AP-MW-2	10/16/2018 16:12	0.45	mg/L	DO
GS-AP-MW-2	10/16/2018 16:12	-48.9	mv	Oxidation Reduction Potention
GS-AP-MW-2	10/16/2018 16:12	9.36	pH	pH
GS-AP-MW-2	10/16/2018 16:12	17.41	C	Temperature
GS-AP-MW-2	10/16/2018 16:12	1.64	NTU	Turbidity
GS-AP-MW-2	10/16/2018 16:17	704.6	uS/cm	Conductivity
GS-AP-MW-2	10/16/2018 16:17	146.71	ft	Depth to Water Detail
GS-AP-MW-2	10/16/2018 16:17	0.45	mg/L	DO
GS-AP-MW-2	10/16/2018 16:17	-48.1	mv	Oxidation Reduction Potention
GS-AP-MW-2	10/16/2018 16:17	9.35	pH	pH
GS-AP-MW-2	10/16/2018 16:17	17.4	C	Temperature
GS-AP-MW-2	10/16/2018 16:17	2	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-6D	10/15/2018 13:07	499.6	uS/cm	Conductivity
GS-AP-MW-6D	10/15/2018 13:07	11.69	ft	Depth to Water Detail
GS-AP-MW-6D	10/15/2018 13:07	0.13	mg/L	DO
GS-AP-MW-6D	10/15/2018 13:07	-131.4	mv	Oxidation Reduction Potention
GS-AP-MW-6D	10/15/2018 13:07	7.31	pH	pH
GS-AP-MW-6D	10/15/2018 13:07	21.15	C	Temperature
GS-AP-MW-6D	10/15/2018 13:07	0.25	NTU	Turbidity
GS-AP-MW-6D	10/15/2018 13:12	500	uS/cm	Conductivity
GS-AP-MW-6D	10/15/2018 13:12	11.69	ft	Depth to Water Detail
GS-AP-MW-6D	10/15/2018 13:12	0.12	mg/L	DO
GS-AP-MW-6D	10/15/2018 13:12	-135.8	mv	Oxidation Reduction Potention
GS-AP-MW-6D	10/15/2018 13:12	7.33	pH	pH
GS-AP-MW-6D	10/15/2018 13:12	20.97	C	Temperature
GS-AP-MW-6D	10/15/2018 13:12	0.2	NTU	Turbidity
GS-AP-MW-6D	10/15/2018 13:17	501.2	uS/cm	Conductivity
GS-AP-MW-6D	10/15/2018 13:17	11.69	ft	Depth to Water Detail
GS-AP-MW-6D	10/15/2018 13:17	0.12	mg/L	DO
GS-AP-MW-6D	10/15/2018 13:17	-134.7	mv	Oxidation Reduction Potention
GS-AP-MW-6D	10/15/2018 13:17	7.33	pH	pH
GS-AP-MW-6D	10/15/2018 13:17	20.8	C	Temperature
GS-AP-MW-6D	10/15/2018 13:17	0.15	NTU	Turbidity
GS-AP-MW-6D	10/15/2018 13:22	500.2	uS/cm	Conductivity
GS-AP-MW-6D	10/15/2018 13:22	11.7	ft	Depth to Water Detail
GS-AP-MW-6D	10/15/2018 13:22	0.13	mg/L	DO
GS-AP-MW-6D	10/15/2018 13:22	-133.7	mv	Oxidation Reduction Potention
GS-AP-MW-6D	10/15/2018 13:22	7.33	pH	pH
GS-AP-MW-6D	10/15/2018 13:22	20.73	C	Temperature
GS-AP-MW-6D	10/15/2018 13:22	0.18	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-6S	10/15/2018 11:56	676.4	uS/cm	Conductivity
GS-AP-MW-6S	10/15/2018 11:56	17.77	ft	Depth to Water Detail
GS-AP-MW-6S	10/15/2018 11:56	0.37	mg/L	DO
GS-AP-MW-6S	10/15/2018 11:56	-126.4	mv	Oxidation Reduction Potention
GS-AP-MW-6S	10/15/2018 11:56	6.75	pH	pH
GS-AP-MW-6S	10/15/2018 11:56	20.51	C	Temperature
GS-AP-MW-6S	10/15/2018 11:56	2.75	NTU	Turbidity
GS-AP-MW-6S	10/15/2018 12:01	676.5	uS/cm	Conductivity
GS-AP-MW-6S	10/15/2018 12:01	17.77	ft	Depth to Water Detail
GS-AP-MW-6S	10/15/2018 12:01	0.26	mg/L	DO
GS-AP-MW-6S	10/15/2018 12:01	-121.9	mv	Oxidation Reduction Potention
GS-AP-MW-6S	10/15/2018 12:01	6.77	pH	pH
GS-AP-MW-6S	10/15/2018 12:01	20.66	C	Temperature
GS-AP-MW-6S	10/15/2018 12:01	2.51	NTU	Turbidity
GS-AP-MW-6S	10/15/2018 12:06	676.5	uS/cm	Conductivity
GS-AP-MW-6S	10/15/2018 12:06	17.77	ft	Depth to Water Detail
GS-AP-MW-6S	10/15/2018 12:06	0.22	mg/L	DO
GS-AP-MW-6S	10/15/2018 12:06	-117.9	mv	Oxidation Reduction Potention
GS-AP-MW-6S	10/15/2018 12:06	6.78	pH	pH
GS-AP-MW-6S	10/15/2018 12:06	20.71	C	Temperature
GS-AP-MW-6S	10/15/2018 12:06	1.81	NTU	Turbidity
GS-AP-MW-6S	10/15/2018 12:11	677.5	uS/cm	Conductivity
GS-AP-MW-6S	10/15/2018 12:11	17.77	ft	Depth to Water Detail
GS-AP-MW-6S	10/15/2018 12:11	0.17	mg/L	DO
GS-AP-MW-6S	10/15/2018 12:11	-111.7	mv	Oxidation Reduction Potention
GS-AP-MW-6S	10/15/2018 12:11	6.78	pH	pH
GS-AP-MW-6S	10/15/2018 12:11	20.83	C	Temperature
GS-AP-MW-6S	10/15/2018 12:11	1.51	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-7	10/15/2018 14:20	552.3	uS/cm	Conductivity
GS-AP-MW-7	10/15/2018 14:20	8.86	ft	Depth to Water Detail
GS-AP-MW-7	10/15/2018 14:20	0.35	mg/L	DO
GS-AP-MW-7	10/15/2018 14:20	-158	mv	Oxidation Reduction Potention
GS-AP-MW-7	10/15/2018 14:20	7.66	pH	pH
GS-AP-MW-7	10/15/2018 14:20	22.37	C	Temperature
GS-AP-MW-7	10/15/2018 14:20	0.61	NTU	Turbidity
GS-AP-MW-7	10/15/2018 14:25	553.7	uS/cm	Conductivity
GS-AP-MW-7	10/15/2018 14:25	8.88	ft	Depth to Water Detail
GS-AP-MW-7	10/15/2018 14:25	0.3	mg/L	DO
GS-AP-MW-7	10/15/2018 14:25	-153.5	mv	Oxidation Reduction Potention
GS-AP-MW-7	10/15/2018 14:25	7.63	pH	pH
GS-AP-MW-7	10/15/2018 14:25	22.19	C	Temperature
GS-AP-MW-7	10/15/2018 14:25	0.62	NTU	Turbidity
GS-AP-MW-7	10/15/2018 14:30	552.8	uS/cm	Conductivity
GS-AP-MW-7	10/15/2018 14:30	8.91	ft	Depth to Water Detail
GS-AP-MW-7	10/15/2018 14:30	0.29	mg/L	DO
GS-AP-MW-7	10/15/2018 14:30	-152.1	mv	Oxidation Reduction Potention
GS-AP-MW-7	10/15/2018 14:30	7.62	pH	pH
GS-AP-MW-7	10/15/2018 14:30	22.18	C	Temperature
GS-AP-MW-7	10/15/2018 14:30	0.52	NTU	Turbidity
GS-AP-MW-7	10/15/2018 14:35	553.4	uS/cm	Conductivity
GS-AP-MW-7	10/15/2018 14:35	8.92	ft	Depth to Water Detail
GS-AP-MW-7	10/15/2018 14:35	0.28	mg/L	DO
GS-AP-MW-7	10/15/2018 14:35	-151.7	mv	Oxidation Reduction Potention
GS-AP-MW-7	10/15/2018 14:35	7.62	pH	pH
GS-AP-MW-7	10/15/2018 14:35	21.95	C	Temperature
GS-AP-MW-7	10/15/2018 14:35	1.21	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-8	10/16/2018 9:30	107.8	uS/cm	Conductivity
GS-AP-MW-8	10/16/2018 9:30	45.51	ft	Depth to Water Detail
GS-AP-MW-8	10/16/2018 9:30	2.66	mg/L	DO
GS-AP-MW-8	10/16/2018 9:30	118.7	mv	Oxidation Reduction Potention
GS-AP-MW-8	10/16/2018 9:30	5.74	pH	pH
GS-AP-MW-8	10/16/2018 9:30	17.81	C	Temperature
GS-AP-MW-8	10/16/2018 9:30	1.51	NTU	Turbidity
GS-AP-MW-8	10/16/2018 9:35	107.1	uS/cm	Conductivity
GS-AP-MW-8	10/16/2018 9:35	45.66	ft	Depth to Water Detail
GS-AP-MW-8	10/16/2018 9:35	2.53	mg/L	DO
GS-AP-MW-8	10/16/2018 9:35	113.1	mv	Oxidation Reduction Potention
GS-AP-MW-8	10/16/2018 9:35	5.74	pH	pH
GS-AP-MW-8	10/16/2018 9:35	17.72	C	Temperature
GS-AP-MW-8	10/16/2018 9:35	0.61	NTU	Turbidity
GS-AP-MW-8	10/16/2018 9:40	106.6	uS/cm	Conductivity
GS-AP-MW-8	10/16/2018 9:40	45.81	ft	Depth to Water Detail
GS-AP-MW-8	10/16/2018 9:40	2.45	mg/L	DO
GS-AP-MW-8	10/16/2018 9:40	111.2	mv	Oxidation Reduction Potention
GS-AP-MW-8	10/16/2018 9:40	5.73	pH	pH
GS-AP-MW-8	10/16/2018 9:40	17.76	C	Temperature
GS-AP-MW-8	10/16/2018 9:40	0.42	NTU	Turbidity
GS-AP-MW-8	10/16/2018 9:45	106.1	uS/cm	Conductivity
GS-AP-MW-8	10/16/2018 9:45	45.91	ft	Depth to Water Detail
GS-AP-MW-8	10/16/2018 9:45	2.4	mg/L	DO
GS-AP-MW-8	10/16/2018 9:45	108.9	mv	Oxidation Reduction Potention
GS-AP-MW-8	10/16/2018 9:45	5.75	pH	pH
GS-AP-MW-8	10/16/2018 9:45	17.72	C	Temperature
GS-AP-MW-8	10/16/2018 9:45	0.69	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-9	10/16/2018 11:05	625.7	uS/cm	Conductivity
GS-AP-MW-9	10/16/2018 11:05	45.61	ft	Depth to Water Detail
GS-AP-MW-9	10/16/2018 11:05	0.34	mg/L	DO
GS-AP-MW-9	10/16/2018 11:05	-69.2	mv	Oxidation Reduction Potention
GS-AP-MW-9	10/16/2018 11:05	6.69	pH	pH
GS-AP-MW-9	10/16/2018 11:05	18.35	C	Temperature
GS-AP-MW-9	10/16/2018 11:05	0.75	NTU	Turbidity
GS-AP-MW-9	10/16/2018 11:10	624.1	uS/cm	Conductivity
GS-AP-MW-9	10/16/2018 11:10	45.95	ft	Depth to Water Detail
GS-AP-MW-9	10/16/2018 11:10	0.29	mg/L	DO
GS-AP-MW-9	10/16/2018 11:10	-61.5	mv	Oxidation Reduction Potention
GS-AP-MW-9	10/16/2018 11:10	6.7	pH	pH
GS-AP-MW-9	10/16/2018 11:10	18.35	C	Temperature
GS-AP-MW-9	10/16/2018 11:10	0.47	NTU	Turbidity
GS-AP-MW-9	10/16/2018 11:15	621.8	uS/cm	Conductivity
GS-AP-MW-9	10/16/2018 11:15	46.14	ft	Depth to Water Detail
GS-AP-MW-9	10/16/2018 11:15	0.27	mg/L	DO
GS-AP-MW-9	10/16/2018 11:15	-56.5	mv	Oxidation Reduction Potention
GS-AP-MW-9	10/16/2018 11:15	6.71	pH	pH
GS-AP-MW-9	10/16/2018 11:15	18.28	C	Temperature
GS-AP-MW-9	10/16/2018 11:15	0.4	NTU	Turbidity
GS-AP-MW-9	10/16/2018 11:20	620.6	uS/cm	Conductivity
GS-AP-MW-9	10/16/2018 11:20	46.21	ft	Depth to Water Detail
GS-AP-MW-9	10/16/2018 11:20	0.26	mg/L	DO
GS-AP-MW-9	10/16/2018 11:20	-53.1	mv	Oxidation Reduction Potention
GS-AP-MW-9	10/16/2018 11:20	6.71	pH	pH
GS-AP-MW-9	10/16/2018 11:20	18.27	C	Temperature
GS-AP-MW-9	10/16/2018 11:20	0.59	NTU	Turbidity
GS-AP-MW-9	10/16/2018 11:25	619.2	uS/cm	Conductivity
GS-AP-MW-9	10/16/2018 11:25	46.29	ft	Depth to Water Detail
GS-AP-MW-9	10/16/2018 11:25	0.26	mg/L	DO
GS-AP-MW-9	10/16/2018 11:25	-50.3	mv	Oxidation Reduction Potention
GS-AP-MW-9	10/16/2018 11:25	6.72	pH	pH
GS-AP-MW-9	10/16/2018 11:25	18.26	C	Temperature
GS-AP-MW-9	10/16/2018 11:25	0.28	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-11	10/16/2018 12:29	440	uS/cm	Conductivity
GS-AP-MW-11	10/16/2018 12:29	87.6	ft	Depth to Water Detail
GS-AP-MW-11	10/16/2018 12:29	0.69	mg/L	DO
GS-AP-MW-11	10/16/2018 12:29	-52.8	mv	Oxidation Reduction Potention
GS-AP-MW-11	10/16/2018 12:29	7.05	pH	pH
GS-AP-MW-11	10/16/2018 12:29	17.28	C	Temperature
GS-AP-MW-11	10/16/2018 12:29	1.43	NTU	Turbidity
GS-AP-MW-11	10/16/2018 12:34	442.2	uS/cm	Conductivity
GS-AP-MW-11	10/16/2018 12:34	88.13	ft	Depth to Water Detail
GS-AP-MW-11	10/16/2018 12:34	0.43	mg/L	DO
GS-AP-MW-11	10/16/2018 12:34	-53.8	mv	Oxidation Reduction Potention
GS-AP-MW-11	10/16/2018 12:34	7.03	pH	pH
GS-AP-MW-11	10/16/2018 12:34	17.22	C	Temperature
GS-AP-MW-11	10/16/2018 12:34	0.89	NTU	Turbidity
GS-AP-MW-11	10/16/2018 12:39	439.9	uS/cm	Conductivity
GS-AP-MW-11	10/16/2018 12:39	88.59	ft	Depth to Water Detail
GS-AP-MW-11	10/16/2018 12:39	0.36	mg/L	DO
GS-AP-MW-11	10/16/2018 12:39	-45.3	mv	Oxidation Reduction Potention
GS-AP-MW-11	10/16/2018 12:39	7.01	pH	pH
GS-AP-MW-11	10/16/2018 12:39	17.18	C	Temperature
GS-AP-MW-11	10/16/2018 12:39	0.56	NTU	Turbidity
GS-AP-MW-11	10/16/2018 12:44	438.5	uS/cm	Conductivity
GS-AP-MW-11	10/16/2018 12:44	88.93	ft	Depth to Water Detail
GS-AP-MW-11	10/16/2018 12:44	0.33	mg/L	DO
GS-AP-MW-11	10/16/2018 12:44	-39.3	mv	Oxidation Reduction Potention
GS-AP-MW-11	10/16/2018 12:44	7	pH	pH
GS-AP-MW-11	10/16/2018 12:44	17.17	C	Temperature
GS-AP-MW-11	10/16/2018 12:44	0.43	NTU	Turbidity
GS-AP-MW-11	10/16/2018 12:49	438.1	uS/cm	Conductivity
GS-AP-MW-11	10/16/2018 12:49	89.19	ft	Depth to Water Detail
GS-AP-MW-11	10/16/2018 12:49	0.32	mg/L	DO
GS-AP-MW-11	10/16/2018 12:49	-36.6	mv	Oxidation Reduction Potention
GS-AP-MW-11	10/16/2018 12:49	7	pH	pH
GS-AP-MW-11	10/16/2018 12:49	17.18	C	Temperature
GS-AP-MW-11	10/16/2018 12:49	0.36	NTU	Turbidity
GS-AP-MW-11	10/16/2018 12:54	438.6	uS/cm	Conductivity
GS-AP-MW-11	10/16/2018 12:54	89.35	ft	Depth to Water Detail
GS-AP-MW-11	10/16/2018 12:54	0.32	mg/L	DO
GS-AP-MW-11	10/16/2018 12:54	-35.9	mv	Oxidation Reduction Potention
GS-AP-MW-11	10/16/2018 12:54	6.99	pH	pH
GS-AP-MW-11	10/16/2018 12:54	17.2	C	Temperature
GS-AP-MW-11	10/16/2018 12:54	0.37	NTU	Turbidity
GS-AP-MW-11	10/16/2018 12:59	440.1	uS/cm	Conductivity
GS-AP-MW-11	10/16/2018 12:59	89.51	ft	Depth to Water Detail



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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-11	10/16/2018 12:59	0.32	mg/L	DO
GS-AP-MW-11	10/16/2018 12:59	-35.4	mv	Oxidation Reduction Potention
GS-AP-MW-11	10/16/2018 12:59	7	pH	pH
GS-AP-MW-11	10/16/2018 12:59	17.19	C	Temperature
GS-AP-MW-11	10/16/2018 12:59	0.43	NTU	Turbidity
GS-AP-MW-11	10/16/2018 13:04	439.5	uS/cm	Conductivity
GS-AP-MW-11	10/16/2018 13:04	89.64	ft	Depth to Water Detail
GS-AP-MW-11	10/16/2018 13:04	0.31	mg/L	DO
GS-AP-MW-11	10/16/2018 13:04	-34.3	mv	Oxidation Reduction Potention
GS-AP-MW-11	10/16/2018 13:04	7	pH	pH
GS-AP-MW-11	10/16/2018 13:04	17.14	C	Temperature
GS-AP-MW-11	10/16/2018 13:04	0.34	NTU	Turbidity
GS-AP-MW-11	10/16/2018 13:09	438.7	uS/cm	Conductivity
GS-AP-MW-11	10/16/2018 13:09	89.75	ft	Depth to Water Detail
GS-AP-MW-11	10/16/2018 13:09	0.32	mg/L	DO
GS-AP-MW-11	10/16/2018 13:09	-34.3	mv	Oxidation Reduction Potention
GS-AP-MW-11	10/16/2018 13:09	7.01	pH	pH
GS-AP-MW-11	10/16/2018 13:09	17.18	C	Temperature
GS-AP-MW-11	10/16/2018 13:09	0.49	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-12	10/16/2018 14:13	382.6	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 14:13	71.22	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 14:13	0.72	mg/L	DO
GS-AP-MW-12	10/16/2018 14:13	-130.7	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 14:13	7.59	pH	pH
GS-AP-MW-12	10/16/2018 14:13	18.3	C	Temperature
GS-AP-MW-12	10/16/2018 14:13	0.78	NTU	Turbidity
GS-AP-MW-12	10/16/2018 14:18	383.3	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 14:18	71.89	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 14:18	0.56	mg/L	DO
GS-AP-MW-12	10/16/2018 14:18	-131.8	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 14:18	7.56	pH	pH
GS-AP-MW-12	10/16/2018 14:18	18.17	C	Temperature
GS-AP-MW-12	10/16/2018 14:18	0.48	NTU	Turbidity
GS-AP-MW-12	10/16/2018 14:23	383.3	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 14:23	72.46	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 14:23	0.49	mg/L	DO
GS-AP-MW-12	10/16/2018 14:23	-136.3	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 14:23	7.56	pH	pH
GS-AP-MW-12	10/16/2018 14:23	18.17	C	Temperature
GS-AP-MW-12	10/16/2018 14:23	0.43	NTU	Turbidity
GS-AP-MW-12	10/16/2018 14:28	383.2	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 14:28	73.02	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 14:28	0.44	mg/L	DO
GS-AP-MW-12	10/16/2018 14:28	-139.1	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 14:28	7.56	pH	pH
GS-AP-MW-12	10/16/2018 14:28	18.14	C	Temperature
GS-AP-MW-12	10/16/2018 14:28	0.5	NTU	Turbidity
GS-AP-MW-12	10/16/2018 14:33	383	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 14:33	73.43	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 14:33	0.41	mg/L	DO
GS-AP-MW-12	10/16/2018 14:33	-139.6	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 14:33	7.57	pH	pH
GS-AP-MW-12	10/16/2018 14:33	18.1	C	Temperature
GS-AP-MW-12	10/16/2018 14:33	0.35	NTU	Turbidity
GS-AP-MW-12	10/16/2018 14:38	382.8	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 14:38	73.84	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 14:38	0.4	mg/L	DO
GS-AP-MW-12	10/16/2018 14:38	-139.5	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 14:38	7.57	pH	pH
GS-AP-MW-12	10/16/2018 14:38	18.04	C	Temperature
GS-AP-MW-12	10/16/2018 14:38	0.41	NTU	Turbidity
GS-AP-MW-12	10/16/2018 14:43	382.6	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 14:43	74.18	ft	Depth to Water Detail

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-12	10/16/2018 14:43	0.4	mg/L	DO
GS-AP-MW-12	10/16/2018 14:43	-139.4	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 14:43	7.57	pH	pH
GS-AP-MW-12	10/16/2018 14:43	18.01	C	Temperature
GS-AP-MW-12	10/16/2018 14:43	0.38	NTU	Turbidity
GS-AP-MW-12	10/16/2018 14:48	382	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 14:48	74.47	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 14:48	0.41	mg/L	DO
GS-AP-MW-12	10/16/2018 14:48	-139.3	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 14:48	7.56	pH	pH
GS-AP-MW-12	10/16/2018 14:48	18.03	C	Temperature
GS-AP-MW-12	10/16/2018 14:48	0.36	NTU	Turbidity
GS-AP-MW-12	10/16/2018 14:53	381.1	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 14:53	74.81	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 14:53	0.43	mg/L	DO
GS-AP-MW-12	10/16/2018 14:53	-138.1	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 14:53	7.56	pH	pH
GS-AP-MW-12	10/16/2018 14:53	18.01	C	Temperature
GS-AP-MW-12	10/16/2018 14:53	0.34	NTU	Turbidity
GS-AP-MW-12	10/16/2018 14:58	380.2	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 14:58	75.02	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 14:58	0.43	mg/L	DO
GS-AP-MW-12	10/16/2018 14:58	-137.4	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 14:58	7.55	pH	pH
GS-AP-MW-12	10/16/2018 14:58	18.01	C	Temperature
GS-AP-MW-12	10/16/2018 14:58	0.36	NTU	Turbidity
GS-AP-MW-12	10/16/2018 15:03	379.3	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 15:03	75.24	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 15:03	0.45	mg/L	DO
GS-AP-MW-12	10/16/2018 15:03	-136.6	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 15:03	7.54	pH	pH
GS-AP-MW-12	10/16/2018 15:03	18.03	C	Temperature
GS-AP-MW-12	10/16/2018 15:03	0.33	NTU	Turbidity
GS-AP-MW-12	10/16/2018 15:08	378.1	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 15:08	75.45	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 15:08	0.45	mg/L	DO
GS-AP-MW-12	10/16/2018 15:08	-135.3	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 15:08	7.53	pH	pH
GS-AP-MW-12	10/16/2018 15:08	18.01	C	Temperature
GS-AP-MW-12	10/16/2018 15:08	0.36	NTU	Turbidity
GS-AP-MW-12	10/16/2018 15:13	377.2	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 15:13	75.65	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 15:13	0.46	mg/L	DO
GS-AP-MW-12	10/16/2018 15:13	-133.7	mv	Oxidation Reduction Potention

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-12	10/16/2018 15:13	7.52	pH	pH
GS-AP-MW-12	10/16/2018 15:13	17.99	C	Temperature
GS-AP-MW-12	10/16/2018 15:13	0.37	NTU	Turbidity
GS-AP-MW-12	10/16/2018 15:19	376.3	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 15:19	75.78	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 15:19	0.46	mg/L	DO
GS-AP-MW-12	10/16/2018 15:19	-132.5	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 15:19	7.51	pH	pH
GS-AP-MW-12	10/16/2018 15:19	18	C	Temperature
GS-AP-MW-12	10/16/2018 15:19	0.7	NTU	Turbidity
GS-AP-MW-12	10/16/2018 15:24	375.5	uS/cm	Conductivity
GS-AP-MW-12	10/16/2018 15:24	75.91	ft	Depth to Water Detail
GS-AP-MW-12	10/16/2018 15:24	0.47	mg/L	DO
GS-AP-MW-12	10/16/2018 15:24	-131.8	mv	Oxidation Reduction Potention
GS-AP-MW-12	10/16/2018 15:24	7.51	pH	pH
GS-AP-MW-12	10/16/2018 15:24	18.01	C	Temperature
GS-AP-MW-12	10/16/2018 15:24	0.44	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-13	10/17/2018 9:00	347.8	uS/cm	Conductivity
GS-AP-MW-13	10/17/2018 9:00	71.35	ft	Depth to Water Detail
GS-AP-MW-13	10/17/2018 9:00	0.19	mg/L	DO
GS-AP-MW-13	10/17/2018 9:00	9	mv	Oxidation Reduction Potention
GS-AP-MW-13	10/17/2018 9:00	6.54	pH	pH
GS-AP-MW-13	10/17/2018 9:00	16.82	C	Temperature
GS-AP-MW-13	10/17/2018 9:00	0.8	NTU	Turbidity
GS-AP-MW-13	10/17/2018 9:05	347.5	uS/cm	Conductivity
GS-AP-MW-13	10/17/2018 9:05	71.35	ft	Depth to Water Detail
GS-AP-MW-13	10/17/2018 9:05	0.18	mg/L	DO
GS-AP-MW-13	10/17/2018 9:05	6.3	mv	Oxidation Reduction Potention
GS-AP-MW-13	10/17/2018 9:05	6.61	pH	pH
GS-AP-MW-13	10/17/2018 9:05	16.79	C	Temperature
GS-AP-MW-13	10/17/2018 9:05	0.6	NTU	Turbidity
GS-AP-MW-13	10/17/2018 9:10	349.2	uS/cm	Conductivity
GS-AP-MW-13	10/17/2018 9:10	71.35	ft	Depth to Water Detail
GS-AP-MW-13	10/17/2018 9:10	0.18	mg/L	DO
GS-AP-MW-13	10/17/2018 9:10	5.7	mv	Oxidation Reduction Potention
GS-AP-MW-13	10/17/2018 9:10	6.65	pH	pH
GS-AP-MW-13	10/17/2018 9:10	16.77	C	Temperature
GS-AP-MW-13	10/17/2018 9:10	0.86	NTU	Turbidity
GS-AP-MW-13	10/17/2018 9:15	348.5	uS/cm	Conductivity
GS-AP-MW-13	10/17/2018 9:15	71.35	ft	Depth to Water Detail
GS-AP-MW-13	10/17/2018 9:15	0.17	mg/L	DO
GS-AP-MW-13	10/17/2018 9:15	5.6	mv	Oxidation Reduction Potention
GS-AP-MW-13	10/17/2018 9:15	6.67	pH	pH
GS-AP-MW-13	10/17/2018 9:15	16.75	C	Temperature
GS-AP-MW-13	10/17/2018 9:15	0.87	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-14	10/17/2018 9:50	395	uS/cm	Conductivity
GS-AP-MW-14	10/17/2018 9:50	102.05	ft	Depth to Water Detail
GS-AP-MW-14	10/17/2018 9:50	0.77	mg/L	DO
GS-AP-MW-14	10/17/2018 9:50	-112	mv	Oxidation Reduction Potention
GS-AP-MW-14	10/17/2018 9:50	7.13	pH	pH
GS-AP-MW-14	10/17/2018 9:50	17.3	C	Temperature
GS-AP-MW-14	10/17/2018 9:50	1.68	NTU	Turbidity
GS-AP-MW-14	10/17/2018 9:55	415.2	uS/cm	Conductivity
GS-AP-MW-14	10/17/2018 9:55	102.4	ft	Depth to Water Detail
GS-AP-MW-14	10/17/2018 9:55	0.51	mg/L	DO
GS-AP-MW-14	10/17/2018 9:55	-124.1	mv	Oxidation Reduction Potention
GS-AP-MW-14	10/17/2018 9:55	7.14	pH	pH
GS-AP-MW-14	10/17/2018 9:55	17.27	C	Temperature
GS-AP-MW-14	10/17/2018 9:55	1.39	NTU	Turbidity
GS-AP-MW-14	10/17/2018 10:00	417.2	uS/cm	Conductivity
GS-AP-MW-14	10/17/2018 10:00	102.71	ft	Depth to Water Detail
GS-AP-MW-14	10/17/2018 10:00	0.44	mg/L	DO
GS-AP-MW-14	10/17/2018 10:00	-134.3	mv	Oxidation Reduction Potention
GS-AP-MW-14	10/17/2018 10:00	7.16	pH	pH
GS-AP-MW-14	10/17/2018 10:00	17.3	C	Temperature
GS-AP-MW-14	10/17/2018 10:00	1.58	NTU	Turbidity
GS-AP-MW-14	10/17/2018 10:05	414.8	uS/cm	Conductivity
GS-AP-MW-14	10/17/2018 10:05	103	ft	Depth to Water Detail
GS-AP-MW-14	10/17/2018 10:05	0.41	mg/L	DO
GS-AP-MW-14	10/17/2018 10:05	-136.6	mv	Oxidation Reduction Potention
GS-AP-MW-14	10/17/2018 10:05	7.17	pH	pH
GS-AP-MW-14	10/17/2018 10:05	17.31	C	Temperature
GS-AP-MW-14	10/17/2018 10:05	1.99	NTU	Turbidity
GS-AP-MW-14	10/17/2018 10:10	411.7	uS/cm	Conductivity
GS-AP-MW-14	10/17/2018 10:10	103.3	ft	Depth to Water Detail
GS-AP-MW-14	10/17/2018 10:10	0.4	mg/L	DO
GS-AP-MW-14	10/17/2018 10:10	-135.2	mv	Oxidation Reduction Potention
GS-AP-MW-14	10/17/2018 10:10	7.16	pH	pH
GS-AP-MW-14	10/17/2018 10:10	17.32	C	Temperature
GS-AP-MW-14	10/17/2018 10:10	1.21	NTU	Turbidity
GS-AP-MW-14	10/17/2018 10:15	408.7	uS/cm	Conductivity
GS-AP-MW-14	10/17/2018 10:15	103.46	ft	Depth to Water Detail
GS-AP-MW-14	10/17/2018 10:15	0.4	mg/L	DO
GS-AP-MW-14	10/17/2018 10:15	-131.7	mv	Oxidation Reduction Potention
GS-AP-MW-14	10/17/2018 10:15	7.14	pH	pH
GS-AP-MW-14	10/17/2018 10:15	17.32	C	Temperature
GS-AP-MW-14	10/17/2018 10:15	1.86	NTU	Turbidity
GS-AP-MW-14	10/17/2018 10:21	405	uS/cm	Conductivity
GS-AP-MW-14	10/17/2018 10:21	103.6	ft	Depth to Water Detail

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-14	10/17/2018 10:21	0.41	mg/L	DO
GS-AP-MW-14	10/17/2018 10:21	-127	mv	Oxidation Reduction Potention
GS-AP-MW-14	10/17/2018 10:21	7.13	pH	pH
GS-AP-MW-14	10/17/2018 10:21	17.27	C	Temperature
GS-AP-MW-14	10/17/2018 10:21	1.98	NTU	Turbidity
GS-AP-MW-14	10/17/2018 10:26	402.7	uS/cm	Conductivity
GS-AP-MW-14	10/17/2018 10:26	103.73	ft	Depth to Water Detail
GS-AP-MW-14	10/17/2018 10:26	0.43	mg/L	DO
GS-AP-MW-14	10/17/2018 10:26	-122.8	mv	Oxidation Reduction Potention
GS-AP-MW-14	10/17/2018 10:26	7.11	pH	pH
GS-AP-MW-14	10/17/2018 10:26	17.28	C	Temperature
GS-AP-MW-14	10/17/2018 10:26	1.23	NTU	Turbidity
GS-AP-MW-14	10/17/2018 10:31	400.7	uS/cm	Conductivity
GS-AP-MW-14	10/17/2018 10:31	103.85	ft	Depth to Water Detail
GS-AP-MW-14	10/17/2018 10:31	0.46	mg/L	DO
GS-AP-MW-14	10/17/2018 10:31	-117.8	mv	Oxidation Reduction Potention
GS-AP-MW-14	10/17/2018 10:31	7.1	pH	pH
GS-AP-MW-14	10/17/2018 10:31	17.24	C	Temperature
GS-AP-MW-14	10/17/2018 10:31	1.25	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	10/15/2018 10:52	1377.9	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 10:52	84.14	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 10:52	0.54	mg/L	DO
GS-AP-MW-15	10/15/2018 10:52	-104.6	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 10:52	11.57	pH	pH
GS-AP-MW-15	10/15/2018 10:52	19.9	C	Temperature
GS-AP-MW-15	10/15/2018 10:52	0.27	NTU	Turbidity
GS-AP-MW-15	10/15/2018 10:57	1390.3	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 10:57	84.48	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 10:57	0.5	mg/L	DO
GS-AP-MW-15	10/15/2018 10:57	-103.1	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 10:57	11.59	pH	pH
GS-AP-MW-15	10/15/2018 10:57	19.86	C	Temperature
GS-AP-MW-15	10/15/2018 10:57	0.64	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:02	1398.2	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:02	84.89	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:02	0.48	mg/L	DO
GS-AP-MW-15	10/15/2018 11:02	-101.8	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:02	11.6	pH	pH
GS-AP-MW-15	10/15/2018 11:02	19.8	C	Temperature
GS-AP-MW-15	10/15/2018 11:02	0.85	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:07	1399.2	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:07	85.25	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:07	0.48	mg/L	DO
GS-AP-MW-15	10/15/2018 11:07	-100.8	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:07	11.6	pH	pH
GS-AP-MW-15	10/15/2018 11:07	19.8	C	Temperature
GS-AP-MW-15	10/15/2018 11:07	0.11	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:12	1397.5	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:12	85.55	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:12	0.48	mg/L	DO
GS-AP-MW-15	10/15/2018 11:12	-99.4	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:12	11.61	pH	pH
GS-AP-MW-15	10/15/2018 11:12	19.68	C	Temperature
GS-AP-MW-15	10/15/2018 11:12	0.53	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:17	1393.9	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:17	85.98	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:17	0.5	mg/L	DO
GS-AP-MW-15	10/15/2018 11:17	-98.4	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:17	11.62	pH	pH
GS-AP-MW-15	10/15/2018 11:17	19.5	C	Temperature
GS-AP-MW-15	10/15/2018 11:17	0.61	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:22	1389	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:22	86.3	ft	Depth to Water Detail



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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	10/15/2018 11:22	0.51	mg/L	DO
GS-AP-MW-15	10/15/2018 11:22	-97.7	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:22	11.61	pH	pH
GS-AP-MW-15	10/15/2018 11:22	19.63	C	Temperature
GS-AP-MW-15	10/15/2018 11:22	0.07	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:27	1380.3	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:27	86.55	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:27	0.51	mg/L	DO
GS-AP-MW-15	10/15/2018 11:27	-97.3	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:27	11.6	pH	pH
GS-AP-MW-15	10/15/2018 11:27	19.93	C	Temperature
GS-AP-MW-15	10/15/2018 11:27	0.12	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:32	1368.9	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:32	86.8	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:32	0.52	mg/L	DO
GS-AP-MW-15	10/15/2018 11:32	-96.6	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:32	11.59	pH	pH
GS-AP-MW-15	10/15/2018 11:32	20.07	C	Temperature
GS-AP-MW-15	10/15/2018 11:32	0.43	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:37	1355.1	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:37	86.98	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:37	0.53	mg/L	DO
GS-AP-MW-15	10/15/2018 11:37	-95.7	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:37	11.59	pH	pH
GS-AP-MW-15	10/15/2018 11:37	20.17	C	Temperature
GS-AP-MW-15	10/15/2018 11:37	0.12	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:42	1348.9	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:42	87.22	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:42	0.54	mg/L	DO
GS-AP-MW-15	10/15/2018 11:42	-96.1	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:42	11.58	pH	pH
GS-AP-MW-15	10/15/2018 11:42	20.35	C	Temperature
GS-AP-MW-15	10/15/2018 11:42	0.09	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:47	1329.6	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:47	87.35	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:47	0.53	mg/L	DO
GS-AP-MW-15	10/15/2018 11:47	-95.9	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:47	11.58	pH	pH
GS-AP-MW-15	10/15/2018 11:47	20.24	C	Temperature
GS-AP-MW-15	10/15/2018 11:47	1.02	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:52	1321.1	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:52	87.55	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:52	0.54	mg/L	DO
GS-AP-MW-15	10/15/2018 11:52	-94.5	mv	Oxidation Reduction Potention

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-15	10/15/2018 11:52	11.56	pH	pH
GS-AP-MW-15	10/15/2018 11:52	20.44	C	Temperature
GS-AP-MW-15	10/15/2018 11:52	0.52	NTU	Turbidity
GS-AP-MW-15	10/15/2018 11:57	1298.1	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 11:57	87.7	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 11:57	0.55	mg/L	DO
GS-AP-MW-15	10/15/2018 11:57	-95.2	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 11:57	11.54	pH	pH
GS-AP-MW-15	10/15/2018 11:57	20.93	C	Temperature
GS-AP-MW-15	10/15/2018 11:57	1.22	NTU	Turbidity
GS-AP-MW-15	10/15/2018 12:02	1281	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 12:02	87.86	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 12:02	0.56	mg/L	DO
GS-AP-MW-15	10/15/2018 12:02	-94.8	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 12:02	11.54	pH	pH
GS-AP-MW-15	10/15/2018 12:02	20.65	C	Temperature
GS-AP-MW-15	10/15/2018 12:02	0.84	NTU	Turbidity
GS-AP-MW-15	10/15/2018 12:08	1253.8	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 12:08	87.94	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 12:08	0.57	mg/L	DO
GS-AP-MW-15	10/15/2018 12:08	-93.7	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 12:08	11.52	pH	pH
GS-AP-MW-15	10/15/2018 12:08	20.62	C	Temperature
GS-AP-MW-15	10/15/2018 12:08	1.13	NTU	Turbidity
GS-AP-MW-15	10/15/2018 12:13	1235.3	uS/cm	Conductivity
GS-AP-MW-15	10/15/2018 12:13	88.05	ft	Depth to Water Detail
GS-AP-MW-15	10/15/2018 12:13	0.57	mg/L	DO
GS-AP-MW-15	10/15/2018 12:13	-93.6	mv	Oxidation Reduction Potention
GS-AP-MW-15	10/15/2018 12:13	11.51	pH	pH
GS-AP-MW-15	10/15/2018 12:13	20.57	C	Temperature
GS-AP-MW-15	10/15/2018 12:13	1.64	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-16D	10/17/2018 12:16	361.5	uS/cm	Conductivity
GS-AP-MW-16D	10/17/2018 12:16	144.83	ft	Depth to Water Detail
GS-AP-MW-16D	10/17/2018 12:16	1.71	mg/L	DO
GS-AP-MW-16D	10/17/2018 12:16	-59.5	mv	Oxidation Reduction Potention
GS-AP-MW-16D	10/17/2018 12:16	7.19	pH	pH
GS-AP-MW-16D	10/17/2018 12:16	18.79	C	Temperature
GS-AP-MW-16D	10/17/2018 12:16	1.21	NTU	Turbidity
GS-AP-MW-16D	10/17/2018 12:21	363.9	uS/cm	Conductivity
GS-AP-MW-16D	10/17/2018 12:21	145.33	ft	Depth to Water Detail
GS-AP-MW-16D	10/17/2018 12:21	0.64	mg/L	DO
GS-AP-MW-16D	10/17/2018 12:21	-71.5	mv	Oxidation Reduction Potention
GS-AP-MW-16D	10/17/2018 12:21	7.3	pH	pH
GS-AP-MW-16D	10/17/2018 12:21	18.61	C	Temperature
GS-AP-MW-16D	10/17/2018 12:21	1.22	NTU	Turbidity
GS-AP-MW-16D	10/17/2018 12:26	364	uS/cm	Conductivity
GS-AP-MW-16D	10/17/2018 12:26	145.8	ft	Depth to Water Detail
GS-AP-MW-16D	10/17/2018 12:26	0.48	mg/L	DO
GS-AP-MW-16D	10/17/2018 12:26	-80.5	mv	Oxidation Reduction Potention
GS-AP-MW-16D	10/17/2018 12:26	7.35	pH	pH
GS-AP-MW-16D	10/17/2018 12:26	18.62	C	Temperature
GS-AP-MW-16D	10/17/2018 12:26	1.33	NTU	Turbidity
GS-AP-MW-16D	10/17/2018 12:31	363.8	uS/cm	Conductivity
GS-AP-MW-16D	10/17/2018 12:31	146.05	ft	Depth to Water Detail
GS-AP-MW-16D	10/17/2018 12:31	0.45	mg/L	DO
GS-AP-MW-16D	10/17/2018 12:31	-83.2	mv	Oxidation Reduction Potention
GS-AP-MW-16D	10/17/2018 12:31	7.37	pH	pH
GS-AP-MW-16D	10/17/2018 12:31	18.69	C	Temperature
GS-AP-MW-16D	10/17/2018 12:31	1.24	NTU	Turbidity
GS-AP-MW-16D	10/17/2018 12:36	363.1	uS/cm	Conductivity
GS-AP-MW-16D	10/17/2018 12:36	146.3	ft	Depth to Water Detail
GS-AP-MW-16D	10/17/2018 12:36	0.43	mg/L	DO
GS-AP-MW-16D	10/17/2018 12:36	-84.5	mv	Oxidation Reduction Potention
GS-AP-MW-16D	10/17/2018 12:36	7.39	pH	pH
GS-AP-MW-16D	10/17/2018 12:36	18.75	C	Temperature
GS-AP-MW-16D	10/17/2018 12:36	1.03	NTU	Turbidity
GS-AP-MW-16D	10/17/2018 12:42	363.5	uS/cm	Conductivity
GS-AP-MW-16D	10/17/2018 12:42	146.49	ft	Depth to Water Detail
GS-AP-MW-16D	10/17/2018 12:42	0.5	mg/L	DO
GS-AP-MW-16D	10/17/2018 12:42	-83.7	mv	Oxidation Reduction Potention
GS-AP-MW-16D	10/17/2018 12:42	7.4	pH	pH
GS-AP-MW-16D	10/17/2018 12:42	18.59	C	Temperature
GS-AP-MW-16D	10/17/2018 12:42	1.75	NTU	Turbidity
GS-AP-MW-16D	10/17/2018 12:47	363.8	uS/cm	Conductivity
GS-AP-MW-16D	10/17/2018 12:47	146.55	ft	Depth to Water Detail

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<b>Well ID</b>	<b>Reading Time</b>	<b>Value</b>	<b>Unit</b>	<b>Description</b>
GS-AP-MW-16D	10/17/2018 12:47	0.49	mg/L	DO
GS-AP-MW-16D	10/17/2018 12:47	-82.4	mv	Oxidation Reduction Potention
GS-AP-MW-16D	10/17/2018 12:47	7.4	pH	pH
GS-AP-MW-16D	10/17/2018 12:47	18.48	C	Temperature
GS-AP-MW-16D	10/17/2018 12:47	1	NTU	Turbidity
GS-AP-MW-16D	10/17/2018 12:52	364	uS/cm	Conductivity
GS-AP-MW-16D	10/17/2018 12:52	146.7	ft	Depth to Water Detail
GS-AP-MW-16D	10/17/2018 12:52	0.49	mg/L	DO
GS-AP-MW-16D	10/17/2018 12:52	-80.1	mv	Oxidation Reduction Potention
GS-AP-MW-16D	10/17/2018 12:52	7.41	pH	pH
GS-AP-MW-16D	10/17/2018 12:52	18.52	C	Temperature
GS-AP-MW-16D	10/17/2018 12:52	1.28	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-17	10/15/2018 13:54	1197.5	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 13:54	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 13:54	0.56	mg/L	DO
GS-AP-MW-17	10/15/2018 13:54	-132.4	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 13:54	8.42	pH	pH
GS-AP-MW-17	10/15/2018 13:54	20.9	C	Temperature
GS-AP-MW-17	10/15/2018 13:54	0.95	NTU	Turbidity
GS-AP-MW-17	10/15/2018 13:59	1238.6	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 13:59	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 13:59	0.42	mg/L	DO
GS-AP-MW-17	10/15/2018 13:59	-126.1	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 13:59	8.42	pH	pH
GS-AP-MW-17	10/15/2018 13:59	20.35	C	Temperature
GS-AP-MW-17	10/15/2018 13:59	1.08	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:04	1239.2	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:04	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:04	0.38	mg/L	DO
GS-AP-MW-17	10/15/2018 14:04	-123.6	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:04	8.4	pH	pH
GS-AP-MW-17	10/15/2018 14:04	20.13	C	Temperature
GS-AP-MW-17	10/15/2018 14:04	1.9	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:09	1219	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:09	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:09	0.36	mg/L	DO
GS-AP-MW-17	10/15/2018 14:09	-121.5	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:09	8.38	pH	pH
GS-AP-MW-17	10/15/2018 14:09	20.54	C	Temperature
GS-AP-MW-17	10/15/2018 14:09	1.16	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:14	1175.7	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:14	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:14	0.36	mg/L	DO
GS-AP-MW-17	10/15/2018 14:14	-117.8	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:14	8.37	pH	pH
GS-AP-MW-17	10/15/2018 14:14	20.57	C	Temperature
GS-AP-MW-17	10/15/2018 14:14	2	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:19	1113.3	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:19	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:19	0.36	mg/L	DO
GS-AP-MW-17	10/15/2018 14:19	-111.9	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:19	8.37	pH	pH
GS-AP-MW-17	10/15/2018 14:19	20.84	C	Temperature
GS-AP-MW-17	10/15/2018 14:19	1.3	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:24	1050.9	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:24	181.53	ft	Depth to Water Detail

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-17	10/15/2018 14:24	0.36	mg/L	DO
GS-AP-MW-17	10/15/2018 14:24	-106.7	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:24	8.38	pH	pH
GS-AP-MW-17	10/15/2018 14:24	20.88	C	Temperature
GS-AP-MW-17	10/15/2018 14:24	1.22	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:29	996.8	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:29	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:29	0.36	mg/L	DO
GS-AP-MW-17	10/15/2018 14:29	-100.9	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:29	8.38	pH	pH
GS-AP-MW-17	10/15/2018 14:29	21.29	C	Temperature
GS-AP-MW-17	10/15/2018 14:29	1.22	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:34	956.1	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:34	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:34	0.37	mg/L	DO
GS-AP-MW-17	10/15/2018 14:34	-96.6	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:34	8.38	pH	pH
GS-AP-MW-17	10/15/2018 14:34	21.23	C	Temperature
GS-AP-MW-17	10/15/2018 14:34	1.16	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:39	928	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:39	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:39	0.37	mg/L	DO
GS-AP-MW-17	10/15/2018 14:39	-93.4	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:39	8.38	pH	pH
GS-AP-MW-17	10/15/2018 14:39	21.23	C	Temperature
GS-AP-MW-17	10/15/2018 14:39	1.09	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:44	901.3	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:44	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:44	0.36	mg/L	DO
GS-AP-MW-17	10/15/2018 14:44	-92.5	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:44	8.37	pH	pH
GS-AP-MW-17	10/15/2018 14:44	21.37	C	Temperature
GS-AP-MW-17	10/15/2018 14:44	1.2	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:49	872.4	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:49	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:49	0.35	mg/L	DO
GS-AP-MW-17	10/15/2018 14:49	-92.1	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:49	8.36	pH	pH
GS-AP-MW-17	10/15/2018 14:49	21.51	C	Temperature
GS-AP-MW-17	10/15/2018 14:49	1.81	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:54	851.4	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:54	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:54	0.34	mg/L	DO
GS-AP-MW-17	10/15/2018 14:54	-91.8	mv	Oxidation Reduction Potention

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-17	10/15/2018 14:54	8.36	pH	pH
GS-AP-MW-17	10/15/2018 14:54	21.51	C	Temperature
GS-AP-MW-17	10/15/2018 14:54	1.34	NTU	Turbidity
GS-AP-MW-17	10/15/2018 14:59	829.9	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 14:59	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 14:59	0.34	mg/L	DO
GS-AP-MW-17	10/15/2018 14:59	-91.7	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 14:59	8.36	pH	pH
GS-AP-MW-17	10/15/2018 14:59	21.47	C	Temperature
GS-AP-MW-17	10/15/2018 14:59	1.21	NTU	Turbidity
GS-AP-MW-17	10/15/2018 15:04	811.6	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 15:04	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 15:04	0.33	mg/L	DO
GS-AP-MW-17	10/15/2018 15:04	-93	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 15:04	8.37	pH	pH
GS-AP-MW-17	10/15/2018 15:04	21.37	C	Temperature
GS-AP-MW-17	10/15/2018 15:04	1.27	NTU	Turbidity
GS-AP-MW-17	10/15/2018 15:10	794.4	uS/cm	Conductivity
GS-AP-MW-17	10/15/2018 15:10	181.53	ft	Depth to Water Detail
GS-AP-MW-17	10/15/2018 15:10	0.32	mg/L	DO
GS-AP-MW-17	10/15/2018 15:10	-96.5	mv	Oxidation Reduction Potention
GS-AP-MW-17	10/15/2018 15:10	8.37	pH	pH
GS-AP-MW-17	10/15/2018 15:10	21.13	C	Temperature
GS-AP-MW-17	10/15/2018 15:10	1.48	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-18	10/16/2018 10:16	1378.8	uS/cm	Conductivity
GS-AP-MW-18	10/16/2018 10:16	53.75	ft	Depth to Water Detail
GS-AP-MW-18	10/16/2018 10:16	0.15	mg/L	DO
GS-AP-MW-18	10/16/2018 10:16	-197.7	mv	Oxidation Reduction Potention
GS-AP-MW-18	10/16/2018 10:16	6.94	pH	pH
GS-AP-MW-18	10/16/2018 10:16	16.92	C	Temperature
GS-AP-MW-18	10/16/2018 10:16	1.17	NTU	Turbidity
GS-AP-MW-18	10/16/2018 10:21	1379.1	uS/cm	Conductivity
GS-AP-MW-18	10/16/2018 10:21	53.75	ft	Depth to Water Detail
GS-AP-MW-18	10/16/2018 10:21	0.13	mg/L	DO
GS-AP-MW-18	10/16/2018 10:21	-190.8	mv	Oxidation Reduction Potention
GS-AP-MW-18	10/16/2018 10:21	6.98	pH	pH
GS-AP-MW-18	10/16/2018 10:21	16.82	C	Temperature
GS-AP-MW-18	10/16/2018 10:21	0.92	NTU	Turbidity
GS-AP-MW-18	10/16/2018 10:26	1379	uS/cm	Conductivity
GS-AP-MW-18	10/16/2018 10:26	53.75	ft	Depth to Water Detail
GS-AP-MW-18	10/16/2018 10:26	0.13	mg/L	DO
GS-AP-MW-18	10/16/2018 10:26	-184.9	mv	Oxidation Reduction Potention
GS-AP-MW-18	10/16/2018 10:26	7.02	pH	pH
GS-AP-MW-18	10/16/2018 10:26	16.79	C	Temperature
GS-AP-MW-18	10/16/2018 10:26	1.02	NTU	Turbidity
GS-AP-MW-18	10/16/2018 10:31	1378	uS/cm	Conductivity
GS-AP-MW-18	10/16/2018 10:31	53.75	ft	Depth to Water Detail
GS-AP-MW-18	10/16/2018 10:31	0.14	mg/L	DO
GS-AP-MW-18	10/16/2018 10:31	-180.2	mv	Oxidation Reduction Potention
GS-AP-MW-18	10/16/2018 10:31	7.06	pH	pH
GS-AP-MW-18	10/16/2018 10:31	16.78	C	Temperature
GS-AP-MW-18	10/16/2018 10:31	0.86	NTU	Turbidity



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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-19	10/16/2018 11:34	494.3	uS/cm	Conductivity
GS-AP-MW-19	10/16/2018 11:34	112.1	ft	Depth to Water Detail
GS-AP-MW-19	10/16/2018 11:34	0.44	mg/L	DO
GS-AP-MW-19	10/16/2018 11:34	-138.2	mv	Oxidation Reduction Potention
GS-AP-MW-19	10/16/2018 11:34	7.94	pH	pH
GS-AP-MW-19	10/16/2018 11:34	17.57	C	Temperature
GS-AP-MW-19	10/16/2018 11:34	1.82	NTU	Turbidity
GS-AP-MW-19	10/16/2018 11:39	493.3	uS/cm	Conductivity
GS-AP-MW-19	10/16/2018 11:39	112.15	ft	Depth to Water Detail
GS-AP-MW-19	10/16/2018 11:39	0.33	mg/L	DO
GS-AP-MW-19	10/16/2018 11:39	-159	mv	Oxidation Reduction Potention
GS-AP-MW-19	10/16/2018 11:39	8.09	pH	pH
GS-AP-MW-19	10/16/2018 11:39	17.47	C	Temperature
GS-AP-MW-19	10/16/2018 11:39	1.3	NTU	Turbidity
GS-AP-MW-19	10/16/2018 11:44	495	uS/cm	Conductivity
GS-AP-MW-19	10/16/2018 11:44	112.15	ft	Depth to Water Detail
GS-AP-MW-19	10/16/2018 11:44	0.3	mg/L	DO
GS-AP-MW-19	10/16/2018 11:44	-168.3	mv	Oxidation Reduction Potention
GS-AP-MW-19	10/16/2018 11:44	8.14	pH	pH
GS-AP-MW-19	10/16/2018 11:44	17.45	C	Temperature
GS-AP-MW-19	10/16/2018 11:44	0.92	NTU	Turbidity
GS-AP-MW-19	10/16/2018 11:49	499.2	uS/cm	Conductivity
GS-AP-MW-19	10/16/2018 11:49	112.15	ft	Depth to Water Detail
GS-AP-MW-19	10/16/2018 11:49	0.29	mg/L	DO
GS-AP-MW-19	10/16/2018 11:49	-180.7	mv	Oxidation Reduction Potention
GS-AP-MW-19	10/16/2018 11:49	8.22	pH	pH
GS-AP-MW-19	10/16/2018 11:49	17.43	C	Temperature
GS-AP-MW-19	10/16/2018 11:49	1.39	NTU	Turbidity

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Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-21	10/16/2018 13:08	798.6	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:08	164.05	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 13:08	5.73	mg/L	DO
GS-AP-MW-21	10/16/2018 13:08	30.1	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:08	10.1	pH	pH
GS-AP-MW-21	10/16/2018 13:08	18.28	C	Temperature
GS-AP-MW-21	10/16/2018 13:08	2.26	NTU	Turbidity
GS-AP-MW-21	10/16/2018 13:13	1071	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:13	164.05	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 13:13	2.05	mg/L	DO
GS-AP-MW-21	10/16/2018 13:13	8.1	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:13	11.08	pH	pH
GS-AP-MW-21	10/16/2018 13:13	17.99	C	Temperature
GS-AP-MW-21	10/16/2018 13:13	3	NTU	Turbidity
GS-AP-MW-21	10/16/2018 13:18	1755.1	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:18	164.15	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 13:18	1.02	mg/L	DO
GS-AP-MW-21	10/16/2018 13:18	-12.2	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:18	11.71	pH	pH
GS-AP-MW-21	10/16/2018 13:18	17.92	C	Temperature
GS-AP-MW-21	10/16/2018 13:18	3.12	NTU	Turbidity
GS-AP-MW-21	10/16/2018 13:23	1951.7	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:23	164.15	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 13:23	0.76	mg/L	DO
GS-AP-MW-21	10/16/2018 13:23	-13	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:23	11.83	pH	pH
GS-AP-MW-21	10/16/2018 13:23	17.9	C	Temperature
GS-AP-MW-21	10/16/2018 13:23	2.76	NTU	Turbidity
GS-AP-MW-21	10/16/2018 13:28	1968.4	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:28	164.15	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 13:28	0.68	mg/L	DO
GS-AP-MW-21	10/16/2018 13:28	-13.3	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:28	11.85	pH	pH
GS-AP-MW-21	10/16/2018 13:28	17.89	C	Temperature
GS-AP-MW-21	10/16/2018 13:28	2.15	NTU	Turbidity
GS-AP-MW-21	10/16/2018 13:33	1916.8	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:33	164.18	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 13:33	0.64	mg/L	DO
GS-AP-MW-21	10/16/2018 13:33	-19.9	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:33	11.85	pH	pH
GS-AP-MW-21	10/16/2018 13:33	17.84	C	Temperature
GS-AP-MW-21	10/16/2018 13:33	2.5	NTU	Turbidity
GS-AP-MW-21	10/16/2018 13:38	1818.3	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:38	164.18	ft	Depth to Water Detail

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-21	10/16/2018 13:38	0.63	mg/L	DO
GS-AP-MW-21	10/16/2018 13:38	-29.1	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:38	11.82	pH	pH
GS-AP-MW-21	10/16/2018 13:38	17.86	C	Temperature
GS-AP-MW-21	10/16/2018 13:38	2.19	NTU	Turbidity
GS-AP-MW-21	10/16/2018 13:43	1723.5	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:43	164.24	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 13:43	0.61	mg/L	DO
GS-AP-MW-21	10/16/2018 13:43	-35.8	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:43	11.78	pH	pH
GS-AP-MW-21	10/16/2018 13:43	17.84	C	Temperature
GS-AP-MW-21	10/16/2018 13:43	1.91	NTU	Turbidity
GS-AP-MW-21	10/16/2018 13:48	1617.2	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:48	164.24	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 13:48	0.6	mg/L	DO
GS-AP-MW-21	10/16/2018 13:48	-40.5	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:48	11.73	pH	pH
GS-AP-MW-21	10/16/2018 13:48	17.81	C	Temperature
GS-AP-MW-21	10/16/2018 13:48	1.34	NTU	Turbidity
GS-AP-MW-21	10/16/2018 13:53	1522.4	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:53	164.24	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 13:53	0.59	mg/L	DO
GS-AP-MW-21	10/16/2018 13:53	-44.1	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:53	11.68	pH	pH
GS-AP-MW-21	10/16/2018 13:53	17.84	C	Temperature
GS-AP-MW-21	10/16/2018 13:53	1.7	NTU	Turbidity
GS-AP-MW-21	10/16/2018 13:58	1458.7	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 13:58	164.24	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 13:58	0.58	mg/L	DO
GS-AP-MW-21	10/16/2018 13:58	-46.4	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 13:58	11.63	pH	pH
GS-AP-MW-21	10/16/2018 13:58	17.81	C	Temperature
GS-AP-MW-21	10/16/2018 13:58	1.77	NTU	Turbidity
GS-AP-MW-21	10/16/2018 14:03	1392.7	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 14:03	164.24	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 14:03	0.6	mg/L	DO
GS-AP-MW-21	10/16/2018 14:03	-48.8	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 14:03	11.58	pH	pH
GS-AP-MW-21	10/16/2018 14:03	17.81	C	Temperature
GS-AP-MW-21	10/16/2018 14:03	1.83	NTU	Turbidity
GS-AP-MW-21	10/16/2018 14:08	1338.3	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 14:08	164.24	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 14:08	0.58	mg/L	DO
GS-AP-MW-21	10/16/2018 14:08	-50.2	mv	Oxidation Reduction Potention

**Alabama Power Company  
Plant Gorgas Ash Pond**

Well ID	Reading Time	Value	Unit	Description
GS-AP-MW-21	10/16/2018 14:08	11.53	pH	pH
GS-AP-MW-21	10/16/2018 14:08	17.81	C	Temperature
GS-AP-MW-21	10/16/2018 14:08	2.04	NTU	Turbidity
GS-AP-MW-21	10/16/2018 14:13	1284.4	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 14:13	164.24	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 14:13	0.59	mg/L	DO
GS-AP-MW-21	10/16/2018 14:13	-51.5	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 14:13	11.47	pH	pH
GS-AP-MW-21	10/16/2018 14:13	17.79	C	Temperature
GS-AP-MW-21	10/16/2018 14:13	1.39	NTU	Turbidity
GS-AP-MW-21	10/16/2018 14:19	1241.3	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 14:19	164.24	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 14:19	0.59	mg/L	DO
GS-AP-MW-21	10/16/2018 14:19	-53.1	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 14:19	11.43	pH	pH
GS-AP-MW-21	10/16/2018 14:19	17.81	C	Temperature
GS-AP-MW-21	10/16/2018 14:19	1.56	NTU	Turbidity
GS-AP-MW-21	10/16/2018 14:24	1204.8	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 14:24	164.24	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 14:24	0.59	mg/L	DO
GS-AP-MW-21	10/16/2018 14:24	-53.5	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 14:24	11.38	pH	pH
GS-AP-MW-21	10/16/2018 14:24	17.81	C	Temperature
GS-AP-MW-21	10/16/2018 14:24	1.99	NTU	Turbidity
GS-AP-MW-21	10/16/2018 14:29	1183.4	uS/cm	Conductivity
GS-AP-MW-21	10/16/2018 14:29	164.24	ft	Depth to Water Detail
GS-AP-MW-21	10/16/2018 14:29	0.59	mg/L	DO
GS-AP-MW-21	10/16/2018 14:29	-54.1	mv	Oxidation Reduction Potention
GS-AP-MW-21	10/16/2018 14:29	11.34	pH	pH
GS-AP-MW-21	10/16/2018 14:29	17.81	C	Temperature
GS-AP-MW-21	10/16/2018 14:29	1.65	NTU	Turbidity

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***



# **Gorgas Ash Pond**

## **Alternate Source Sampling Event 1**

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

Field quality control procedures were performed as follows:

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

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Calera, AL 35040  
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FAX (205) 257-1654

# Analytical Report



**Sample Group :** WMWGORAP\_1141  
**Project/Site :** Gorgas Ash Pond  
Parrish, AL 35580  
**For :** Southern Company Services  
3535 Colonnade Parkway  
Birmingham, AL 35243  
**Attention :** Dustin Brooks & Greg Dyer  
**Released By :** Sarah Copeland  
sgcopela@southernco.com  
(205) 664-6121

The following data has been reviewed and approved by:

Quality Control: Sarah  
Copeland

Digitally signed by Sarah Copeland  
DN: cn=Sarah Copeland, o, ou,  
email=sgcopela@southernco.com,  
c=US  
Date: 2018.05.03 09:21:21 -05'00'

Supervision: T. Durant  
Maske

Digitally signed by T. Durant Maske  
DN: cn=T. Durant Maske, o=Alabama  
Power Company, ou=Environmental  
Affairs, email=tdmaske@southernco.com,  
c=US  
Date: 2018.05.04 08:57:23 -05'00'



Metals ICP

Gorgas Ash Pond

WMWGORAP\_1141

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>
AY08265	20180412K	WMWGORAP_1141
AY08266	20180412K	WMWGORAP_1141
AY08267	20180412K	WMWGORAP_1141
AY08268	20180412K	WMWGORAP_1141
AY08269	20180412K	WMWGORAP_1141
AY08270	20180412K	WMWGORAP_1141
AY08271	20180412K	WMWGORAP_1141
AY08272	20180412K	WMWGORAP_1141
AY08273	20180412K	WMWGORAP_1141
AY08274	20180412K	WMWGORAP_1141
AY08275	20180412AK	WMWGORAP_1141
AY08276	20180412AK	WMWGORAP_1141
AY08277	20180412AK	WMWGORAP_1141
AY08278	20180412AK	WMWGORAP_1141
AY08279	20180412AK	WMWGORAP_1141
AY08280	20180412AK	WMWGORAP_1141
AY08281	20180412AK	WMWGORAP_1141
AY08282	20180412AK	WMWGORAP_1141
AY08283	20180412AK	WMWGORAP_1141
AY08284	20180412AK	WMWGORAP_1141
AY08285	20180412BK	WMWGORAP_1141

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 passed.
- Following the ICV, an initial calibration blank (ICB) was analyzed and was below the limit of quantitation for all requested analytes.



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

Matrix Specific Quality Control Procedures:

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

- A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for accuracy were met.
  - A matrix spike and matrix spike duplicate were digested and analyzed with each ICP batch. All acceptance criteria for precision were met.
7. All samples were analyzed at a x2.03 dilution to compensate for potential matrix effects. The following samples were diluted due to analyzed sample concentration over the high standard of the calibration curve.

<u>Sample ID</u>	<u>Analyte</u>	<u>Dilution Factor</u>
AY08268	Sodium	x10.15
AY08271	Sodium	x10.15
AY08272	Sodium	x10.15
AY08273	Sodium	x10.15
AY08275	Sodium	x10.15
AY08275	Calcium	x10.15
AY08276	Sodium	x10.15
AY08277	Sodium	x101.5

8. The raw data results include results corrected for dilution.





Metals ICPMS

Gorgas Ash Pond

WMWGORAP\_1141

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>
AY08265	617370	WMWGORAP_1141
AY08266	617370	WMWGORAP_1141
AY08267	617370	WMWGORAP_1141
AY08268	617370	WMWGORAP_1141
AY08269	617370	WMWGORAP_1141
AY08270	617370	WMWGORAP_1141
AY08271	617370	WMWGORAP_1141
AY08272	617370	WMWGORAP_1141
AY08273	617370	WMWGORAP_1141
AY08274	617370	WMWGORAP_1141
AY08275	617371	WMWGORAP_1141
AY08276	617371	WMWGORAP_1141
AY08277	617371	WMWGORAP_1141
AY08278	617371	WMWGORAP_1141
AY08279	617371	WMWGORAP_1141
AY08280	617371	WMWGORAP_1141
AY08281	617371	WMWGORAP_1141
AY08282	617371	WMWGORAP_1141
AY08283	617371	WMWGORAP_1141
AY08284	617371	WMWGORAP_1141
AY08285	617372	WMWGORAP_1141

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 at a dilution of 1 to 5 to compensate for any matrix effects.
  8. The raw data results are shown with dilution factors included.

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY08265

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	62.3	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	32.3	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	11.8	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	3.19	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		6.58	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		80.3	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.029	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			80.269	mg/l-CaCO3

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:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY08265

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08274	Sodium, Total	mg/L	0.0142	0.22	5.00	5.01	4.93	5.01	4.25 to 5.75	100	70 to 130	1.56	20
AY08274	Calcium, Total	mg/L	-0.0207	0.22	5.00	4.83	4.79	4.82	4.25 to 5.75	96.6	70 to 130	0.928	20
AY08273	pH	SU						6.99	6.95 to 7.05				
AY08274	Magnesium, Total	mg/L	-0.00138	0.22	5.00	4.76	4.73	4.81	4.25 to 5.75	95.3	70 to 130	0.682	20
AY08273	Alkalinity, Total as CaCO3	mg/L					259.52	49.28	45.0 to 55.0			1.79	10
AY08274	Potassium, Total	mg/L	-0.000131	0.0946	10.0	10.4	10.8	10.1	8.5 to 11.5	104	70 to 130	3.97	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:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY08265

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS					

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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:**

CC:

Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AY08266

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	62.3	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	32.1	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	11.7	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	3.34	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		6.59	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		79.3	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.029	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			79.269	mg/l-CaCO3

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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:**

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AY08266

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS	Rec		Prec	Limit	
			Limit	Spike					Limit	Prec			
AY08274	Sodium, Total	mg/L	0.0142	0.22	5.00	5.01	4.93	5.01	4.25 to 5.75	100	70 to 130	1.56	20
AY08274	Calcium, Total	mg/L	-0.0207	0.22	5.00	4.83	4.79	4.82	4.25 to 5.75	96.6	70 to 130	0.928	20
AY08273	Alkalinity, Total as CaCO <sub>3</sub>	mg/L CaCO <sub>3</sub>					259.52	49.28	45.0 to 55.0			1.79	10
AY08274	Potassium, Total	mg/L	-0.000131	0.0946	10.0	10.4	10.8	10.1	8.5 to 11.5	104	70 to 130	3.97	20
AY08273	pH	SU						6.99	6.95 to 7.05				
AY08274	Magnesium, Total	mg/L	-0.00138	0.22	5.00	4.76	4.73	4.81	4.25 to 5.75	95.3	70 to 130	0.682	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.

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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

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Expiration: June 30, 2018

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-6S Dup

Laboratory ID Number: AY08266

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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:**

CC:



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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY08267

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	52.4	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	14.3	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	30.4	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 2.37	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		7.41	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		200	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.482	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			199.505	mg/l-CaCO3

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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY08267

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08274	Sodium, Total	mg/L	0.0142	0.22	5.00	5.01	4.93	5.01	4.25 to 5.75	100	70 to 130	1.56	20
AY08274	Calcium, Total	mg/L	-0.0207	0.22	5.00	4.83	4.79	4.82	4.25 to 5.75	96.6	70 to 130	0.928	20
AY08273	pH	SU						6.99	6.95 to 7.05				
AY08274	Magnesium, Total	mg/L	-0.00138	0.22	5.00	4.76	4.73	4.81	4.25 to 5.75	95.3	70 to 130	0.682	20
AY08273	Alkalinity, Total as CaCO3	mg/L CaCO3					259.52	49.28	45.0 to 55.0			1.79	10
AY08274	Potassium, Total	mg/L	-0.000131	0.0946	10.0	10.4	10.8	10.1	8.5 to 11.5	104	70 to 130	3.97	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY08267

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY08268

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	12.4	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	4.26	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		10.15	1.015	5.075	88.3	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 1.41	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		7.68	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		101	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.452	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			100.524	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY08268

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08274	Calcium, Total	mg/L	-0.0207	0.22	5.00	4.83	4.79	4.82	4.25 to 5.75	96.6	70 to 130	0.928	20
AY08274	Sodium, Total	mg/L	0.0142	0.22	5.00	5.01	4.93	5.01	4.25 to 5.75	100	70 to 130	1.56	20
AY08273	pH	SU						6.99	6.95 to 7.05				
AY08274	Magnesium, Total	mg/L	-0.00138	0.22	5.00	4.76	4.73	4.81	4.25 to 5.75	95.3	70 to 130	0.682	20
AY08273	Alkalinity, Total as CaCO3	mg/L					259.52	49.28	45.0 to 55.0			1.79	10
AY08274	Potassium, Total	mg/L	-0.000131	0.0946	10.0	10.4	10.8	10.1	8.5 to 11.5	104	70 to 130	3.97	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.

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY08268

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec
			Limit				Duplicate	LCS	Limit	Limit	Limit

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY08269

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	3.95	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	6.41	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	10.7	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 0.811	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		5.91	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		51.1	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.004	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			51.096	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY08269

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08274	Sodium, Total	mg/L	0.0142	0.22	5.00	5.01	4.93	5.01	4.25 to 5.75	100	70 to 130	1.56	20
AY08274	Calcium, Total	mg/L	-0.0207	0.22	5.00	4.83	4.79	4.82	4.25 to 5.75	96.6	70 to 130	0.928	20
AY08273	pH	SU						6.99	6.95 to 7.05				
AY08274	Magnesium, Total	mg/L	-0.00138	0.22	5.00	4.76	4.73	4.81	4.25 to 5.75	95.3	70 to 130	0.682	20
AY08273	Alkalinity, Total as CaCO3	mg/L					259.52	49.28	45.0 to 55.0			1.79	10
AY08274	Potassium, Total	mg/L	-0.000131	0.0946	10.0	10.4	10.8	10.1	8.5 to 11.5	104	70 to 130	3.97	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments:



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY08269

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

# Certificate Of Analysis Alabama Power



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY08270

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		5.58	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		U Not Detected	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY08270

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY08274	Calcium, Total	mg/L	-0.0207	0.22	5.00	4.83	4.79	4.82	4.25 to 5.75	96.6	70 to 130	0.928	20
AY08274	Sodium, Total	mg/L	0.0142	0.22	5.00	5.01	4.93	5.01	4.25 to 5.75	100	70 to 130	1.56	20
AY08273	Alkalinity, Total as CaCO <sub>3</sub>	mg/L CaCO <sub>3</sub>					259.52	49.28	45.0 to 55.0			1.79	10
AY08274	Potassium, Total	mg/L	-0.000131	0.0946	10.0	10.4	10.8	10.1	8.5 to 11.5	104	70 to 130	3.97	20
AY08273	pH	SU						6.99	6.95 to 7.05				
AY08274	Magnesium, Total	mg/L	-0.00138	0.22	5.00	4.76	4.73	4.81	4.25 to 5.75	95.3	70 to 130	0.682	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 02-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY08270

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

# Certificate Of Analysis Alabama Power



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY08271

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	0.591	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	J 0.181	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		10.15	1.015	5.075	140	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 0.494	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		9.30	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		245	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			38.536	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			205.466	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY08271

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec	Prec Limit	
			MB	Limit					Rec	Limit			
AY08274	Calcium, Total	mg/L	-0.0207	0.22	5.00	4.83	4.79	4.82	4.25 to 5.75	96.6	70 to 130	0.928	20
AY08274	Sodium, Total	mg/L	0.0142	0.22	5.00	5.01	4.93	5.01	4.25 to 5.75	100	70 to 130	1.56	20
AY08273	Alkalinity, Total as CaCO <sub>3</sub>	mg/L CaCO <sub>3</sub>					259.52	49.28	45.0 to 55.0			1.79	10
AY08274	Potassium, Total	mg/L	-0.000131	0.0946	10.0	10.4	10.8	10.1	8.5 to 11.5	104	70 to 130	3.97	20
AY08273	pH	SU						6.99	6.95 to 7.05				
AY08274	Magnesium, Total	mg/L	-0.00138	0.22	5.00	4.76	4.73	4.81	4.25 to 5.75	95.3	70 to 130	0.682	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY08271

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS			Rec		Prec	

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY08272

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	13.0	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		10.15	1.015	5.075	153	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	8.65	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		11.5	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		230	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			69.546	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			2.340	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY08272

Sample	Analysis	Units	MB	MB				LCS		Rec			Prec
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08274	Sodium, Total	mg/L	0.0142	0.22	5.00	5.01	4.93	5.01	4.25 to 5.75	100	70 to 130	1.56	20
AY08273	Alkalinity, Total as CaCO <sub>3</sub>	mg/L CaCO <sub>3</sub>					259.52	49.28	45.0 to 55.0			1.79	10
AY08274	Potassium, Total	mg/L	-0.000131	0.0946	10.0	10.4	10.8	10.1	8.5 to 11.5	104	70 to 130	3.97	20
AY08273	pH	SU						6.99	6.95 to 7.05				
AY08274	Magnesium, Total	mg/L	-0.00138	0.22	5.00	4.76	4.73	4.81	4.25 to 5.75	95.3	70 to 130	0.682	20
AY08274	Calcium, Total	mg/L	-0.0207	0.22	5.00	4.83	4.79	4.82	4.25 to 5.75	96.6	70 to 130	0.928	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY08272

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS			Rec		Prec	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

**Customer Account:** WMWGORAP  
**Sample Date:** 03-Apr-18  
**Customer ID:**  
**Delivery Date:** 06-Apr-18

**Description:** Gorgas Ash Pond - MW-19

**Laboratory ID Number:** AY08273

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	42.2	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	12.9	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		10.15	1.015	5.075	49.9	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	3.35	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		8.14	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		255	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			3.266	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			251.666	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY08273

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08274	Sodium, Total	mg/L	0.0142	0.22	5.00	5.01	4.93	5.01	4.25 to 5.75	100	70 to 130	1.56	20
AY08274	Calcium, Total	mg/L	-0.0207	0.22	5.00	4.83	4.79	4.82	4.25 to 5.75	96.6	70 to 130	0.928	20
AY08273	pH	SU						6.99	6.95 to 7.05				
AY08274	Magnesium, Total	mg/L	-0.00138	0.22	5.00	4.76	4.73	4.81	4.25 to 5.75	95.3	70 to 130	0.682	20
AY08273	Alkalinity, Total as CaCO3	mg/L CaCO3					259.52	49.28	45.0 to 55.0			1.79	10
AY08274	Potassium, Total	mg/L	-0.000131	0.0946	10.0	10.4	10.8	10.1	8.5 to 11.5	104	70 to 130	3.97	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Alabama Power General Test Laboratory  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY08273

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis Alabama Power



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY08274

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		5.46	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		U Not Detected	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY08274

Sample	Analysis	Units	MB		MS	MSD	LCS	LCS Limit	Rec		Prec Limit		
			MB	Limit					Rec	Limit			
AY08274	Calcium, Total	mg/L	-0.0207	0.22	5.00	4.83	4.79	4.82	4.25 to 5.75	96.6	70 to 130	0.928	20
AY08274	Sodium, Total	mg/L	0.0142	0.22	5.00	5.01	4.93	5.01	4.25 to 5.75	100	70 to 130	1.56	20
AY08283	pH	SU						6.99	6.95 to 7.05				
AY08274	Magnesium, Total	mg/L	-0.00138	0.22	5.00	4.76	4.73	4.81	4.25 to 5.75	95.3	70 to 130	0.682	20
AY08274	Potassium, Total	mg/L	-0.000131	0.0946	10.0	10.4	10.8	10.1	8.5 to 11.5	104	70 to 130	3.97	20
AY08283	Alkalinity, Total as CaCO3	mg/L CaCO3					179.84	50.7	45.0 to 55.0			0.0556	10

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments:

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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY08274

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

**CC:**



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 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY08275

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		10.15	1.015	5.075	92.8	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	25.0	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		10.15	1.015	5.075	78.0	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 2.48	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		7.49	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		129	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.374	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			128.611	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

Alabama Power General Test Laboratory  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY08275

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec
AY08283	pH	SU						6.99	6.95 to 7.05			
AY08284	Calcium, Total	mg/L	-0.0225	0.22	5.00	42.8	42.7	4.83	4.25 to 5.75		96.8	70 to 130 0.147 20
AY08284	Sodium, Total	mg/L	-0.00297	0.22	5.00	26.3	26.2	4.94	4.25 to 5.75		93.1	70 to 130 0.264 20
AY08284	Potassium, Total	mg/L	-0.000131	0.0946	10.0	13.3	13.3	10.1	8.5 to 11.5		108	70 to 130 0.198 20
AY08283	Alkalinity, Total as CaCO3	mg/L					179.84	50.7	45.0 to 55.0			0.0556 10
AY08284	Magnesium, Total	mg/L	0.00193	0.22	5.00	18.7	18.7	4.70	4.25 to 5.75		94.5	70 to 130 0.0515 20

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY08275

Sample	Analysis	Units	MB	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Rec	Prec	Prec	Limit
								Duplicate	LCS			Limit	Rec	Limit	Prec	Limit

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

Alabama Power General Test Laboratory  
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 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY08276

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	7.40	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	2.23	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		10.15	1.015	5.075	120	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	8.12	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		10.57	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		299	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			218.002	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			62.421	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY08276

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08284	Potassium, Total	mg/L	-0.000131	0.0946	10.0	13.3	13.3	10.1	8.5 to 11.5	108	70 to 130	0.198	20
AY08284	Calcium, Total	mg/L	-0.0225	0.22	5.00	42.8	42.7	4.83	4.25 to 5.75	96.8	70 to 130	0.147	20
AY08284	Sodium, Total	mg/L	-0.00297	0.22	5.00	26.3	26.2	4.94	4.25 to 5.75	93.1	70 to 130	0.264	20
AY08283	pH	SU						6.99	6.95 to 7.05				
AY08283	Alkalinity, Total as CaCO3	mg/L					179.84	50.7	45.0 to 55.0			0.0556	10
AY08284	Magnesium, Total	mg/L	0.00193	0.22	5.00	18.7	18.7	4.70	4.25 to 5.75	94.5	70 to 130	0.0515	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 03-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY08276

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

**CC:**

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY08277

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	5.87	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	1.77	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		101.5	10.15	50.75	282	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 1.40	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		8.36	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		384	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			8.092	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			375.793	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY08277

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08284	Calcium, Total	mg/L	-0.0225	0.22	5.00	42.8	42.7	4.83	4.25 to 5.75	96.8	70 to 130	0.147	20
AY08284	Potassium, Total	mg/L	-0.000131	0.0946	10.0	13.3	13.3	10.1	8.5 to 11.5	108	70 to 130	0.198	20
AY08283	pH	SU						6.99	6.95 to 7.05				
AY08284	Sodium, Total	mg/L	-0.00297	0.22	5.00	26.3	26.2	4.94	4.25 to 5.75	93.1	70 to 130	0.264	20
AY08283	Alkalinity, Total as CaCO3	mg/L					179.84	50.7	45.0 to 55.0			0.0556	10
AY08284	Magnesium, Total	mg/L	0.00193	0.22	5.00	18.7	18.7	4.70	4.25 to 5.75	94.5	70 to 130	0.0515	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY08277

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis Alabama Power



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY08278

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	31.8	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	11.3	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	27.9	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 1.57	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		7.57	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		175	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.609	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			174.372	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY08278

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08284	Calcium, Total	mg/L	-0.0225	0.22	5.00	42.8	42.7	4.83	4.25 to 5.75	96.8	70 to 130	0.147	20
AY08283	pH	SU						6.99	6.95 to 7.05				
AY08284	Potassium, Total	mg/L	-0.000131	0.0946	10.0	13.3	13.3	10.1	8.5 to 11.5	108	70 to 130	0.198	20
AY08284	Sodium, Total	mg/L	-0.00297	0.22	5.00	26.3	26.2	4.94	4.25 to 5.75	93.1	70 to 130	0.264	20
AY08283	Alkalinity, Total as CaCO3	mg/L					179.84	50.7	45.0 to 55.0			0.0556	10
AY08284	Magnesium, Total	mg/L	0.00193	0.22	5.00	18.7	18.7	4.70	4.25 to 5.75	94.5	70 to 130	0.0515	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.

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY08278

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

Alabama Power General Test Laboratory  
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 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY08279

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	73.5	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	28.6	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	15.5	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 1.74	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		6.81	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		168	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.102	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			167.895	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY08279

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08284	Calcium, Total	mg/L	-0.0225	0.22	5.00	42.8	42.7	4.83	4.25 to 5.75	96.8	70 to 130	0.147	20
AY08283	pH	SU						6.99	6.95 to 7.05				
AY08284	Potassium, Total	mg/L	-0.000131	0.0946	10.0	13.3	13.3	10.1	8.5 to 11.5	108	70 to 130	0.198	20
AY08284	Sodium, Total	mg/L	-0.00297	0.22	5.00	26.3	26.2	4.94	4.25 to 5.75	93.1	70 to 130	0.264	20
AY08283	Alkalinity, Total as CaCO3	mg/L					179.84	50.7	45.0 to 55.0			0.0556	10
AY08284	Magnesium, Total	mg/L	0.00193	0.22	5.00	18.7	18.7	4.70	4.25 to 5.75	94.5	70 to 130	0.0515	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY08279

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

Alabama Power General Test Laboratory  
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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY08280

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	45.0	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	14.3	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	20.2	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 1.35	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		7.09	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		179	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.207	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			178.787	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:



Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY08280

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08284	Potassium, Total	mg/L	-0.000131	0.0946	10.0	13.3	13.3	10.1	8.5 to 11.5	108	70 to 130	0.198	20
AY08283	pH	SU						6.99	6.95 to 7.05				
AY08284	Calcium, Total	mg/L	-0.0225	0.22	5.00	42.8	42.7	4.83	4.25 to 5.75	96.8	70 to 130	0.147	20
AY08284	Sodium, Total	mg/L	-0.00297	0.22	5.00	26.3	26.2	4.94	4.25 to 5.75	93.1	70 to 130	0.264	20
AY08283	Alkalinity, Total as CaCO3	mg/L					179.84	50.7	45.0 to 55.0			0.0556	10
AY08284	Magnesium, Total	mg/L	0.00193	0.22	5.00	18.7	18.7	4.70	4.25 to 5.75	94.5	70 to 130	0.0515	20

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Laboratory certification ID: E571114

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Comments:

Alabama Power General Test Laboratory  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY08280

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS		Rec		Prec	

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-11 Dup

Laboratory ID Number: AY08281

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	44.9	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	14.3	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	20.2	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 1.33	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		7.07	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		191	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.211	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			190.783	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-11 Dup

Laboratory ID Number: AY08281

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec
AY08283	pH	SU						6.99	6.95 to 7.05			
AY08284	Calcium, Total	mg/L	-0.0225	0.22	5.00	42.8	42.7	4.83	4.25 to 5.75		96.8	70 to 130 0.147 20
AY08284	Potassium, Total	mg/L	-0.000131	0.0946	10.0	13.3	13.3	10.1	8.5 to 11.5		108	70 to 130 0.198 20
AY08283	Alkalinity, Total as CaCO3	mg/L CaCO3					179.84	50.7	45.0 to 55.0			0.0556 10
AY08284	Magnesium, Total	mg/L	0.00193	0.22	5.00	18.7	18.7	4.70	4.25 to 5.75		94.5	70 to 130 0.0515 20
AY08284	Sodium, Total	mg/L	-0.00297	0.22	5.00	26.3	26.2	4.94	4.25 to 5.75		93.1	70 to 130 0.264 20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 04-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-11 Dup

Laboratory ID Number: AY08281

Sample	Analysis	Units	MB	MB	Spike	LFM	Sample	LCS	LCS	Rec	Prec
			Limit	Limit			Duplicate	LCS	Limit	Limit	Limit

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

Alabama Power General Test Laboratory  
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 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY08282

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	32.1	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	10.5	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	34.7	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	2.67	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		7.62	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		185	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.722	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			184.257	mg/l-CaCO3

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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:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY08282

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08284	Sodium, Total	mg/L	-0.00297	0.22	5.00	26.3	26.2	4.94	4.25 to 5.75	93.1	70 to 130	0.264	20
AY08284	Calcium, Total	mg/L	-0.0225	0.22	5.00	42.8	42.7	4.83	4.25 to 5.75	96.8	70 to 130	0.147	20
AY08283	pH	SU						6.99	6.95 to 7.05				
AY08284	Potassium, Total	mg/L	-0.000131	0.0946	10.0	13.3	13.3	10.1	8.5 to 11.5	108	70 to 130	0.198	20
AY08283	Alkalinity, Total as CaCO3	mg/L					179.84	50.7	45.0 to 55.0			0.0556	10
AY08284	Magnesium, Total	mg/L	0.00193	0.22	5.00	18.7	18.7	4.70	4.25 to 5.75	94.5	70 to 130	0.0515	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY08282

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:



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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY08283

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	43.7	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	15.3	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	10.6	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	J 1.34	mg/L
<b>General Characteristics</b>									
pH	HRG	4/11/2018	SM 4500H+ B		1	0.01		6.90	SU
Alkalinity, Total as CaCO3	HRG	4/11/2018	SM 2320 B		1	0.1		180	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			0.134	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/11/2018	SM 4500CO2 D		1			179.862	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY08283

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec
AY08283	pH	SU						6.99	6.95 to 7.05			
AY08284	Calcium, Total	mg/L	-0.0225	0.22	5.00	42.8	42.7	4.83	4.25 to 5.75		96.8	70 to 130 0.147 20
AY08284	Sodium, Total	mg/L	-0.00297	0.22	5.00	26.3	26.2	4.94	4.25 to 5.75		93.1	70 to 130 0.264 20
AY08284	Potassium, Total	mg/L	-0.000131	0.0946	10.0	13.3	13.3	10.1	8.5 to 11.5		108	70 to 130 0.198 20
AY08283	Alkalinity, Total as CaCO3	mg/L					179.84	50.7	45.0 to 55.0			0.0556 10
AY08284	Magnesium, Total	mg/L	0.00193	0.22	5.00	18.7	18.7	4.70	4.25 to 5.75		94.5	70 to 130 0.0515 20

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Expiration: June 30, 2018

Comments:

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY08283

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

# Certificate Of Analysis Alabama Power



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY08284

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	38.0	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	13.9	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	21.6	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	2.52	mg/L
<b>General Characteristics</b>									
pH	HRG	4/12/2018	SM 4500H+ B		1	0.01		7.18	SU
Alkalinity, Total as CaCO3	HRG	4/12/2018	SM 2320 B		1	0.1		193	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/12/2018	SM 4500CO2 D		1			0.274	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/12/2018	SM 4500CO2 D		1			192.718	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY08284

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit
AY08284	Calcium, Total	mg/L	-0.0225	0.22	5.00	42.8	42.7	4.83	4.25 to 5.75	96.8	70 to 130	0.147	20
AY08707	pH	SU						6.99	6.95 to 7.05				
AY08284	Potassium, Total	mg/L	-0.000131	0.0946	10.0	13.3	13.3	10.1	8.5 to 11.5	108	70 to 130	0.198	20
AY08284	Sodium, Total	mg/L	-0.00297	0.22	5.00	26.3	26.2	4.94	4.25 to 5.75	93.1	70 to 130	0.264	20
AY08284	Magnesium, Total	mg/L	0.00193	0.22	5.00	18.7	18.7	4.70	4.25 to 5.75	94.5	70 to 130	0.0515	20
AY08707	Alkalinity, Total as CaCO <sub>3</sub>	mg/L CaCO <sub>3</sub>					312.66	49.8	45.0 to 55.0			3.46	10

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

Comments:

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY08284

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	LCS	Limit	Rec	Limit	Prec	Limit
							Duplicate	LCS						

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

CC:

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

**Customer Account:** WMWGORAPEB  
**Sample Date:** 05-Apr-18  
**Customer ID:**  
**Delivery Date:** 06-Apr-18

**Description:** Gorgas Ash Pond Equipment Blank

**Laboratory ID Number:** AY08285

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Calcium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Magnesium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Sodium, Total	HRG	4/12/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Potassium, Total	DLJ	4/12/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH	HRG	4/12/2018	SM 4500H+ B		1	0.01		5.51	SU
Alkalinity, Total as CaCO3	HRG	4/12/2018	SM 2320 B		1	0.1		U Not Detected	mg/L CaCO3
Carbonate Alkalinity, as CaCO3	HRG	4/12/2018	SM 4500CO2 D		1			0	mg/l-CaCO3
Bicarbonate Alkalinity, as CaCO3	HRG	4/12/2018	SM 4500CO2 D		1			0	mg/l-CaCO3

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY08285

Sample	Analysis	Units	MB				LCS			Rec		Prec		
			Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	Limit		
AY08707	pH	SU					6.99	6.95 to 7.05						
AY08707	Alkalinity, Total as CaCO <sub>3</sub>	mg/L CaCO <sub>3</sub>				312.66	49.8	45.0 to 55.0			3.46	10		
AY08285	Calcium, Total	mg/L	-0.0146	0.22	5.00	4.80	5.08	4.79	4.25 to 5.75		96.0	70 to 130	5.74	20
AY08285	Magnesium, Total	mg/L	0.00157	0.22	5.00	4.68	4.95	4.64	4.25 to 5.75		93.5	70 to 130	5.72	20
AY08285	Potassium, Total	mg/L	0.000116	0.0946	10.0	10.7	11.2	10.1	8.5 to 11.5		107	70 to 130	4.50	20
AY08285	Sodium, Total	mg/L	0.000472	0.22	5.00	4.90	5.19	4.91	4.25 to 5.75		98.1	70 to 130	5.56	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2018

**Comments:**



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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 05-Apr-18  
 Customer ID:  
 Delivery Date: 06-Apr-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY08285

Sample	Analysis	Units	MB	Limit	Spike	LFM	Sample	LCS	Limit	Rec	Prec
							Duplicate	LCS		Limit	Prec

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

**Comments:**

CC:



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
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



# Chain of Custody

## Groundwater

APC General Testing Laboratory  
General Service Complex Building 8

Field Complete  Outside Lab  
 Lab Complete

Lab ETA 04/05/2018 16:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Nick Pitts	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (500ml): Metals, Bottle 2 (250ml): Alkalinity, pH		
Comments	All samples were received at a temp <4 degrees C.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	04/02/2018	11:48	2	Groundwater		AY08265
MW-6S Dup	04/02/2018	11:48	2	Sample Duplicate		AY08266
MW-6D	04/02/2018	12:51	2	Groundwater		AY08267
MW-7	04/02/2018	14:00	2	Groundwater		AY08268
MW-8	04/02/2018	15:20	2	Groundwater		AY08269
FB-1	04/02/2018	15:48	2	Field Blank		AY08270
MW-2	04/03/2018	09:57	2	Groundwater		AY08271
MW-21	04/03/2018	12:34	2	Groundwater		AY08272
MW-19	04/03/2018	13:45	2	Groundwater		AY08273
FB-2	04/03/2018	13:32	2	Field Blank		AY08274
MW-18	04/03/2018	14:44	2	Groundwater		AY08275
MW-15	04/03/2018	18:10	2	Groundwater		AY08276
MW-17	04/04/2018	11:32	2	Groundwater		AY08277
MW-16D	04/04/2018	13:22	2	Groundwater		AY08278
MW-9	04/04/2018	14:55	2	Groundwater		AY08279
MW-11	04/04/2018	16:25	2	Groundwater		AY08280
MW-11 Dup	04/04/2018	16:25	2	Sample Duplicate		AY08281
MW-12	04/05/2018	10:00	2	Groundwater		AY08282
MW-13	04/05/2018	11:13	2	Groundwater		AY08283
MW-14	04/05/2018	12:35	2	Groundwater		AY08284
EB-1	04/05/2018	13:15	2	Equipment Blank		AY08285

Relinquished By	Received By	Date/Time
	<b>Sarah Copeland</b> <small>Digitally signed by Sarah Copeland            DN: cn=Sarah Copeland, o.ou,            email=sgcopela@southerncco.com, c=US            Date: 2018.04.05 15:43:07 -05'00'</small>	04/05/2018 15:43

SmarTroll ID	4696-23443-3-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	5160-26211-1-1	Cooler Temp
		0.3 degrees C
		Thermometer ID
		5408-27568-2-2
		pH Strip ID
		5881-30152-10-6



# Chain of Custody

## Groundwater

APC General Testing Laboratory  
General Service Complex Building 8

Field Complete  Outside Lab  
 Lab Complete

Lab ETA 04/05/2018 16:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Nick Pitts	Location	Gorgas Ash Pond
Analysis Requested	Bottle 1 (500ml): Boron-11, Bottle 2 (3, 40ml): 8260, Bottle 3 (250ml): Tritium, Bottle 4 (250ml): Anions		
Comments	Tritium duplicate on MW-13. All samples were received at temp <4 degrees C. All samples outsourced to Test America. There is no requirement to check preservative for the analyses requested.		

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	04/02/2018	11:48	4	Groundwater		AY08286
MW-6S Dup	04/02/2018	11:48	4	Sample Duplicate		AY08287
MW-6D	04/02/2018	12:51	4	Groundwater		AY08288
MW-7	04/02/2018	14:00	4	Groundwater		AY08289
MW-8	04/02/2018	15:20	4	Groundwater		AY08290
FB-1	04/02/2018	15:48	4	Field Blank		AY08291
MW-2	04/03/2018	09:57	4	Groundwater		AY08292
MW-21	04/03/2018	12:34	3	Groundwater		AY08293
MW-19	04/03/2018	13:45	3	Groundwater		AY08294
FB-2	04/03/2018	13:32	3	Field Blank		AY08295
MW-18	04/03/2018	14:44	4	Groundwater		AY08296
MW-15	04/03/2018	18:10	3	Groundwater		AY08297
MW-17	04/04/2018	11:32	3	Groundwater		AY08298
MW-16D	04/04/2018	13:22	1	Groundwater		AY08299
MW-9	04/04/2018	14:55	4	Groundwater		AY08300
MW-11	04/04/2018	16:25	3	Groundwater		AY08301
MW-11 Dup	04/04/2018	16:25	3	Sample Duplicate		AY08302
MW-12	04/05/2018	10:00	4	Groundwater		AY08303
MW-13	04/05/2018	11:13	6	Groundwater		AY08304
MW-14	04/05/2018	12:35	3	Groundwater		AY08305
EB-1	04/05/2018	13:15	4	Equipment Blank		AY08306

Relinquished By	Received By	Date/Time
	Sarah Copeland <small>Digitally signed by Sarah Copeland DN: cn=Sarah Copeland, o.ou, email=sgcopela@southernmco.com, c=US Date: 2018.04.05 16:16:24 -05'00'</small>	04/05/2018 16:16

SmarTroll ID 4696-23443-3-2  
Turbidity ID 5160-26211-1-1

All metals and radiological bottles have pH < 2   
Cooler Temp 0.3 degrees C  
Thermometer ID 5408-27568-2-2  
pH Strip ID NA

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-151981-1

TestAmerica SDG: Gorgas Ash Pond 1141 (ASD)

Client Project/Site: CCR Plant Gorgas

For:

Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

4/24/2018 6:56:08 PM

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*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 Gorgas

TestAmerica Job ID: 400-151981-1  
SDG: Gorgas Ash Pond 1141 (ASD)

**Job ID: 400-151981-1**

**Laboratory: TestAmerica Pensacola**

## Narrative

### Job Narrative 400-151981-1

#### GC/MS VOA

Method(s) 8260C: The continuing calibration verification (CCV) associated with batch 400-393780 recovered above the upper control limit for Dichlorodifluoromethane. The samples associated with this CCV were non-detects for the affected analytes; therefore, the data have been reported.

#### General Chemistry

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 394128 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The following samples were diluted to bring the concentration of target analytes within the calibration range: AY08286 MW-6S (400-151981-1), AY08287 MW-6S DUP (400-151981-2), AY08288 MW-6D (400-151981-3), AY08289 MW-7 (400-151981-4), AY08292 MW-2 (400-151981-7), (400-151979-A-1), (400-151979-A-1 MS), (400-151979-A-1 MSD), (400-151981-F-1 MS) and (400-151981-F-1 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 394354 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 SO4 E: The following sample(s) was diluted to bring the concentration of target analytes within the calibration range: Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 Cl- E: The matrix spike / matrix spike duplicate (MS/MSD) recoveries for analytical batch 394372 were outside control limits. Sample matrix interference and/or non-homogeneity are suspected because the associated laboratory control sample (LCS) recovery was within acceptance limits.

Method(s) SM 4500 Cl- E: The following samples were diluted to bring the concentration of target analytes within the calibration range: (400-151829-S-1), (400-151829-S-1 MS) and (400-151829-S-1 MSD). Elevated reporting limits (RLs) are provided.

Method(s) SM 4500 SO4 E: The method blank contained sulfates above the method detection limit. This target analyte concentration was less than the reporting limit (RL); therefore, re-extraction and/or re-analysis of samples was not performed.

# Method Summary

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

TestAmerica Job ID: 400-151981-1  
SDG: Gorgas Ash Pond 1141 (ASD)

Method	Method Description	Protocol	Laboratory
8260C	Volatile Organic Compounds by GC/MS	SW846	TAL PEN
SM 4500 Cl- E	Chloride, Total	SM	TAL PEN
SM 4500 SO4 E	Sulfate, Total	SM	TAL PEN
906.0	Tritium, Total (LSC)	EPA	TAL SL
5030C	Purge and Trap	SW846	TAL PEN
LSC_Dist_Susp	Distillation and Suspension (LSC)	None	TAL SL

#### Protocol References:

EPA = US Environmental Protection Agency

None = None

SM = "Standard Methods For The Examination Of Water And Wastewater"

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

#### Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

TAL SL = 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 Gorgas

TestAmerica Job ID: 400-151981-1  
SDG: Gorgas Ash Pond 1141 (ASD)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-151981-1	AY08286 MW-6S	Water	04/02/18 11:48	04/10/18 09:24
400-151981-2	AY08287 MW-6S DUP	Water	04/02/18 11:48	04/10/18 09:24
400-151981-3	AY08288 MW-6D	Water	04/02/18 12:51	04/10/18 09:24
400-151981-4	AY08289 MW-7	Water	04/02/18 14:00	04/10/18 09:24
400-151981-5	AY08290 MW-8	Water	04/02/18 15:20	04/10/18 09:24
400-151981-6	AY08291 FB-1	Water	04/02/18 15:48	04/10/18 09:24
400-151981-7	AY08292 MW-2	Water	04/03/18 09:57	04/10/18 09:24
400-151981-8	AY08293 MW-21	Water	04/03/18 12:34	04/10/18 09:24
400-151981-9	AY08294 MW-19	Water	04/03/18 13:45	04/10/18 09:24
400-151981-10	AY08295 FB-2	Water	04/03/18 13:32	04/10/18 09:24
400-151981-11	AY08296 MW-18	Water	04/03/18 14:44	04/10/18 09:24
400-151981-12	AY08297 MW-15	Water	04/03/18 18:10	04/10/18 09:24
400-151981-13	AY08298 MW-17	Water	04/04/18 11:32	04/10/18 09:24
400-151981-14	AY08299 MW-16D	Water	04/04/18 13:22	04/10/18 09:24
400-151981-15	AY08300 MW-9	Water	04/04/18 14:55	04/10/18 09:24
400-151981-16	AY08301 MW-11	Water	04/04/18 16:25	04/10/18 09:24
400-151981-17	AY08302 MW-11 DUP	Water	04/04/18 16:25	04/10/18 09:24
400-151981-18	AY08303 MW-12	Water	04/05/18 10:00	04/10/18 09:24
400-151981-19	AY08304 MW-13	Water	04/05/18 11:13	04/10/18 09:24
400-151981-20	AY08305 MW-14	Water	04/05/18 12:35	04/10/18 09:24
400-151981-21	AY08306 EB-1	Water	04/05/18 13:15	04/10/18 09:24

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08286 MW-6S**

**Lab Sample ID: 400-151981-1**

**Date Collected: 04/02/18 11:48**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

**Method: 8260C - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 12:56	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 12:56	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 12:56	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		78 - 118					04/13/18 12:56	1
Dibromofluoromethane	93		81 - 121					04/13/18 12:56	1
Toluene-d8 (Surr)	104		80 - 120					04/13/18 12:56	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	21		2.0	0.60	mg/L			04/17/18 12:30	1
Sulfate	240	F1	50	14	mg/L			04/17/18 08:51	10

**Method: 906.0 - Tritium, Total (LSC)**

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	155	U	185	186	500	306	pCi/L	04/18/18 13:17	04/19/18 14:22	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08287 MW-6S DUP**

**Lab Sample ID: 400-151981-2**

**Date Collected: 04/02/18 11:48**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

### Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 13:20	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 13:20	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 13:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		78 - 118					04/13/18 13:20	1
Dibromofluoromethane	94		81 - 121					04/13/18 13:20	1
Toluene-d8 (Surr)	104		80 - 120					04/13/18 13:20	1

### General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	20		2.0	0.60	mg/L			04/17/18 12:30	1
Sulfate	230		50	14	mg/L			04/17/18 08:51	10

### Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	28.4	U	173	173	500	308	pCi/L	04/18/18 13:17	04/19/18 14:44	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08288 MW-6D**

**Lab Sample ID: 400-151981-3**

**Date Collected: 04/02/18 12:51**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 13:44	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 13:44	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 13:44	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		78 - 118					04/13/18 13:44	1
Dibromofluoromethane	93		81 - 121					04/13/18 13:44	1
Toluene-d8 (Surr)	103		80 - 120					04/13/18 13:44	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.2		2.0	0.60	mg/L			04/17/18 12:30	1
Sulfate	53		10	2.8	mg/L			04/17/18 09:25	2

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	47.3	U	174	174	500	305	pCi/L	04/18/18 13:17	04/19/18 15:07	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08289 MW-7**

**Lab Sample ID: 400-151981-4**

**Date Collected: 04/02/18 14:00**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 14:08	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 14:08	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 14:08	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118					04/13/18 14:08	1
Dibromofluoromethane	93		81 - 121					04/13/18 14:08	1
Toluene-d8 (Surr)	103		80 - 120					04/13/18 14:08	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.3		2.0	0.60	mg/L			04/17/18 12:30	1
Sulfate	140		25	7.0	mg/L			04/17/18 08:55	5

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	78.8	U	173	173	500	296	pCi/L	04/18/18 13:17	04/19/18 15:29	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08290 MW-8**

**Lab Sample ID: 400-151981-5**

**Date Collected: 04/02/18 15:20**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 14:32	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 14:32	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 14:32	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118					04/13/18 14:32	1
Dibromofluoromethane	94		81 - 121					04/13/18 14:32	1
Toluene-d8 (Surr)	103		80 - 120					04/13/18 14:32	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.3		2.0	0.60	mg/L			04/17/18 12:27	1
Sulfate	3.2	J	5.0	1.4	mg/L			04/17/18 08:21	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	65.3	U	178	178	500	309	pCi/L	04/18/18 13:17	04/19/18 15:52	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08291 FB-1**

**Lab Sample ID: 400-151981-6**

**Date Collected: 04/02/18 15:48**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 08:52	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 08:52	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 08:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118					04/13/18 08:52	1
Dibromofluoromethane	95		81 - 121					04/13/18 08:52	1
Toluene-d8 (Surr)	105		80 - 120					04/13/18 08:52	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/17/18 12:30	1
Sulfate	<1.4		5.0	1.4	mg/L			04/17/18 08:21	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	196	U	189	189	500	305	pCi/L	04/18/18 13:17	04/19/18 16:15	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08292 MW-2**

**Lab Sample ID: 400-151981-7**

**Date Collected: 04/03/18 09:57**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 14:58	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 14:58	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 14:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118					04/13/18 14:58	1
Dibromofluoromethane	93		81 - 121					04/13/18 14:58	1
Toluene-d8 (Surr)	104		80 - 120					04/13/18 14:58	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	13		2.0	0.60	mg/L			04/17/18 12:30	1
Sulfate	59		10	2.8	mg/L			04/17/18 09:25	2

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	32.9	U	175	175	500	311	pCi/L	04/18/18 13:17	04/19/18 16:37	1



# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08293 MW-21**

**Lab Sample ID: 400-151981-8**

**Date Collected: 04/03/18 12:34**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 15:23	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 15:23	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 15:23	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118					04/13/18 15:23	1
Dibromofluoromethane	93		81 - 121					04/13/18 15:23	1
Toluene-d8 (Surr)	104		80 - 120					04/13/18 15:23	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	26		2.0	0.60	mg/L			04/17/18 12:30	1
Sulfate	110		25	7.0	mg/L			04/18/18 13:18	5

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	65.3	U	176	176	500	305	pCi/L	04/18/18 13:17	04/19/18 17:00	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08294 MW-19**

**Lab Sample ID: 400-151981-9**

**Date Collected: 04/03/18 13:45**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/15/18 18:31	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/15/18 18:31	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/15/18 18:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	88		78 - 118					04/15/18 18:31	1
Dibromofluoromethane	100		81 - 121					04/15/18 18:31	1
Toluene-d8 (Surr)	94		80 - 120					04/15/18 18:31	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.3		2.0	0.60	mg/L			04/17/18 12:37	1
Sulfate	5.6		5.0	1.4	mg/L			04/17/18 08:21	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	137	U	183	183	500	304	pCi/L	04/18/18 13:17	04/19/18 17:23	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08295 FB-2**

**Lab Sample ID: 400-151981-10**

**Date Collected: 04/03/18 13:32**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 11:43	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 11:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 11:43	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118					04/13/18 11:43	1
Dibromofluoromethane	93		81 - 121					04/13/18 11:43	1
Toluene-d8 (Surr)	104		80 - 120					04/13/18 11:43	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/17/18 12:37	1
Sulfate	<1.4		5.0	1.4	mg/L			04/17/18 08:14	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	173	U	188	189	500	309	pCi/L	04/18/18 13:17	04/19/18 17:45	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08296 MW-18**

**Lab Sample ID: 400-151981-11**

**Date Collected: 04/03/18 14:44**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 16:12	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 16:12	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 16:12	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		78 - 118					04/13/18 16:12	1
Dibromofluoromethane	94		81 - 121					04/13/18 16:12	1
Toluene-d8 (Surr)	104		80 - 120					04/13/18 16:12	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	23		2.0	0.60	mg/L			04/17/18 12:37	1
Sulfate	330		50	14	mg/L			04/18/18 13:18	10

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	182	U	181	182	500	293	pCi/L	04/18/18 13:17	04/19/18 18:08	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08297 MW-15**

**Lab Sample ID: 400-151981-12**

**Date Collected: 04/03/18 18:10**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 16:35	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 16:35	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 16:35	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	99		78 - 118					04/13/18 16:35	1
Dibromofluoromethane	92		81 - 121					04/13/18 16:35	1
Toluene-d8 (Surr)	104		80 - 120					04/13/18 16:35	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	3.5		2.0	0.60	mg/L			04/17/18 12:37	1
Sulfate	17		5.0	1.4	mg/L			04/18/18 12:38	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	-40.1	U	163	163	500	301	pCi/L	04/18/18 13:17	04/19/18 18:31	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08298 MW-17**

**Lab Sample ID: 400-151981-13**

**Date Collected: 04/04/18 11:32**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 16:59	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 16:59	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 16:59	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	98		78 - 118					04/13/18 16:59	1
Dibromofluoromethane	94		81 - 121					04/13/18 16:59	1
Toluene-d8 (Surr)	103		80 - 120					04/13/18 16:59	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	22		2.0	0.60	mg/L			04/17/18 12:37	1
Sulfate	160		25	7.0	mg/L			04/18/18 13:18	5

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	25.2	U	171	171	500	304	pCi/L	04/18/18 13:17	04/19/18 18:53	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08299 MW-16D**

**Lab Sample ID: 400-151981-14**

**Date Collected: 04/04/18 13:22**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.4		2.0	0.60	mg/L			04/17/18 12:37	1
Sulfate	13		5.0	1.4	mg/L			04/18/18 12:38	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08300 MW-9**

**Lab Sample ID: 400-151981-15**

**Date Collected: 04/04/18 14:55**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/15/18 18:57	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/15/18 18:57	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/15/18 18:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		78 - 118					04/15/18 18:57	1
Dibromofluoromethane	99		81 - 121					04/15/18 18:57	1
Toluene-d8 (Surr)	90		80 - 120					04/15/18 18:57	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.4		2.0	0.60	mg/L			04/17/18 12:37	1
Sulfate	150		25	7.0	mg/L			04/18/18 13:23	5

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	187	U	184	184	500	296	pCi/L	04/18/18 13:17	04/19/18 19:16	1



# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08301 MW-11**

**Lab Sample ID: 400-151981-16**

**Date Collected: 04/04/18 16:25**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/15/18 19:22	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/15/18 19:22	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/15/18 19:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		78 - 118					04/15/18 19:22	1
Dibromofluoromethane	102		81 - 121					04/15/18 19:22	1
Toluene-d8 (Surr)	92		80 - 120					04/15/18 19:22	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.0		2.0	0.60	mg/L			04/17/18 12:37	1
Sulfate	24		5.0	1.4	mg/L			04/18/18 12:44	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	-14.0	U	165	165	500	299	pCi/L	04/18/18 13:17	04/19/18 19:38	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08302 MW-11 DUP**

**Lab Sample ID: 400-151981-17**

**Date Collected: 04/04/18 16:25**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/15/18 19:48	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/15/18 19:48	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/15/18 19:48	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	90		78 - 118					04/15/18 19:48	1
Dibromofluoromethane	99		81 - 121					04/15/18 19:48	1
Toluene-d8 (Surr)	93		80 - 120					04/15/18 19:48	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	6.6		2.0	0.60	mg/L			04/18/18 08:45	1
Sulfate	24		5.0	1.4	mg/L			04/18/18 12:44	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	17.1	U	170	170	500	302	pCi/L	04/18/18 13:17	04/19/18 20:01	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08303 MW-12**

**Lab Sample ID: 400-151981-18**

**Date Collected: 04/05/18 10:00**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/15/18 20:13	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/15/18 20:13	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/15/18 20:13	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	87		78 - 118					04/15/18 20:13	1
Dibromofluoromethane	102		81 - 121					04/15/18 20:13	1
Toluene-d8 (Surr)	90		80 - 120					04/15/18 20:13	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	4.2		2.0	0.60	mg/L			04/18/18 10:44	1
Sulfate	15		5.0	1.4	mg/L			04/18/18 12:45	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	47.3	U	172	172	500	302	pCi/L	04/18/18 13:17	04/19/18 20:24	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08304 MW-13**

**Lab Sample ID: 400-151981-19**

**Date Collected: 04/05/18 11:13**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/15/18 20:39	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/15/18 20:39	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/15/18 20:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		78 - 118					04/15/18 20:39	1
Dibromofluoromethane	99		81 - 121					04/15/18 20:39	1
Toluene-d8 (Surr)	92		80 - 120					04/15/18 20:39	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	2.8		2.0	0.60	mg/L			04/18/18 10:47	1
Sulfate	12		5.0	1.4	mg/L			04/18/18 12:45	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	101	U	176	176	500	297	pCi/L	04/18/18 13:17	04/19/18 20:46	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08305 MW-14**

**Lab Sample ID: 400-151981-20**

**Date Collected: 04/05/18 12:35**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/15/18 21:05	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/15/18 21:05	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/15/18 21:05	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		78 - 118					04/15/18 21:05	1
Dibromofluoromethane	99		81 - 121					04/15/18 21:05	1
Toluene-d8 (Surr)	91		80 - 120					04/15/18 21:05	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	5.8		2.0	0.60	mg/L			04/18/18 10:47	1
Sulfate	12		5.0	1.4	mg/L			04/18/18 12:45	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	69.8	U	177	177	500	306	pCi/L	04/18/18 13:17	04/19/18 21:54	1

# Client Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08306 EB-1**

**Lab Sample ID: 400-151981-21**

**Date Collected: 04/05/18 13:15**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

## Method: 8260C - Volatile Organic Compounds by GC/MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/15/18 14:16	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/15/18 14:16	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/15/18 14:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	89		78 - 118					04/15/18 14:16	1
Dibromofluoromethane	97		81 - 121					04/15/18 14:16	1
Toluene-d8 (Surr)	90		80 - 120					04/15/18 14:16	1

## General Chemistry

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/18/18 10:47	1
Sulfate	1.4	J B	5.0	1.4	mg/L			04/19/18 07:37	1

## Method: 906.0 - Tritium, Total (LSC)

Analyte	Result	Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	-16.2	U	169	169	500	309	pCi/L	04/18/18 13:17	04/19/18 22:17	1

# Definitions/Glossary

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

TestAmerica Job ID: 400-151981-1  
SDG: Gorgas Ash Pond 1141 (ASD)

## Qualifiers

### General Chemistry

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
B	Compound was found in the blank and sample.
J	Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

### Rad

Qualifier	Qualifier Description
U	Result is less than the sample detection limit.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	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 Gorgas

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08286 MW-6S**

**Lab Sample ID: 400-151981-1**

**Date Collected: 04/02/18 11:48**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 12:56	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394188	04/17/18 12:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	394128	04/17/18 08:51	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 14:22	SMR	TAL SL

**Client Sample ID: AY08287 MW-6S DUP**

**Lab Sample ID: 400-151981-2**

**Date Collected: 04/02/18 11:48**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 13:20	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394188	04/17/18 12:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	394128	04/17/18 08:51	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 14:44	SMR	TAL SL

**Client Sample ID: AY08288 MW-6D**

**Lab Sample ID: 400-151981-3**

**Date Collected: 04/02/18 12:51**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 13:44	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394188	04/17/18 12:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	394128	04/17/18 09:25	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 15:07	SMR	TAL SL

**Client Sample ID: AY08289 MW-7**

**Lab Sample ID: 400-151981-4**

**Date Collected: 04/02/18 14:00**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 14:08	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394188	04/17/18 12:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	394128	04/17/18 08:55	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 15:29	SMR	TAL SL



# Lab Chronicle

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08290 MW-8**

**Lab Sample ID: 400-151981-5**

**Date Collected: 04/02/18 15:20**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 14:32	RS	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	394188	04/17/18 12:27	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394128	04/17/18 08:21	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 15:52	SMR	TAL SL

**Client Sample ID: AY08291 FB-1**

**Lab Sample ID: 400-151981-6**

**Date Collected: 04/02/18 15:48**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 08:52	RS	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	394188	04/17/18 12:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394128	04/17/18 08:21	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 16:15	SMR	TAL SL

**Client Sample ID: AY08292 MW-2**

**Lab Sample ID: 400-151981-7**

**Date Collected: 04/03/18 09:57**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 14:58	RS	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	394188	04/17/18 12:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		2	394128	04/17/18 09:25	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 16:37	SMR	TAL SL

**Client Sample ID: AY08293 MW-21**

**Lab Sample ID: 400-151981-8**

**Date Collected: 04/03/18 12:34**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 15:23	RS	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	394188	04/17/18 12:30	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	394354	04/18/18 13:18	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 17:00	SMR	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08294 MW-19**

**Lab Sample ID: 400-151981-9**

**Date Collected: 04/03/18 13:45**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393958	04/15/18 18:31	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394188	04/17/18 12:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394128	04/17/18 08:21	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 17:23	SMR	TAL SL

**Client Sample ID: AY08295 FB-2**

**Lab Sample ID: 400-151981-10**

**Date Collected: 04/03/18 13:32**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 11:43	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394188	04/17/18 12:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394128	04/17/18 08:14	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 17:45	SMR	TAL SL

**Client Sample ID: AY08296 MW-18**

**Lab Sample ID: 400-151981-11**

**Date Collected: 04/03/18 14:44**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 16:12	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394188	04/17/18 12:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		10	394354	04/18/18 13:18	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 18:08	SMR	TAL SL

**Client Sample ID: AY08297 MW-15**

**Lab Sample ID: 400-151981-12**

**Date Collected: 04/03/18 18:10**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 16:35	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394188	04/17/18 12:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394354	04/18/18 12:38	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 18:31	SMR	TAL SL

# Lab Chronicle

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

TestAmerica Job ID: 400-151981-1  
SDG: Gorgas Ash Pond 1141 (ASD)

**Client Sample ID: AY08298 MW-17**

**Lab Sample ID: 400-151981-13**

**Date Collected: 04/04/18 11:32**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393780	04/13/18 16:59	RS	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	394188	04/17/18 12:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	394354	04/18/18 13:18	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 18:53	SMR	TAL SL

**Client Sample ID: AY08299 MW-16D**

**Lab Sample ID: 400-151981-14**

**Date Collected: 04/04/18 13:22**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 CI- E		1	394188	04/17/18 12:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394354	04/18/18 12:38	RRC	TAL PEN

**Client Sample ID: AY08300 MW-9**

**Lab Sample ID: 400-151981-15**

**Date Collected: 04/04/18 14:55**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393958	04/15/18 18:57	RS	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	394188	04/17/18 12:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		5	394354	04/18/18 13:23	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 19:16	SMR	TAL SL

**Client Sample ID: AY08301 MW-11**

**Lab Sample ID: 400-151981-16**

**Date Collected: 04/04/18 16:25**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393958	04/15/18 19:22	RS	TAL PEN
Total/NA	Analysis	SM 4500 CI- E		1	394188	04/17/18 12:37	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394354	04/18/18 12:44	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 19:38	SMR	TAL SL

**Client Sample ID: AY08302 MW-11 DUP**

**Lab Sample ID: 400-151981-17**

**Date Collected: 04/04/18 16:25**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393958	04/15/18 19:48	RS	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	SM 4500 Cl- E		1	394372	04/18/18 08:45	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394354	04/18/18 12:44	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 20:01	SMR	TAL SL

**Client Sample ID: AY08303 MW-12**

**Lab Sample ID: 400-151981-18**

**Date Collected: 04/05/18 10:00**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393958	04/15/18 20:13	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394341	04/18/18 10:44	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394354	04/18/18 12:45	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 20:24	SMR	TAL SL

**Client Sample ID: AY08304 MW-13**

**Lab Sample ID: 400-151981-19**

**Date Collected: 04/05/18 11:13**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393958	04/15/18 20:39	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394341	04/18/18 10:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394354	04/18/18 12:45	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 20:46	SMR	TAL SL

**Client Sample ID: AY08305 MW-14**

**Lab Sample ID: 400-151981-20**

**Date Collected: 04/05/18 12:35**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393958	04/15/18 21:05	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394341	04/18/18 10:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394354	04/18/18 12:45	RRC	TAL PEN
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 21:54	SMR	TAL SL

**Client Sample ID: AY08306 EB-1**

**Lab Sample ID: 400-151981-21**

**Date Collected: 04/05/18 13:15**

**Matrix: Water**

**Date Received: 04/10/18 09:24**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8260C		1	393958	04/15/18 14:16	RS	TAL PEN
Total/NA	Analysis	SM 4500 Cl- E		1	394341	04/18/18 10:47	RRC	TAL PEN
Total/NA	Analysis	SM 4500 SO4 E		1	394444	04/19/18 07:37	RRC	TAL PEN

TestAmerica Pensacola

# Lab Chronicle

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

TestAmerica Job ID: 400-151981-1  
SDG: Gorgas Ash Pond 1141 (ASD)

<u>Prep Type</u>	<u>Batch Type</u>	<u>Batch Method</u>	<u>Run</u>	<u>Dilution Factor</u>	<u>Batch Number</u>	<u>Prepared or Analyzed</u>	<u>Analyst</u>	<u>Lab</u>
Total/NA	Prep	LSC_Dist_Susp			361651	04/18/18 13:17	JDL	TAL SL
Total/NA	Analysis	906.0		1	361920	04/19/18 22:17	SMR	TAL SL

### Laboratory References:

TAL PEN = TestAmerica Pensacola, 3355 McLemore Drive, Pensacola, FL 32514, TEL (850)474-1001

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

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# QC Association Summary

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

## GC/MS VOA

### Analysis Batch: 393780

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-151981-1	AY08286 MW-6S	Total/NA	Water	8260C	
400-151981-2	AY08287 MW-6S DUP	Total/NA	Water	8260C	
400-151981-3	AY08288 MW-6D	Total/NA	Water	8260C	
400-151981-4	AY08289 MW-7	Total/NA	Water	8260C	
400-151981-5	AY08290 MW-8	Total/NA	Water	8260C	
400-151981-6	AY08291 FB-1	Total/NA	Water	8260C	
400-151981-7	AY08292 MW-2	Total/NA	Water	8260C	
400-151981-8	AY08293 MW-21	Total/NA	Water	8260C	
400-151981-10	AY08295 FB-2	Total/NA	Water	8260C	
400-151981-11	AY08296 MW-18	Total/NA	Water	8260C	
400-151981-12	AY08297 MW-15	Total/NA	Water	8260C	
400-151981-13	AY08298 MW-17	Total/NA	Water	8260C	
MB 400-393780/5	Method Blank	Total/NA	Water	8260C	
LCS 400-393780/1003	Lab Control Sample	Total/NA	Water	8260C	
400-151968-C-14 MS	Matrix Spike	Total/NA	Water	8260C	
400-151968-C-14 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

### Analysis Batch: 393958

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-151981-9	AY08294 MW-19	Total/NA	Water	8260C	
400-151981-15	AY08300 MW-9	Total/NA	Water	8260C	
400-151981-16	AY08301 MW-11	Total/NA	Water	8260C	
400-151981-17	AY08302 MW-11 DUP	Total/NA	Water	8260C	
400-151981-18	AY08303 MW-12	Total/NA	Water	8260C	
400-151981-19	AY08304 MW-13	Total/NA	Water	8260C	
400-151981-20	AY08305 MW-14	Total/NA	Water	8260C	
400-151981-21	AY08306 EB-1	Total/NA	Water	8260C	
MB 400-393958/10	Method Blank	Total/NA	Water	8260C	
LCS 400-393958/1002	Lab Control Sample	Total/NA	Water	8260C	
400-152009-E-13 MS	Matrix Spike	Total/NA	Water	8260C	
400-152009-E-13 MSD	Matrix Spike Duplicate	Total/NA	Water	8260C	

## General Chemistry

### Analysis Batch: 394128

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-151981-1	AY08286 MW-6S	Total/NA	Water	SM 4500 SO4 E	
400-151981-2	AY08287 MW-6S DUP	Total/NA	Water	SM 4500 SO4 E	
400-151981-3	AY08288 MW-6D	Total/NA	Water	SM 4500 SO4 E	
400-151981-4	AY08289 MW-7	Total/NA	Water	SM 4500 SO4 E	
400-151981-5	AY08290 MW-8	Total/NA	Water	SM 4500 SO4 E	
400-151981-6	AY08291 FB-1	Total/NA	Water	SM 4500 SO4 E	
400-151981-7	AY08292 MW-2	Total/NA	Water	SM 4500 SO4 E	
400-151981-9	AY08294 MW-19	Total/NA	Water	SM 4500 SO4 E	
400-151981-10	AY08295 FB-2	Total/NA	Water	SM 4500 SO4 E	
MB 400-394128/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-394128/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-394128/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-151981-1 MS	AY08286 MW-6S	Total/NA	Water	SM 4500 SO4 E	
400-151981-1 MSD	AY08286 MW-6S	Total/NA	Water	SM 4500 SO4 E	

# QC Association Summary

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

## General Chemistry (Continued)

### Analysis Batch: 394188

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-151981-1	AY08286 MW-6S	Total/NA	Water	SM 4500 Cl- E	
400-151981-2	AY08287 MW-6S DUP	Total/NA	Water	SM 4500 Cl- E	
400-151981-3	AY08288 MW-6D	Total/NA	Water	SM 4500 Cl- E	
400-151981-4	AY08289 MW-7	Total/NA	Water	SM 4500 Cl- E	
400-151981-5	AY08290 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-151981-6	AY08291 FB-1	Total/NA	Water	SM 4500 Cl- E	
400-151981-7	AY08292 MW-2	Total/NA	Water	SM 4500 Cl- E	
400-151981-8	AY08293 MW-21	Total/NA	Water	SM 4500 Cl- E	
400-151981-9	AY08294 MW-19	Total/NA	Water	SM 4500 Cl- E	
400-151981-10	AY08295 FB-2	Total/NA	Water	SM 4500 Cl- E	
400-151981-11	AY08296 MW-18	Total/NA	Water	SM 4500 Cl- E	
400-151981-12	AY08297 MW-15	Total/NA	Water	SM 4500 Cl- E	
400-151981-13	AY08298 MW-17	Total/NA	Water	SM 4500 Cl- E	
400-151981-14	AY08299 MW-16D	Total/NA	Water	SM 4500 Cl- E	
400-151981-15	AY08300 MW-9	Total/NA	Water	SM 4500 Cl- E	
400-151981-16	AY08301 MW-11	Total/NA	Water	SM 4500 Cl- E	
MB 400-394188/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-394188/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-394188/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-151981-1 MS	AY08286 MW-6S	Total/NA	Water	SM 4500 Cl- E	
400-151981-1 MSD	AY08286 MW-6S	Total/NA	Water	SM 4500 Cl- E	
400-151981-5 MS	AY08290 MW-8	Total/NA	Water	SM 4500 Cl- E	
400-151981-5 MSD	AY08290 MW-8	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 394341

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-151981-18	AY08303 MW-12	Total/NA	Water	SM 4500 Cl- E	
400-151981-19	AY08304 MW-13	Total/NA	Water	SM 4500 Cl- E	
400-151981-20	AY08305 MW-14	Total/NA	Water	SM 4500 Cl- E	
400-151981-21	AY08306 EB-1	Total/NA	Water	SM 4500 Cl- E	
MB 400-394341/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-394341/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-394341/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-151844-G-3 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-151844-G-3 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 394354

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-151981-8	AY08293 MW-21	Total/NA	Water	SM 4500 SO4 E	
400-151981-11	AY08296 MW-18	Total/NA	Water	SM 4500 SO4 E	
400-151981-12	AY08297 MW-15	Total/NA	Water	SM 4500 SO4 E	
400-151981-13	AY08298 MW-17	Total/NA	Water	SM 4500 SO4 E	
400-151981-14	AY08299 MW-16D	Total/NA	Water	SM 4500 SO4 E	
400-151981-15	AY08300 MW-9	Total/NA	Water	SM 4500 SO4 E	
400-151981-16	AY08301 MW-11	Total/NA	Water	SM 4500 SO4 E	
400-151981-17	AY08302 MW-11 DUP	Total/NA	Water	SM 4500 SO4 E	
400-151981-18	AY08303 MW-12	Total/NA	Water	SM 4500 SO4 E	
400-151981-19	AY08304 MW-13	Total/NA	Water	SM 4500 SO4 E	
400-151981-20	AY08305 MW-14	Total/NA	Water	SM 4500 SO4 E	
MB 400-394354/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-394354/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	

TestAmerica Pensacola



# QC Association Summary

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

TestAmerica Job ID: 400-151981-1  
SDG: Gorgas Ash Pond 1141 (ASD)

## General Chemistry (Continued)

### Analysis Batch: 394354 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MRL 400-394354/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-151829-S-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-151829-S-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	
660-86728-D-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
660-86728-D-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

### Analysis Batch: 394372

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-151981-17	AY08302 MW-11 DUP	Total/NA	Water	SM 4500 Cl- E	
MB 400-394372/6	Method Blank	Total/NA	Water	SM 4500 Cl- E	
LCS 400-394372/7	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
MRL 400-394372/3	Lab Control Sample	Total/NA	Water	SM 4500 Cl- E	
400-151844-G-1 MS	Matrix Spike	Total/NA	Water	SM 4500 Cl- E	
400-151844-G-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 Cl- E	

### Analysis Batch: 394444

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-151981-21	AY08306 EB-1	Total/NA	Water	SM 4500 SO4 E	
MB 400-394444/6	Method Blank	Total/NA	Water	SM 4500 SO4 E	
LCS 400-394444/7	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
MRL 400-394444/3	Lab Control Sample	Total/NA	Water	SM 4500 SO4 E	
400-151989-B-1 MS	Matrix Spike	Total/NA	Water	SM 4500 SO4 E	
400-151989-B-1 MSD	Matrix Spike Duplicate	Total/NA	Water	SM 4500 SO4 E	

## Rad

### Prep Batch: 361651

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-151981-1	AY08286 MW-6S	Total/NA	Water	LSC_Dist_Susp	
400-151981-2	AY08287 MW-6S DUP	Total/NA	Water	LSC_Dist_Susp	
400-151981-3	AY08288 MW-6D	Total/NA	Water	LSC_Dist_Susp	
400-151981-4	AY08289 MW-7	Total/NA	Water	LSC_Dist_Susp	
400-151981-5	AY08290 MW-8	Total/NA	Water	LSC_Dist_Susp	
400-151981-6	AY08291 FB-1	Total/NA	Water	LSC_Dist_Susp	
400-151981-7	AY08292 MW-2	Total/NA	Water	LSC_Dist_Susp	
400-151981-8	AY08293 MW-21	Total/NA	Water	LSC_Dist_Susp	
400-151981-9	AY08294 MW-19	Total/NA	Water	LSC_Dist_Susp	
400-151981-10	AY08295 FB-2	Total/NA	Water	LSC_Dist_Susp	
400-151981-11	AY08296 MW-18	Total/NA	Water	LSC_Dist_Susp	
400-151981-12	AY08297 MW-15	Total/NA	Water	LSC_Dist_Susp	
400-151981-13	AY08298 MW-17	Total/NA	Water	LSC_Dist_Susp	
400-151981-15	AY08300 MW-9	Total/NA	Water	LSC_Dist_Susp	
400-151981-16	AY08301 MW-11	Total/NA	Water	LSC_Dist_Susp	
400-151981-17	AY08302 MW-11 DUP	Total/NA	Water	LSC_Dist_Susp	
400-151981-18	AY08303 MW-12	Total/NA	Water	LSC_Dist_Susp	
400-151981-19	AY08304 MW-13	Total/NA	Water	LSC_Dist_Susp	
400-151981-20	AY08305 MW-14	Total/NA	Water	LSC_Dist_Susp	
400-151981-21	AY08306 EB-1	Total/NA	Water	LSC_Dist_Susp	
MB 160-361651/1-A	Method Blank	Total/NA	Water	LSC_Dist_Susp	
LCS 160-361651/2-A	Lab Control Sample	Total/NA	Water	LSC_Dist_Susp	

TestAmerica Pensacola



# QC Association Summary

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

TestAmerica Job ID: 400-151981-1  
SDG: Gorgas Ash Pond 1141 (ASD)

## Rad (Continued)

### Prep Batch: 361651 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
400-151981-19 MS	AY08304 MW-13	Total/NA	Water	LSC_Dist_Susp	
400-151981-19 MSD	AY08304 MW-13	Total/NA	Water	LSC_Dist_Susp	

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13

# QC Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

## Method: 8260C - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 400-393780/5**

**Matrix: Water**

**Analysis Batch: 393780**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/13/18 08:28	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/13/18 08:28	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/13/18 08:28	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	95		78 - 118		04/13/18 08:28	1
Dibromofluoromethane	93		81 - 121		04/13/18 08:28	1
Toluene-d8 (Surr)	103		80 - 120		04/13/18 08:28	1

**Lab Sample ID: LCS 400-393780/1003**

**Matrix: Water**

**Analysis Batch: 393780**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichlorofluoromethane	50.0	49.4		ug/L		99	65 - 138
Dichlorodifluoromethane	50.0	60.3		ug/L		121	41 - 146
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	49.2		ug/L		98	60 - 139

Surrogate	LCS %Recovery	LCS Qualifier	Limits
4-Bromofluorobenzene	93		78 - 118
Dibromofluoromethane	95		81 - 121
Toluene-d8 (Surr)	102		80 - 120

**Lab Sample ID: 400-151968-C-14 MS**

**Matrix: Water**

**Analysis Batch: 393780**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Trichlorofluoromethane	<0.52		50.0	44.6		ug/L		89	54 - 150
Dichlorodifluoromethane	<0.85		50.0	54.0		ug/L		108	16 - 150
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		50.0	52.0		ug/L		104	55 - 150

Surrogate	MS %Recovery	MS Qualifier	Limits
4-Bromofluorobenzene	93		78 - 118
Dibromofluoromethane	94		81 - 121
Toluene-d8 (Surr)	103		80 - 120

**Lab Sample ID: 400-151968-C-14 MSD**

**Matrix: Water**

**Analysis Batch: 393780**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichlorofluoromethane	<0.52		50.0	45.0		ug/L		90	54 - 150	1	30
Dichlorodifluoromethane	<0.85		50.0	56.9		ug/L		114	16 - 150	5	31
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		50.0	50.1		ug/L		100	55 - 150	4	30

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

Surrogate	MSD MSD		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	95		78 - 118
Dibromofluoromethane	93		81 - 121
Toluene-d8 (Surr)	103		80 - 120

**Lab Sample ID: MB 400-393958/10**  
**Matrix: Water**  
**Analysis Batch: 393958**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Trichlorofluoromethane	<0.52		1.0	0.52	ug/L			04/15/18 11:43	1
Dichlorodifluoromethane	<0.85		1.0	0.85	ug/L			04/15/18 11:43	1
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		1.0	0.50	ug/L			04/15/18 11:43	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
4-Bromofluorobenzene	87		78 - 118		04/15/18 11:43	1
Dibromofluoromethane	96		81 - 121		04/15/18 11:43	1
Toluene-d8 (Surr)	93		80 - 120		04/15/18 11:43	1

**Lab Sample ID: LCS 400-393958/1002**  
**Matrix: Water**  
**Analysis Batch: 393958**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec. Limits
		Result	Qualifier				
Trichlorofluoromethane	50.0	48.6		ug/L		97	65 - 138
Dichlorodifluoromethane	50.0	49.5		ug/L		99	41 - 146
1,1,2-Trichloro-1,2,2-trifluoroethane	50.0	53.2		ug/L		106	60 - 139

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	88		78 - 118
Dibromofluoromethane	98		81 - 121
Toluene-d8 (Surr)	92		80 - 120

**Lab Sample ID: 400-152009-E-13 MS**  
**Matrix: Water**  
**Analysis Batch: 393958**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS MS		Unit	D	%Rec	%Rec. Limits
				Result	Qualifier				
Trichlorofluoromethane	<0.52		50.0	48.7		ug/L		97	54 - 150
Dichlorodifluoromethane	<0.85		50.0	38.2		ug/L		76	16 - 150
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		50.0	52.6		ug/L		105	55 - 150

Surrogate	MS MS		Limits
	%Recovery	Qualifier	
4-Bromofluorobenzene	87		78 - 118
Dibromofluoromethane	98		81 - 121
Toluene-d8 (Surr)	94		80 - 120

# QC Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

## Method: 8260C - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: 400-152009-E-13 MSD**

**Client Sample ID: Matrix Spike Duplicate**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 393958**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Trichlorofluoromethane	<0.52		50.0	48.5		ug/L		97	54 - 150	0	30
Dichlorodifluoromethane	<0.85		50.0	47.7		ug/L		95	16 - 150	22	31
1,1,2-Trichloro-1,2,2-trifluoroethane	<0.50		50.0	51.8		ug/L		104	55 - 150	2	30
<b>Surrogate</b>	<b>%Recovery</b>	<b>MSD Qualifier</b>	<b>MSD</b>	<b>Limits</b>							
4-Bromofluorobenzene	86			78 - 118							
Dibromofluoromethane	99			81 - 121							
Toluene-d8 (Surr)	93			80 - 120							

## Method: SM 4500 Cl- E - Chloride, Total

**Lab Sample ID: MB 400-394188/6**

**Client Sample ID: Method Blank**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 394188**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/17/18 12:27	1

**Lab Sample ID: LCS 400-394188/7**

**Client Sample ID: Lab Control Sample**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 394188**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.0		mg/L		103	90 - 110

**Lab Sample ID: MRL 400-394188/3**

**Client Sample ID: Lab Control Sample**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 394188**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.41	J	mg/L		70	50 - 150

**Lab Sample ID: 400-151981-1 MS**

**Client Sample ID: AY08286 MW-6S**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 394188**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	21		10.0	30.1		mg/L		95	73 - 120

**Lab Sample ID: 400-151981-1 MSD**

**Client Sample ID: AY08286 MW-6S**

**Matrix: Water**

**Prep Type: Total/NA**

**Analysis Batch: 394188**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	21		10.0	30.0		mg/L		94	73 - 120	0	8

# QC Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

## Method: SM 4500 Cl- E - Chloride, Total (Continued)

**Lab Sample ID: 400-151981-5 MS**

**Matrix: Water**

**Analysis Batch: 394188**

**Client Sample ID: AY08290 MW-8**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.3		10.0	13.6		mg/L		103	73 - 120

**Lab Sample ID: 400-151981-5 MSD**

**Matrix: Water**

**Analysis Batch: 394188**

**Client Sample ID: AY08290 MW-8**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.3		10.0	13.6		mg/L		103	73 - 120	0	8

**Lab Sample ID: MB 400-394341/6**

**Matrix: Water**

**Analysis Batch: 394341**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/18/18 10:44	1

**Lab Sample ID: LCS 400-394341/7**

**Matrix: Water**

**Analysis Batch: 394341**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.7		mg/L		106	90 - 110

**Lab Sample ID: MRL 400-394341/3**

**Matrix: Water**

**Analysis Batch: 394341**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.52	J	mg/L		76	50 - 150

**Lab Sample ID: 400-151844-G-3 MS**

**Matrix: Water**

**Analysis Batch: 394341**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	3.8		10.0	14.0		mg/L		102	73 - 120

**Lab Sample ID: 400-151844-G-3 MSD**

**Matrix: Water**

**Analysis Batch: 394341**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	3.8		10.0	14.1		mg/L		102	73 - 120	0	8

**Lab Sample ID: MB 400-394372/6**

**Matrix: Water**

**Analysis Batch: 394372**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Chloride	<0.60		2.0	0.60	mg/L			04/18/18 08:45	1

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Lab Sample ID: LCS 400-394372/7**  
**Matrix: Water**  
**Analysis Batch: 394372**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	30.0	31.0		mg/L		103	90 - 110

**Lab Sample ID: MRL 400-394372/3**  
**Matrix: Water**  
**Analysis Batch: 394372**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	2.00	1.50	J	mg/L		75	50 - 150

**Lab Sample ID: 400-151844-G-1 MS**  
**Matrix: Water**  
**Analysis Batch: 394372**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Chloride	4.3		10.0	14.2		mg/L		100	73 - 120

**Lab Sample ID: 400-151844-G-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 394372**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Chloride	4.3		10.0	14.2		mg/L		100	73 - 120	0	8

## Method: SM 4500 SO4 E - Sulfate, Total

**Lab Sample ID: MB 400-394128/6**  
**Matrix: Water**  
**Analysis Batch: 394128**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			04/17/18 08:07	1

**Lab Sample ID: LCS 400-394128/7**  
**Matrix: Water**  
**Analysis Batch: 394128**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.4		mg/L		96	90 - 110

**Lab Sample ID: MRL 400-394128/3**  
**Matrix: Water**  
**Analysis Batch: 394128**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.48	J	mg/L		90	50 - 150

# QC Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

## Method: SM 4500 SO4 E - Sulfate, Total (Continued)

**Lab Sample ID: 400-151981-1 MS**

**Matrix: Water**  
**Analysis Batch: 394128**

**Client Sample ID: AY08286 MW-6S**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	240	F1	100	235	F1	mg/L		-7	77 - 128

**Lab Sample ID: 400-151981-1 MSD**

**Matrix: Water**  
**Analysis Batch: 394128**

**Client Sample ID: AY08286 MW-6S**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	240	F1	100	238	F1	mg/L		-5	77 - 128	1	5

**Lab Sample ID: MB 400-394354/6**

**Matrix: Water**  
**Analysis Batch: 394354**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	<1.4		5.0	1.4	mg/L			04/18/18 12:31	1

**Lab Sample ID: LCS 400-394354/7**

**Matrix: Water**  
**Analysis Batch: 394354**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.5		mg/L		97	90 - 110

**Lab Sample ID: MRL 400-394354/3**

**Matrix: Water**  
**Analysis Batch: 394354**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	4.33	J	mg/L		87	50 - 150

**Lab Sample ID: 400-151829-S-1 MS**

**Matrix: Water**  
**Analysis Batch: 394354**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	87	F1	50.0	90.7	F1	mg/L		8	77 - 128

**Lab Sample ID: 400-151829-S-1 MSD**

**Matrix: Water**  
**Analysis Batch: 394354**

**Client Sample ID: Matrix Spike Duplicate**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	87	F1	50.0	88.1	F1	mg/L		2	77 - 128	3	5

**Lab Sample ID: 660-86728-D-1 MS**

**Matrix: Water**  
**Analysis Batch: 394354**

**Client Sample ID: Matrix Spike**

**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	22		10.0	30.7		mg/L		84	77 - 128

TestAmerica Pensacola

# QC Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

**Lab Sample ID: 660-86728-D-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 394354**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	22		10.0	31.5		mg/L		92	77 - 128	3	5

**Lab Sample ID: MB 400-394444/6**  
**Matrix: Water**  
**Analysis Batch: 394444**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	1.41	J	5.0	1.4	mg/L			04/19/18 07:30	1

**Lab Sample ID: LCS 400-394444/7**  
**Matrix: Water**  
**Analysis Batch: 394444**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	15.0	14.5		mg/L		97	90 - 110

**Lab Sample ID: MRL 400-394444/3**  
**Matrix: Water**  
**Analysis Batch: 394444**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**

Analyte	Spike Added	MRL Result	MRL Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	5.00	5.67		mg/L		113	50 - 150

**Lab Sample ID: 400-151989-B-1 MS**  
**Matrix: Water**  
**Analysis Batch: 394444**

**Client Sample ID: Matrix Spike**  
**Prep Type: Total/NA**

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Sulfate	3.1	J B	10.0	13.0		mg/L		99	77 - 128

**Lab Sample ID: 400-151989-B-1 MSD**  
**Matrix: Water**  
**Analysis Batch: 394444**

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

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Sulfate	3.1	J B	10.0	13.4		mg/L		103	77 - 128	3	5

## Method: 906.0 - Tritium, Total (LSC)

**Lab Sample ID: MB 160-361651/1-A**  
**Matrix: Water**  
**Analysis Batch: 361920**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 361651**

Analyte	MB Result	MB Qualifier	Count Uncert. (2σ+/-)	Total Uncert. (2σ+/-)	RL	MDC	Unit	Prepared	Analyzed	Dil Fac
Tritium	110.4	U	179	179	500	302	pCi/L	04/18/18 13:17	04/19/18 13:36	1



# QC Sample Results

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

## Method: 906.0 - Tritium, Total (LSC) (Continued)

**Lab Sample ID: LCS 160-361651/2-A**  
**Matrix: Water**  
**Analysis Batch: 361920**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 361651**

Analyte	Spike Added	LCS Result	LCS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Tritium	2760	2872		442	500	310	pCi/L	104	74 - 114

**Lab Sample ID: 400-151981-19 MS**  
**Matrix: Water**  
**Analysis Batch: 361920**

**Client Sample ID: AY08304 MW-13**  
**Prep Type: Total/NA**  
**Prep Batch: 361651**

Analyte	Sample Result	Sample Qual	Spike Added	MS Result	MS Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits
Tritium	101	U	2770	2736		429	500	309	pCi/L	95	67 - 130

**Lab Sample ID: 400-151981-19 MSD**  
**Matrix: Water**  
**Analysis Batch: 361920**

**Client Sample ID: AY08304 MW-13**  
**Prep Type: Total/NA**  
**Prep Batch: 361651**

Analyte	Sample Result	Sample Qual	Spike Added	MSD Result	MSD Qual	Total Uncert. (2σ+/-)	RL	MDC	Unit	%Rec	%Rec. Limits	RER	RER Limit
Tritium	101	U	2750	2691		423	500	305	pCi/L	94	67 - 130	0.05	1

**Chain of Custody Record**

<b>Client Information</b>		Lab PM: Whitmire, Cheyenne R		Carrier Tracking No(s):		COC No: 400-58525-24537.1	
Client Contact: Nick Pitts		E-Mail: Cheyenne.whitmire@testamericainc.com		Page: Page 1 of 2		Job #: 151981	
Company: Alabama Power General Test Laboratory		Address: 744 County Rd 87 GSC #8		City: Calera		State, Zip: AL, 35040	
Phone: 205-664-6121(Tel)		PO #: 40007143		Project #: 40007143		SSOW#: Gorgas Ash Pond 1141 (ASD)	
Email: sgcopela@southemco.com		Project Name: CCR		Site: Gorgas Ash Pond 1141 (ASD)		Preservation Codes: M - Hexane N - None O - AsNaO2 P - Na2O4S Q - Na2SO3 R - Na2SO4 S - H2SO4 T - TSP Dodecahydrate U - Acetone V - MCAA W - pH 4.5 Z - other (specify) Other:	
Due Date Requested:		TAT Requested (days):		Routine		Analysis Requested	
Sample Identification		Sample Date		Sample Time		Sample Type (C=Comp, G=grab)	
AY08286		4/2/18		1148		G Water	
AY08287		4/2/18		1148		G Water	
AY08288		4/2/18		1251		G Water	
AY08289		4/2/18		1400		G Water	
AY08290		4/2/18		1520		G Water	
AY08291		4/2/18		1548		G Water	
AY08292		4/3/18		0957		G Water	
AY08293		4/3/18		1234		G Water	
AY08294		4/3/18		1345		G Water	
AY08295		4/3/18		1332		G Water	
AY08296		4/3/18		1444		G Water	
AY08297		4/3/18		1810		G Water	
AY08298		4/4/18		1132		G Water	
AY08299		4/4/18		1322		G Water	
AY08300		4/4/18		1455		G Water	
AY08301		4/4/18		1625		G Water	
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		<input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month)		Special Instructions/QC Requirements:	
Empty Kit Relinquished by:		Date/Time: 4/9/2018, 1445		Company: APC		Date/Time: 4/10/18 0924	
Relinquished by: Sarah Copeland		Date/Time:		Company:		Date/Time:	
Relinquished by:		Date/Time:		Company:		Date/Time:	
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No.:		Cooler Temperature (°C): 15.3°C		IRB	



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

### Chain of Custody Record



<b>Client Information</b> Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121 (Tel) Email: sgcopela@southemco.com Project Name: CCR Site: Gorgas Ash Pond 1141 (ASD)		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com	
<b>Sampler:</b> Nick Pitts Phone:		Carrier Tracking No(s): COC No: 400-56525-24537.1 Page: Page 2 of 2 Job #: 151981	
<b>Due Date Requested:</b> TAT Requested (days): Routine		<b>Analysis Requested</b> Total Number of Containers: 5	
<b>Sample Identification</b> Sample Date: 4/4/18 Sample Time: 1625 Sample Type (C=Comp, G=grab): G Matrix (W=Water, S=solid, O=soil, B=other): Water		Perform MS/MSD (Yes or No): <input checked="" type="checkbox"/> Yes Field Filtered Sample (Yes or No): <input checked="" type="checkbox"/> Yes Titium EPA 906: <input checked="" type="checkbox"/> Yes SM 4500 Cl <sub>F</sub> : <input checked="" type="checkbox"/> Yes SM 4500 SO <sub>4</sub> <sub>F</sub> : <input checked="" type="checkbox"/> Yes 8260 (CFC-11, CFC-12, CFS-113): <input checked="" type="checkbox"/> Yes Boron-11: <input checked="" type="checkbox"/> Yes	
Sample Date: 4/5/18 Sample Time: 1000 Sample Type: G Matrix: Water		MW-11 Dup (Sample Duplicate): 5	
Sample Date: 4/5/18 Sample Time: 1113 Sample Type: G Matrix: Water		MW-12: 6	
Sample Date: 4/5/18 Sample Time: 1235 Sample Type: G Matrix: Water		MW-13: 8	
Sample Date: 4/5/18 Sample Time: 1315 Sample Type: G Matrix: Water		MW-14: 5	
		EB-1 (Equipment Blank): 6	
		Special Instructions/Note:	
Preservation Codes: A - HCL B - NaOH C - Zn Acetate D - Nitric Acid E - NaHSO <sub>4</sub> F - MeOH G - Amchlor H - Ascorbic Acid I - Ice J - DI Water K - EDTA L - EDA Other:			
M - Hexane N - None O - AsNaO <sub>2</sub> P - Na <sub>2</sub> O <sub>4</sub> Q - Na <sub>2</sub> SO <sub>3</sub> R - Na <sub>2</sub> SO <sub>3</sub> S - H <sub>2</sub> SO <sub>4</sub> T - TSP Dodecahydrate U - Acetone V - MCAA W - ph 4-5 X - other (specify)			
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months			
Special Instructions/QC Requirements:			
Empty Kit Relinquished by: Sarah Copeland Relinquished by: Sarah Copeland Relinquished by:		Date: 4/9/2018, 1445 Date/Time: 4/10/18 0924 Date/Time:	
Custody Seals Intact: <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:		Cooler Temperature(s): 2°C and Other Readings: 15.3°C IR8	





## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-151981-1  
SDG Number: Gorgas Ash Pond 1141 (ASD)

**Login Number: 151981**

**List Number: 1**

**Creator: Whitmire, Cheyenne R**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> 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.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR8, 15.3°C IR8
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").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-151981-1  
SDG Number: Gorgas Ash Pond 1141 (ASD)

**Login Number: 151981**  
**List Number: 2**  
**Creator: Taylor, Kristene N**

**List Source: TestAmerica St. Louis**  
**List Creation: 04/12/18 04:31 PM**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.2
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?	False	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

## Accreditation/Certification Summary

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

TestAmerica Job ID: 400-151981-1  
 SDG: Gorgas Ash Pond 1141 (ASD)

### Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-18
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	ELAP	9	2510	03-31-18 *
Florida	NELAP	4	E81010	06-30-18
Georgia	State Program	4	N/A	06-30-18
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-18
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-18
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-18
Michigan	State Program	5	9912	06-30-18
New Jersey	NELAP	2	FL006	06-30-18
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18
Tennessee	State Program	4	TN02907	06-30-18
Texas	NELAP	6	T104704286-17-12	09-30-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-18
Washington	State Program	10	C915	05-15-18
West Virginia DEP	State Program	3	136	06-30-18

### Laboratory: TestAmerica St. Louis

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alaska	State Program	10	MO00054	06-30-18 *
Arizona	State Program	9	AZ0813	12-08-18
California	State Program	9	2886	06-30-18 *
Connecticut	State Program	1	PH-0241	03-31-19
Florida	NELAP	4	E87689	06-30-18 *
Illinois	NELAP	5	200023	11-30-18
Iowa	State Program	7	373	12-01-18
Kansas	NELAP	7	E-10236	10-31-18
Kentucky (DW)	State Program	4	90125	12-31-18
L-A-B	DoD ELAP		L2305	04-06-19
Louisiana	NELAP	6	04080	06-30-18
Louisiana (DW)	NELAP	6	LA180017	12-31-18
Maryland	State Program	3	310	09-30-18
Michigan	State Program	5	9005	06-30-18
Missouri	State Program	7	780	06-30-18
Nevada	State Program	9	MO000542018-1	07-31-18

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

# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-151981-1  
SDG: Gorgas Ash Pond 1141 (ASD)

## Laboratory: TestAmerica St. Louis (Continued)

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

Authority	Program	EPA Region	Identification Number	Expiration Date
New Jersey	NELAP	2	MO002	06-30-18 *
New York	NELAP	2	11616	03-31-19
North Dakota	State Program	8	R207	06-30-18
NRC	NRC		24-24817-01	12-31-22
Oklahoma	State Program	6	9997	08-31-18
Pennsylvania	NELAP	3	68-00540	02-28-19
South Carolina	State Program	4	85002001	06-30-18
Texas	NELAP	6	T104704193-17-11	07-31-18
US Fish & Wildlife	Federal		058448	08-31-18
USDA	Federal		P330-17-0028	02-02-20
Utah	NELAP	8	MO000542016-8	07-31-18
Virginia	NELAP	3	460230	06-14-18 *
Washington	State Program	10	C592	08-30-18
West Virginia DEP	State Program	3	381	08-31-18 *

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

# TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

## ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pensacola

3355 McLemore Drive

Pensacola, FL 32514

Tel: (850)474-1001

TestAmerica Job ID: 400-151981-2

TestAmerica SDG: Gorgas Ash Pond 1141 (ASD)

Client Project/Site: CCR Plant Gorgas

For:

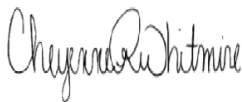
Alabama Power General Test Laboratory

744 County Rd 87

GSC #8

Calera, Alabama 35040

Attn: Sarah Copeland



Authorized for release by:

7/16/2018 10:31:38 AM

Cheyenne Whitmire, Project Manager II

(850)471-6222

[cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

### LINKS

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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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# Sample Summary

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

TestAmerica Job ID: 400-151981-2  
SDG: Gorgas Ash Pond 1141 (ASD)

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
400-151981-1	AY08286 MW-6S	Water	04/02/18 11:48	04/10/18 09:24
400-151981-2	AY08287 MW-6S DUP	Water	04/02/18 11:48	04/10/18 09:24
400-151981-3	AY08288 MW-6D	Water	04/02/18 12:51	04/10/18 09:24
400-151981-4	AY08289 MW-7	Water	04/02/18 14:00	04/10/18 09:24
400-151981-5	AY08290 MW-8	Water	04/02/18 15:20	04/10/18 09:24
400-151981-6	AY08291 FB-1	Water	04/02/18 15:48	04/10/18 09:24
400-151981-7	AY08292 MW-2	Water	04/03/18 09:57	04/10/18 09:24
400-151981-11	AY08296 MW-18	Water	04/03/18 14:44	04/10/18 09:24
400-151981-15	AY08300 MW-9	Water	04/04/18 14:55	04/10/18 09:24
400-151981-18	AY08303 MW-12	Water	04/05/18 10:00	04/10/18 09:24
400-151981-19	AY08304 MW-13	Water	04/05/18 11:13	04/10/18 09:24
400-151981-21	AY08306 EB-1	Water	04/05/18 13:15	04/10/18 09:24

**Chain of Custody Record**

<b>Client Information</b> Client Contact: Nick Pitts Phone: Sarah Copeland Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Calera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgcopela@southemco.com Project Name: CCR Site: Gorgas Ash Pond 1141 (ASD)		Lab PM: Whitmire, Cheyenne R E-Mail: cheyenne.whitmire@testamericainc.com Carrier Tracking No(s): Lab No: 400-56525-24537.1 Page: Page 1 of 2 Job #: 151981											
<b>Due Date Requested:</b> TAT Requested (days): Routine PO #: 40007143 WO #: 40007143 Project #: 40007143 SSOW#:		<b>Analysis Requested</b>  400-151981 COC Total Number of Containers:											
Sample Identification	Sample Date	Sample Time	Sample Type (C=Comp, G=grab)	Matrix (Water, Soil, Onsite, etc.)	Preservation Code:	Field Filtered Sample (Yes or No)	Perform MS/MSD (Yes or No)	Trilium EPA 906	SM 4500 Cl <sub>E</sub>	SM 4500 SO <sub>4</sub> E	8260 (CFC-11, CFC-12, CFS-113)	Boron-11	Special Instructions/Note:
AY08286	4/2/18	1148	G	Water		X	X	X	X	X	X	X	MW-6S
AY08287	4/2/18	1148	G	Water		X	X	X	X	X	X	X	MW-6S Dup (Sample Duplicate)
AY08288	4/2/18	1251	G	Water		X	X	X	X	X	X	X	MW-6D
AY08289	4/2/18	1400	G	Water		X	X	X	X	X	X	X	MW-7
AY08290	4/2/18	1520	G	Water		X	X	X	X	X	X	X	MW-8
AY08291	4/2/18	1548	G	Water		X	X	X	X	X	X	X	FB-1 (Field Blank)
AY08292	4/3/18	0957	G	Water		X	X	X	X	X	X	X	MW-2
AY08293	4/3/18	1234	G	Water		X	X	X	X	X	X	X	MW-21
AY08294	4/3/18	1345	G	Water		X	X	X	X	X	X	X	MW-19
AY08295	4/3/18	1332	G	Water		X	X	X	X	X	X	X	FB-2 (Field Blank)
AY08296	4/3/18	1444	G	Water		X	X	X	X	X	X	X	MW-18
AY08297	4/3/18	1810	G	Water		X	X	X	X	X	X	X	MW-15
AY08298	4/4/18	1132	G	Water		X	X	X	X	X	X	X	MW-17
AY08299	4/4/18	1322	G	Water		X	X	X	X	X	X	X	MW-16D
AY08300	4/4/18	1455	G	Water		X	X	X	X	X	X	X	MW-9
AY08301	4/4/18	1625	G	Water		X	X	X	X	X	X	X	MW-11
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)													
Empty Kit Relinquished by: _____ Date: _____ Relinquished by: Sarah Copeland Date/Time: 4/9/2018, 1445 Relinquished by: _____ Date/Time: _____ Relinquished by: _____ Date/Time: _____													
Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months Special Instructions/QC Requirements:													
Method of Shipment: _____ Received by: _____ Date/Time: 4/10/18 09:24 Received by: _____ Date/Time: _____ Received by: _____ Date/Time: _____ Cooler Temperature(°) °C and Chng. Range: 0.0°C IRB 15.3°C IRB													



**Chain of Custody Record**

<b>Client Information</b> Company: Alabama Power General Test Laboratory Address: 744 County Rd 87 GSC #8 City: Callera State, Zip: AL, 35040 Phone: 205-664-6121(Tel) Email: sgcpelia@southemco.com Project Name: CCR Site: Gorgas Ash Pond 1141 (ASD)		<b>Sampler:</b> Nick Pitts <b>Phone:</b> <b>Lab PM:</b> Whitmire, Cheyenne R <b>E-Mail:</b> cheyenne.whitmire@testamericainc.com		<b>Carrier Tracking No(s):</b> COC No: 400-56525-24537.1 Page: Page 2 of 2 Job #: 151981			
<b>Due Date Requested:</b> TAT Requested (days): Routine		<b>Analysis Requested</b> Perform MS/MSD (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Field Filtered Sample (Yes or No) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Titanium EPA 906 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No SM 4500 Cl <sub>r</sub> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No SM 4500 SO <sub>4</sub> <sub>r</sub> <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No 8260 (CFC-11, CFC-12, CFS-113) <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Boron-11 <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No					
<b>Sample Identification</b> AY08302 AY08303 AY08304 AY08305 AY08306		Sample Date 4/4/18 4/5/18 4/5/18 4/5/18 4/5/18	Sample Time 1625 1000 1113 1235 1315	Sample Type (C=Comp, G=grab) G G G G G	Matrix (Water, Solid, Other) Water Water Water Water Water	Preservation Code: MW-11 Dup (Sample Duplicate) MW-12 MW-13 MW-14 EB-1 (Equipment Blank)	Special Instructions/Note: Total Number of Containers: 5 MW-11 Dup (Sample Duplicate) MW-12 MW-13 MW-14 EB-1 (Equipment Blank)
<input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown <input type="checkbox"/> Radiological Deliverable Requested: I, II, III, IV, Other (specify)		Sample Disposal (A fee may be assessed if samples are retained longer than 1 month) <input type="checkbox"/> Return To Client <input type="checkbox"/> Disposal By Lab <input type="checkbox"/> Archive For _____ Months					
Empty Kit Relinquished by: Sarah Copeland Relinquished by: Sarah Copeland Relinquished by: Relinquished by:		Method of Shipment: Date/Time: 4/10/18 09:24 Date/Time: Date/Time: Cooler Temperature(s): 2C and Other: Reagents: 15.3°C IR8					
Custody Seals Intact: <input type="checkbox"/> Yes <input type="checkbox"/> No Custody Seal No.:							



## Login Sample Receipt Checklist

Client: Alabama Power General Test Laboratory

Job Number: 400-151981-2  
SDG Number: Gorgas Ash Pond 1141 (ASD)

**Login Number: 151981**

**List Number: 1**

**Creator: Whitmire, Cheyenne R**

**List Source: TestAmerica Pensacola**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	0.0°C IR8, 15.3°C IR8
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

# Accreditation/Certification Summary

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

TestAmerica Job ID: 400-151981-2  
 SDG: Gorgas Ash Pond 1141 (ASD)

## Laboratory: TestAmerica Pensacola

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

Authority	Program	EPA Region	Identification Number	Expiration Date
Alabama	State Program	4	40150	06-30-19
ANAB	ISO/IEC 17025		L2471	02-22-20
Arizona	State Program	9	AZ0710	01-12-19
Arkansas DEQ	State Program	6	88-0689	09-01-18
California	State Program	9	2510	06-30-19
Florida	NELAP	4	E81010	06-30-19
Georgia	State Program	4	E81010 (FL)	06-30-19
Illinois	NELAP	5	200041	10-09-18
Iowa	State Program	7	367	08-01-18
Kansas	NELAP	7	E-10253	10-31-18
Kentucky (UST)	State Program	4	53	06-30-19
Kentucky (WW)	State Program	4	98030	12-31-18
Louisiana	NELAP	6	30976	06-30-19
Louisiana (DW)	NELAP	6	LA170005	12-31-18
Maryland	State Program	3	233	09-30-18
Massachusetts	State Program	1	M-FL094	06-30-19
Michigan	State Program	5	9912	06-30-19
New Jersey	NELAP	2	FL006	06-30-19
North Carolina (WW/SW)	State Program	4	314	12-31-18
Oklahoma	State Program	6	9810	08-31-18
Pennsylvania	NELAP	3	68-00467	01-31-19
Rhode Island	State Program	1	LAO00307	12-30-18
South Carolina	State Program	4	96026	06-30-18 *
Tennessee	State Program	4	TN02907	06-30-19
Texas	NELAP	6	T104704286-18-14	09-30-18
US Fish & Wildlife	Federal		LE058448-0	07-31-18
USDA	Federal		P330-16-00172	05-24-19
Virginia	NELAP	3	460166	06-14-19
Washington	State Program	10	C915	05-15-19
West Virginia DEP	State Program	3	136	06-30-19

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



Isotope Analyses for:  
TestAmerica Pensacola

IT2 FILE #  
180097

2018-07-13

Approved by:

*Orfan SStash*

**Orfan Shouakar-Stash, PhD**  
**Director**

Isotope Tracer Technologies Inc.  
695 Rupert St. Unit B, Waterloo, ON, N2V 1Z5

Tel: 519-886-5555 | Fax: 519-886-5575

Email: [orfan@it2isotopes.com](mailto:orfan@it2isotopes.com)

Website: [www.it2isotopes.com](http://www.it2isotopes.com)



**Client:** TestAmerica Pensacola  
**Address:** 3355 McLemore Drive  
 Pensacola, FL 32514  
 USA

**Tel:** 850-474-1001

**Fax:** 850-478-2671

**Attn.:** Cheyenne R Whitmire

**E-mail:** [cheyenne.whitmire@testamericainc.com](mailto:cheyenne.whitmire@testamericainc.com)

**File Number:** 180097  
**Project Number:** 40007143  
**Project Name:** CCR

#	Sample ID	Sample Collection		Sample #	$\delta^{11}\text{B}$	Result	Repeat
		Date	Time				
1	AY08286 MW-6S (400-151981-1)	4-2-18	11:48	50275	X	-6.2	-5.7
2	AY08287 MW-6S DUP (400-151981-2)	4-2-18	11:48	50276	X	-2.7	
3	AY08288 MW-6D (400-151981-3)	4-2-18	12:51	50277	X	-1.7	-1.8
4	AY08289 MW-7 (400-151981-4)	4-2-18	14:00	50278	X	-12.8	
5	AY08290 MW-8 (400-151981-5)	4-2-18	15:20	50279	X	13.7	
6	AY08291 FB-1 (400-151981-6)	4-2-18	15:48	50280	X	BQL	
7	AY08292 MW-2 (400-151981-7)	4-3-18	09:57	50281	X	4.5	
8	AY08296 MW-18 (400-151981-11)	4-3-18	14:44	50282	X	-0.8	
9	AY08300 MW-9 (400-151981-15)	4-4-18	14:55	50283	X	4.6	
10	AY08303 MW-12 (400-151981-18)	4-5-18	10:00	50284	X	-0.8	
11	AY08304 MW-13 (400-151981-19)	4-5-18	11:13	50285	X	15.6	
12	AY08306 EB-1 (400-151981-21)	4-5-18	13:15	50286	X	BQL	

**Notes:**

BQL: Below Quantification Limits - Intensity is very small.

**11B Analyses**

**Instrument Used:**

Thermal Ionization Mass Spectrometry (TIMS), TI-Box, spectromat, Germany

**Standard Used:**

120 ratios are taken for each sample and the average is used to calculate the delta value.

Delta values are calculated with respect to NIST SRM951a.

A secondary standard of sea water (SB1) is ran with each carousel.

**Typical Standard deviation:**

+/- 2 permil

Approved by:

*Orfan SStash*

**Orfan Shouakar-Stash, PhD**

**Director**

Isotope Tracer Technologies Inc.

695 Rupert St. Unit B, Waterloo, ON, N2V 1Z5

Tel: 519-886-5555 | Fax: 519-886-5575

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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***



# **Gorgas Ash Pond**

## **2018 Compliance Event 2 & General Chemistry**

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

Rain was in the area while pumping and sampling wells MW-18, MW-19, MW-21, MW-2, MW-13, MW-14 and MW-16D.

Field quality control procedures were performed as follows:

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

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FAX (205) 257-1654

# Analytical Report



**Sample Group :** WMWGORAP\_1172  
**Project/Site :** Gorgas Ash Pond  
Parrish, AL 35580  
**For :** Southern Company Services  
3535 Colonnade Parkway  
Birmingham, AL 35243  
**Attention :** Dustin Brooks & Greg Dyer  
**Released By :** Laura Midkiff  
lbmidkif@southernco.com  
(205) 664-6197

The following data has been reviewed and approved by:

Quality Control:

Laura Midkiff

Digitally signed by Laura Midkiff  
DN: cn=Laura Midkiff, o=Alabama Power  
Company, ou=Environmental Affairs,  
email=lbmidkif@southernco.com, c=US  
Date: 2018.11.21 13:59:08 -0600

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: 2018.11.28 13:21:16 -0600

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY24814

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	28.3	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		10.15	0.1015	0.5075	12.0	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		10.15	0.1015	0.5075	16.2	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	3.51	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	6.04	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	6.62	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	11.4	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	6.70	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	91.2	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0.04	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			91.2	mg/L

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, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6S

Laboratory ID Number: AY24814

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY24823	Magnesium, Total	mg/L	-0.0190	0.22	5.00	4.87	4.79	4.94	4.25 to 5.75	97.3	70 to 130	1.67	20
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0			0.0089910	
AY24823	Mangnese, Dissolved	mg/L	0.00000875	0.005	0.10	0.104	0.106		0.085 to 0.115	104	70 to 130	1.73	20
AY24823	Iron, Dissolved	mg/L	-0.000485	0.022	0.2	0.199	0.202	0.209	0.17 to 0.23	99.3	70 to 130	1.91	20
AY24823	Sodium, Total	mg/L	-0.00399	0.22	5.00	5.05	4.95	5.09	4.25 to 5.75	101	70 to 130	1.94	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24823	Iron, Total	mg/L	-0.000297	0.022	0.2	0.202	0.200	0.203	0.17 to 0.23	101	70 to 130	1.42	20
AY24823	Mangnese, Total	mg/L	0.0000494	0.0022	0.10	0.0969	0.0961	0.0967	0.085 to 0.115	96.9	70 to 130	0.805	20
AY24823	Potassium, Total	mg/L	0.00283	0.0946	10.0	10.1	9.90	9.96	8.5 to 11.5	101	70 to 130	2.41	20

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6S DUP

Laboratory ID Number: AY24815

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	29.0	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		10.15	0.1015	0.5075	11.7	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		10.15	0.1015	0.5075	14.4	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	3.65	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	5.74	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	6.65	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	11.8	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	6.73	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	92.7	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0.05	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			92.6	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6S DUP

Laboratory ID Number: AY24815

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS Limit	Rec		Prec	Limit
			MB	Limit						Rec	Limit		
AY24823	Magnesium, Total	mg/L	-0.0190	0.22	5.00	4.87	4.79	4.94	4.25 to 5.75	97.3	70 to 130	1.67	20
AY24823	Mangnese, Dissolved	mg/L	0.00000875	0.005	0.10	0.104	0.106		0.085 to 0.115	104	70 to 130	1.73	20
AY24823	Iron, Dissolved	mg/L	-0.000485	0.022	0.2	0.199	0.202	0.209	0.17 to 0.23	99.3	70 to 130	1.91	20
AY24823	Sodium, Total	mg/L	-0.00399	0.22	5.00	5.05	4.95	5.09	4.25 to 5.75	101	70 to 130	1.94	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24823	Iron, Total	mg/L	-0.000297	0.022	0.2	0.202	0.200	0.203	0.17 to 0.23	101	70 to 130	1.42	20
AY24823	Mangnese, Total	mg/L	0.0000494	0.0022	0.10	0.0969	0.0961	0.0967	0.085 to 0.115	96.9	70 to 130	0.805	20
AY24823	Potassium, Total	mg/L	0.00283	0.0946	10.0	10.1	9.90	9.96	8.5 to 11.5	101	70 to 130	2.41	20
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0			0.0089910	

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, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Certificate Of Analysis Alabama Power



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY24816

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	14.6	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	J 0.0355	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	J 0.0415	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 2.14	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.132	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.134	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		10.15	1.015	5.075	34.1	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	7.50	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	223	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0.66	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			222	mg/L

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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, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-6D

Laboratory ID Number: AY24816

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			MB	Limit					Limit	Rec	Limit	Prec		
AY24823	Magnesium, Total	mg/L	-0.0190	0.22	5.00	4.87	4.79	4.94	4.25 to 5.75		97.3	70 to 130	1.67	20
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0				0.0089910	
AY24823	Iron, Dissolved	mg/L	-0.000485	0.022	0.2	0.199	0.202	0.209	0.17 to 0.23		99.3	70 to 130	1.91	20
AY24823	Sodium, Total	mg/L	-0.00399	0.22	5.00	5.05	4.95	5.09	4.25 to 5.75		101	70 to 130	1.94	20
AY24823	Manganese, Dissolved	mg/L	0.00000875	0.005	0.10	0.104	0.106		0.085 to 0.115		104	70 to 130	1.73	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05					
AY24823	Iron, Total	mg/L	-0.000297	0.022	0.2	0.202	0.200	0.203	0.17 to 0.23		101	70 to 130	1.42	20
AY24823	Manganese, Total	mg/L	0.0000494	0.0022	0.10	0.0969	0.0961	0.0967	0.085 to 0.115		96.9	70 to 130	0.805	20
AY24823	Potassium, Total	mg/L	0.00283	0.0946	10.0	10.1	9.90	9.96	8.5 to 11.5		101	70 to 130	2.41	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY24817

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	4.29	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	0.183	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	0.435	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 1.28	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0354	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0392	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		20.3	2.03	10.15	105	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	7.76	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	108	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0.58	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			107	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 Calera, AL 35040  
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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-7

Laboratory ID Number: AY24817

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit	Prec	
AY24823	Magnesium, Total	mg/L	-0.0190	0.22	5.00	4.87	4.79	4.94	4.25 to 5.75	97.3	70 to 130	1.67	20
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0			0.0089910	
AY24823	Iron, Dissolved	mg/L	-0.000485	0.022	0.2	0.199	0.202	0.209	0.17 to 0.23	99.3	70 to 130	1.91	20
AY24823	Sodium, Total	mg/L	-0.00399	0.22	5.00	5.05	4.95	5.09	4.25 to 5.75	101	70 to 130	1.94	20
AY24823	Manganese, Dissolved	mg/L	0.00000875	0.005	0.10	0.104	0.106		0.085 to 0.115	104	70 to 130	1.73	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24823	Iron, Total	mg/L	-0.000297	0.022	0.2	0.202	0.200	0.203	0.17 to 0.23	101	70 to 130	1.42	20
AY24823	Manganese, Total	mg/L	0.0000494	0.0022	0.10	0.0969	0.0961	0.0967	0.085 to 0.115	96.9	70 to 130	0.805	20
AY24823	Potassium, Total	mg/L	0.00283	0.0946	10.0	10.1	9.90	9.96	8.5 to 11.5	101	70 to 130	2.41	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY24818

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	5.40	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

Alabama Power General Test Laboratory  
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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY24818

Sample	Analysis	Units	MB	MB				LCS		Rec		Prec	Limit
				Limit	Spike	MS	MSD	LCS	Limit	Rec	Limit		
AY24823	Manganese, Dissolved	mg/L	0.00000875	0.005	0.10	0.104	0.106		0.085 to 0.115	104	70 to 130	1.73	20
AY24823	Magnesium, Total	mg/L	-0.0190	0.22	5.00	4.87	4.79	4.94	4.25 to 5.75	97.3	70 to 130	1.67	20
AY24823	Iron, Dissolved	mg/L	-0.000485	0.022	0.2	0.199	0.202	0.209	0.17 to 0.23	99.3	70 to 130	1.91	20
AY24823	Sodium, Total	mg/L	-0.00399	0.22	5.00	5.05	4.95	5.09	4.25 to 5.75	101	70 to 130	1.94	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24823	Iron, Total	mg/L	-0.000297	0.022	0.2	0.202	0.200	0.203	0.17 to 0.23	101	70 to 130	1.42	20
AY24823	Manganese, Total	mg/L	0.0000494	0.0022	0.10	0.0969	0.0961	0.0967	0.085 to 0.115	96.9	70 to 130	0.805	20
AY24823	Potassium, Total	mg/L	0.00283	0.0946	10.0	10.1	9.90	9.96	8.5 to 11.5	101	70 to 130	2.41	20
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0			0.0089910	

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY24819

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	5.07	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	0.242	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 0.628	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.103	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0880	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	9.59	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	5.99	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	43.5	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0.00	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			43.5	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-8

Laboratory ID Number: AY24819

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			Limit	MB					Limit	Rec	Limit	Prec		
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0				0.0089910	
AY24823	Manganese, Dissolved	mg/L	0.00000875	0.005	0.10	0.104	0.106		0.085 to 0.115		104	70 to 130	1.73	20
AY24823	Magnesium, Total	mg/L	-0.0190	0.22	5.00	4.87	4.79	4.94	4.25 to 5.75		97.3	70 to 130	1.67	20
AY24823	Iron, Dissolved	mg/L	-0.000485	0.022	0.2	0.199	0.202	0.209	0.17 to 0.23		99.3	70 to 130	1.91	20
AY24823	Sodium, Total	mg/L	-0.00399	0.22	5.00	5.05	4.95	5.09	4.25 to 5.75		101	70 to 130	1.94	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05					
AY24823	Iron, Total	mg/L	-0.000297	0.022	0.2	0.202	0.200	0.203	0.17 to 0.23		101	70 to 130	1.42	20
AY24823	Manganese, Total	mg/L	0.0000494	0.0022	0.10	0.0969	0.0961	0.0967	0.085 to 0.115		96.9	70 to 130	0.805	20
AY24823	Potassium, Total	mg/L	0.00283	0.0946	10.0	10.1	9.90	9.96	8.5 to 11.5		101	70 to 130	2.41	20

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY24820

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	28.2	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	2.16	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	2.16	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 1.50	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.102	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0942	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	15.0	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	7.47	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	187	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0.52	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			186	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-9

Laboratory ID Number: AY24820

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			Limit	MB					Limit	Rec	Limit	Prec	
AY24823	Manganese, Dissolved	mg/L	0.00000875	0.005	0.10	0.104	0.106		0.085 to 0.115	104	70 to 130	1.73	20
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0			0.0089910	
AY24823	Magnesium, Total	mg/L	-0.0190	0.22	5.00	4.87	4.79	4.94	4.25 to 5.75	97.3	70 to 130	1.67	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24823	Iron, Total	mg/L	-0.000297	0.022	0.2	0.202	0.200	0.203	0.17 to 0.23	101	70 to 130	1.42	20
AY24823	Manganese, Total	mg/L	0.0000494	0.0022	0.10	0.0969	0.0961	0.0967	0.085 to 0.115	96.9	70 to 130	0.805	20
AY24823	Potassium, Total	mg/L	0.00283	0.0946	10.0	10.1	9.90	9.96	8.5 to 11.5	101	70 to 130	2.41	20
AY24823	Iron, Dissolved	mg/L	-0.000485	0.022	0.2	0.199	0.202	0.209	0.17 to 0.23	99.3	70 to 130	1.91	20
AY24823	Sodium, Total	mg/L	-0.00399	0.22	5.00	5.05	4.95	5.09	4.25 to 5.75	101	70 to 130	1.94	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY24821

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	15.3	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	0.412	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	0.388	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 1.39	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.141	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.142	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		10.15	1.015	5.075	22.1	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	7.34	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	201	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0.41	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			201	mg/L

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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, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-11

Laboratory ID Number: AY24821

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			Limit	MB					Limit	Rec	Limit	Prec		
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0				0.0089910	
AY24823	Manganese, Dissolved	mg/L	0.00000875	0.005	0.10	0.104	0.106		0.085 to 0.115		104	70 to 130	1.73	20
AY24823	Magnesium, Total	mg/L	-0.0190	0.22	5.00	4.87	4.79	4.94	4.25 to 5.75		97.3	70 to 130	1.67	20
AY24823	Iron, Dissolved	mg/L	-0.000485	0.022	0.2	0.199	0.202	0.209	0.17 to 0.23		99.3	70 to 130	1.91	20
AY24823	Sodium, Total	mg/L	-0.00399	0.22	5.00	5.05	4.95	5.09	4.25 to 5.75		101	70 to 130	1.94	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05					
AY24823	Iron, Total	mg/L	-0.000297	0.022	0.2	0.202	0.200	0.203	0.17 to 0.23		101	70 to 130	1.42	20
AY24823	Manganese, Total	mg/L	0.0000494	0.0022	0.10	0.0969	0.0961	0.0967	0.085 to 0.115		96.9	70 to 130	0.805	20
AY24823	Potassium, Total	mg/L	0.00283	0.0946	10.0	10.1	9.90	9.96	8.5 to 11.5		101	70 to 130	2.41	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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

# Certificate Of Analysis Alabama Power



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY24822

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	10.7	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	0.204	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	0.229	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 1.61	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0548	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0482	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		10.15	1.015	5.075	30.8	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	7.76	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	183	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0.98	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			182	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-12

Laboratory ID Number: AY24822

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			MB	Limit					Limit	Rec	Limit	Prec		
AY24823	Magnesium, Total	mg/L	-0.0190	0.22	5.00	4.87	4.79	4.94	4.25 to 5.75		97.3	70 to 130	1.67	20
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0				0.0089910	
AY24823	Mangenes, Dissolved	mg/L	0.00000875	0.005	0.10	0.104	0.106		0.085 to 0.115		104	70 to 130	1.73	20
AY24823	Iron, Dissolved	mg/L	-0.000485	0.022	0.2	0.199	0.202	0.209	0.17 to 0.23		99.3	70 to 130	1.91	20
AY24823	Sodium, Total	mg/L	-0.00399	0.22	5.00	5.05	4.95	5.09	4.25 to 5.75		101	70 to 130	1.94	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05					
AY24823	Iron, Total	mg/L	-0.000297	0.022	0.2	0.202	0.200	0.203	0.17 to 0.23		101	70 to 130	1.42	20
AY24823	Mangenes, Total	mg/L	0.0000494	0.0022	0.10	0.0969	0.0961	0.0967	0.085 to 0.115		96.9	70 to 130	0.805	20
AY24823	Potassium, Total	mg/L	0.00283	0.0946	10.0	10.1	9.90	9.96	8.5 to 11.5		101	70 to 130	2.41	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY24823

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	5.52	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPEB  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Equipment Blank

Laboratory ID Number: AY24823

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			Limit	MB					Limit	Rec	Limit	Prec	
AY24823	Manganese, Dissolved	mg/L	0.00000875	0.005	0.10	0.104	0.106		0.085 to 0.115	104	70 to 130	1.73	20
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0			0.0089910	
AY24823	Magnesium, Total	mg/L	-0.0190	0.22	5.00	4.87	4.79	4.94	4.25 to 5.75	97.3	70 to 130	1.67	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24823	Iron, Total	mg/L	-0.000297	0.022	0.2	0.202	0.200	0.203	0.17 to 0.23	101	70 to 130	1.42	20
AY24823	Manganese, Total	mg/L	0.0000494	0.0022	0.10	0.0969	0.0961	0.0967	0.085 to 0.115	96.9	70 to 130	0.805	20
AY24823	Potassium, Total	mg/L	0.00283	0.0946	10.0	10.1	9.90	9.96	8.5 to 11.5	101	70 to 130	2.41	20
AY24823	Iron, Dissolved	mg/L	-0.000485	0.022	0.2	0.199	0.202	0.209	0.17 to 0.23	99.3	70 to 130	1.91	20
AY24823	Sodium, Total	mg/L	-0.00399	0.22	5.00	5.05	4.95	5.09	4.25 to 5.75	101	70 to 130	1.94	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY24824

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	J 0.314	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	11.6	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		101.5	10.15	50.75	181	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	11.33	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	424	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			302	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			15.0	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. Qualifying pH due to result is above the highest calibration standard. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-15

Laboratory ID Number: AY24824

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			Limit	MB					Limit	Rec	Limit	Prec	
AY24833	Manganese, Dissolved	mg/L	0.00000830	0.005	0.10	1.26	1.26		0.085 to 0.115	131	70 to 130	0.132	20
AY24833	Iron, Total	mg/L	0.000853	0.022	0.2	1.45	1.44	0.199	0.17 to 0.23	95.8	70 to 130	1.20	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24833	Iron, Dissolved	mg/L	-0.000592	0.022	0.2	1.44	1.45	0.205	0.17 to 0.23	100	70 to 130	0.692	20
AY24833	Magnesium, Total	mg/L	-0.0201	0.22	5.00	48.2	47.9	4.89	4.25 to 5.75	91.5	70 to 130	0.610	20
AY24833	Potassium, Total	mg/L	0.00283	0.0946	10.0	12.8	13.0	9.96	8.5 to 11.5	96.4	70 to 130	1.54	20
AY24833	Sodium, Total	mg/L	-0.00690	0.22	5.00	51.1	54.9	5.03	4.25 to 5.75	111	70 to 130	7.24	20
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0				0.0089910
AY24833	Manganese, Total	mg/L	0.0000494	0.0022	0.10	1.16	1.21	0.0967	0.085 to 0.115	69.4	70 to 130	3.63	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY24825

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	1.00	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	J 0.0340	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	0.0657	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 1.04	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0126	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0129	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		20.3	2.03	10.15	188	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/29/2018	SM 4500H+ B		1		4.00	8.47	SU
Alkalinity, Total as CaCO3	EMG	10/29/2018	SM 2320 B		1		0.10	380	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			10.3	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/29/2018	SM 4500CO2 D		1			370	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 15-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-17

Laboratory ID Number: AY24825

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY24833	Manganese, Dissolved	mg/L	0.00000830	0.005	0.10	1.26	1.26		0.085 to 0.115	131	70 to 130	0.132	20
AY24833	Iron, Total	mg/L	0.000853	0.022	0.2	1.45	1.44	0.199	0.17 to 0.23	95.8	70 to 130	1.20	20
AY24816	Alkalinity, Total as CaCO3	mg/L					223	49.7	45.0 to 55.0			0.0089910	
AY24833	Manganese, Total	mg/L	0.0000494	0.0022	0.10	1.16	1.21	0.0967	0.085 to 0.115	69.4	70 to 130	3.63	20
AY24833	Potassium, Total	mg/L	0.00283	0.0946	10.0	12.8	13.0	9.96	8.5 to 11.5	96.4	70 to 130	1.54	20
AY24833	Sodium, Total	mg/L	-0.00690	0.22	5.00	51.1	54.9	5.03	4.25 to 5.75	111	70 to 130	7.24	20
AY24816	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24833	Iron, Dissolved	mg/L	-0.000592	0.022	0.2	1.44	1.45	0.205	0.17 to 0.23	100	70 to 130	0.692	20
AY24833	Magnesium, Total	mg/L	-0.0201	0.22	5.00	48.2	47.9	4.89	4.25 to 5.75	91.5	70 to 130	0.610	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

Alabama Power General Test Laboratory  
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 Calera, AL 35040  
 (205) 664-6032 or 6171  
 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY24826

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	45.2	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	1.25	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	1.31	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	3.16	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	1.16	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	1.16	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		20.3	2.03	10.15	45.8	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/30/2018	SM 4500H+ B		1		4.00	7.27	SU
Alkalinity, Total as CaCO3	EMG	10/30/2018	SM 2320 B		1		0.10	118	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			0.21	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			118	mg/L

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

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-18

Laboratory ID Number: AY24826

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY24833	Manganese, Dissolved	mg/L	0.00000830	0.005	0.10	1.26	1.26		0.085 to 0.115	131	70 to 130	0.132	20
AY24826	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24833	Manganese, Total	mg/L	0.0000494	0.0022	0.10	1.16	1.21	0.0967	0.085 to 0.115	69.4	70 to 130	3.63	20
AY24833	Iron, Total	mg/L	0.000853	0.022	0.2	1.45	1.44	0.199	0.17 to 0.23	95.8	70 to 130	1.20	20
AY24826	Alkalinity, Total as CaCO3	mg/L					119	49.8	45.0 to 55.0			0.455	10
AY24833	Potassium, Total	mg/L	0.00283	0.0946	10.0	12.8	13.0	9.96	8.5 to 11.5	96.4	70 to 130	1.54	20
AY24833	Sodium, Total	mg/L	-0.00690	0.22	5.00	51.1	54.9	5.03	4.25 to 5.75	111	70 to 130	7.24	20
AY24833	Iron, Dissolved	mg/L	-0.000592	0.022	0.2	1.44	1.45	0.205	0.17 to 0.23	100	70 to 130	0.692	20
AY24833	Magnesium, Total	mg/L	-0.0201	0.22	5.00	48.2	47.9	4.89	4.25 to 5.75	91.5	70 to 130	0.610	20

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY24827

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	12.7	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	0.207	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	0.244	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	2.92	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0239	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0233	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		20.3	2.03	10.15	57.6	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/30/2018	SM 4500H+ B		1		4.00	7.99	SU
Alkalinity, Total as CaCO3	EMG	10/30/2018	SM 2320 B		1		0.10	273	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			2.49	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			270	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-19

Laboratory ID Number: AY24827

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit	
			MB	Limit					Limit	Rec	Limit	Prec			
AY24833	Manganese, Total	mg/L	0.0000494	0.0022	0.10	1.16	1.21	0.0967	0.085 to 0.115		69.4	70 to 130		3.63	20
AY24826	pH for Alkalinity	SU						6.98	6.95 to 7.05						
AY24833	Manganese, Dissolved	mg/L	0.00000830	0.005	0.10	1.26	1.26		0.085 to 0.115		131	70 to 130		0.132	20
AY24833	Iron, Total	mg/L	0.000853	0.022	0.2	1.45	1.44	0.199	0.17 to 0.23		95.8	70 to 130		1.20	20
AY24826	Alkalinity, Total as CaCO3	mg/L					119	49.8	45.0 to 55.0					0.455	10
AY24833	Potassium, Total	mg/L	0.00283	0.0946	10.0	12.8	13.0	9.96	8.5 to 11.5		96.4	70 to 130		1.54	20
AY24833	Sodium, Total	mg/L	-0.00690	0.22	5.00	51.1	54.9	5.03	4.25 to 5.75		111	70 to 130		7.24	20
AY24833	Iron, Dissolved	mg/L	-0.000592	0.022	0.2	1.44	1.45	0.205	0.17 to 0.23		100	70 to 130		0.692	20
AY24833	Magnesium, Total	mg/L	-0.0201	0.22	5.00	48.2	47.9	4.89	4.25 to 5.75		91.5	70 to 130		0.610	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

**Customer Account:** WMWGORAP  
**Sample Date:** 16-Oct-18  
**Customer ID:**  
**Delivery Date:** 18-Oct-18

**Description:** Gorgas Ash Pond - MW-21

**Laboratory ID Number:** AY24828

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	8.12	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		101.5	10.15	50.75	199	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/30/2018	SM 4500H+ B		1		4.00	11.10	SU
Alkalinity, Total as CaCO3	EMG	10/30/2018	SM 2320 B		1		0.10	223	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			148	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			12.5	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. Qualifying pH due to result is above the highest calibration standard. LBM 11/21/18

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 FAX (205) 257-1654

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-21

Laboratory ID Number: AY24828

Sample	Analysis	Units	MB	MB		MS	MSD	LCS	LCS		Rec		Prec
				Limit	Spike				Limit	Rec	Limit	Prec	
AY24833	Manganese, Dissolved	mg/L	0.00000830	0.005	0.10	1.26	1.26		0.085 to 0.115	131	70 to 130	0.132	20
AY24826	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24833	Iron, Total	mg/L	0.000853	0.022	0.2	1.45	1.44	0.199	0.17 to 0.23	95.8	70 to 130	1.20	20
AY24833	Manganese, Total	mg/L	0.0000494	0.0022	0.10	1.16	1.21	0.0967	0.085 to 0.115	69.4	70 to 130	3.63	20
AY24833	Iron, Dissolved	mg/L	-0.000592	0.022	0.2	1.44	1.45	0.205	0.17 to 0.23	100	70 to 130	0.692	20
AY24833	Magnesium, Total	mg/L	-0.0201	0.22	5.00	48.2	47.9	4.89	4.25 to 5.75	91.5	70 to 130	0.610	20
AY24826	Alkalinity, Total as CaCO3	mg/L					119	49.8	45.0 to 55.0			0.455	10
AY24833	Potassium, Total	mg/L	0.00283	0.0946	10.0	12.8	13.0	9.96	8.5 to 11.5	96.4	70 to 130	1.54	20
AY24833	Sodium, Total	mg/L	-0.00690	0.22	5.00	51.1	54.9	5.03	4.25 to 5.75	111	70 to 130	7.24	20

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Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY24829

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	J 0.159	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	0.0519	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 0.463	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	J 0.00123	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	J 0.00131	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		101.5	10.15	50.75	165	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/30/2018	SM 4500H+ B		1		4.00	9.31	SU
Alkalinity, Total as CaCO3	EMG	10/30/2018	SM 2320 B		1		0.10	231	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			37.0	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			193	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-2

Laboratory ID Number: AY24829

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	Limit
			Limit	MB					Limit	Rec	Limit	Prec		
AY24833	Manganese, Total	mg/L	0.0000494	0.0022	0.10	1.16	1.21	0.0967	0.085 to 0.115		69.4	70 to 130	3.63	20
AY24833	Iron, Total	mg/L	0.000853	0.022	0.2	1.45	1.44	0.199	0.17 to 0.23		95.8	70 to 130	1.20	20
AY24826	pH for Alkalinity	SU						6.98	6.95 to 7.05					
AY24833	Manganese, Dissolved	mg/L	0.00000830	0.005	0.10	1.26	1.26		0.085 to 0.115		131	70 to 130	0.132	20
AY24826	Alkalinity, Total as CaCO3	mg/L					119	49.8	45.0 to 55.0				0.455	10
AY24833	Potassium, Total	mg/L	0.00283	0.0946	10.0	12.8	13.0	9.96	8.5 to 11.5		96.4	70 to 130	1.54	20
AY24833	Sodium, Total	mg/L	-0.00690	0.22	5.00	51.1	54.9	5.03	4.25 to 5.75		111	70 to 130	7.24	20
AY24833	Iron, Dissolved	mg/L	-0.000592	0.022	0.2	1.44	1.45	0.205	0.17 to 0.23		100	70 to 130	0.692	20
AY24833	Magnesium, Total	mg/L	-0.0201	0.22	5.00	48.2	47.9	4.89	4.25 to 5.75		91.5	70 to 130	0.610	20

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# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY24830

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	15.1	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	0.136	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	0.149	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 1.14	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.490	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.460	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	10.7	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/30/2018	SM 4500H+ B		1		4.00	6.86	SU
Alkalinity, Total as CaCO3	EMG	10/30/2018	SM 2320 B		1		0.10	176	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			0.12	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			176	mg/L

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Laboratory certification ID: E571114

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Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

Alabama Power General Test Laboratory  
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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-13

Laboratory ID Number: AY24830

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec
			MB	Limit					Limit	Rec	Limit	Prec	
AY24833	Manganese, Dissolved	mg/L	0.00000830	0.005	0.10	1.26	1.26		0.085 to 0.115	131	70 to 130	0.132	20
AY24833	Iron, Total	mg/L	0.000853	0.022	0.2	1.45	1.44	0.199	0.17 to 0.23	95.8	70 to 130	1.20	20
AY24826	pH for Alkalinity	SU						6.98	6.95 to 7.05				
AY24833	Manganese, Total	mg/L	0.0000494	0.0022	0.10	1.16	1.21	0.0967	0.085 to 0.115	69.4	70 to 130	3.63	20
AY24826	Alkalinity, Total as CaCO3	mg/L					119	49.8	45.0 to 55.0			0.455	10
AY24833	Potassium, Total	mg/L	0.00283	0.0946	10.0	12.8	13.0	9.96	8.5 to 11.5	96.4	70 to 130	1.54	20
AY24833	Sodium, Total	mg/L	-0.00690	0.22	5.00	51.1	54.9	5.03	4.25 to 5.75	111	70 to 130	7.24	20
AY24833	Iron, Dissolved	mg/L	-0.000592	0.022	0.2	1.44	1.45	0.205	0.17 to 0.23	100	70 to 130	0.692	20
AY24833	Magnesium, Total	mg/L	-0.0201	0.22	5.00	48.2	47.9	4.89	4.25 to 5.75	91.5	70 to 130	0.610	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

Alabama Power General Test Laboratory  
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**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY24831

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	14.6	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	0.757	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	0.861	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 1.97	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0445	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0433	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		10.15	1.015	5.075	23.9	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/30/2018	SM 4500H+ B		1		4.00	7.17	SU
Alkalinity, Total as CaCO3	EMG	10/30/2018	SM 2320 B		1		0.10	188	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			0.26	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			188	mg/L

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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, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-14

Laboratory ID Number: AY24831

Sample	Analysis	Units	MB	MB			MS	MSD	LCS		Rec		Prec	Limit
				Limit	Spike	MS			LCS	Limit	Rec	Limit		
AY24833	Manganese, Dissolved	mg/L	0.00000830	0.005	0.10	1.26	1.26		0.085 to 0.115	131	70 to 130	0.132	20	
AY24826	pH for Alkalinity	SU						6.98	6.95 to 7.05					
AY24833	Manganese, Total	mg/L	0.0000494	0.0022	0.10	1.16	1.21	0.0967	0.085 to 0.115	69.4	70 to 130	3.63	20	
AY24833	Iron, Total	mg/L	0.000853	0.022	0.2	1.45	1.44	0.199	0.17 to 0.23	95.8	70 to 130	1.20	20	
AY24833	Iron, Dissolved	mg/L	-0.000592	0.022	0.2	1.44	1.45	0.205	0.17 to 0.23	100	70 to 130	0.692	20	
AY24833	Magnesium, Total	mg/L	-0.0201	0.22	5.00	48.2	47.9	4.89	4.25 to 5.75	91.5	70 to 130	0.610	20	
AY24826	Alkalinity, Total as CaCO3	mg/L					119	49.8	45.0 to 55.0			0.455	10	
AY24833	Potassium, Total	mg/L	0.00283	0.0946	10.0	12.8	13.0	9.96	8.5 to 11.5	96.4	70 to 130	1.54	20	
AY24833	Sodium, Total	mg/L	-0.00690	0.22	5.00	51.1	54.9	5.03	4.25 to 5.75	111	70 to 130	7.24	20	

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Expiration: June 30, 2019

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

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

**Customer Account:** WMWGORAP  
**Sample Date:** 17-Oct-18  
**Customer ID:**  
**Delivery Date:** 18-Oct-18

**Description:** Gorgas Ash Pond - MW-16D

**Laboratory ID Number:** AY24832

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	11.7	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	0.173	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	0.184	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	J 1.46	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0102	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	0.0102	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		10.15	1.015	5.075	30.4	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/30/2018	SM 4500H+ B		1		4.00	7.60	SU
Alkalinity, Total as CaCO3	EMG	10/30/2018	SM 2320 B		1		0.10	182	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			0.68	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			181	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

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

# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 17-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-16D

Laboratory ID Number: AY24832

Sample	Analysis	Units	MB	MB			MS	MSD	LCS		Rec		Prec	Limit
				Limit	Spike	MS			LCS	Limit	Rec	Limit		
AY24833	Manganese, Dissolved	mg/L	0.00000830	0.005	0.10	1.26	1.26		0.085 to 0.115	131	70 to 130	0.132	20	
AY24826	pH for Alkalinity	SU						6.98	6.95 to 7.05					
AY24833	Manganese, Total	mg/L	0.0000494	0.0022	0.10	1.16	1.21	0.0967	0.085 to 0.115	69.4	70 to 130	3.63	20	
AY24833	Iron, Total	mg/L	0.000853	0.022	0.2	1.45	1.44	0.199	0.17 to 0.23	95.8	70 to 130	1.20	20	
AY24833	Iron, Dissolved	mg/L	-0.000592	0.022	0.2	1.44	1.45	0.205	0.17 to 0.23	100	70 to 130	0.692	20	
AY24833	Magnesium, Total	mg/L	-0.0201	0.22	5.00	48.2	47.9	4.89	4.25 to 5.75	91.5	70 to 130	0.610	20	
AY24826	Alkalinity, Total as CaCO3	mg/L					119	49.8	45.0 to 55.0			0.455	10	
AY24833	Potassium, Total	mg/L	0.00283	0.0946	10.0	12.8	13.0	9.96	8.5 to 11.5	96.4	70 to 130	1.54	20	
AY24833	Sodium, Total	mg/L	-0.00690	0.22	5.00	51.1	54.9	5.03	4.25 to 5.75	111	70 to 130	7.24	20	

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Expiration: June 30, 2019

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 Calera, AL 35040  
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 FAX (205) 257-1654

**Certificate Of Analysis**  **Alabama Power**



To: Dustin Brooks  
 Greg Dyer

**Customer Account:** WMWGORAP  
**Sample Date:** 16-Oct-18  
**Customer ID:**  
**Delivery Date:** 18-Oct-18

**Description:** Gorgas Ash Pond - MW-18 DUP

**Laboratory ID Number:** AY24833

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	43.6	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	1.24	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	1.26	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	3.20	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	1.13	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	1.10	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		20.3	2.03	10.15	45.6	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/30/2018	SM 4500H+ B		1		4.00	7.32	SU
Alkalinity, Total as CaCO3	EMG	10/30/2018	SM 2320 B		1		0.10	120	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			0.24	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			120	mg/L

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. Recovery for Total Na, Total Mn, and Dissolved Mn are out of spec. Spike amount is less than 30% of the sample amount.  
 LBM 11/21/18

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



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAP  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond - MW-18 DUP

Laboratory ID Number: AY24833

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			MB	Limit					Limit	Rec	Limit	Prec		
AY24833	Iron, Total	mg/L	0.000853	0.022	0.2	1.45	1.44	0.199	0.17 to 0.23		95.8	70 to 130	1.20	20
AY24833	Manganese, Dissolved	mg/L	0.00000830	0.005	0.10	1.26	1.26		0.085 to 0.115		131	70 to 130	0.132	20
AY24826	pH for Alkalinity	SU						6.98	6.95 to 7.05					
AY24833	Manganese, Total	mg/L	0.0000494	0.0022	0.10	1.16	1.21	0.0967	0.085 to 0.115		69.4	70 to 130	3.63	20
AY24833	Iron, Dissolved	mg/L	-0.000592	0.022	0.2	1.44	1.45	0.205	0.17 to 0.23		100	70 to 130	0.692	20
AY24833	Magnesium, Total	mg/L	-0.0201	0.22	5.00	48.2	47.9	4.89	4.25 to 5.75		91.5	70 to 130	0.610	20
AY24826	Alkalinity, Total as CaCO3	mg/L					119	49.8	45.0 to 55.0				0.455	10
AY24833	Potassium, Total	mg/L	0.00283	0.0946	10.0	12.8	13.0	9.96	8.5 to 11.5		96.4	70 to 130	1.54	20
AY24833	Sodium, Total	mg/L	-0.00690	0.22	5.00	51.1	54.9	5.03	4.25 to 5.75		111	70 to 130	7.24	20

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Laboratory certification ID: E571114

Issued By: State of Florida, Department of Health

Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. Recovery for Total Na, Total Mn, and Dissolved Mn are out of spec. Spike amount is less than 30% of the sample amount.  
 LBM 11/21/18

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

# Certificate Of Analysis



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY24834

Name	Analyst	Test Date	Reference	Vio Spec	DF	MDL	RL	Q Results	Units
<b>Metals, Cyanide, Total Phenols</b>									
* Magnesium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
* Iron, Dissolved	RDA	11/6/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Iron, Total	RDA	11/9/2018	EPA 200.7		2.03	0.01	0.05	U Not Detected	mg/L
* Potassium, Total	ABB	10/26/2018	EPA 200.8		5.075	0.215	2.5	U Not Detected	mg/L
* Manganese, Dissolved	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Manganese, Total	ABB	10/26/2018	EPA 200.8		5.075	0.001	0.005	U Not Detected	mg/L
* Sodium, Total	RDA	11/9/2018	EPA 200.7		2.03	0.1	0.5	U Not Detected	mg/L
<b>General Characteristics</b>									
pH for Alkalinity	EMG	10/30/2018	SM 4500H+ B		1		4.00	5.38	SU
Alkalinity, Total as CaCO3	EMG	10/30/2018	SM 2320 B		1		0.10	U Not Detected	mg/L
Carbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			0	mg/L
Bicarbonate Alkalinity, as CaCO3	EMG	10/30/2018	SM 4500CO2 D		1			0	mg/L

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Alabama Power General Test Laboratory  
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# Batch QC Summary



To: Dustin Brooks  
 Greg Dyer

Customer Account: WMWGORAPFB  
 Sample Date: 16-Oct-18  
 Customer ID:  
 Delivery Date: 18-Oct-18

Description: Gorgas Ash Pond Field Blank

Laboratory ID Number: AY24834

Sample	Analysis	Units	MB		Spike	MS	MSD	LCS	LCS		Rec		Prec	
			MB	Limit					Limit	Rec	Limit	Prec		
AY24834	Mangenes, Total	mg/L	0.00000717	0.0022	0.10	0.0950	0.0990	0.0938	0.085 to 0.115		95.0	70 to 130	4.06	20
AY24826	Alkalinity, Total as CaCO3	mg/L					119	49.8	45.0 to 55.0				0.455	10
AY24834	Iron, Dissolved	mg/L	-0.000451	0.022	0.2	0.199	0.206	0.205	0.17 to 0.23		99.6	70 to 130	3.42	20
AY24826	pH for Alkalinity	SU						6.98	6.95 to 7.05					
AY24834	Iron, Total	mg/L	-0.000478	0.022	0.2	0.200	0.195	0.198	0.17 to 0.23		99.8	70 to 130	2.51	20
AY24834	Mangenes, Dissolved	mg/L	0.0000196	0.005	0.10	0.104	0.102		0.085 to 0.115		104	70 to 130	1.63	20
AY24834	Potassium, Total	mg/L	0.000551	0.0946	10.0	9.72	10.5	9.91	8.5 to 11.5		97.2	70 to 130	8.05	20
AY24834	Magnesium, Total	mg/L	-0.0198	0.22	5.00	4.88	4.75	4.85	4.25 to 5.75		97.7	70 to 130	2.67	20
AY24834	Sodium, Total	mg/L	-0.00717	0.22	5.00	5.09	4.98	5.04	4.25 to 5.75		102	70 to 130	2.32	20

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Expiration: June 30, 2019

**Comments:** The client submitted filtered samples for dissolved analysis, but no MB or LCS were submitted. Therefore, the dissolved data is qualified. LBM 11/21/18

## 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
B	Analyte found in reagent blank. Indicates possible reagent or background contamination.
E	Estimated reported value exceeded calibration range.
J	Reported value is an estimate because concentration is less than reporting limit.
N	Organic constituents tentatively identified. Confirmation is needed.
R	Matrix spike recovery is out of range.
U	Compound was analyzed, but not detected.
P	Precision is out of range.
C	Analyte was verified by re-analysis.
H	The holding time for this test is immediately following sample collection. The samples were analyzed as soon as possible after receipt by the laboratory.
L	Check standard is outside of the required specification limit.
D	All samples were stored at less than or equal to 6 °C and for no longer than 48 hours from time of sampling, unless otherwise noted.
F	Water Field Group (WFG) qualifier; see comments for more information



# Chain of Custody

## Groundwater

APC General Testing Laboratory

Field Complete  
 Lab Complete

Outside Lab

Lab ETA 10/18/2018 08:45

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Ben Rothschild	Location	Gorgas Ash Pond

Bottles	1	Metals	500 mL	3	Alkalinity	250 mL	5	N/A	N/A	7	N/A	N/A
	2	Dissolved Meta	500 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-6S	10/15/18	12:13	3	Groundwater		AY24814
MW-6S DUP	10/15/2018	12:13	3	Sample Duplicate		AY24815
MW-6D	10/15/2018	13:24	3	Groundwater		AY24816
MW-7	10/15/2018	14:37	3	Groundwater		AY24817
FB-1	10/15/2018	15:25	3	Field Blank		AY24818
MW-8	10/16/2018	09:47	3	Groundwater		AY24819
MW-9	10/16/2018	11:27	3	Groundwater		AY24820
MW-11	10/16/2018	13:10	3	Groundwater		AY24821
MW-12	10/16/2018	15:26	3	Groundwater		AY24822
EB-1	10/16/2018	16:50	3	Equipment Blank		AY24823

Relinquished By	Received By	Date/Time
		10/18/2018 09:39

SmarTroll ID	6496-34170-1-1	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	4677-23343-4-2	Cooler Temp
Sample Event	1172	5408-27568-2-2
		Thermometer ID
		6959-37697-30-18 & 6959-37698-30-19
		pH Strip ID



# Chain of Custody Groundwater

APC General Testing Laboratory

Field Complete  
 Lab Complete

Outside Lab

Lab ETA 10/18/2018 10:00

Requested Complete Date	Routine	Results To	Dustin Brooks, Greg Dyer
Site Representative	Che George	Requested By	Greg Dyer
Collector	Anthony Goggins	Location	Gorgas Ash Pond

Bottles	1	Metals	500 mL	3	Alkalinity	250 mL	5	N/A	N/A	7	N/A	N/A
	2	Dissolved Meta	500 mL	4	N/A	N/A	6	N/A	N/A	8	N/A	N/A

Comments

Sample #	Date	Time	Bottle Count	Description	Lab Filter	Lab Id
MW-15	10/15/18	12:15	3	Groundwater		AY24824
MW-17	10/15/2018	15:11	3	Groundwater		AY24825
MW-18	10/16/2018	10:33	3	Groundwater		AY24826
MW-19	10/16/2018	11:51	3	Groundwater		AY24827
MW-21	10/16/2018	14:31	3	Groundwater		AY24828
MW-2	10/16/2018	16:20	3	Groundwater		AY24829
MW-13	10/17/2018	09:16	3	Groundwater		AY24830
MW-14	10/17/2018	10:33	3	Groundwater		AY24831
MW-16D	10/17/2018	12:53	3	Groundwater		AY24832
MW-18DUP	10/16/2018	10:33	3	Sample Duplicate		AY24833
FB-2	10/16/2018	13:55	3	Field Blank		AY24834

Relinquished By	Received By	Date/Time
		10/18/2018 09:41

SmarTroll ID	4696-23443-3-2	All metals and radiological bottles have pH < 2 <input checked="" type="checkbox"/>
Turbidity ID	5160-26211-1-1	Cooler Temp
Sample Event	1172	Thermometer ID
		pH Strip ID
		0.3 degrees C
		5408-27568-2-2
		6959-37697-30-18

# Appendix B



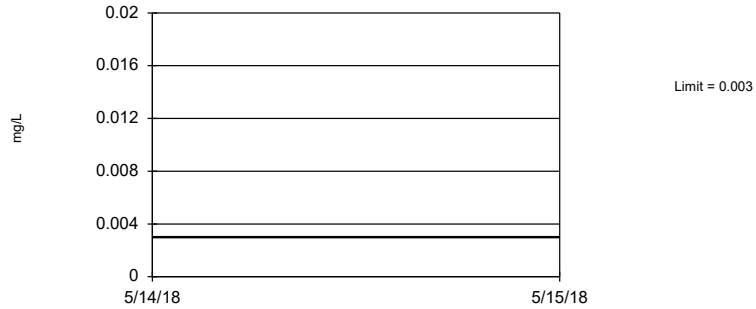
1<sup>st</sup> Semi-Annual

# Upper Tolerance Limits - App IV

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/14/2019, 11:04 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	20	n/a	n/a	95	n/a	n/a	0.3585	NP Inter(NDs)
Arsenic (mg/L)	0.005	20	n/a	n/a	80	n/a	n/a	0.3585	NP Inter(NDs)
Barium (mg/L)	0.189	20	n/a	n/a	0	n/a	n/a	0.3585	NP Inter(normal...
Beryllium (mg/L)	0.003	20	n/a	n/a	100	n/a	n/a	0.3585	NP Inter(NDs)
Boron (mg/L)	0.1	20	n/a	n/a	95	n/a	n/a	0.3585	NP Inter(NDs)
Cadmium (mg/L)	0.001	20	n/a	n/a	100	n/a	n/a	0.3585	NP Inter(NDs)
Chromium (mg/L)	0.01	20	n/a	n/a	85	n/a	n/a	0.3585	NP Inter(NDs)
Cobalt (mg/L)	0.01	20	n/a	n/a	80	n/a	n/a	0.3585	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.059	20	0.2927	0.3199	0	None	No	0.05	Inter
Fluoride (mg/L)	0.2169	22	0.1112	0.04498	0	None	No	0.05	Inter
Lead (mg/L)	0.005	20	n/a	n/a	100	n/a	n/a	0.3585	NP Inter(NDs)
Lithium (mg/L)	0.05	20	n/a	n/a	65	n/a	n/a	0.3585	NP Inter(NDs)
Mercury (mg/L)	0.0005	20	n/a	n/a	100	n/a	n/a	0.3585	NP Inter(NDs)
Molybdenum (mg/L)	0.01	20	n/a	n/a	100	n/a	n/a	0.3585	NP Inter(NDs)
Selenium (mg/L)	0.01	20	n/a	n/a	100	n/a	n/a	0.3585	NP Inter(NDs)
Thallium (mg/L)	0.001	20	n/a	n/a	100	n/a	n/a	0.3585	NP Inter(NDs)

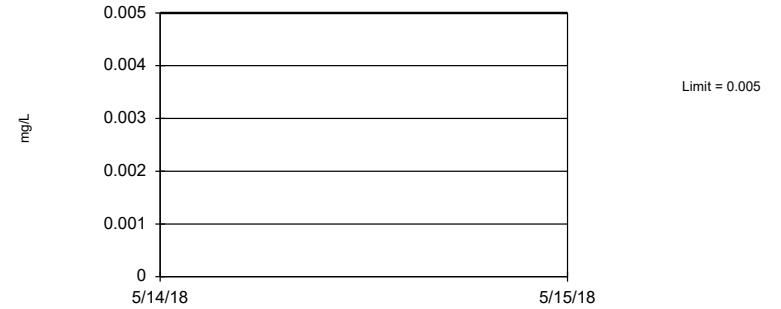
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 20 background values. 95% NDs. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Antimony Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

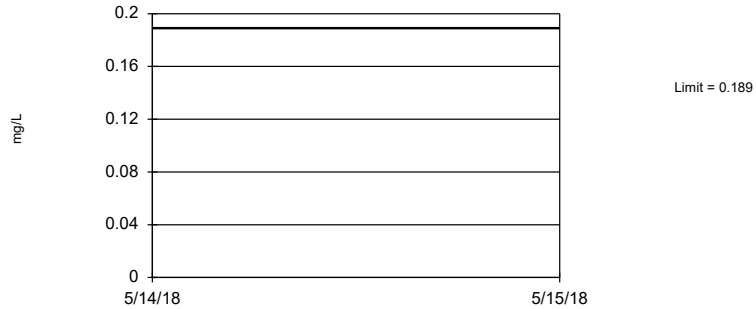
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 20 background values. 80% NDs. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Arsenic Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

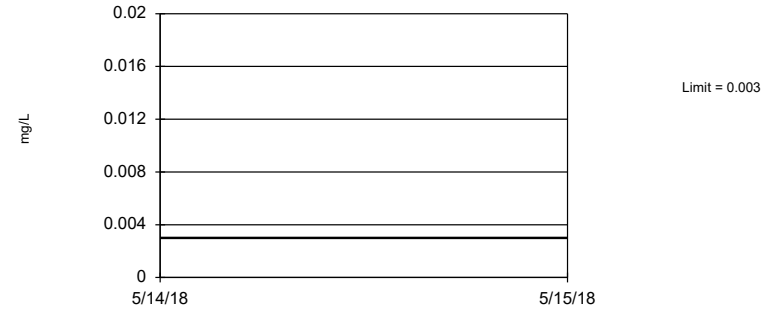
### Tolerance Limit Interwell Non-parametric



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 0.05 alpha level. Limit is highest of 20 background values. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Barium Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

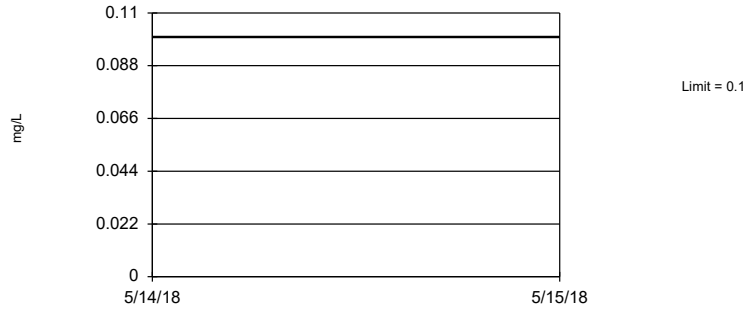
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Beryllium Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

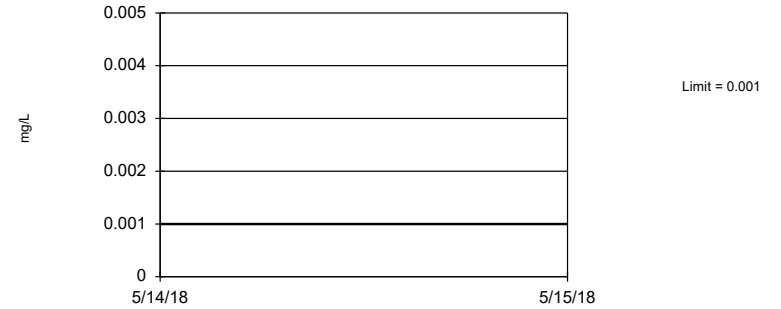
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 20 background values. 95% NDs. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Boron Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Cadmium Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 20 background values. 85% NDs. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Chromium Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

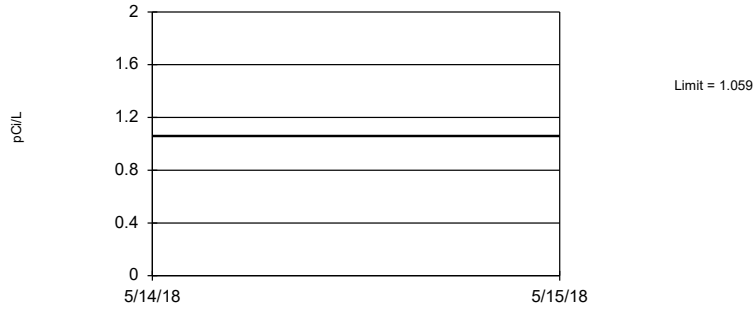
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 20 background values. 80% NDs. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Cobalt Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

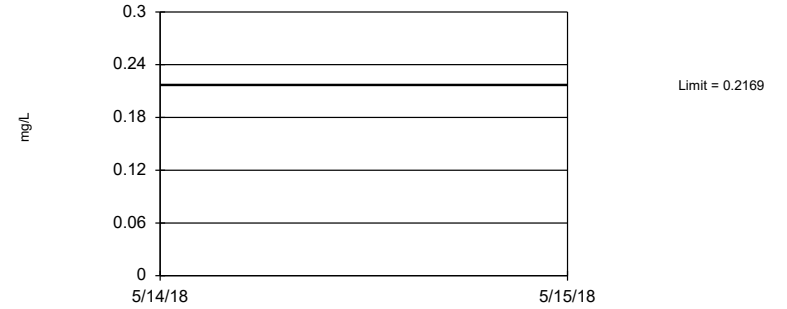
### Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.2927, Std. Dev.=0.3199, n=20. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9391, critical = 0.905. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.1112, Std. Dev.=0.04498, n=22. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9451, critical = 0.911. Report alpha = 0.05.

Constituent: Fluoride Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

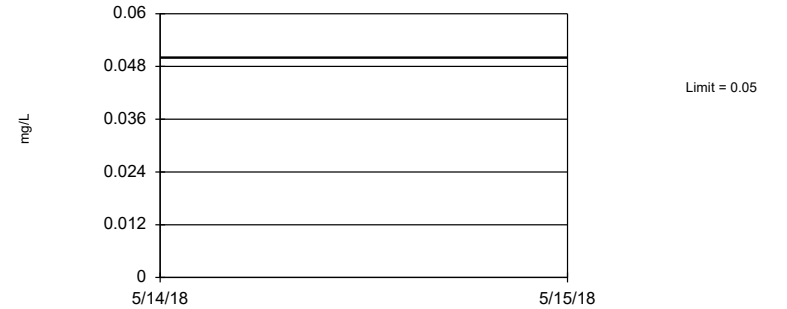
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Lead Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

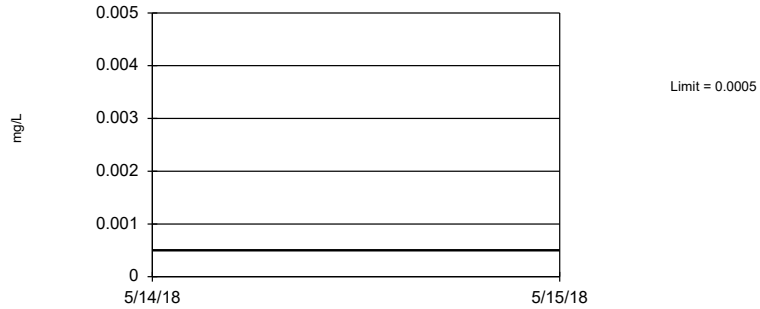
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 20 background values. 65% NDs. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Lithium Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

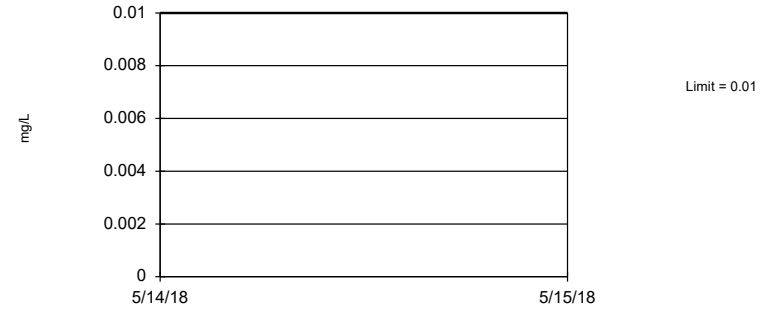
Tolerance Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Mercury Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Tolerance Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Molybdenum Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

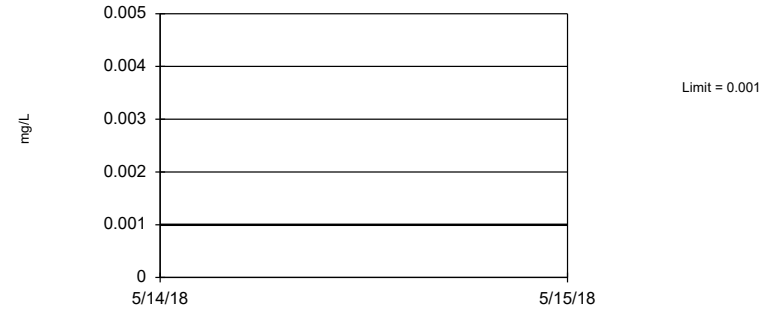
Tolerance Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Selenium Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Tolerance Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 79.49% coverage at alpha=0.01; 86.13% coverage at alpha=0.05; 96.68% coverage at alpha=0.5. Report alpha = 0.3585.

Constituent: Thallium Analysis Run 1/14/2019 11:03 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Confidence Intervals - Significant Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/31/2019, 11:44 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	GS-AP-MW-6D	0.07449	0.06007	0.01	Yes	10	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.2038	0.1734	0.01	Yes	10	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-12	0.07551	0.02763	0.01	Yes	10	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-18	0.08009	0.05627	0.01	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.2521	0.2175	0.05	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1639	0.1373	0.05	Yes	10	0	ln(x)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-9	0.09925	0.08029	0.05	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-15	0.159	0.123	0.05	Yes	10	0	No	0.011	NP (normality)
Lithium (mg/L)	GS-AP-MW-18	0.3125	0.2021	0.05	Yes	10	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.175	0.1416	0.05	Yes	10	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.1655	0.1417	0.1	Yes	10	0	No	0.01	Param.

# Confidence Intervals - All Results

Plant William C Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 1/31/2019, 11:44 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GS-AP-MW-2	0.0015	0.0015	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6D	0.0015	0.00104	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-7	0.0015	0.000891	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-9	0.0015	0.0015	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-11	0.0015	0.0015	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-12	0.0015	0.000681	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-14	0.0015	0.0015	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-15	0.0015	0.000636	0.006	No	10	60	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-16D	0.0015	0.000633	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-17	0.0015	0.000636	0.006	No	10	80	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-18	0.0015	0.0015	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-19	0.0015	0.000613	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-21	0.0015	0.00119	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6S	0.0015	0.000727	0.006	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-2	0.0025	0.0025	0.01	No	10	100	No	0.011	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.07449</b>	<b>0.06007</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.2038</b>	<b>0.1734</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GS-AP-MW-9	0.007418	0.005904	0.01	No	10	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-11	0.0025	0.0025	0.01	No	10	100	No	0.011	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-12</b>	<b>0.07551</b>	<b>0.02763</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GS-AP-MW-14	0.001815	0.001181	0.01	No	10	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15	0.01151	0.006127	0.01	No	10	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-16D	0.0025	0.0025	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-17	0.00352	0.0011	0.01	No	10	0	No	0.011	NP (normality)
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-18</b>	<b>0.08009</b>	<b>0.05627</b>	<b>0.01</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GS-AP-MW-19	0.0025	0.00114	0.01	No	10	80	No	0.011	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-21	0.004132	0.001246	0.01	No	10	20	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-6S	0.01097	0.009475	0.01	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-2	0.084	0.07156	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6D	0.8525	0.6873	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-7	0.08642	0.05688	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-9	0.02722	0.02344	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-11	0.2313	0.2055	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-12	0.1406	0.1084	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-14	0.2755	0.2343	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-15	0.2679	0.1801	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-16D	0.3212	0.2936	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-17	0.06804	0.04823	2	No	10	0	sqrt(x)	0.01	Param.
Barium (mg/L)	GS-AP-MW-18	0.1108	0.04702	2	No	10	0	ln(x)	0.01	Param.
Barium (mg/L)	GS-AP-MW-19	0.4131	0.3153	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-21	0.04933	0.04255	2	No	10	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6S	0.2526	0.1496	2	No	10	0	No	0.01	Param.
Beryllium (mg/L)	GS-AP-MW-2	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6D	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-7	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-9	0.0015	0.000705	0.004	No	10	90	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-11	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-12	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-14	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-15	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-16D	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-17	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-18	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-19	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-21	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6S	0.0015	0.0015	0.004	No	10	100	No	0.011	NP (NDs)
Boron (mg/L)	GS-AP-MW-2	0.147	0.0805	4	No	10	0	No	0.011	NP (normality)
Boron (mg/L)	GS-AP-MW-6D	1.098	0.9994	4	No	10	0	x^2	0.01	Param.
Boron (mg/L)	GS-AP-MW-7	1.491	1.389	4	No	10	0	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-9	0.2113	0.1556	4	No	10	0	sqrt(x)	0.01	Param.
Boron (mg/L)	GS-AP-MW-11	0.05	0.0255	4	No	10	80	No	0.011	NP (NDs)
Boron (mg/L)	GS-AP-MW-12	0.3152	0.1704	4	No	10	0	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-14	0.05	0.05	4	No	10	100	No	0.011	NP (NDs)
Boron (mg/L)	GS-AP-MW-15	0.08365	0.05481	4	No	10	0	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-16D	0.02647	0.02471	4	No	10	0	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-17	0.0859	0.07088	4	No	10	0	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-18	1.759	1.353	4	No	10	0	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-19	0.03562	0.02412	4	No	10	0	No	0.01	Param.



# Confidence Intervals - All Results

Plant William C Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 1/31/2019, 11:44 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GS-AP-MW-21	0.092	0.0723	4	No	10	0	No	0.011	NP (normality)
Boron (mg/L)	GS-AP-MW-6S	1.185	1.015	4	No	10	0	No	0.01	Param.
Cadmium (mg/L)	GS-AP-MW-2	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-6D	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-7	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-9	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-11	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-12	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-14	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-15	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-16D	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-17	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-18	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-19	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-21	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-6S	0.0005	0.0005	0.005	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-2	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-6D	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-7	0.005	0.00216	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-9	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-11	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-12	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-14	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-15	0.005	0.00209	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-16D	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-17	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-18	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-19	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-21	0.005	0.00204	0.1	No	10	70	No	0.011	NP (NDs)
Chromium (mg/L)	GS-AP-MW-6S	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-2	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6D	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-7	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-9	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-11	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-12	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-14	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-15	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-16D	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-17	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-18	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-19	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-21	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6S	0.005	0.00212	0.01	No	10	60	No	0.011	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-2	0.9127	0.07583	5	No	10	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6D	0.8056	0.1834	5	No	10	0	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-7	0.6338	0.006561	5	No	10	0	x^(1/3)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-9	0.8051	-0.07832	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-11	0.5376	0.05118	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12	0.9178	0.35	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-14	1.057	0.2651	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15	0.7795	0.05342	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-16D	0.5248	0.1413	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-17	0.5728	0.1302	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-18	0.8126	0.1531	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-19	1.291	0.296	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21	1.08	0.1914	5	No	10	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6S	1.186	0.2988	5	No	10	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-2	1.557	1.205	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6D	0.1336	0.08209	4	No	11	0	x^2	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-7	0.1094	0.05402	4	No	11	9.091	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-9	0.1348	0.07429	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-11	0.1368	0.09578	4	No	11	0	x^3	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12	0.6525	0.3675	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-14	0.1656	0.123	4	No	11	0	x^4	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15	0.812	0.5399	4	No	11	0	ln(x)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-16D	0.115	0.07102	4	No	11	0	x^2	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-17	0.2606	0.1486	4	No	11	0	No	0.01	Param.

# Confidence Intervals - All Results

Plant William C Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 1/31/2019, 11:44 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	GS-AP-MW-18	0.3832	0.2184	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-19	0.3738	0.2691	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21	0.2746	0.1954	4	No	11	0	x^2	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6S	0.1036	0.05441	4	No	11	0	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-2	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-6D	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-7	0.0025	0.0024	0.015	No	10	80	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-9	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-11	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-12	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-14	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-15	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-16D	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-17	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-18	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-19	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-21	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	GS-AP-MW-6S	0.0025	0.0025	0.015	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	GS-AP-MW-2	0.05646	0.04609	0.05	No	10	0	ln(x)	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.2521</b>	<b>0.2175</b>	<b>0.05</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.1639</b>	<b>0.1373</b>	<b>0.05</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>ln(x)</b>	<b>0.01</b>	<b>Param.</b>
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-9</b>	<b>0.09925</b>	<b>0.08029</b>	<b>0.05</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-11	0.01445	0.01233	0.05	No	10	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-12	0.0489	0.0217	0.05	No	10	0	No	0.011	NP (normality)
Lithium (mg/L)	GS-AP-MW-14	0.04272	0.03164	0.05	No	10	0	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>0.159</b>	<b>0.123</b>	<b>0.05</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.011</b>	<b>NP (normality)</b>
Lithium (mg/L)	GS-AP-MW-16D	0.03738	0.03266	0.05	No	10	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.06128	0.04206	0.05	No	10	0	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-18</b>	<b>0.3125</b>	<b>0.2021</b>	<b>0.05</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-19	0.03906	0.02474	0.05	No	10	0	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>0.175</b>	<b>0.1416</b>	<b>0.05</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-6S	0.025	0.0199	0.05	No	10	80	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-2	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-6D	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-7	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-9	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-11	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-12	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-14	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-15	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-16D	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-17	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-18	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-19	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-21	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Mercury (mg/L)	GS-AP-MW-6S	0.00025	0.00025	0.002	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-2	0.00547	0.00359	0.1	No	10	40	No	0.011	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-6D	0.005673	0.004495	0.1	No	10	0	No	0.01	Param.
<b>Molybdenum (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.1655</b>	<b>0.1417</b>	<b>0.1</b>	<b>Yes</b>	<b>10</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GS-AP-MW-9	0.007332	0.005212	0.1	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-11	0.005	0.00217	0.1	No	10	90	No	0.011	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-12	0.00762	0.00235	0.1	No	10	50	No	0.011	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-14	0.005	0.00212	0.1	No	10	80	No	0.011	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-15	0.0683	0.0327	0.1	No	10	0	No	0.011	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-16D	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-17	0.01229	0.005817	0.1	No	10	0	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-18	0.05006	0.03578	0.1	No	10	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-19	0.01242	0.005742	0.1	No	10	0	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21	0.06572	0.03384	0.1	No	10	0	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6S	0.00526	0.00202	0.1	No	10	60	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-2	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-6D	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-7	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-9	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-11	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-12	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-14	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-15	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)

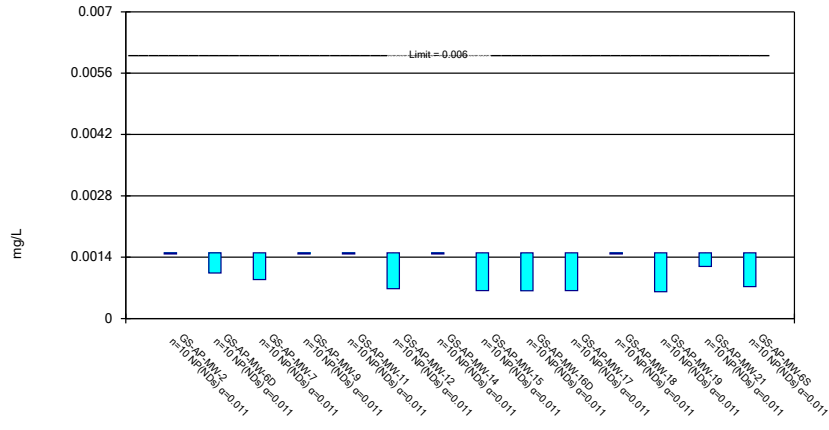
# Confidence Intervals - All Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/31/2019, 11:44 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Selenium (mg/L)	GS-AP-MW-16D	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-17	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-18	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-19	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-21	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	GS-AP-MW-6S	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-2	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-6D	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-7	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-9	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-11	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-12	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-14	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-15	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-16D	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-17	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-18	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-19	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-21	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)
Thallium (mg/L)	GS-AP-MW-6S	0.0005	0.0005	0.002	No	10	100	No	0.011	NP (NDs)

### Non-Parametric Confidence Interval

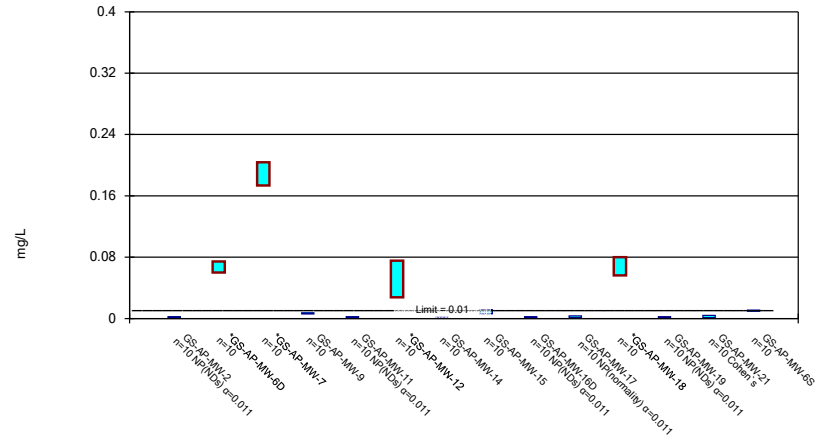
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 1/31/2019 11:42 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

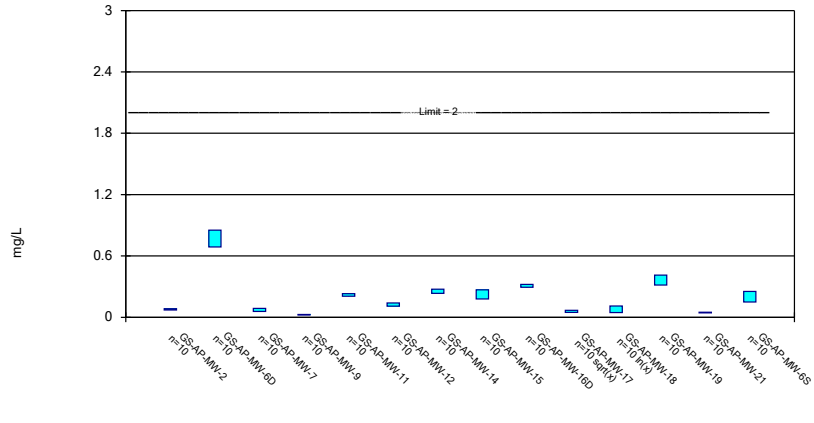
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/31/2019 11:42 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

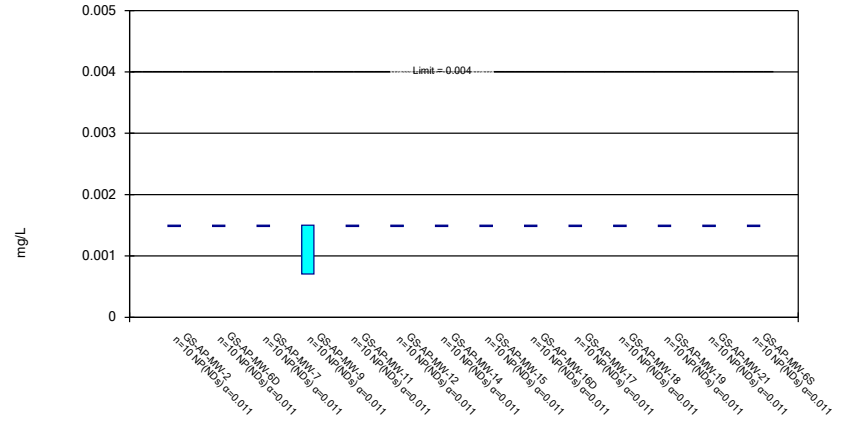
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Barium Analysis Run 1/31/2019 11:42 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

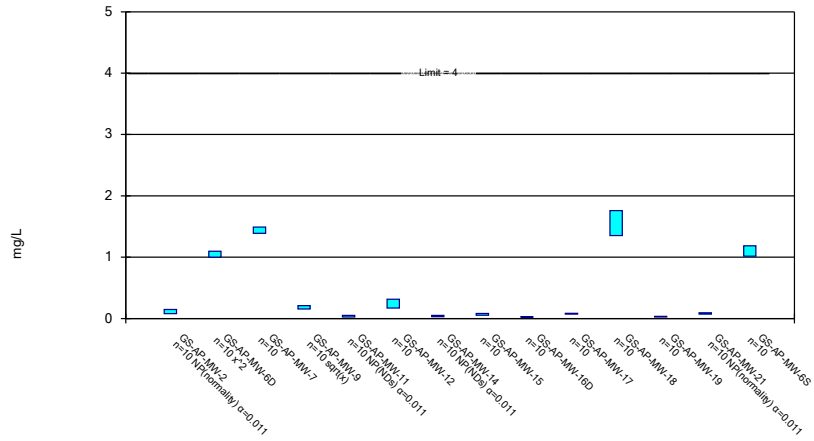
Compliance Limit is not exceeded.



Constituent: Beryllium Analysis Run 1/31/2019 11:42 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

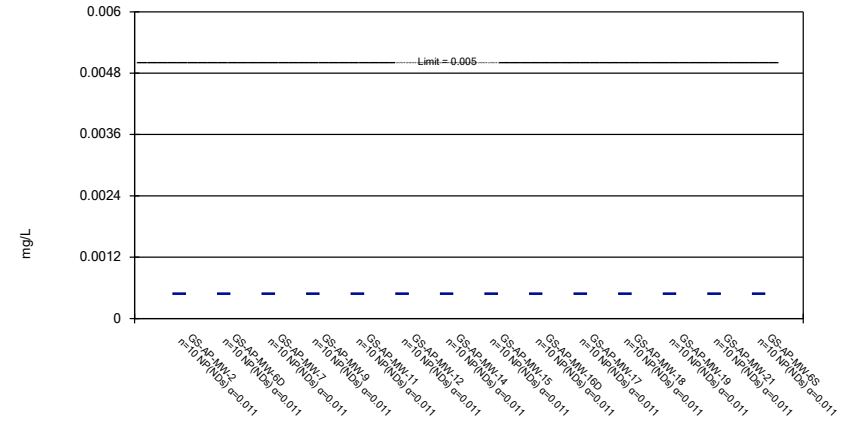
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Boron Analysis Run 1/31/2019 11:42 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

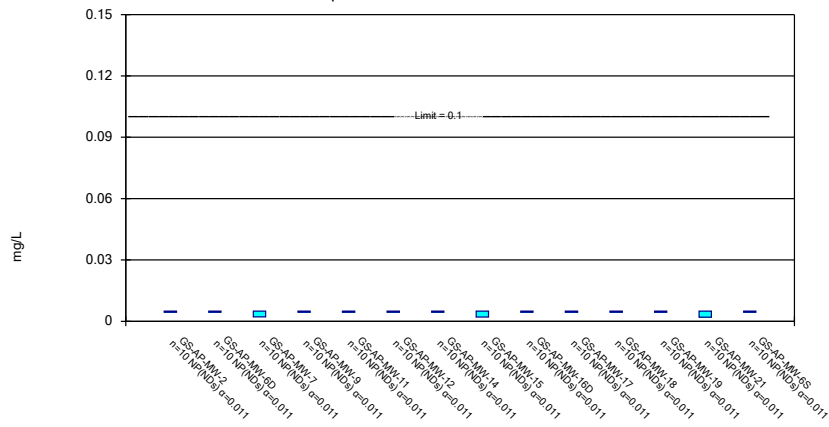
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

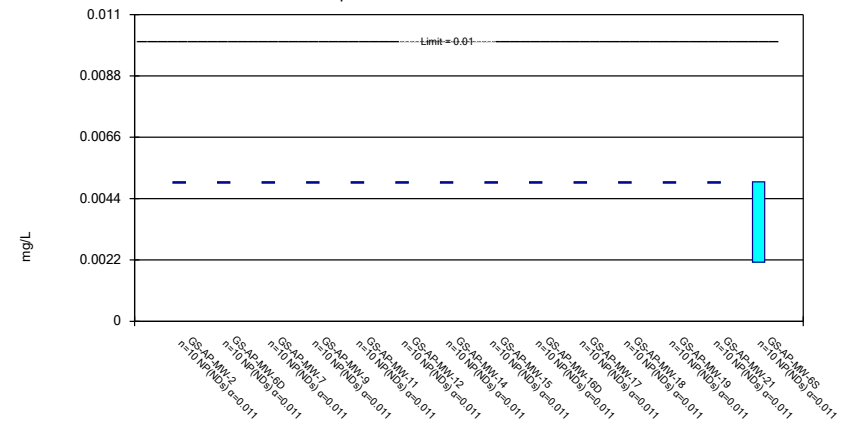
Compliance Limit is not exceeded.



Constituent: Chromium Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

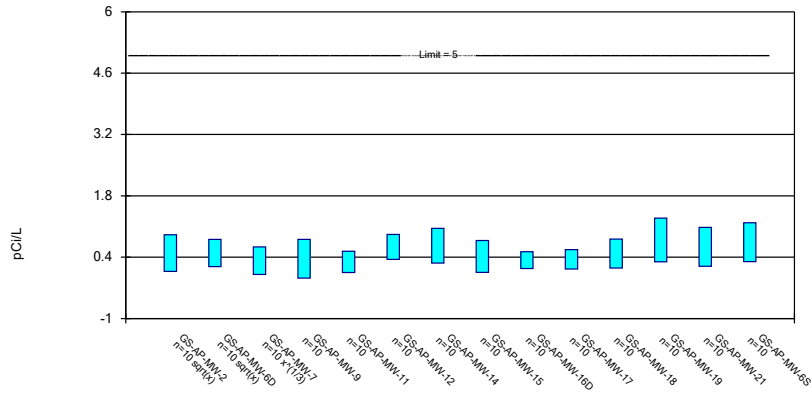
Compliance Limit is not exceeded.



Constituent: Cobalt Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

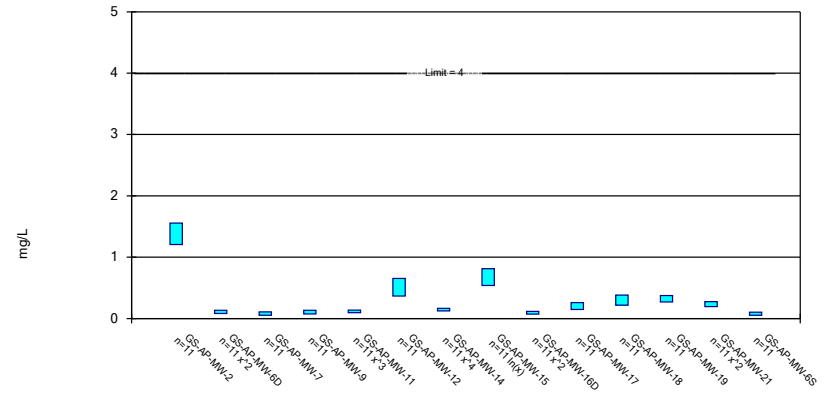
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

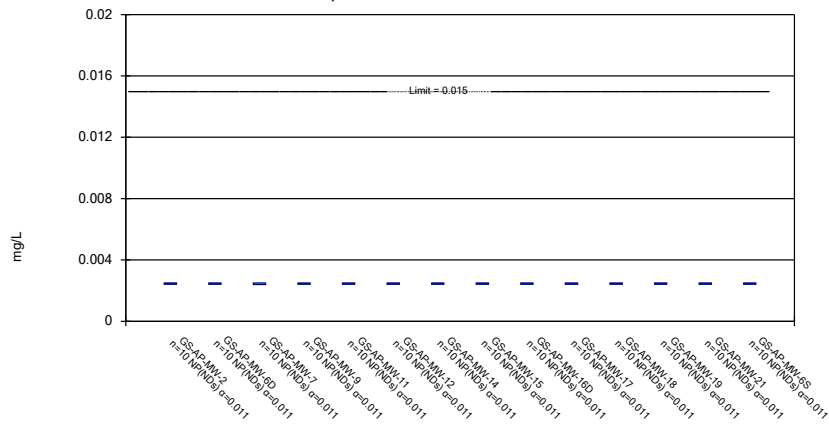
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

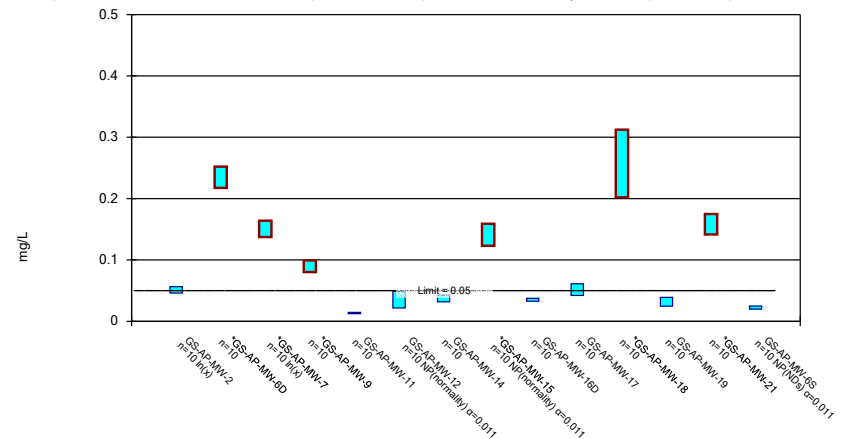
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

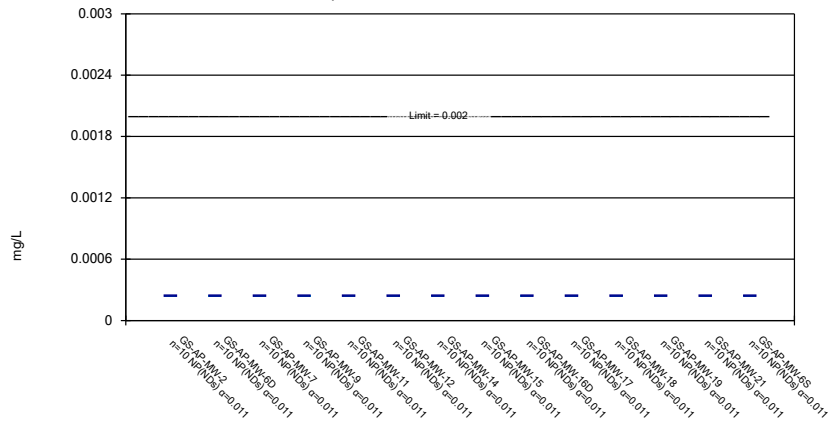
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

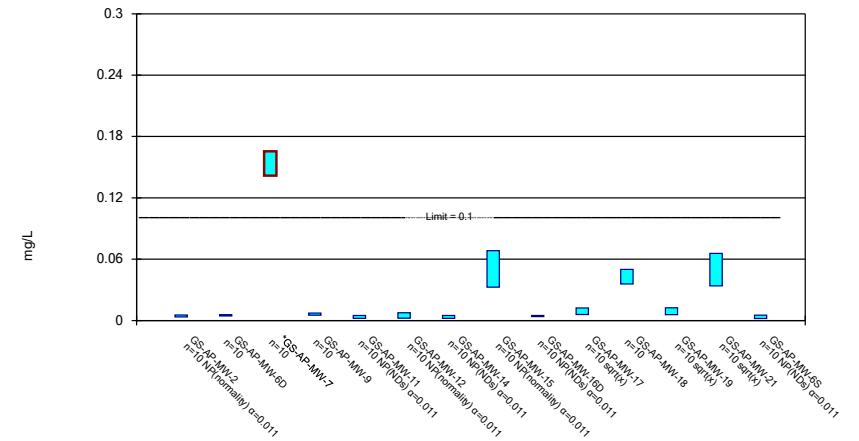
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

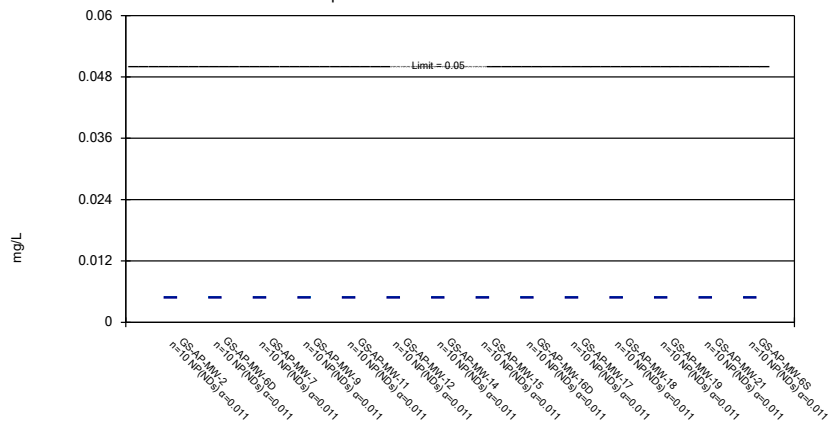
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

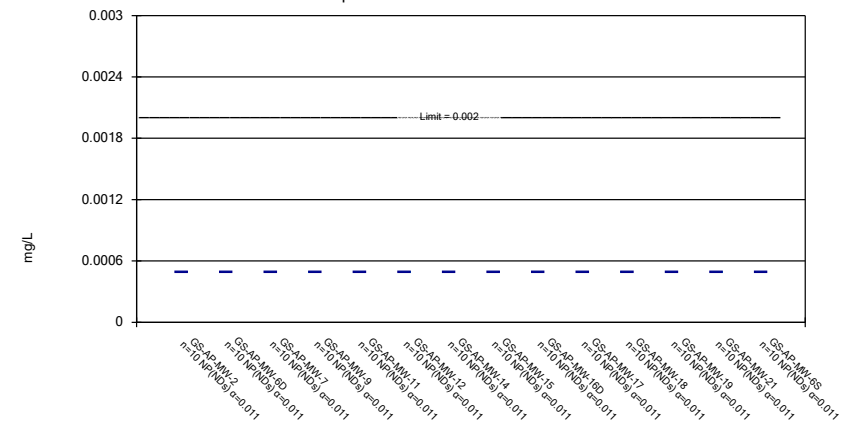
Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 1/31/2019 11:43 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# 2<sup>nd</sup> Semi-Annual



# Interwell Prediction Limit Summary Table - Significant Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 12/20/2018, 6:08 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDsND Adj.	Transform	Alpha	Method
Boron (mg/L)	GS-AP-MW-2	0.1	n/a	10/16/2018	0.169	Yes	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6D	0.1	n/a	10/15/2018	1.06	Yes	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-7	0.1	n/a	10/15/2018	1.53	Yes	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-18	0.1	n/a	10/16/2018	2.12	Yes	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-6S	0.1	n/a	10/15/2018	1.05	Yes	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Calcium (mg/L)	GS-AP-MW-6D	48.1	n/a	10/15/2018	53.9	Yes	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-9	48.1	n/a	10/16/2018	71.2	Yes	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-18	48.1	n/a	10/16/2018	203	Yes	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-6S	48.1	n/a	10/15/2018	68.9	Yes	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Chloride (mg/L)	GS-AP-MW-2	3.961	n/a	10/16/2018	20	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	3.961	n/a	10/15/2018	7	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	3.961	n/a	10/15/2018	5.1	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-11	3.961	n/a	10/16/2018	8.1	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-14	3.961	n/a	10/17/2018	6.9	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-15	3.961	n/a	10/15/2018	6.6	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	3.961	n/a	10/15/2018	10	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-18	3.961	n/a	10/16/2018	35	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	3.961	n/a	10/16/2018	6.2	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	3.961	n/a	10/16/2018	31	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6S	3.961	n/a	10/15/2018	20	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.2214	n/a	10/16/2018	1	Yes	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-12	0.2214	n/a	10/16/2018	0.23	Yes	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-15	0.2214	n/a	10/15/2018	0.77	Yes	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-17	0.2214	n/a	10/15/2018	0.23	Yes	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-18	0.2214	n/a	10/16/2018	0.64	Yes	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-19	0.2214	n/a	10/16/2018	0.37	Yes	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-21	0.2214	n/a	10/16/2018	0.25	Yes	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
pH (SU)	GS-AP-MW-2	6.85	5.67	10/16/2018	9.35	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6D	6.85	5.67	10/15/2018	7.33	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-7	6.85	5.67	10/15/2018	7.62	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-11	6.85	5.67	10/16/2018	7.01	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-12	6.85	5.67	10/16/2018	7.51	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-14	6.85	5.67	10/17/2018	7.1	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15	6.85	5.67	10/15/2018	11.51	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-16D	6.85	5.67	10/17/2018	7.41	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	6.85	5.67	10/15/2018	8.37	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-18	6.85	5.67	10/16/2018	7.06	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-19	6.85	5.67	10/16/2018	8.22	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	6.85	5.67	10/16/2018	11.34	Yes	24	n/a	n/a	0 n/a	n/a	0.005391	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	12	n/a	10/16/2018	90	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	12	n/a	10/15/2018	37	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	12	n/a	10/15/2018	130	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-9	12	n/a	10/16/2018	120	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-11	12	n/a	10/16/2018	22	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	12	n/a	10/16/2018	13	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-14	12	n/a	10/17/2018	13	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-15	12	n/a	10/15/2018	14	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-16D	12	n/a	10/17/2018	13	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-17	12	n/a	10/15/2018	34	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-18	12	n/a	10/16/2018	520	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	12	n/a	10/16/2018	160	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6S	12	n/a	10/15/2018	170	Yes	22	n/a	n/a	4.545 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-2	226	n/a	10/16/2018	430	Yes	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6D	226	n/a	10/15/2018	309	Yes	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-7	226	n/a	10/15/2018	333	Yes	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2

# Interwell Prediction Limit Summary Table - Significant Results

Plant William C Gorgas   Client: Southern Company   Data: Gorgas Ash Pond   Printed 12/20/2018, 6:08 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bq N</u>	<u>Bq Mean</u>	<u>Std. Dev.</u>	<u>%NDsND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
TDS (mg/L)	GS-AP-MW-9	226	n/a	10/16/2018	417	Yes	22	n/a	n/a	0	n/a	0.003131	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-11	226	n/a	10/16/2018	242	Yes	22	n/a	n/a	0	n/a	0.003131	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	226	n/a	10/15/2018	448	Yes	22	n/a	n/a	0	n/a	0.003131	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	226	n/a	10/15/2018	462	Yes	22	n/a	n/a	0	n/a	0.003131	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-18	226	n/a	10/16/2018	1030	Yes	22	n/a	n/a	0	n/a	0.003131	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-19	226	n/a	10/16/2018	303	Yes	22	n/a	n/a	0	n/a	0.003131	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	226	n/a	10/16/2018	520	Yes	22	n/a	n/a	0	n/a	0.003131	NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6S	226	n/a	10/15/2018	404	Yes	22	n/a	n/a	0	n/a	0.003131	NP Inter (normality) 1 of 2

# Interwell Prediction Limit Summary Table - All Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 12/20/2018, 6:08 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq N	Bq Mean	Std. Dev.	%NDsND Adj.	Transform	Alpha	Method
<b>Boron (mg/L)</b>	GS-AP-MW-2	0.1	n/a	10/16/2018	0.169	Yes	22	n/a	n/a	95.45 n/a	n/a	0.003131	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	GS-AP-MW-6D	0.1	n/a	10/15/2018	1.06	Yes	22	n/a	n/a	95.45 n/a	n/a	0.003131	<b>NP Inter (NDs) 1 of 2</b>
<b>Boron (mg/L)</b>	GS-AP-MW-7	0.1	n/a	10/15/2018	1.53	Yes	22	n/a	n/a	95.45 n/a	n/a	0.003131	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	GS-AP-MW-9	0.1	n/a	10/16/2018	0.1ND	No	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-11	0.1	n/a	10/16/2018	0.1ND	No	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-12	0.1	n/a	10/16/2018	0.1ND	No	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-14	0.1	n/a	10/17/2018	0.1ND	No	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-15	0.1	n/a	10/15/2018	0.1ND	No	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-16D	0.1	n/a	10/17/2018	0.1ND	No	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-17	0.1	n/a	10/15/2018	0.1ND	No	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>GS-AP-MW-18</b>	<b>0.1</b>	<b>n/a</b>	<b>10/16/2018</b>	<b>2.12</b>	<b>Yes</b>	<b>22</b>	<b>n/a</b>	<b>n/a</b>	<b>95.45 n/a</b>	<b>n/a</b>	<b>0.003131</b>	<b>NP Inter (NDs) 1 of 2</b>
Boron (mg/L)	GS-AP-MW-19	0.1	n/a	10/16/2018	0.1ND	No	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
Boron (mg/L)	GS-AP-MW-21	0.1	n/a	10/16/2018	0.1ND	No	22	n/a	n/a	95.45 n/a	n/a	0.003131	NP Inter (NDs) 1 of 2
<b>Boron (mg/L)</b>	<b>GS-AP-MW-6S</b>	<b>0.1</b>	<b>n/a</b>	<b>10/15/2018</b>	<b>1.05</b>	<b>Yes</b>	<b>22</b>	<b>n/a</b>	<b>n/a</b>	<b>95.45 n/a</b>	<b>n/a</b>	<b>0.003131</b>	<b>NP Inter (NDs) 1 of 2</b>
Calcium (mg/L)	GS-AP-MW-2	48.1	n/a	10/16/2018	0.714	No	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>48.1</b>	<b>n/a</b>	<b>10/15/2018</b>	<b>53.9</b>	<b>Yes</b>	<b>22</b>	<b>n/a</b>	<b>n/a</b>	<b>0 n/a</b>	<b>n/a</b>	<b>0.003131</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GS-AP-MW-7	48.1	n/a	10/15/2018	12.5	No	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-9</b>	<b>48.1</b>	<b>n/a</b>	<b>10/16/2018</b>	<b>71.2</b>	<b>Yes</b>	<b>22</b>	<b>n/a</b>	<b>n/a</b>	<b>0 n/a</b>	<b>n/a</b>	<b>0.003131</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GS-AP-MW-11	48.1	n/a	10/16/2018	47.7	No	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-12	48.1	n/a	10/16/2018	35.6	No	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-14	48.1	n/a	10/17/2018	39.3	No	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-15	48.1	n/a	10/15/2018	6.28	No	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-16D	48.1	n/a	10/17/2018	32	No	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-17	48.1	n/a	10/15/2018	3.38	No	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-18</b>	<b>48.1</b>	<b>n/a</b>	<b>10/16/2018</b>	<b>203</b>	<b>Yes</b>	<b>22</b>	<b>n/a</b>	<b>n/a</b>	<b>0 n/a</b>	<b>n/a</b>	<b>0.003131</b>	<b>NP Inter (normality) 1 of 2</b>
Calcium (mg/L)	GS-AP-MW-19	48.1	n/a	10/16/2018	40.9	No	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
Calcium (mg/L)	GS-AP-MW-21	48.1	n/a	10/16/2018	4.4	No	22	n/a	n/a	0 n/a	n/a	0.003131	NP Inter (normality) 1 of 2
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-6S</b>	<b>48.1</b>	<b>n/a</b>	<b>10/15/2018</b>	<b>68.9</b>	<b>Yes</b>	<b>22</b>	<b>n/a</b>	<b>n/a</b>	<b>0 n/a</b>	<b>n/a</b>	<b>0.003131</b>	<b>NP Inter (normality) 1 of 2</b>
Chloride (mg/L)	GS-AP-MW-2	3.961	n/a	10/16/2018	20	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6D	3.961	n/a	10/15/2018	7	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-7	3.961	n/a	10/15/2018	5.1	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-9	3.961	n/a	10/16/2018	2.3	No	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-11	3.961	n/a	10/16/2018	8.1	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-12	3.961	n/a	10/16/2018	3.1	No	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-14	3.961	n/a	10/17/2018	6.9	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-15	3.961	n/a	10/15/2018	6.6	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-16D	3.961	n/a	10/17/2018	2.2	No	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-17	3.961	n/a	10/15/2018	10	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-18	3.961	n/a	10/16/2018	35	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-19	3.961	n/a	10/16/2018	6.2	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-21	3.961	n/a	10/16/2018	31	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Chloride (mg/L)	GS-AP-MW-6S	3.961	n/a	10/15/2018	20	Yes	22	3.185	0.3332	0 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-2	0.2214	n/a	10/16/2018	1	Yes	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-6D	0.2214	n/a	10/15/2018	0.16	No	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-7	0.2214	n/a	10/15/2018	0.11	No	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-9	0.2214	n/a	10/16/2018	0.15	No	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
Fluoride (mg/L)	GS-AP-MW-11	0.2214	n/a	10/16/2018	0.16	No	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-12</b>	<b>0.2214</b>	<b>n/a</b>	<b>10/16/2018</b>	<b>0.23</b>	<b>Yes</b>	<b>24</b>	<b>0.1119</b>	<b>0.04774</b>	<b>4.167 None</b>	<b>No</b>	<b>0.0005374</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GS-AP-MW-14	0.2214	n/a	10/17/2018	0.18	No	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>0.2214</b>	<b>n/a</b>	<b>10/15/2018</b>	<b>0.77</b>	<b>Yes</b>	<b>24</b>	<b>0.1119</b>	<b>0.04774</b>	<b>4.167 None</b>	<b>No</b>	<b>0.0005374</b>	<b>Param Inter 1 of 2</b>
Fluoride (mg/L)	GS-AP-MW-16D	0.2214	n/a	10/17/2018	0.13	No	24	0.1119	0.04774	4.167 None	No	0.0005374	Param Inter 1 of 2
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-17</b>	<b>0.2214</b>	<b>n/a</b>	<b>10/15/2018</b>	<b>0.23</b>	<b>Yes</b>	<b>24</b>	<b>0.1119</b>	<b>0.04774</b>	<b>4.167 None</b>	<b>No</b>	<b>0.0005374</b>	<b>Param Inter 1 of 2</b>
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-18</b>	<b>0.2214</b>	<b>n/a</b>	<b>10/16/2018</b>	<b>0.64</b>	<b>Yes</b>	<b>24</b>	<b>0.1119</b>	<b>0.04774</b>	<b>4.167 None</b>	<b>No</b>	<b>0.0005374</b>	<b>Param Inter 1 of 2</b>
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-19</b>	<b>0.2214</b>	<b>n/a</b>	<b>10/16/2018</b>	<b>0.37</b>	<b>Yes</b>	<b>24</b>	<b>0.1119</b>	<b>0.04774</b>	<b>4.167 None</b>	<b>No</b>	<b>0.0005374</b>	<b>Param Inter 1 of 2</b>
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>0.2214</b>	<b>n/a</b>	<b>10/16/2018</b>	<b>0.25</b>	<b>Yes</b>	<b>24</b>	<b>0.1119</b>	<b>0.04774</b>	<b>4.167 None</b>	<b>No</b>	<b>0.0005374</b>	<b>Param Inter 1 of 2</b>

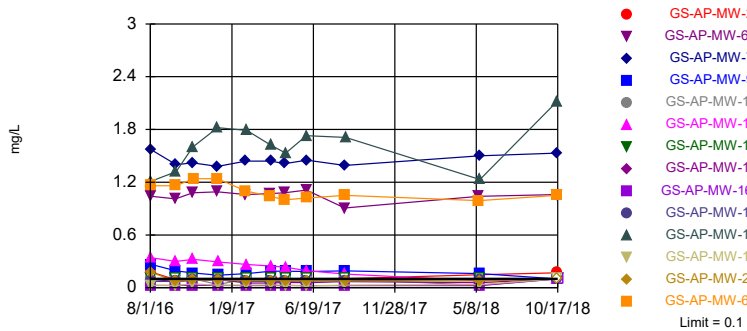
# Interwell Prediction Limit Summary Table - All Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 12/20/2018, 6:08 AM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDsND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	GS-AP-MW-6S	0.2214	n/a	10/15/2018	0.14	No	24	0.1119	0.04774	4.167	None	No	0.0005374 Param Inter 1 of 2
pH (SU)	GS-AP-MW-2	6.85	5.67	10/16/2018	9.35	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6D	6.85	5.67	10/15/2018	7.33	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-7	6.85	5.67	10/15/2018	7.62	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-9	6.85	5.67	10/16/2018	6.72	No	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-11	6.85	5.67	10/16/2018	7.01	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-12	6.85	5.67	10/16/2018	7.51	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-14	6.85	5.67	10/17/2018	7.1	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-15	6.85	5.67	10/15/2018	11.51	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-16D	6.85	5.67	10/17/2018	7.41	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-17	6.85	5.67	10/15/2018	8.37	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-18	6.85	5.67	10/16/2018	7.06	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-19	6.85	5.67	10/16/2018	8.22	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-21	6.85	5.67	10/16/2018	11.34	Yes	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
pH (SU)	GS-AP-MW-6S	6.85	5.67	10/15/2018	6.78	No	24	n/a	n/a	0	n/a	n/a	0.005391 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-2	12	n/a	10/16/2018	90	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6D	12	n/a	10/15/2018	37	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-7	12	n/a	10/15/2018	130	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-9	12	n/a	10/16/2018	120	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-11	12	n/a	10/16/2018	22	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-12	12	n/a	10/16/2018	13	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-14	12	n/a	10/17/2018	13	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-15	12	n/a	10/15/2018	14	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-16D	12	n/a	10/17/2018	13	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-17	12	n/a	10/15/2018	34	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-18	12	n/a	10/16/2018	520	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-19	12	n/a	10/16/2018	5.6	No	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-21	12	n/a	10/16/2018	160	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
Sulfate (mg/L)	GS-AP-MW-6S	12	n/a	10/15/2018	170	Yes	22	n/a	n/a	4.545	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-2	226	n/a	10/16/2018	430	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6D	226	n/a	10/15/2018	309	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-7	226	n/a	10/15/2018	333	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-9	226	n/a	10/16/2018	417	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-11	226	n/a	10/16/2018	242	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-12	226	n/a	10/16/2018	211	No	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-14	226	n/a	10/17/2018	199	No	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-15	226	n/a	10/15/2018	448	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-16D	226	n/a	10/17/2018	191	No	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-17	226	n/a	10/15/2018	462	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-18	226	n/a	10/16/2018	1030	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-19	226	n/a	10/16/2018	303	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-21	226	n/a	10/16/2018	520	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2
TDS (mg/L)	GS-AP-MW-6S	226	n/a	10/15/2018	404	Yes	22	n/a	n/a	0	n/a	n/a	0.003131 NP Inter (normality) 1 of 2

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-18, GS-AP-

Prediction Limit  
Interwell Non-parametric

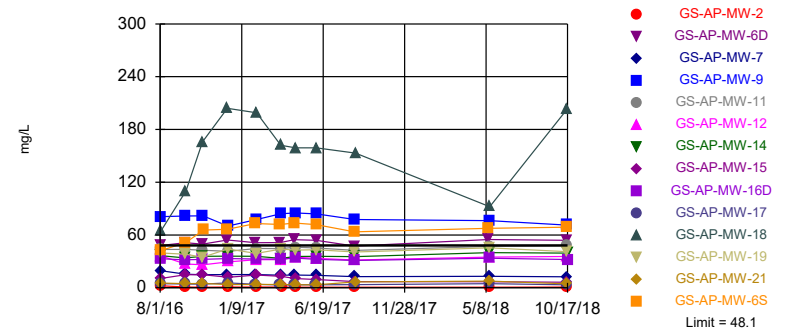


Non-parametric test used in lieu of parametric prediction limit because censored data exceeded 50%. Limit is highest of 22 background values. 95.45% NDs. Annual per-constituent alpha = 0.08406. Individual comparison alpha = 0.003131 (1 of 2). Comparing 14 points to limit.

Constituent: Boron Analysis Run 12/20/2018 5:47 AM View: PLs - Interwell  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-6D, GS-AP-MW-9, GS-AP-MW-18, GS-AP-MW-6S

Prediction Limit  
Interwell Non-parametric

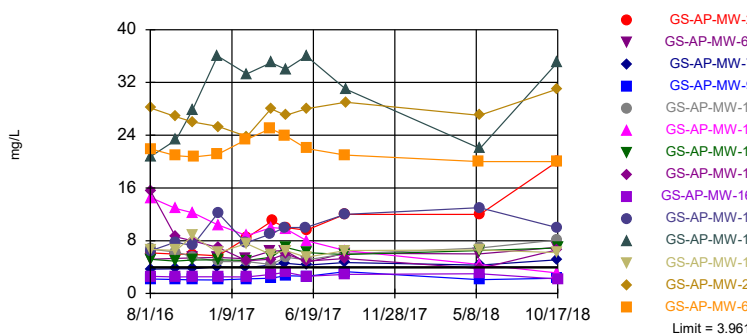


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 22 background values. Annual per-constituent alpha = 0.08406. Individual comparison alpha = 0.003131 (1 of 2). Comparing 14 points to limit.

Constituent: Calcium Analysis Run 12/20/2018 5:47 AM View: PLs - Interwell  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-11, GS-AP-

Prediction Limit  
Interwell Parametric

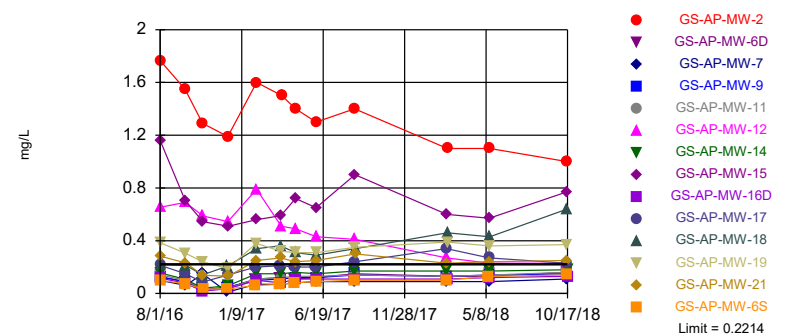


Background Data Summary: Mean=3.185, Std. Dev.=0.3332, n=22. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9524, critical = 0.878. Kappa = 2.329 (c=7, w=14, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005374. Comparing 14 points to limit.

Constituent: Chloride Analysis Run 12/20/2018 5:47 AM View: PLs - Interwell  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-12, GS-AP-MW-15, GS-AP-MW-17...

Prediction Limit  
Interwell Parametric

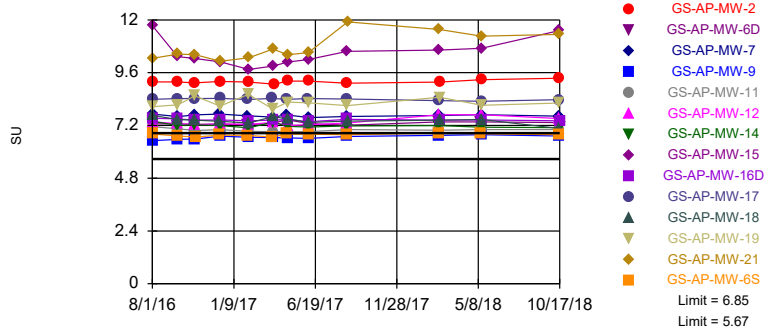


Background Data Summary: Mean=0.1119, Std. Dev.=0.04774, n=24, 4.167% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9485, critical = 0.884. Kappa = 2.294 (c=7, w=14, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0005374. Comparing 14 points to limit.

Constituent: Fluoride Analysis Run 12/20/2018 5:47 AM View: PLs - Interwell  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-11...

### Prediction Limit Interwell Non-parametric

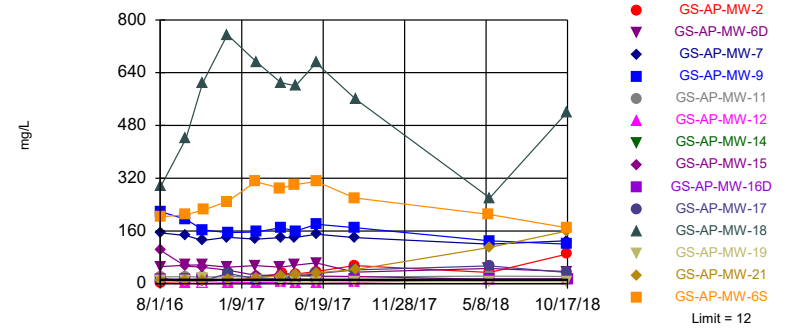


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 24 background values. Annual per-constituent alpha = 0.1456. Individual comparison alpha = 0.005391 (1 of 2). Comparing 14 points to limit.

Constituent: pH Analysis Run 12/20/2018 5:47 AM View: PLs - Interwell  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-9, GS-AP-M...

### Prediction Limit Interwell Non-parametric

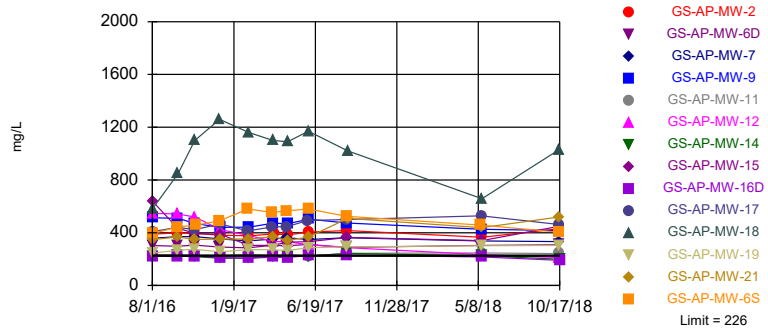


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 22 background values. 4.545% NDs. Annual per-constituent alpha = 0.08406. Individual comparison alpha = 0.003131 (1 of 2). Comparing 14 points to limit.

Constituent: Sulfate Analysis Run 12/20/2018 5:47 AM View: PLs - Interwell  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Exceeds Limit: GS-AP-MW-2, GS-AP-MW-6D, GS-AP-MW-7, GS-AP-MW-9, GS-AP-M...

### 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 22 background values. Annual per-constituent alpha = 0.08406. Individual comparison alpha = 0.003131 (1 of 2). Comparing 14 points to limit.

Constituent: TDS Analysis Run 12/20/2018 5:47 AM View: PLs - Interwell  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Trend Test Summary Table - Significant Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 12/20/2018, 6:31 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	GS-AP-MW-8 (Bg)	-3.842	-37	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-2	6.239	36	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-7	0.6834	44	34	Yes	11	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-2	-0.2959	-40	-38	Yes	12	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-12	-0.2398	-55	-38	Yes	12	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-18	0.1741	41	38	Yes	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-2	42.81	38	34	Yes	11	18.18	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-15	-32.66	-47	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-17	21.27	37	34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-21	45.28	49	34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-8 (Bg)	-24.8	-35	-34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-17	52.14	35	34	Yes	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-19	26.27	37	34	Yes	11	0	n/a	n/a	0.01	NP

# Trend Test Summary Table - All Results

Plant William C Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 12/20/2018, 6:31 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	GS-AP-MW-8 (Bg)	0	10	34	No	11	90.91	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-13 (Bg)	0	0	34	No	11	100	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-2	-0.01054	-3	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6D	0	2	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-7	0.04845	12	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-18	0.2629	15	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	GS-AP-MW-6S	-0.1032	-28	-34	No	11	0	n/a	n/a	0.01	NP
<b>Calcium (mg/L)</b>	<b>GS-AP-MW-8 (Bg)</b>	<b>-3.842</b>	<b>-37</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Calcium (mg/L)	GS-AP-MW-13 (Bg)	-2.215	-21	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6D	2.186	21	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-9	-2.583	-8	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-18	0	0	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	GS-AP-MW-6S	8.605	19	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-8 (Bg)	0.2126	25	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-13 (Bg)	0.1576	7	34	No	11	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>6.239</b>	<b>36</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GS-AP-MW-6D	0.81	25	34	No	11	0	n/a	n/a	0.01	NP
<b>Chloride (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.6834</b>	<b>44</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Chloride (mg/L)	GS-AP-MW-11	0.5699	8	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-14	0.9631	33	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-15	-2.91	-31	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-17	3.527	32	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-18	3.734	15	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-19	-0.2315	-16	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-21	1.742	17	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	GS-AP-MW-6S	-0.5466	-10	-34	No	11	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-8 (Bg)	-0.01243	-9	-38	No	12	8.333	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-13 (Bg)	0.03137	36	38	No	12	0	n/a	n/a	0.01	NP
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>-0.2959</b>	<b>-40</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-12</b>	<b>-0.2398</b>	<b>-55</b>	<b>-38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	GS-AP-MW-15	0.03366	8	38	No	12	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-17	0.07247	33	38	No	12	0	n/a	n/a	0.01	NP
<b>Fluoride (mg/L)</b>	<b>GS-AP-MW-18</b>	<b>0.1741</b>	<b>41</b>	<b>38</b>	<b>Yes</b>	<b>12</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Fluoride (mg/L)	GS-AP-MW-19	0.0327	19	38	No	12	0	n/a	n/a	0.01	NP
Fluoride (mg/L)	GS-AP-MW-21	0.006125	6	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-8 (Bg)	-0.08992	-27	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-13 (Bg)	-0.04276	-22	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-2	0.05621	19	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-6D	0.03843	19	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-7	-0.02652	-10	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-11	-0.02476	-11	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-12	0.1117	17	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-14	-0.06353	-33	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-15	0.3251	16	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-16D	-0.03541	-21	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-17	-0.02939	-25	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-18	-0.1248	-20	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-19	0.03382	6	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	GS-AP-MW-21	0.6265	37	38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-8 (Bg)	-0.7335	-29	-34	No	11	9.091	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-13 (Bg)	0	0	34	No	11	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-2</b>	<b>42.81</b>	<b>38</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>18.18</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GS-AP-MW-6D	-6.073	-17	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-7	-6.772	-22	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-9	-27.24	-24	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-11	0.9619	21	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-12	2.607	17	34	No	11	9.091	n/a	n/a	0.01	NP
Sulfate (mg/L)	GS-AP-MW-14	1.685	27	34	No	11	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>-32.66</b>	<b>-47</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GS-AP-MW-16D	0	-1	-34	No	11	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-17</b>	<b>21.27</b>	<b>37</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GS-AP-MW-18	-34.84	-7	-34	No	11	0	n/a	n/a	0.01	NP
<b>Sulfate (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>45.28</b>	<b>49</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
Sulfate (mg/L)	GS-AP-MW-6S	43.95	9	34	No	11	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>GS-AP-MW-8 (Bg)</b>	<b>-24.8</b>	<b>-35</b>	<b>-34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	GS-AP-MW-13 (Bg)	-5.794	-18	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-2	14.6	9	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-6D	3.037	9	34	No	11	0	n/a	n/a	0.01	NP

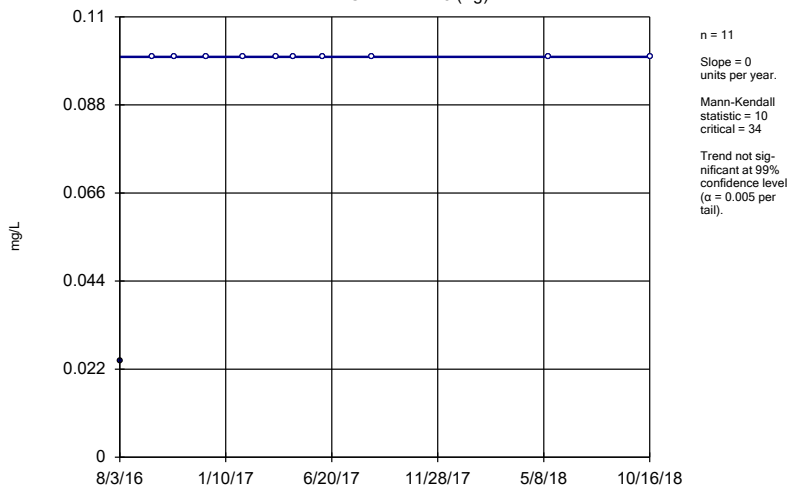


# Trend Test Summary Table - All Results

Plant William C Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 12/20/2018, 6:31 AM

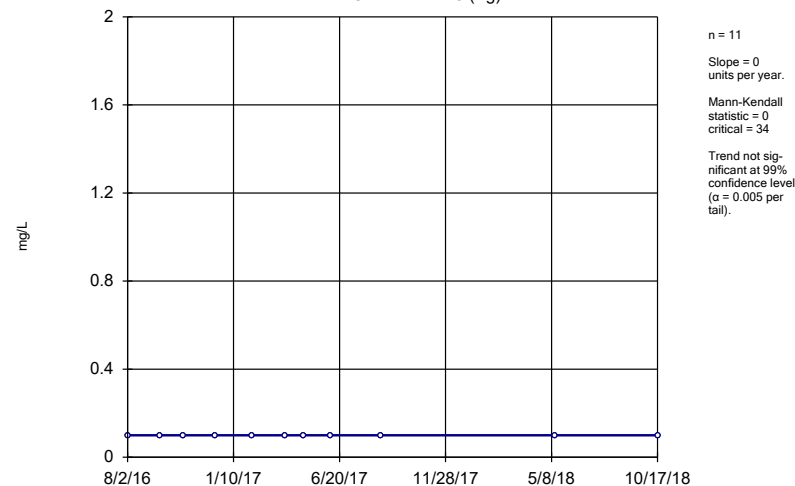
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
TDS (mg/L)	GS-AP-MW-7	-11.35	-26	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-9	-35.41	-23	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-11	4.834	13	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-15	-36.38	-9	-34	No	11	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>GS-AP-MW-17</b>	<b>52.14</b>	<b>35</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	GS-AP-MW-18	-19.84	-2	-34	No	11	0	n/a	n/a	0.01	NP
<b>TDS (mg/L)</b>	<b>GS-AP-MW-19</b>	<b>26.27</b>	<b>37</b>	<b>34</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>n/a</b>	<b>n/a</b>	<b>0.01</b>	<b>NP</b>
TDS (mg/L)	GS-AP-MW-21	52.14	29	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	GS-AP-MW-6S	83.01	12	34	No	11	0	n/a	n/a	0.01	NP

### Sen's Slope Estimator GS-AP-MW-8 (Bg)



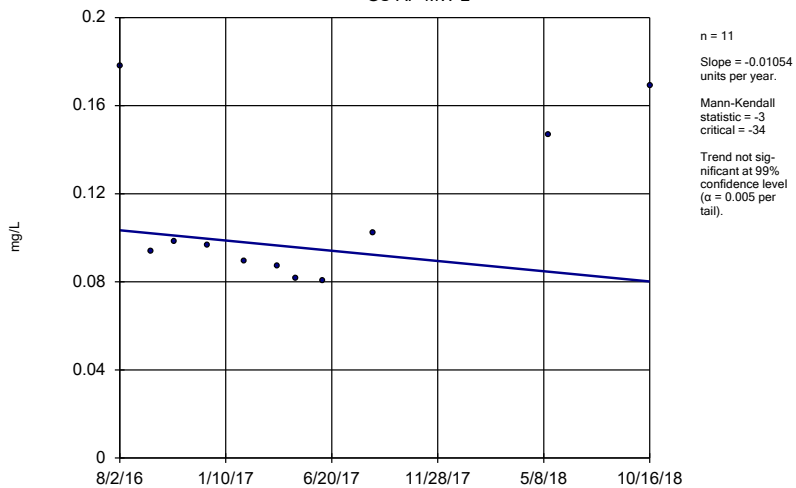
Constituent: Boron Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator GS-AP-MW-13 (Bg)



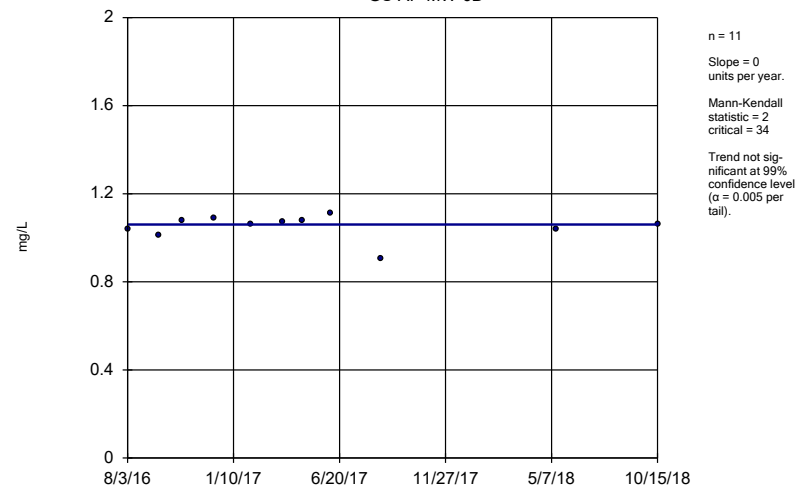
Constituent: Boron Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator GS-AP-MW-2



Constituent: Boron Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

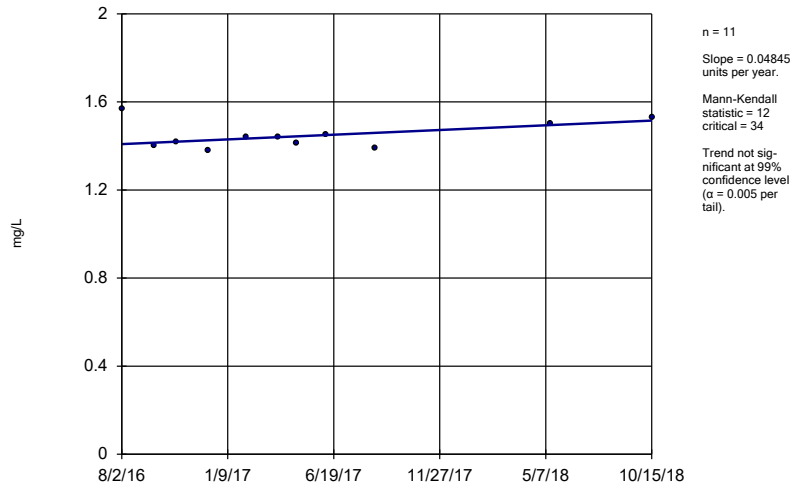
### Sen's Slope Estimator GS-AP-MW-6D



Constituent: Boron Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

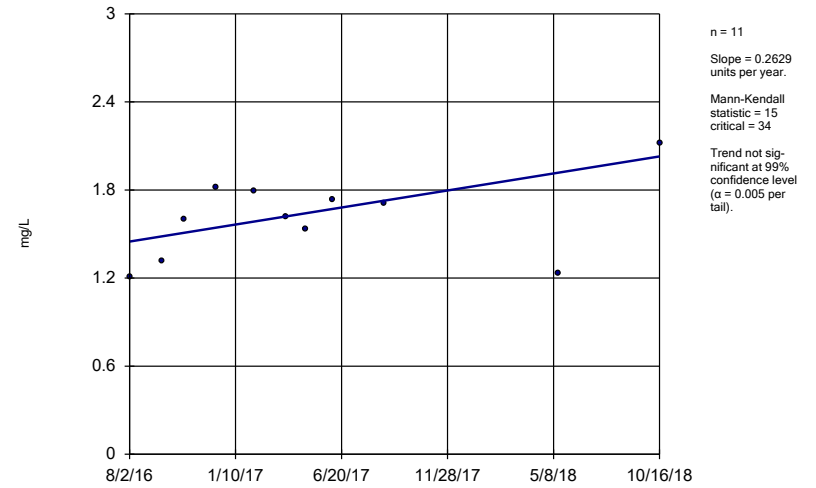
GS-AP-MW-7



Constituent: Boron Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

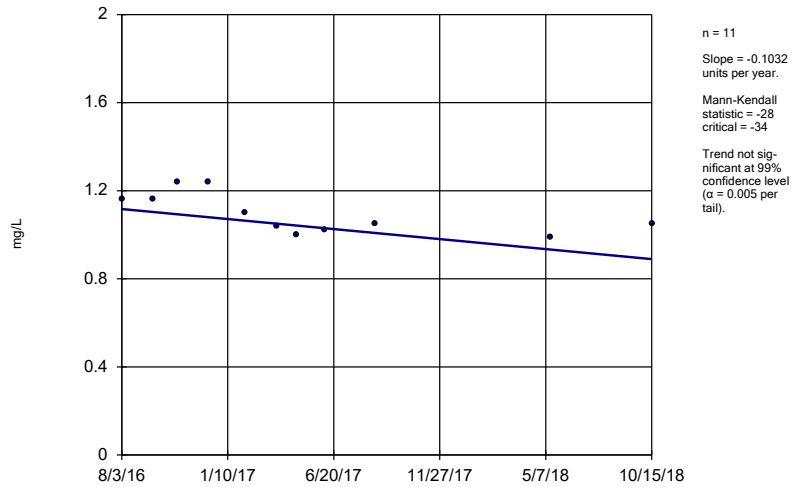
GS-AP-MW-18



Constituent: Boron Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

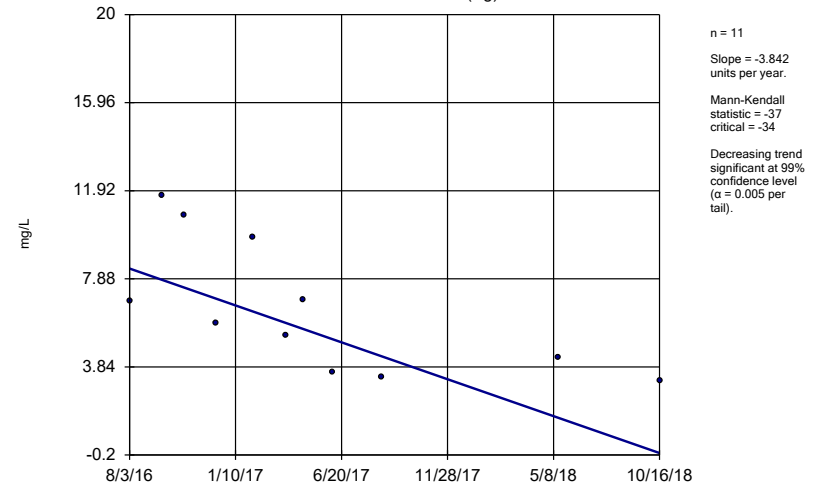
GS-AP-MW-6S



Constituent: Boron Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

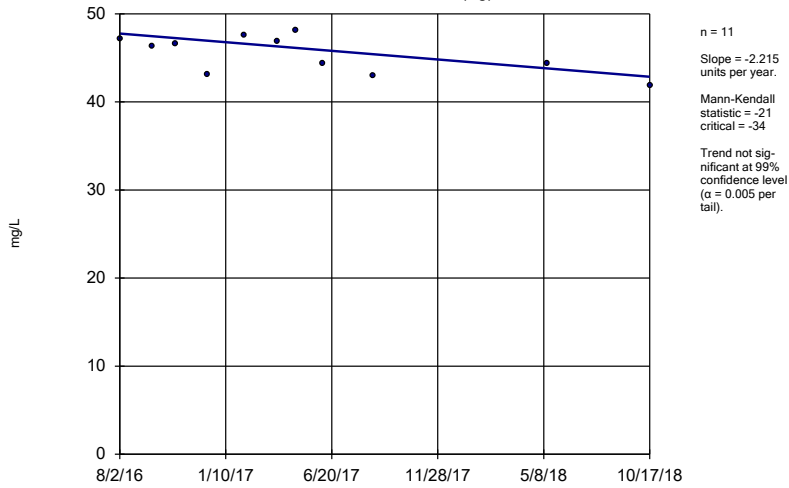
### Sen's Slope Estimator

GS-AP-MW-8 (Bg)



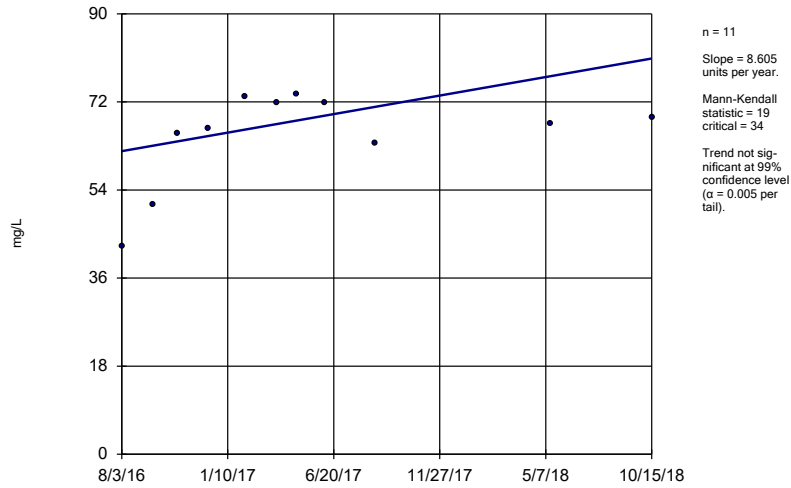
Constituent: Calcium Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Sen's Slope Estimator  
GS-AP-MW-13 (Bg)



### Sen's Slope Estimator

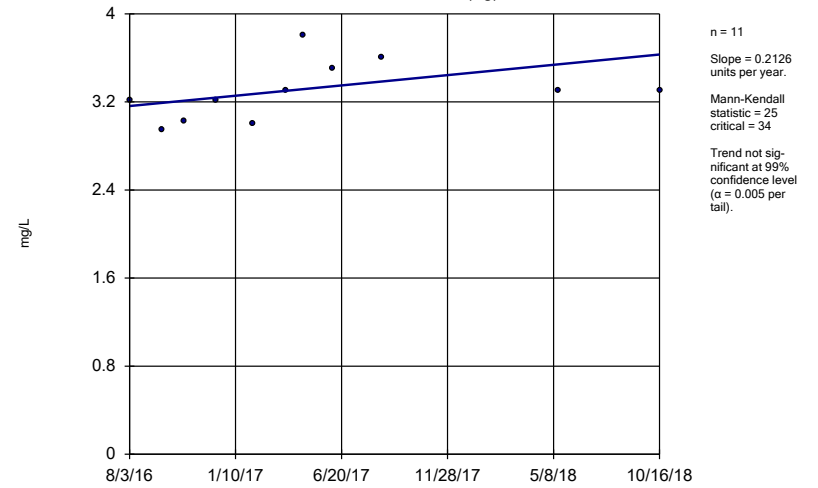
GS-AP-MW-6S



Constituent: Calcium Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

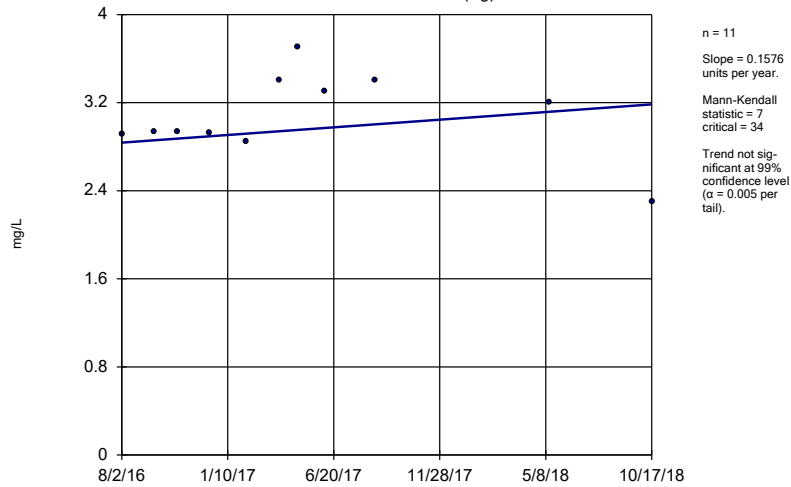
GS-AP-MW-8 (Bg)



Constituent: Chloride Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

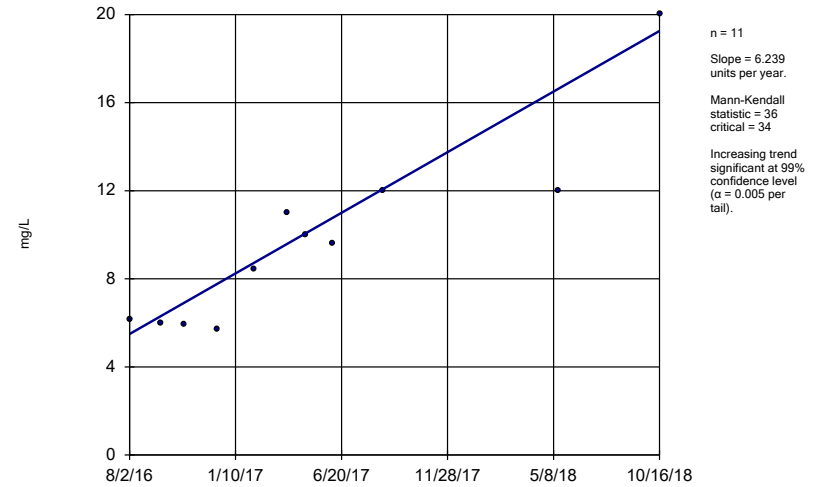
GS-AP-MW-13 (Bg)



Constituent: Chloride Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

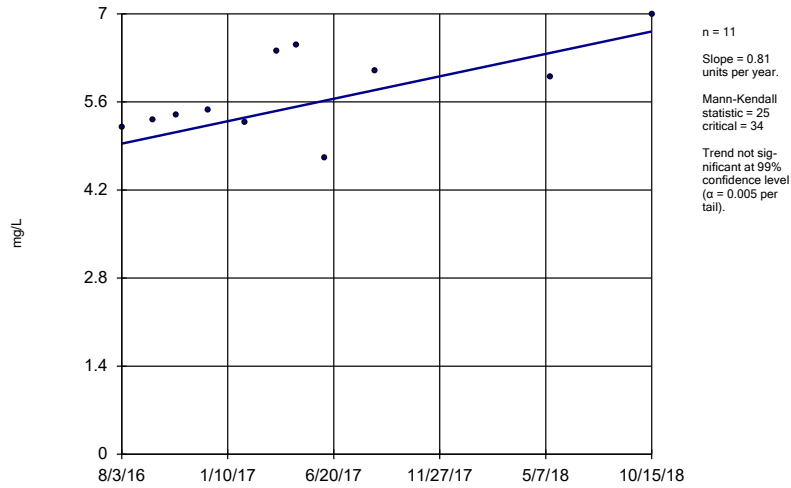
GS-AP-MW-2



Constituent: Chloride Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

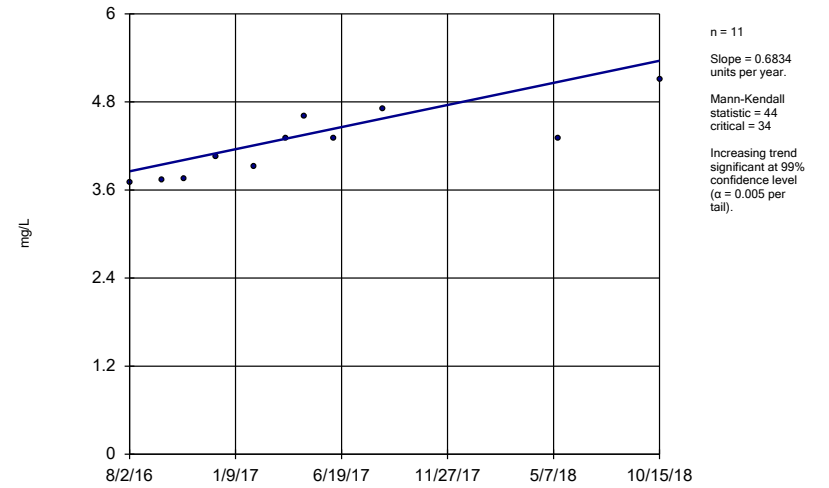
GS-AP-MW-6D



Constituent: Chloride Analysis Run 12/20/2018 6:27 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

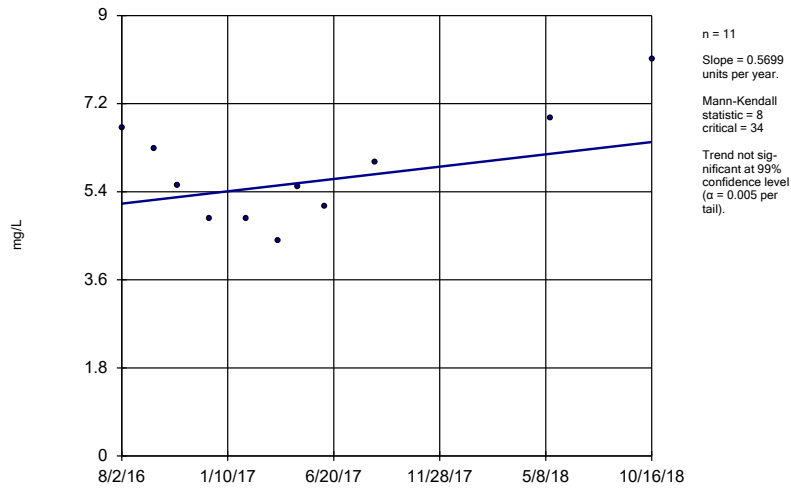
GS-AP-MW-7



Constituent: Chloride Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

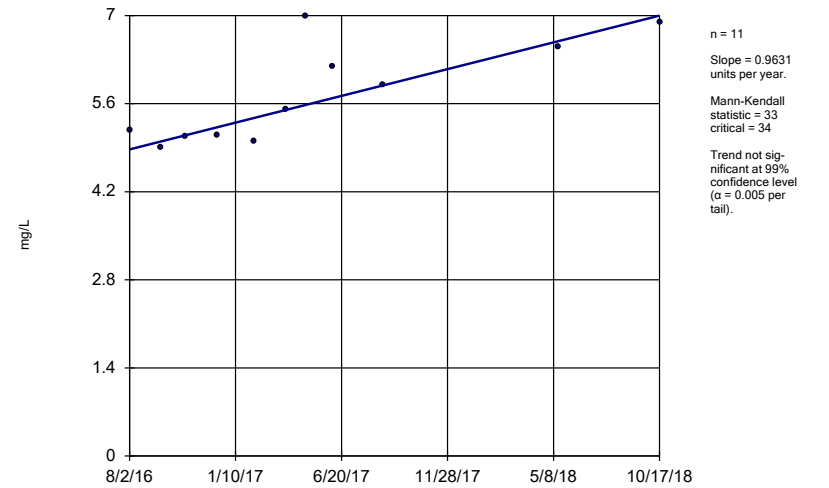
GS-AP-MW-11



Constituent: Chloride Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

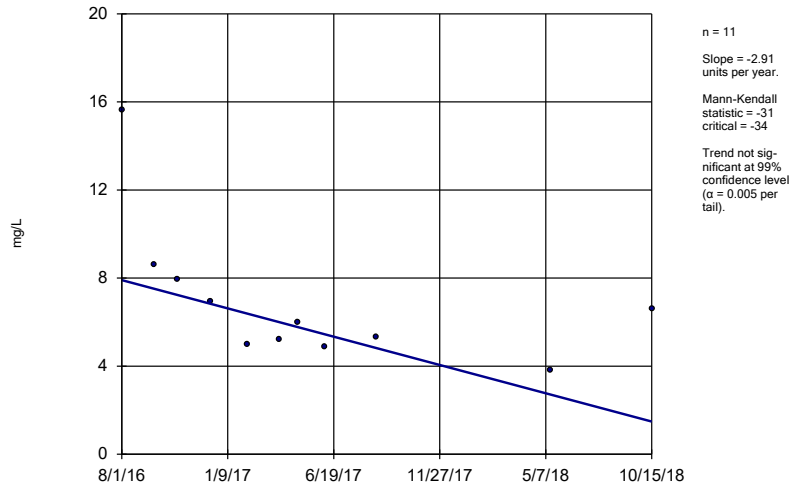
GS-AP-MW-14



Constituent: Chloride Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

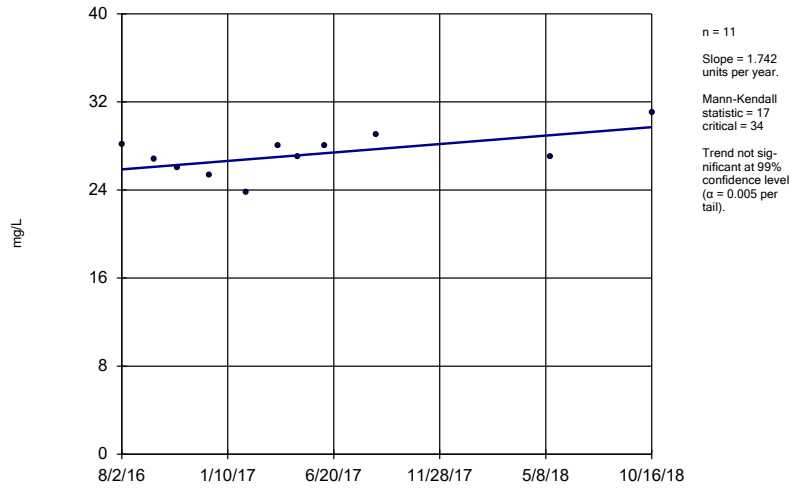
### Sen's Slope Estimator

GS-AP-MW-15



### Sen's Slope Estimator

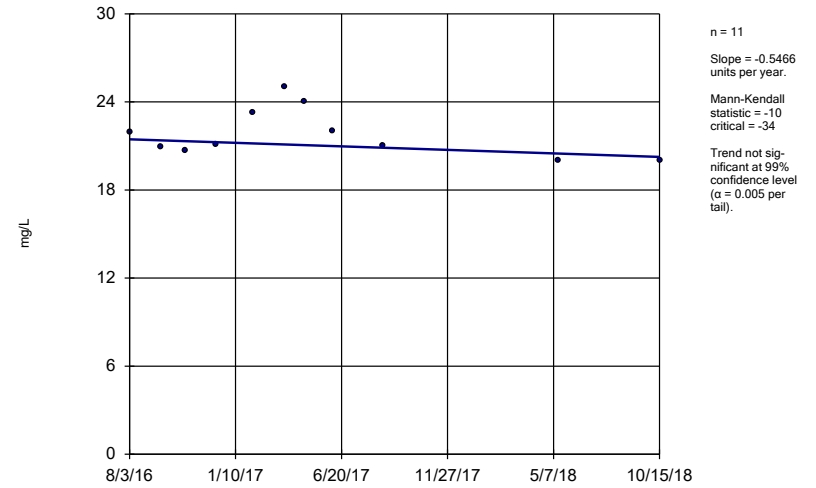
GS-AP-MW-21



Constituent: Chloride Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

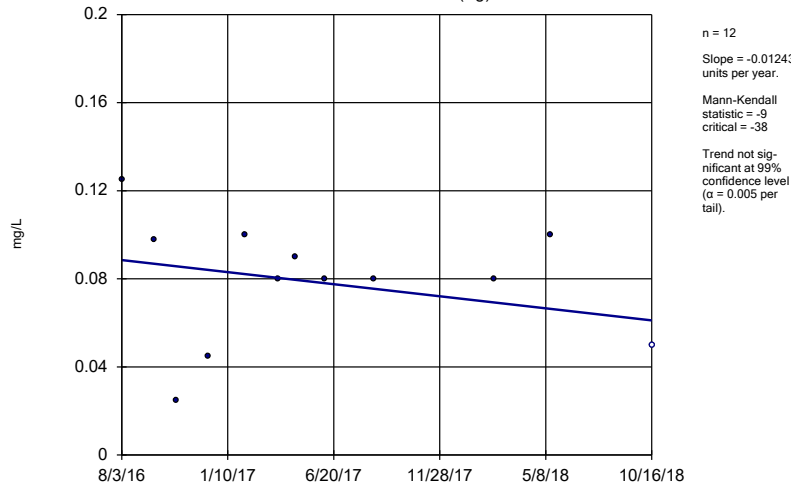
GS-AP-MW-6S



Constituent: Chloride Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

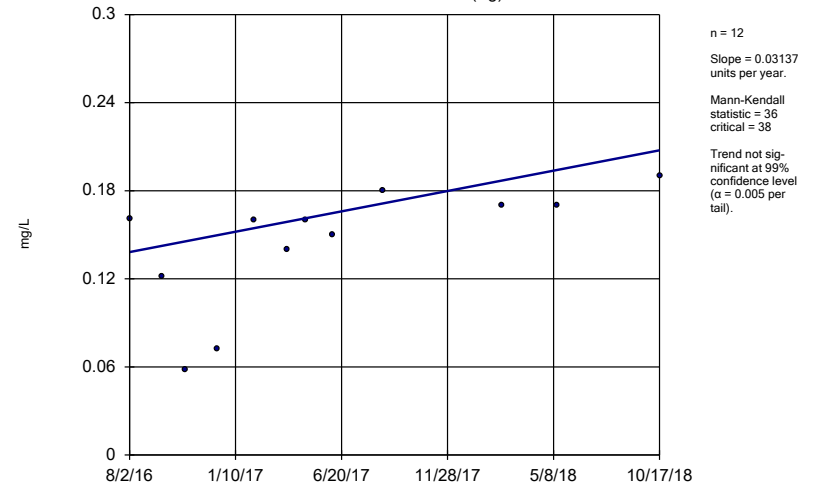
GS-AP-MW-8 (Bg)



Constituent: Fluoride Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-13 (Bg)

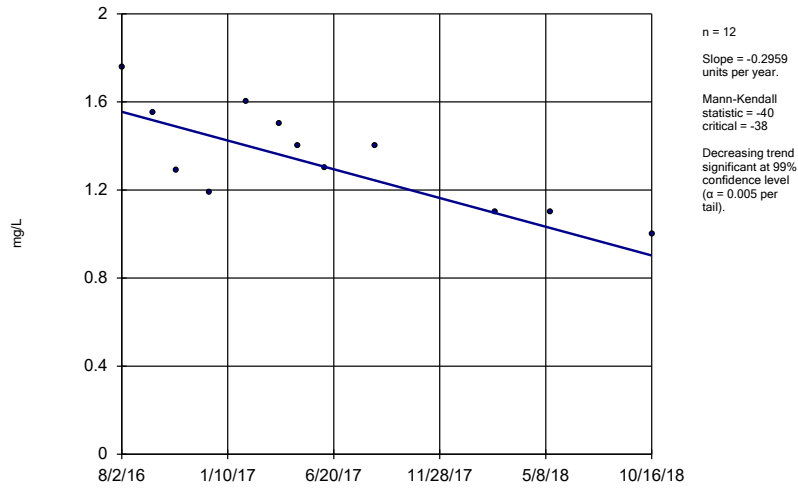


Constituent: Fluoride Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

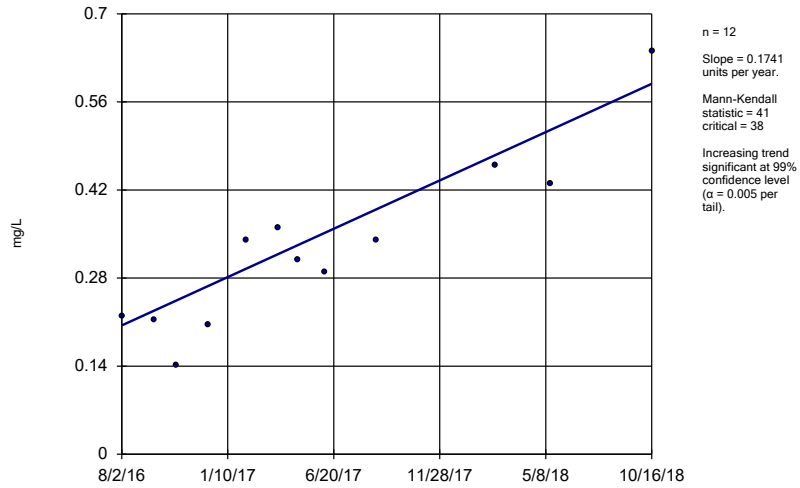


### Sen's Slope Estimator

GS-AP-MW-2

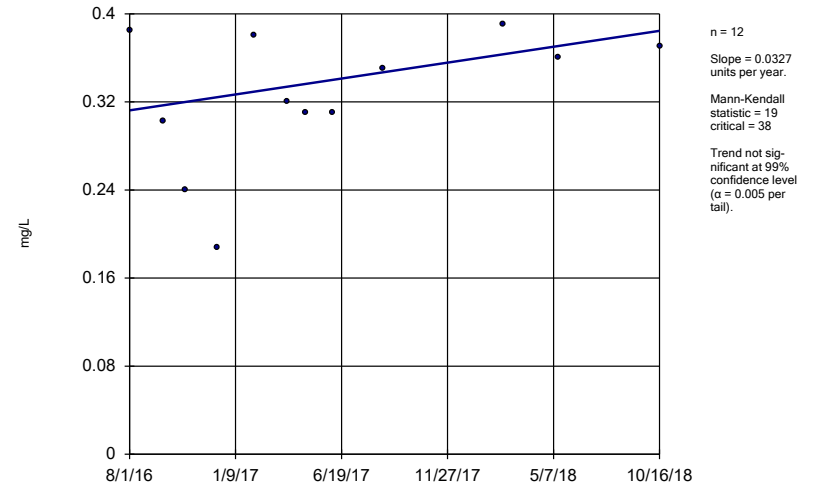


### Sen's Slope Estimator GS-AP-MW-18



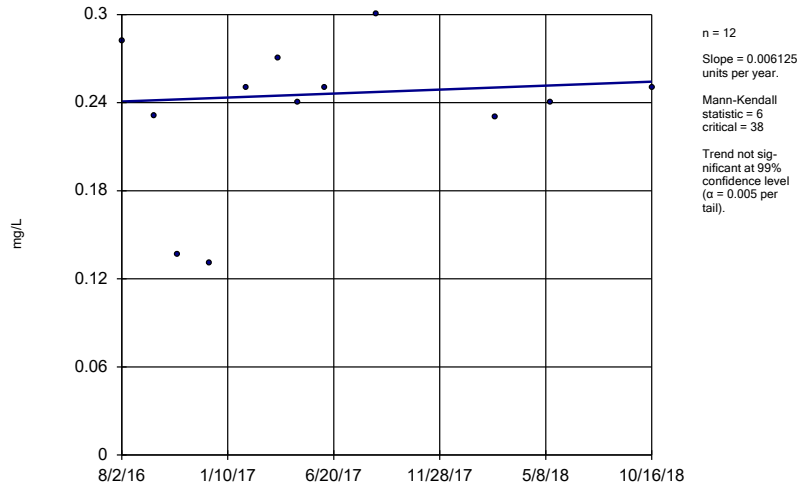
Constituent: Fluoride Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator GS-AP-MW-19



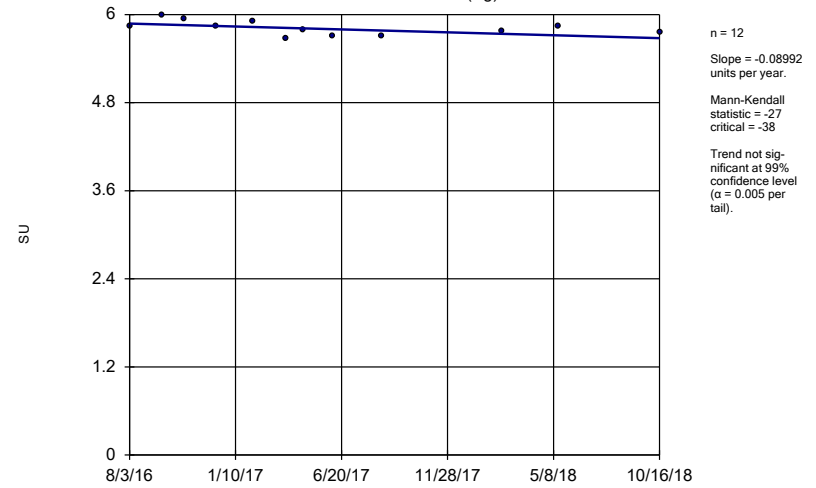
Constituent: Fluoride Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator GS-AP-MW-21



Constituent: Fluoride Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

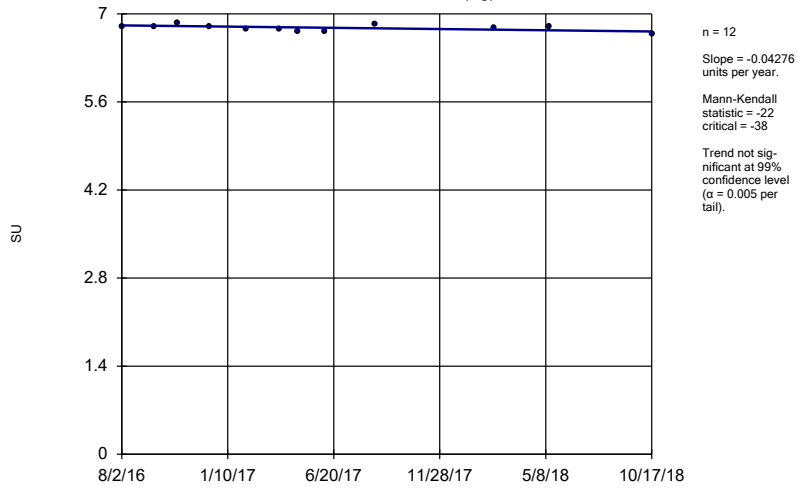
### Sen's Slope Estimator GS-AP-MW-8 (Bg)



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

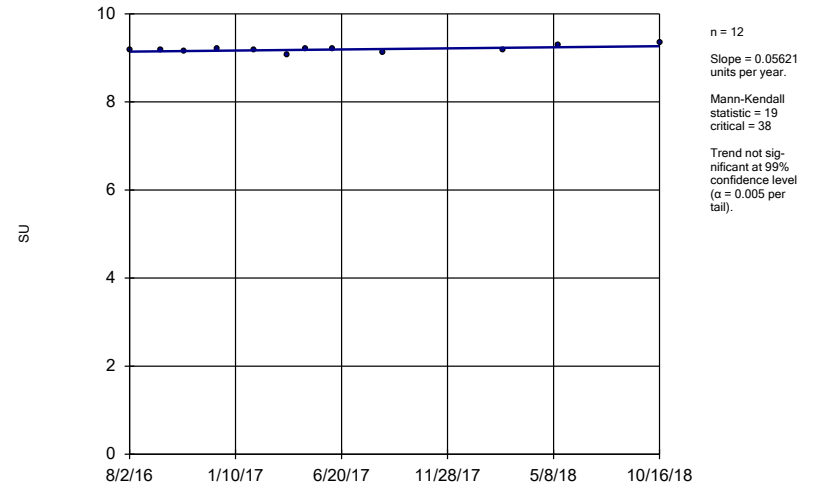
GS-AP-MW-13 (Bg)



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

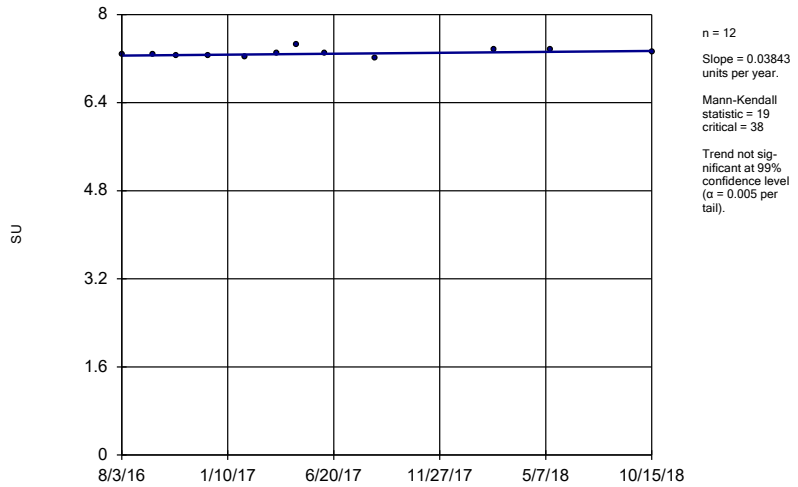
GS-AP-MW-2



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

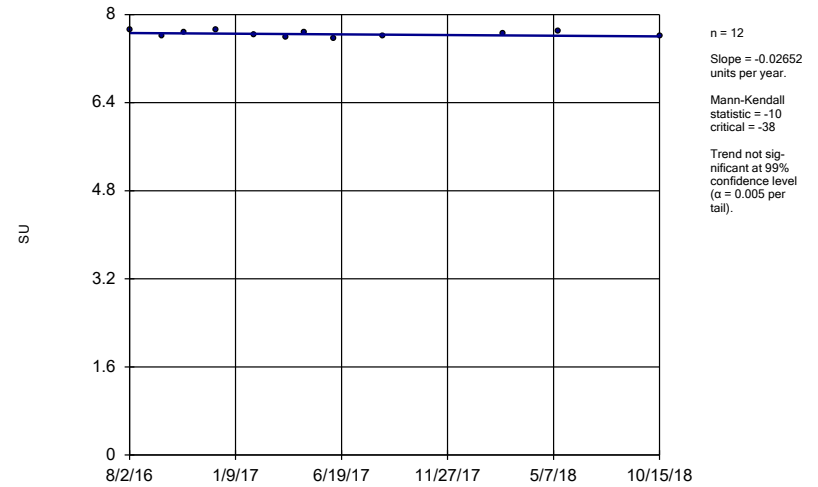
GS-AP-MW-6D



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

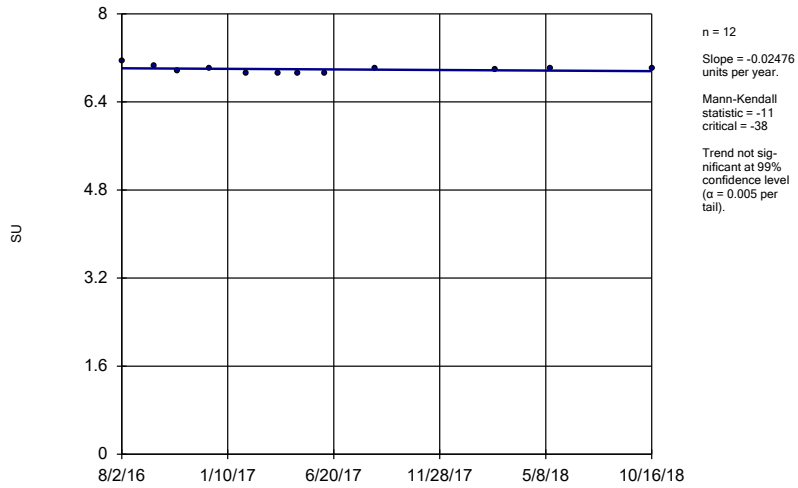
GS-AP-MW-7



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

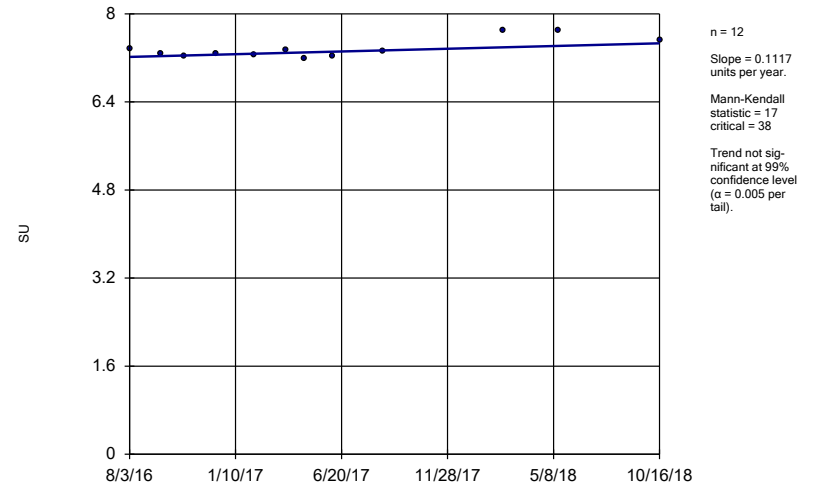
GS-AP-MW-11



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

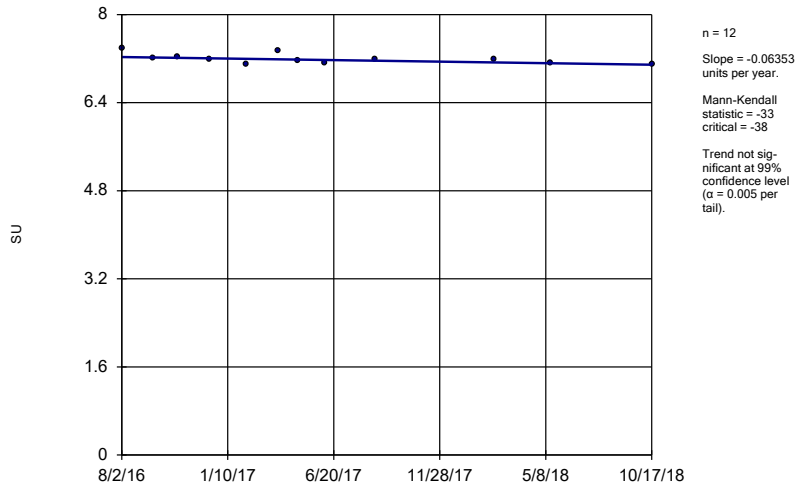
GS-AP-MW-12



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

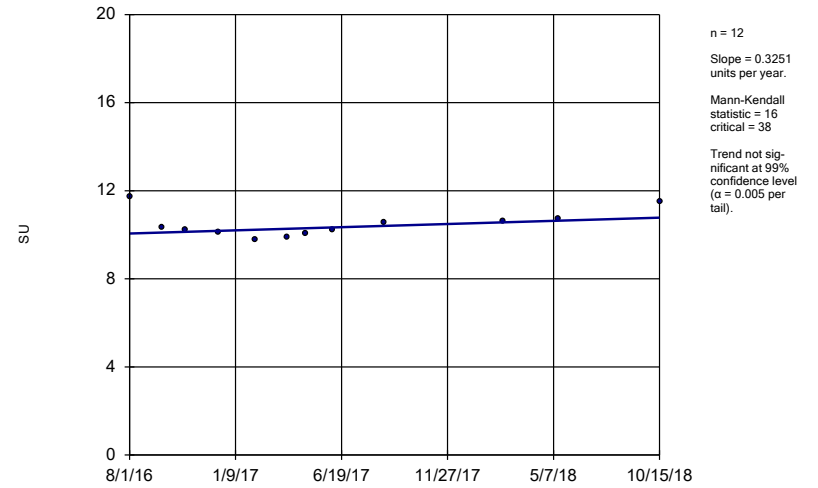
GS-AP-MW-14



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

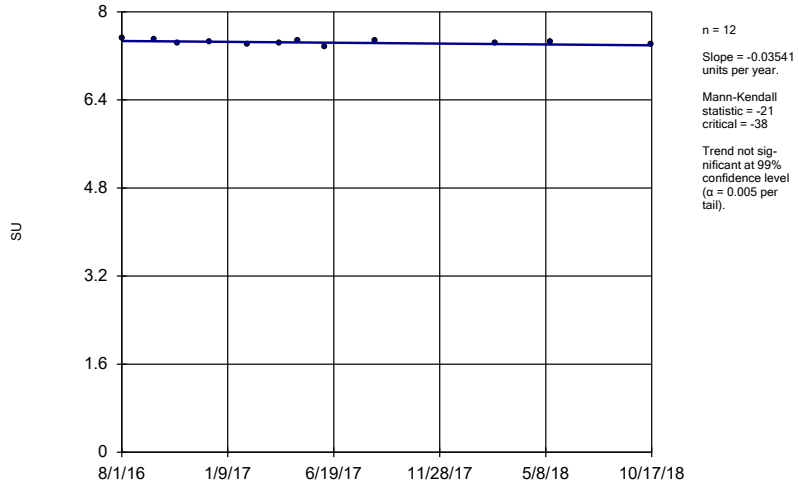
GS-AP-MW-15



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

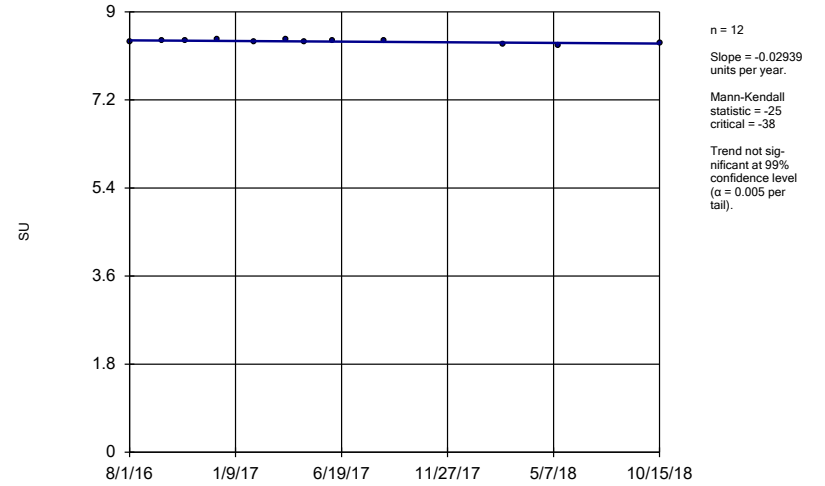
GS-AP-MW-16D



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

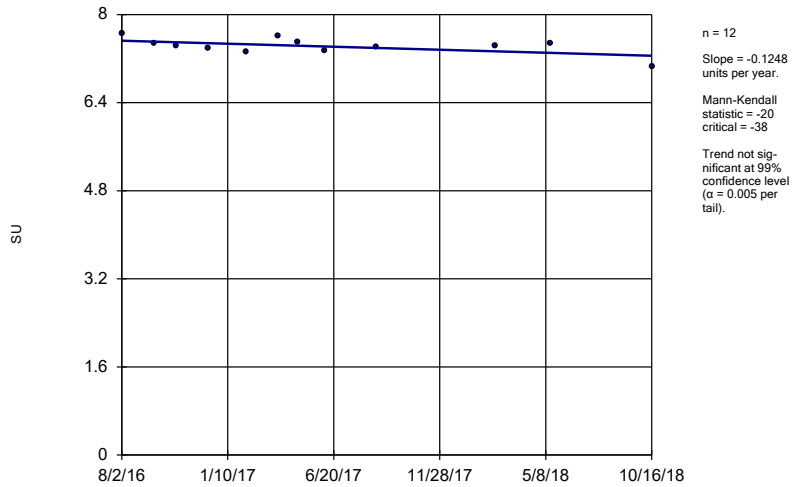
GS-AP-MW-17



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

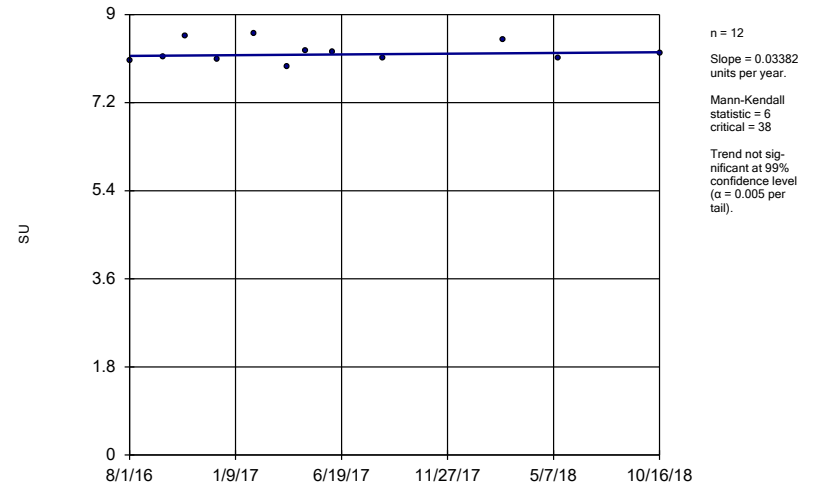
GS-AP-MW-18



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

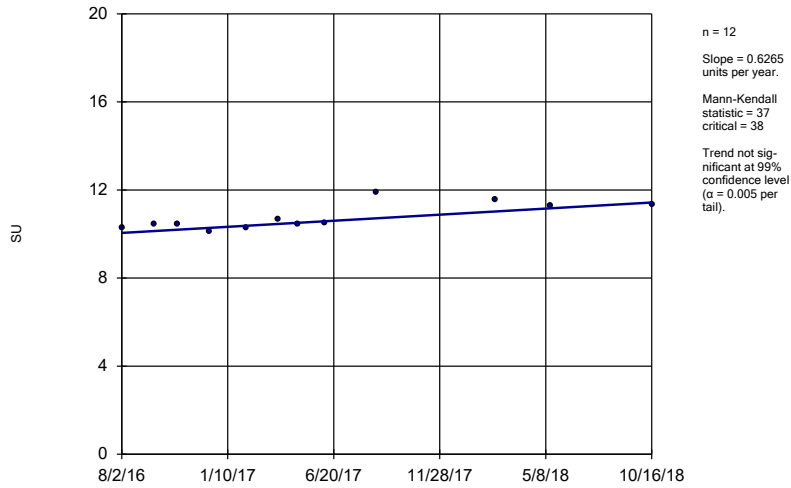
GS-AP-MW-19



Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-21

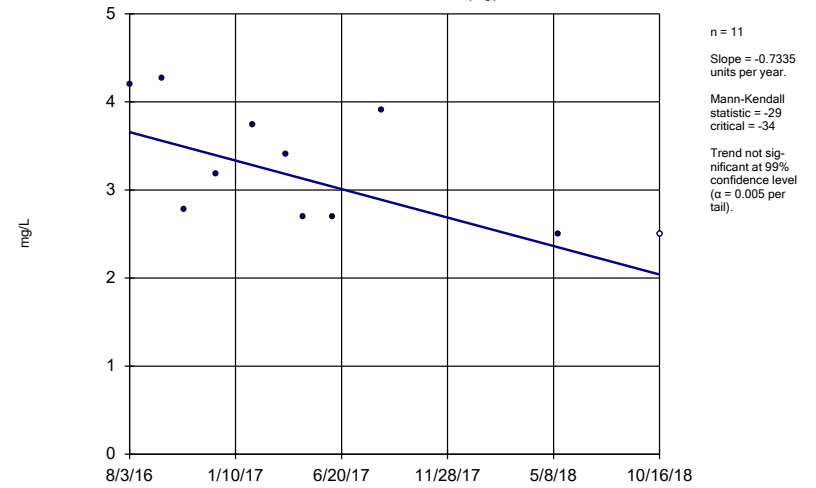


Constituent: pH Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Hollow symbols indicate censored values.

### Sen's Slope Estimator

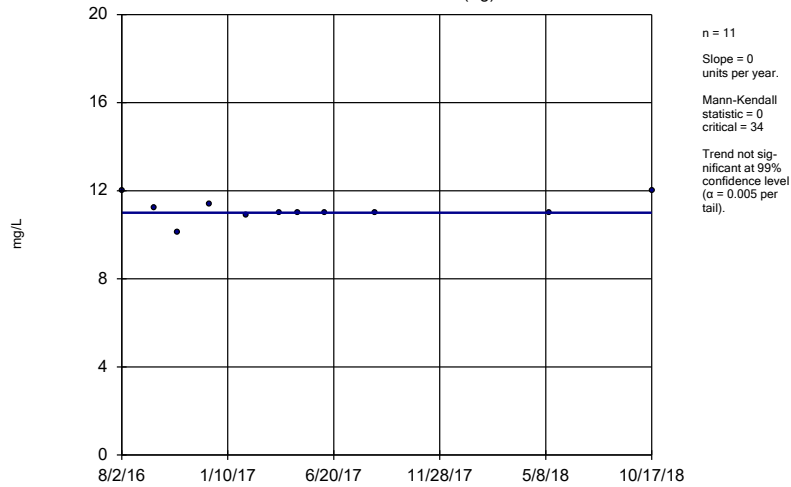
GS-AP-MW-8 (Bg)



Constituent: Sulfate Analysis Run 12/20/2018 6:28 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-13 (Bg)

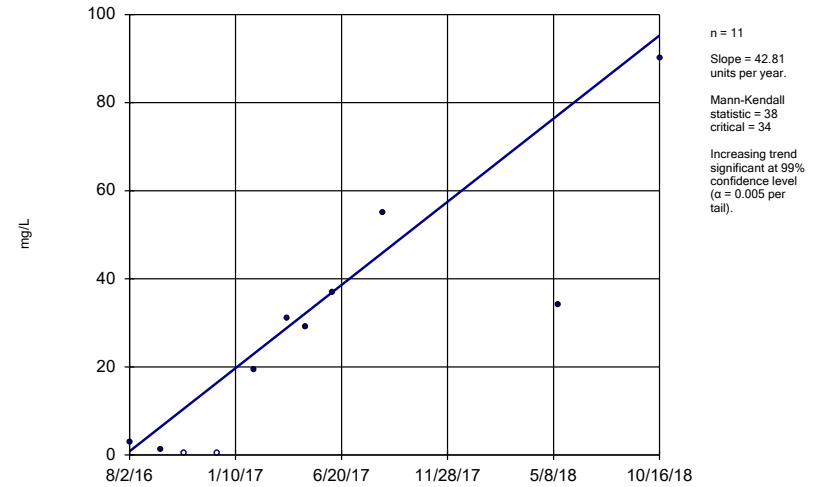


Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Hollow symbols indicate censored values.

### Sen's Slope Estimator

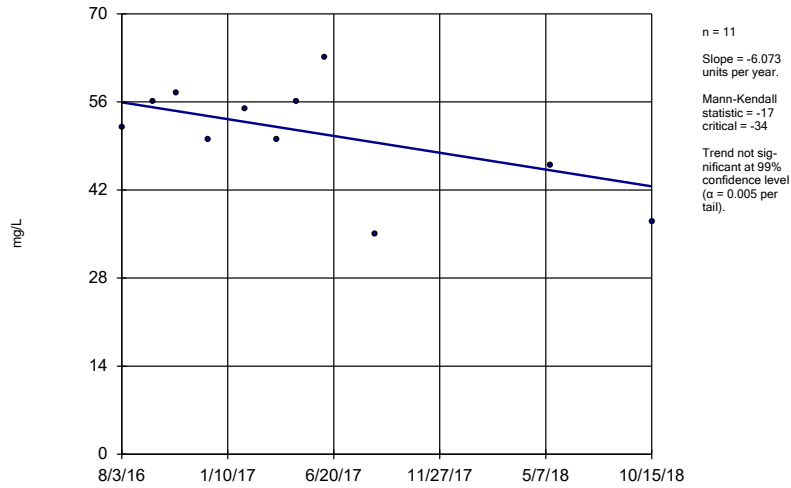
GS-AP-MW-2



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

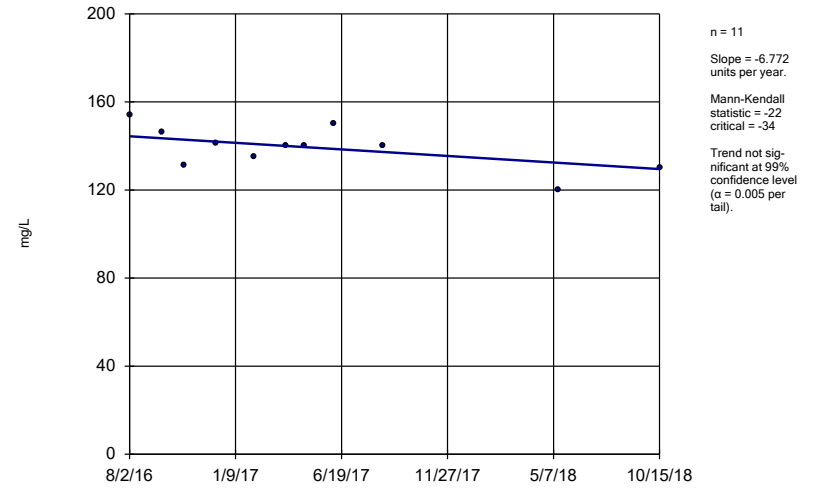
GS-AP-MW-6D



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

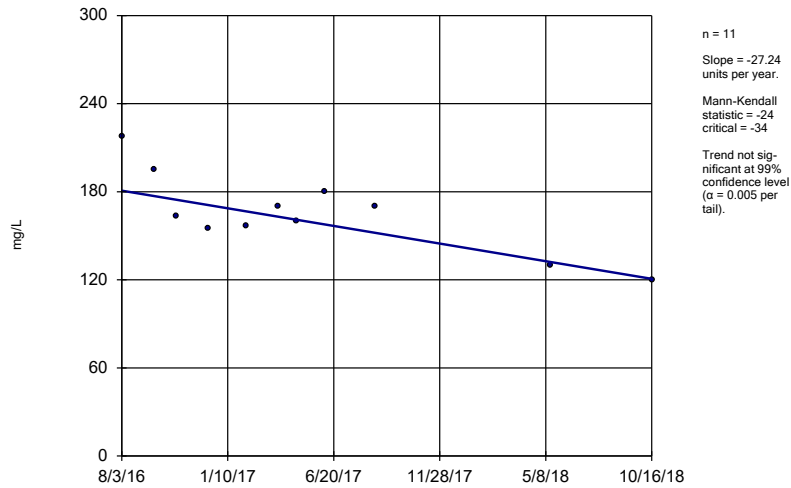
GS-AP-MW-7



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

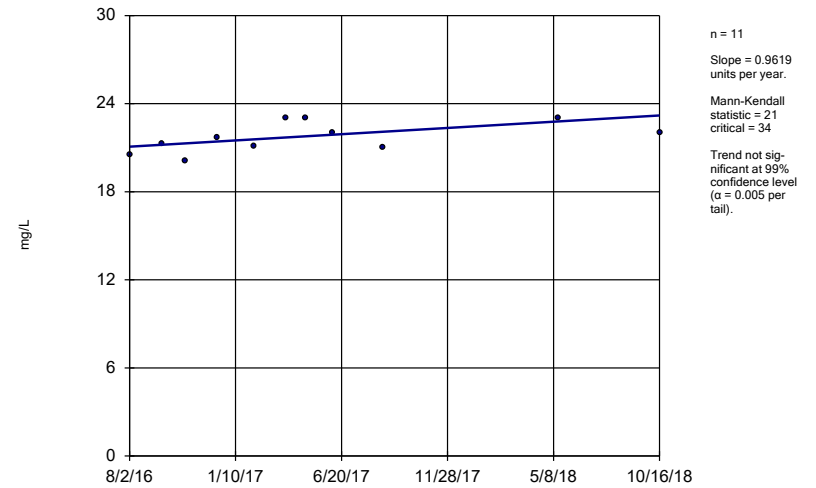
GS-AP-MW-9



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

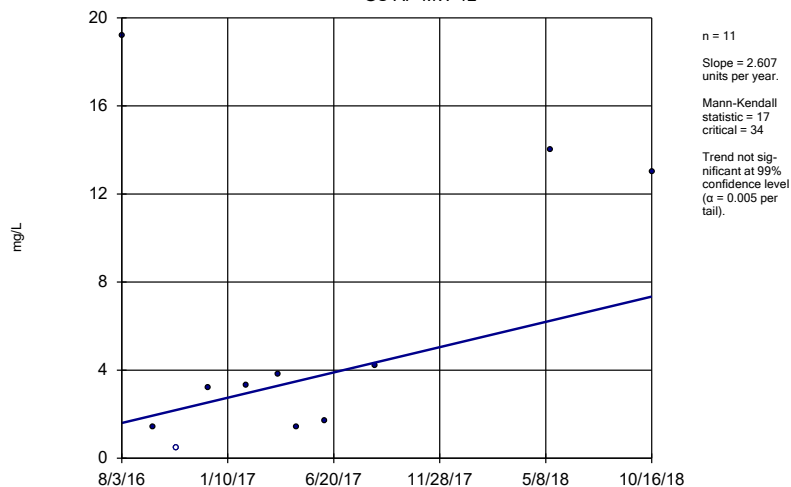
GS-AP-MW-11



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

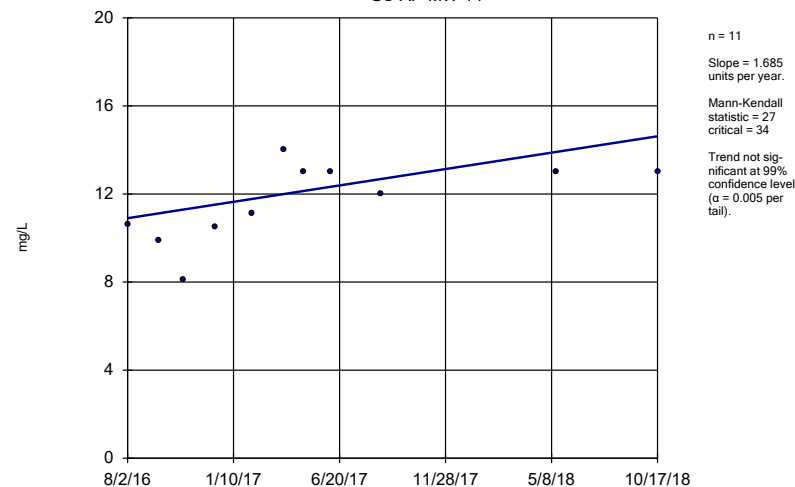
GS-AP-MW-12



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

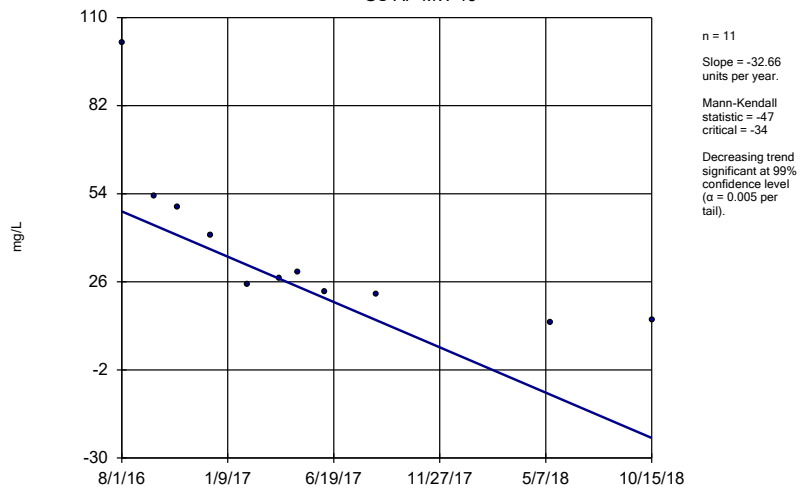
GS-AP-MW-14



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

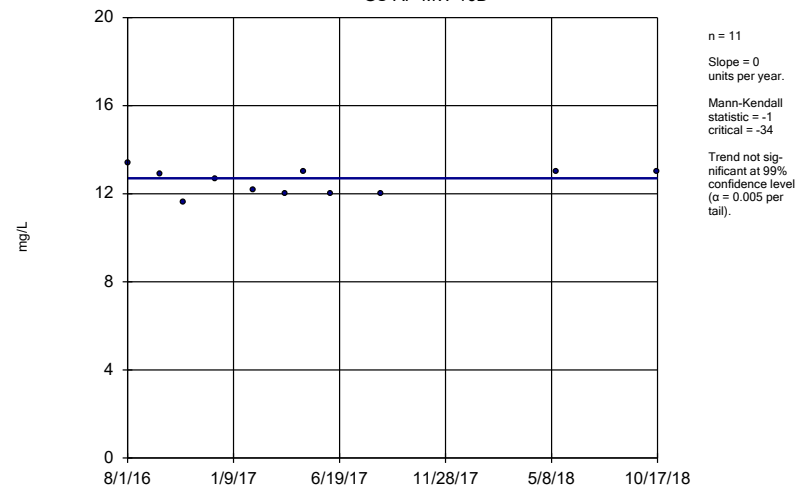
GS-AP-MW-15



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

GS-AP-MW-16D

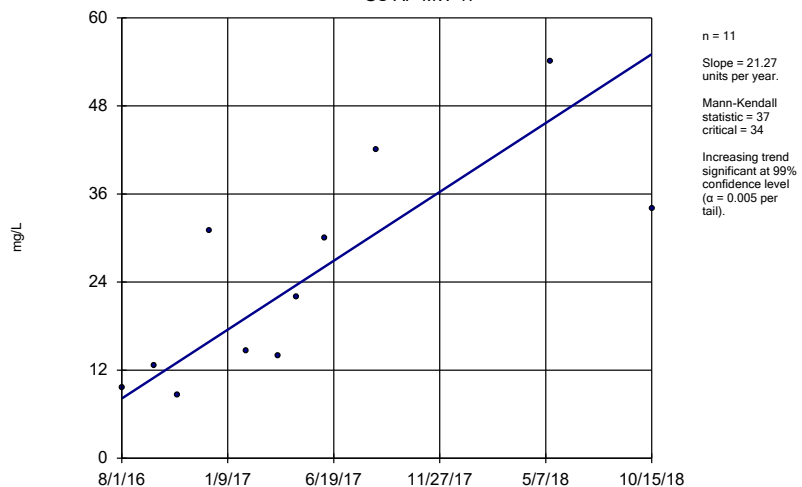


Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond



### Sen's Slope Estimator

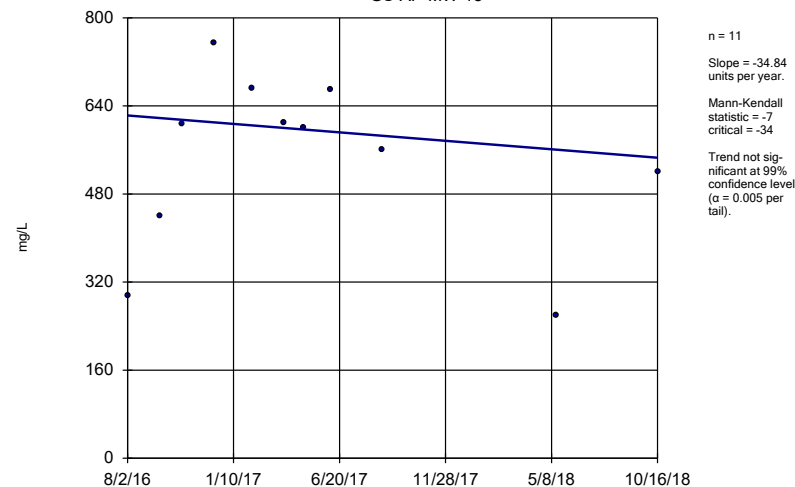
GS-AP-MW-17



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

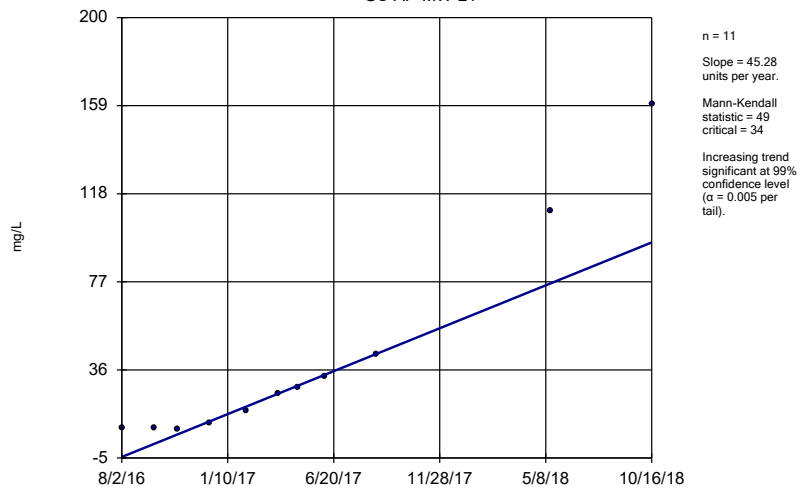
GS-AP-MW-18



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

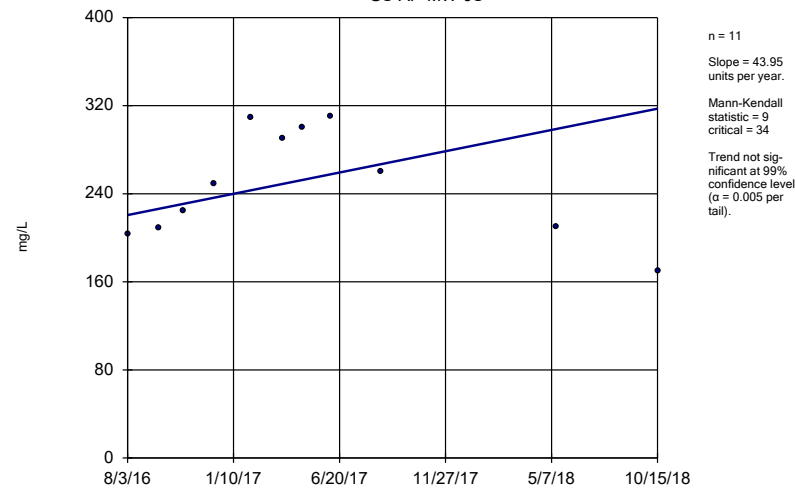
GS-AP-MW-21



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

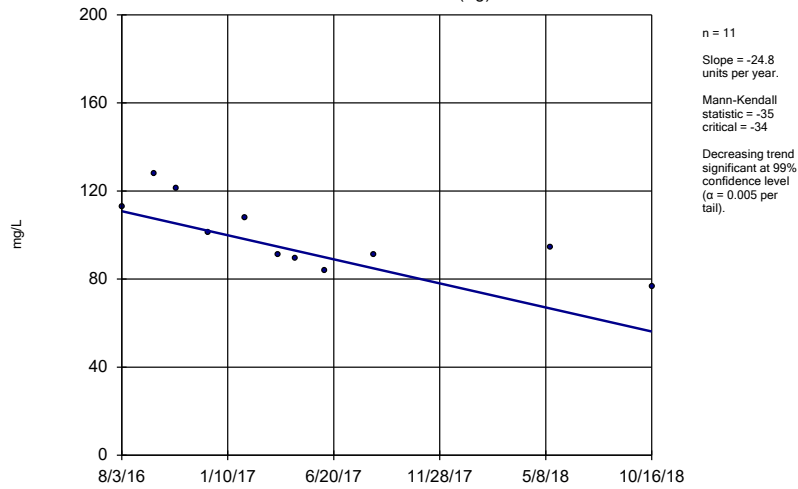
GS-AP-MW-6S



Constituent: Sulfate Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

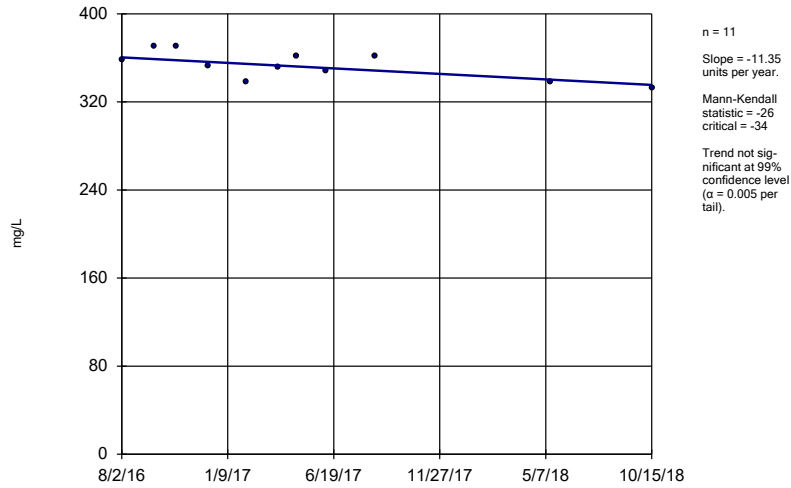
### Sen's Slope Estimator

GS-AP-MW-8 (Bg)



### Sen's Slope Estimator

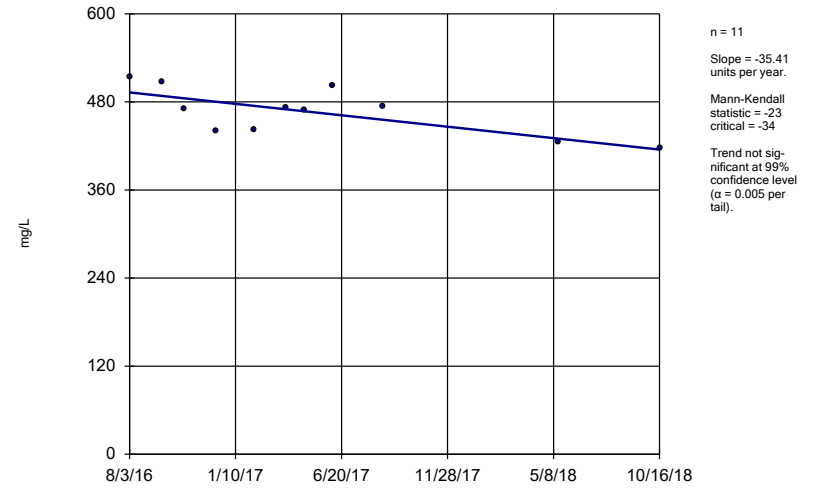
GS-AP-MW-7



Constituent: TDS Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

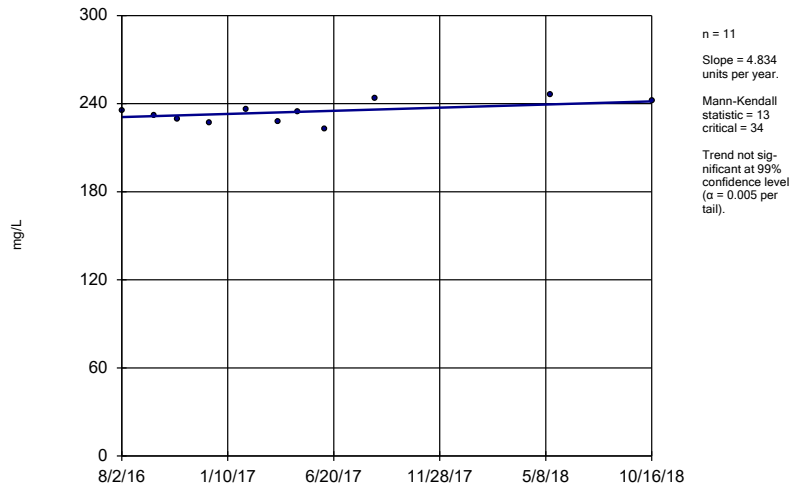
GS-AP-MW-9



Constituent: TDS Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

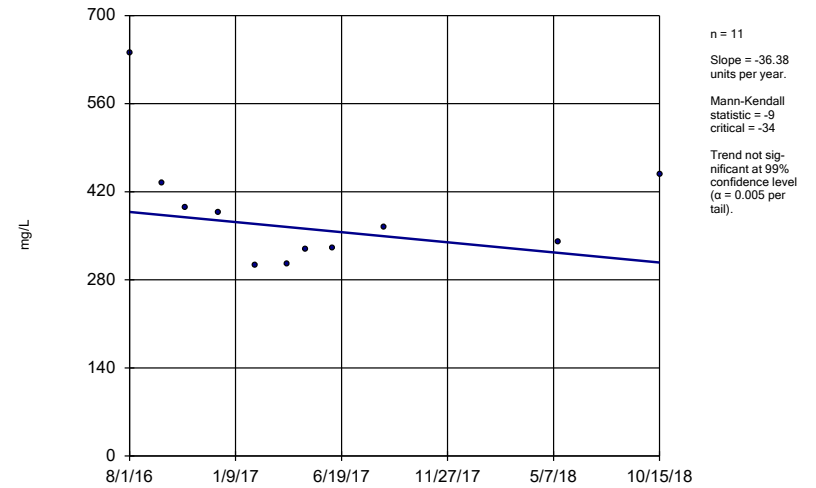
GS-AP-MW-11



Constituent: TDS Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

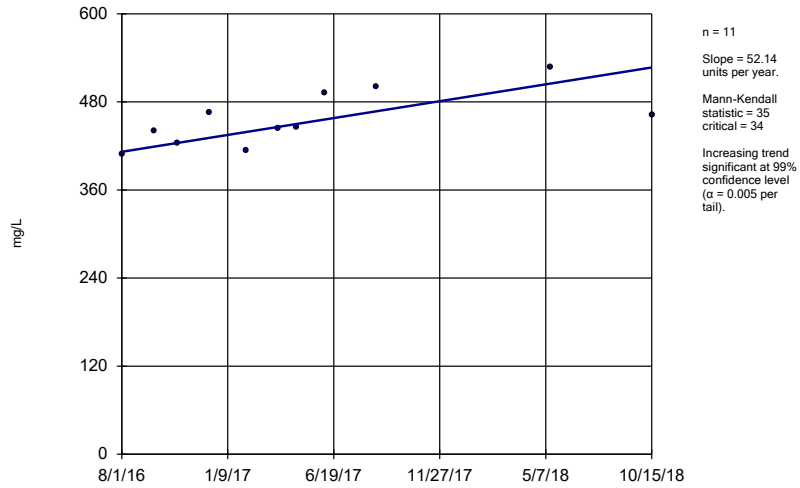
GS-AP-MW-15



Constituent: TDS Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

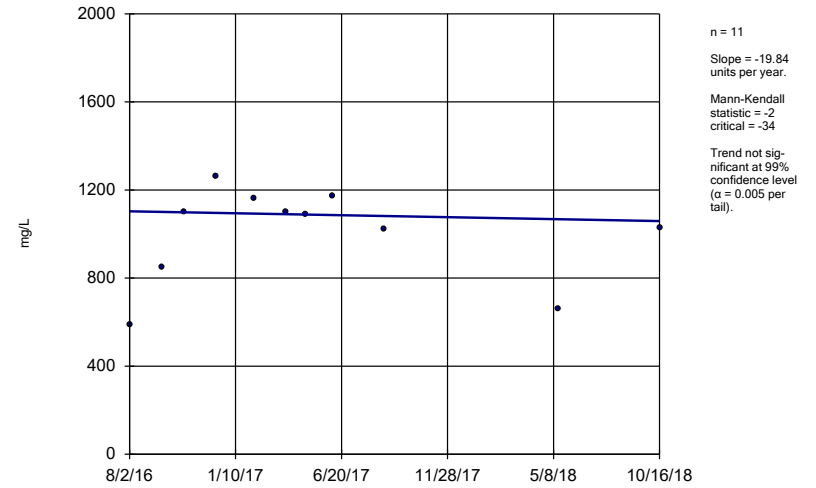
GS-AP-MW-17



Constituent: TDS Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

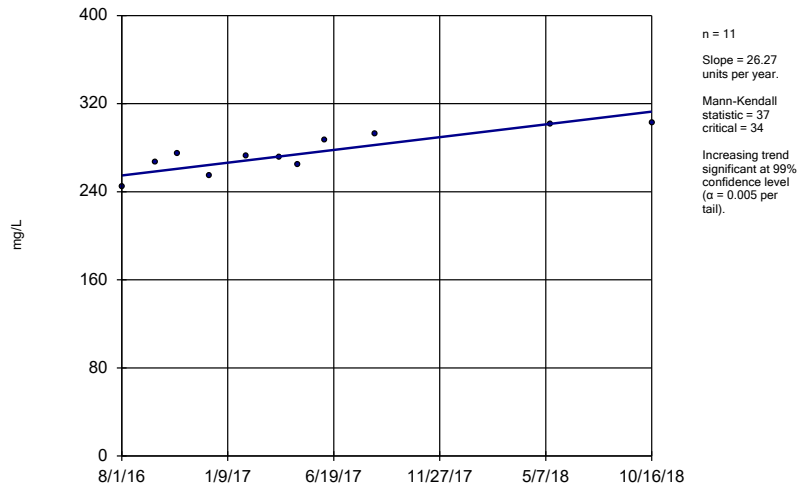
GS-AP-MW-18



Constituent: TDS Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

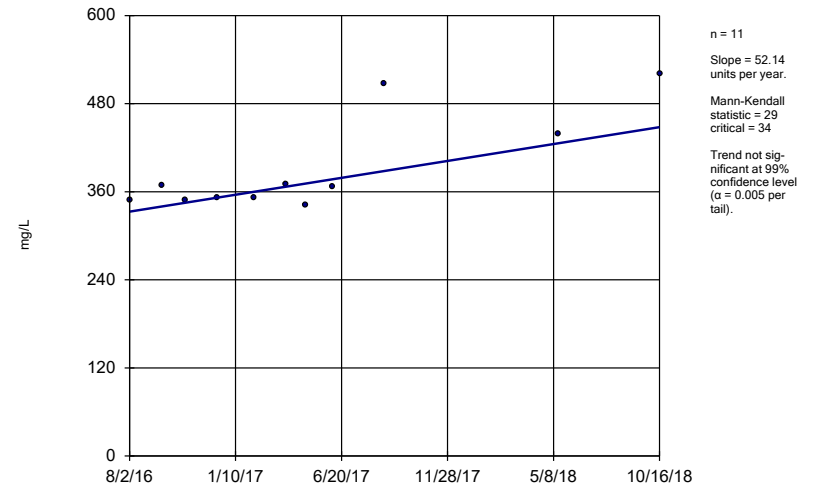
GS-AP-MW-19



Constituent: TDS Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Sen's Slope Estimator

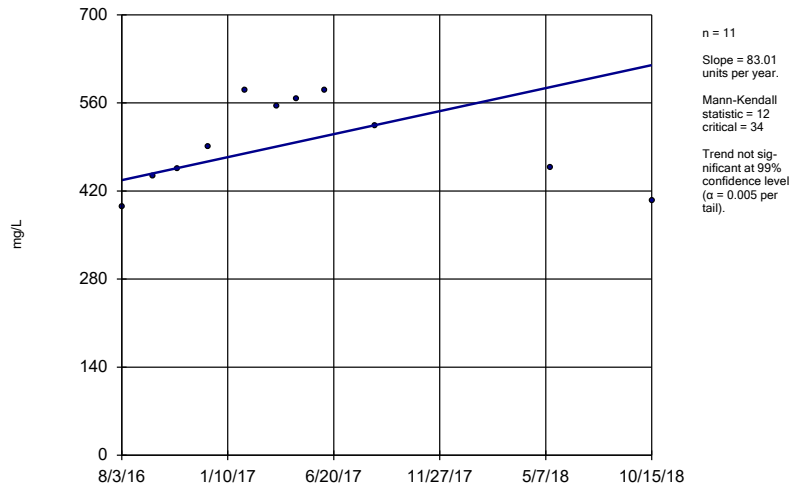
GS-AP-MW-21



Constituent: TDS Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

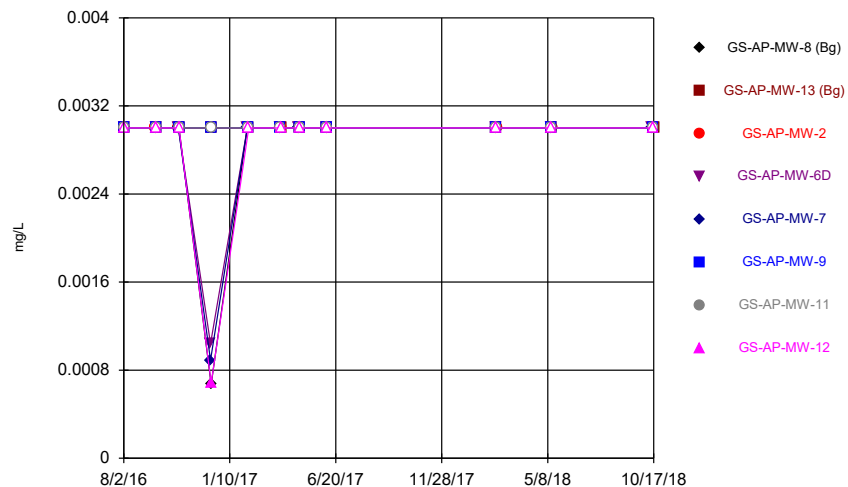
### Sen's Slope Estimator

GS-AP-MW-6S



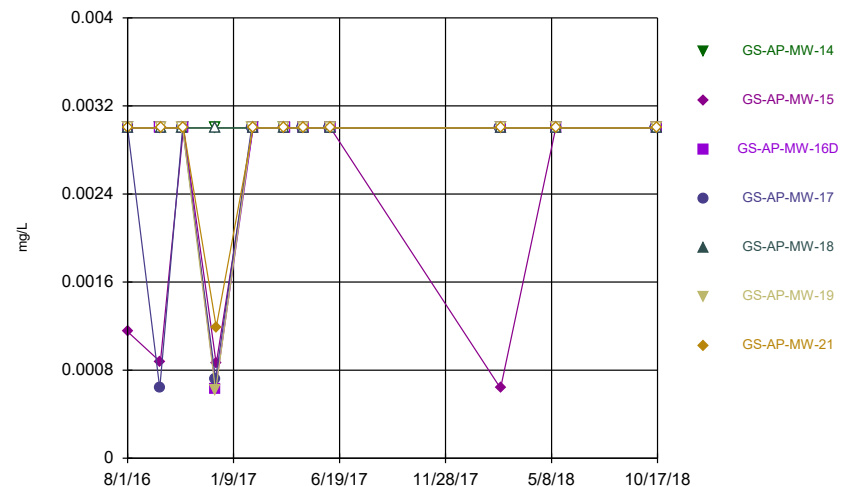
Constituent: TDS Analysis Run 12/20/2018 6:29 AM View: Trend Tests  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



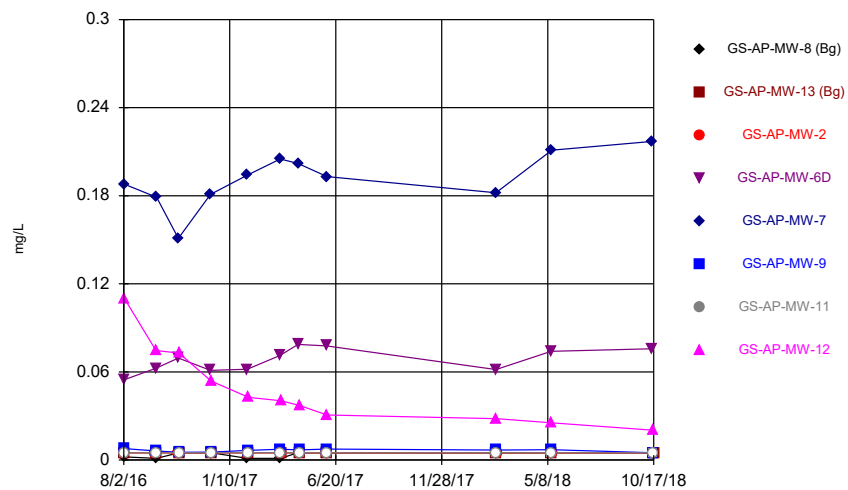
Constituent: Antimony Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



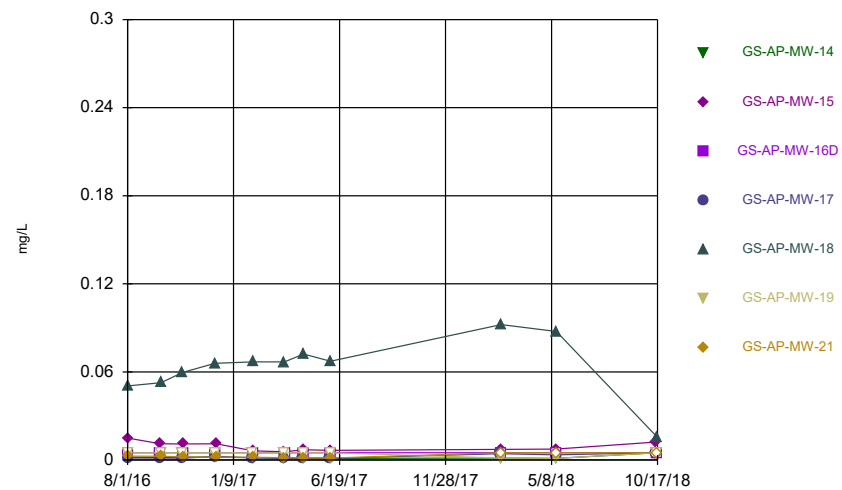
Constituent: Antimony Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



Constituent: Arsenic Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



Constituent: Arsenic Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Time Series

Constituent: Antimony (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.003	<0.003		<0.003		<0.003	
8/3/2016	<0.003			<0.003		<0.003		<0.003
9/19/2016			<0.003					
9/20/2016		<0.003		<0.003				<0.003
9/21/2016	<0.003				<0.003	<0.003	<0.003	
10/24/2016			<0.003	<0.003	<0.003			
10/25/2016	<0.003	<0.003				<0.003	<0.003	<0.003
12/12/2016				0.00104 (J)	0.000891 (J)			
12/13/2016	0.00067 (J)	<0.003	<0.003			<0.003	<0.003	0.000681 (J)
2/6/2017	<0.003			<0.003	<0.003			
2/8/2017		<0.003	<0.003			<0.003	<0.003	<0.003
3/27/2017				<0.003				
3/28/2017	<0.003				<0.003	<0.003	<0.003	
3/29/2017		<0.003						<0.003
3/30/2017			<0.003					
4/24/2017	<0.003			<0.003	<0.003			
4/26/2017		<0.003	<0.003			<0.003	<0.003	<0.003
6/6/2017			<0.003	<0.003				
6/7/2017	<0.003	<0.003			<0.003	<0.003	<0.003	<0.003
2/19/2018	<0.003			<0.003	<0.003			
2/20/2018		<0.003				<0.003	<0.003	<0.003
2/21/2018			<0.003					
5/14/2018				<0.003				
5/15/2018	<0.003	<0.003			<0.003	<0.003	<0.003	<0.003
5/16/2018			<0.003					
10/15/2018				<0.003	<0.003			
10/16/2018	<0.003		<0.003			<0.003	<0.003	<0.003
10/17/2018		<0.003						

# Time Series

Constituent: Antimony (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		0.00115 (J)	<0.003	<0.003		<0.003	
8/2/2016	<0.003				<0.003		<0.003
9/19/2016	<0.003		<0.003	0.000636 (J)			
9/20/2016		0.000876 (J)					
9/21/2016					<0.003	<0.003	<0.003
10/24/2016				<0.003	<0.003	<0.003	
10/25/2016	<0.003	<0.003	<0.003				<0.003
12/12/2016					<0.003		
12/13/2016	<0.003		0.000633 (J)	0.00072 (J)		0.000613 (J)	
12/14/2016		0.000858 (J)					0.00119 (J)
2/6/2017				<0.003			
2/7/2017						<0.003	
2/8/2017	<0.003	<0.003	<0.003		<0.003		<0.003
3/27/2017				<0.003			
3/28/2017	<0.003	<0.003			<0.003	<0.003	<0.003
3/29/2017			<0.003				
4/24/2017				<0.003			
4/26/2017	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
6/5/2017				<0.003			
6/6/2017		<0.003	<0.003		<0.003	<0.003	<0.003
6/7/2017	<0.003						
2/19/2018				<0.003			
2/20/2018	<0.003	0.000636 (J)					<0.003
2/21/2018			<0.003		<0.003	<0.003	
5/15/2018		<0.003		<0.003			<0.003
5/16/2018	<0.003		<0.003		<0.003	<0.003	
10/15/2018		<0.003		<0.003			
10/16/2018					<0.003	<0.003	<0.003
10/17/2018	<0.003		<0.003				



# Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.005	<0.005		0.188		<0.005	
8/3/2016	0.00214 (J)			0.0547		0.00781		0.11
9/19/2016			<0.005					
9/20/2016		<0.005		0.0625				0.0746
9/21/2016	0.00112 (J)				0.179	0.0062	<0.005	
10/24/2016			<0.005	0.0695	0.151			
10/25/2016	<0.005	<0.005				0.00525	<0.005	0.0728
12/12/2016				0.0611	0.181			
12/13/2016	<0.005	<0.005	<0.005			0.00535	<0.005	0.0538
2/6/2017	0.00111 (J)			0.0618	0.194			
2/8/2017		<0.005	<0.005			0.00659	<0.005	0.0427
3/27/2017				0.0711				
3/28/2017	0.00109 (J)				0.205	0.00735	<0.005	
3/29/2017		<0.005						0.0404
3/30/2017			<0.005					
4/24/2017	<0.005			0.0787	0.202			
4/26/2017		<0.005	<0.005			0.00689	<0.005	0.0372
6/6/2017			<0.005	0.0778				
6/7/2017	<0.005	<0.005			0.193	0.00743	<0.005	0.0307
2/19/2018	<0.005			0.0616	0.182			
2/20/2018		<0.005				0.00676	<0.005	0.0282
2/21/2018			<0.005					
5/14/2018				0.074				
5/15/2018	<0.005	<0.005			0.211	0.00698	<0.005	0.0253
5/16/2018			<0.005					
10/15/2018				0.0758	0.217			
10/16/2018	<0.005		<0.005			<0.005 (J)	<0.005	0.0203
10/17/2018		<0.005						

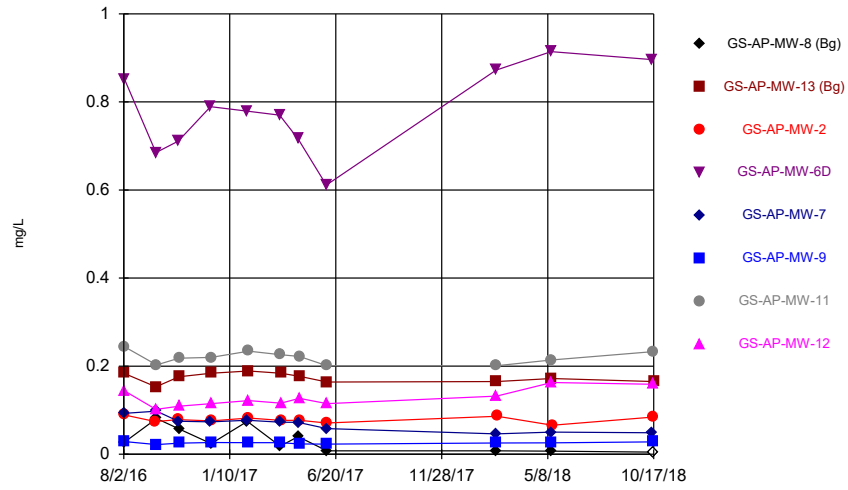
# Time Series

Constituent: Arsenic (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

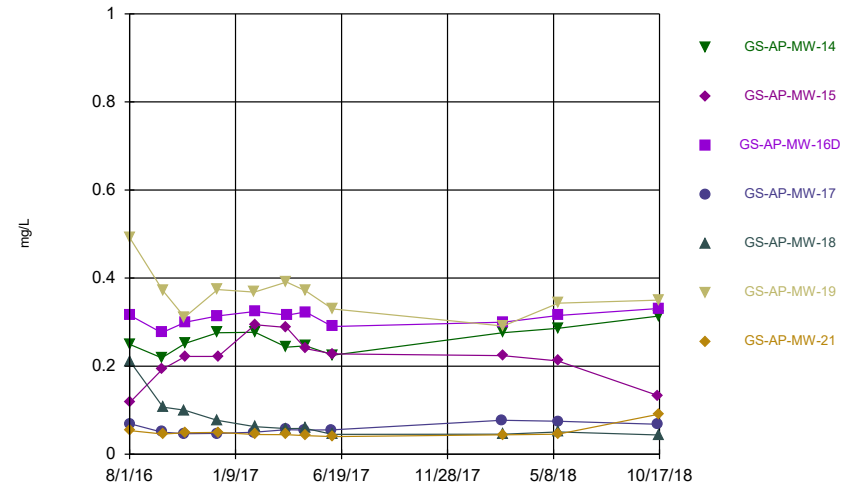
	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		0.015	<0.005	0.00138 (J)		<0.005	
8/2/2016	0.00189 (J)				0.0505		0.0027 (J)
9/19/2016	0.00173 (J)		<0.005	0.00137 (J)			
9/20/2016		0.0111					
9/21/2016					0.0527	<0.005	0.00258 (J)
10/24/2016				0.00122 (J)	0.0597	<0.005	
10/25/2016	0.00199 (J)	0.0109	<0.005				0.00214 (J)
12/12/2016					0.0659		
12/13/2016	0.00186 (J)		<0.005	0.00243 (J)		<0.005	
12/14/2016		0.011					0.00193 (J)
2/6/2017				0.00158 (J)			
2/7/2017						<0.005	
2/8/2017	0.00157 (J)	0.00625	<0.005		0.0669		0.00188 (J)
3/27/2017				0.0011 (J)			
3/28/2017	0.00125 (J)	0.00558			0.0668	<0.005	0.00153 (J)
3/29/2017			<0.005				
4/24/2017				0.00133 (J)			
4/26/2017	0.0011 (J)	0.007	<0.005		0.0722	<0.005	0.00135 (J)
6/5/2017				0.00115 (J)			
6/6/2017		0.00663	<0.005		0.0673	<0.005	0.00131 (J)
6/7/2017	0.00108 (J)						
2/19/2018				0.00424 (J)			
2/20/2018	0.00139 (J)	0.00724					<0.005
2/21/2018			<0.005		0.0922	0.00138 (J)	
5/15/2018		0.00749		0.00352 (J)			<0.005
5/16/2018	0.00112 (J)		<0.005		0.0876	0.00114 (J)	
10/15/2018		0.0123		<0.005 (J)			
10/16/2018					0.0158	<0.005 (J)	<0.005
10/17/2018	<0.005 (J)		<0.005				

Time Series



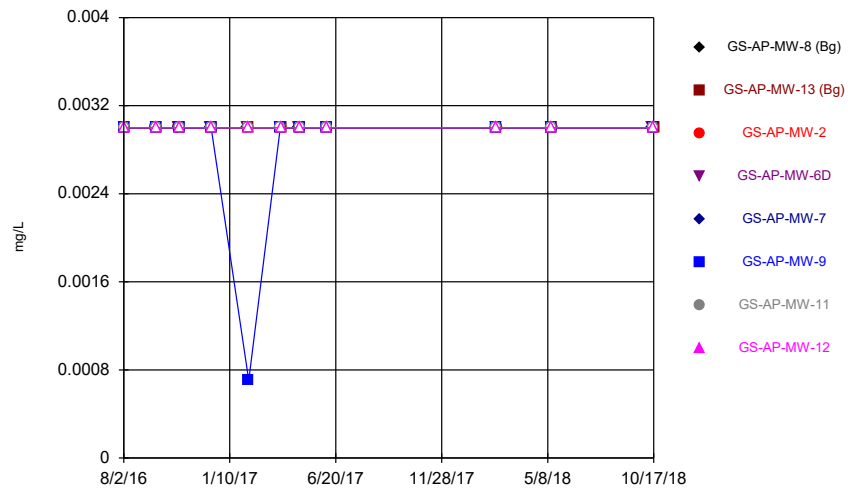
Constituent: Barium Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



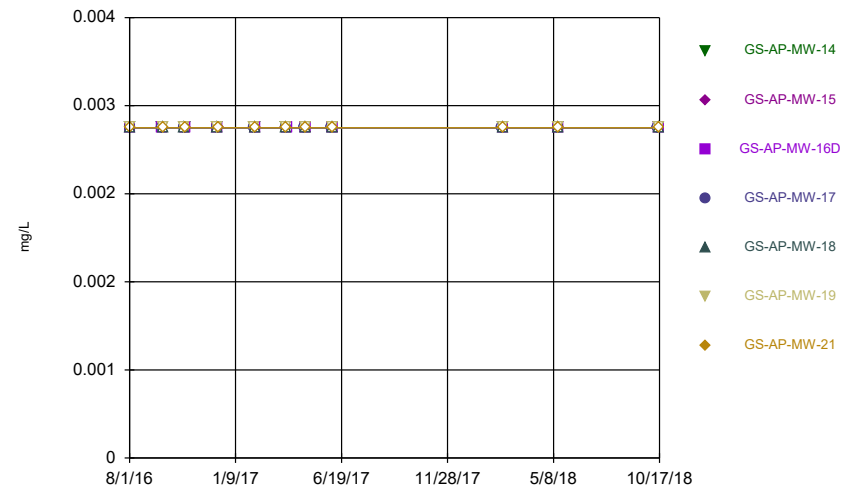
Constituent: Barium Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Beryllium Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Beryllium Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Time Series

Constituent: Barium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		0.184	0.0895		0.0927		0.245	
8/3/2016	0.0274			0.852		0.029		0.144
9/19/2016			0.0744					
9/20/2016		0.153		0.685				0.102
9/21/2016	0.0811				0.0979	0.0218	0.203	
10/24/2016			0.0787	0.711	0.0751			
10/25/2016	0.0576	0.176				0.0253	0.218	0.109
12/12/2016				0.789	0.0737			
12/13/2016	0.0241	0.184	0.0758			0.0268	0.22	0.115
2/6/2017	0.0747			0.779	0.0773			
2/8/2017		0.189	0.0823			0.0264	0.234	0.122
3/27/2017				0.77				
3/28/2017	0.0183				0.0728	0.0264	0.226	
3/29/2017		0.184						0.116
3/30/2017			0.0768					
4/24/2017	0.04			0.716	0.0724			
4/26/2017		0.177	0.077			0.0234	0.222	0.127
6/6/2017			0.0711	0.611				
6/7/2017	0.00769 (J)	0.164			0.0581	0.0229	0.201	0.115
2/19/2018	0.00762 (J)			0.872	0.0464			
2/20/2018		0.165				0.0255	0.201	0.132
2/21/2018			0.0864					
5/14/2018				0.914				
5/15/2018	0.00701 (J)	0.172			0.0501	0.0258	0.214	0.163
5/16/2018			0.0658					
10/15/2018				0.896	0.049			
10/16/2018	<0.01 (J)		0.0846			0.0282	0.233	0.159
10/17/2018		0.165						

# Time Series

Constituent: Barium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		0.117	0.316	0.0696		0.492	
8/2/2016	0.249				0.21		0.0535
9/19/2016	0.219		0.276	0.0503			
9/20/2016		0.193					
9/21/2016					0.107	0.371	0.0458
10/24/2016				0.0468	0.0999	0.311	
10/25/2016	0.252	0.222	0.3				0.0489
12/12/2016					0.0772		
12/13/2016	0.276		0.314	0.0472		0.374	
12/14/2016		0.222					0.0494
2/6/2017				0.0498			
2/7/2017						0.368	
2/8/2017	0.277	0.294	0.324		0.0625		0.0449
3/27/2017				0.0559			
3/28/2017	0.243	0.288			0.0581	0.391	0.0446
3/29/2017			0.316				
4/24/2017				0.055			
4/26/2017	0.246	0.24	0.323		0.0587	0.371	0.0424
6/5/2017				0.0552			
6/6/2017		0.228	0.29		0.0452	0.33	0.0402
6/7/2017	0.225						
2/19/2018				0.077			
2/20/2018	0.276	0.224					0.0441
2/21/2018			0.3		0.0455	0.291	
5/15/2018		0.212		0.0751			0.0456
5/16/2018	0.286		0.315		0.0505	0.343	
10/15/2018		0.133		0.0682			
10/16/2018					0.0436	0.35	0.0909
10/17/2018	0.314		0.331				

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

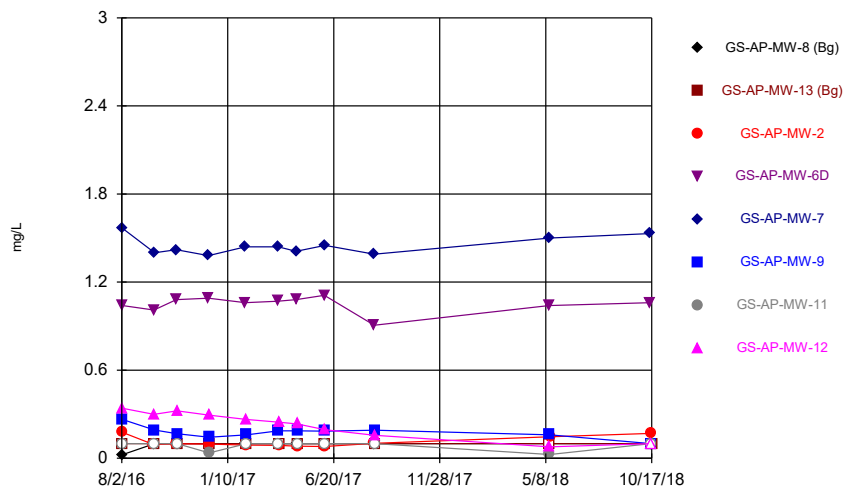
	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.003	<0.003		<0.003		<0.003	
8/3/2016	<0.003			<0.003		<0.003		<0.003
9/19/2016			<0.003					
9/20/2016		<0.003		<0.003				<0.003
9/21/2016	<0.003				<0.003	<0.003	<0.003	
10/24/2016			<0.003	<0.003	<0.003			
10/25/2016	<0.003	<0.003				<0.003	<0.003	<0.003
12/12/2016				<0.003	<0.003			
12/13/2016	<0.003	<0.003	<0.003			<0.003	<0.003	<0.003
2/6/2017	<0.003			<0.003	<0.003			
2/8/2017		<0.003	<0.003			0.000705 (J)	<0.003	<0.003
3/27/2017				<0.003				
3/28/2017	<0.003				<0.003	<0.003	<0.003	
3/29/2017		<0.003						<0.003
3/30/2017			<0.003					
4/24/2017	<0.003			<0.003	<0.003			
4/26/2017		<0.003	<0.003			<0.003	<0.003	<0.003
6/6/2017			<0.003	<0.003				
6/7/2017	<0.003	<0.003			<0.003	<0.003	<0.003	<0.003
2/19/2018	<0.003			<0.003	<0.003			
2/20/2018		<0.003				<0.003	<0.003	<0.003
2/21/2018			<0.003					
5/14/2018				<0.003				
5/15/2018	<0.003	<0.003			<0.003	<0.003	<0.003	<0.003
5/16/2018			<0.003					
10/15/2018				<0.003	<0.003			
10/16/2018	<0.003		<0.003 (J)			<0.003 (J)	<0.003	<0.003
10/17/2018		<0.003						

# Time Series

Constituent: Beryllium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

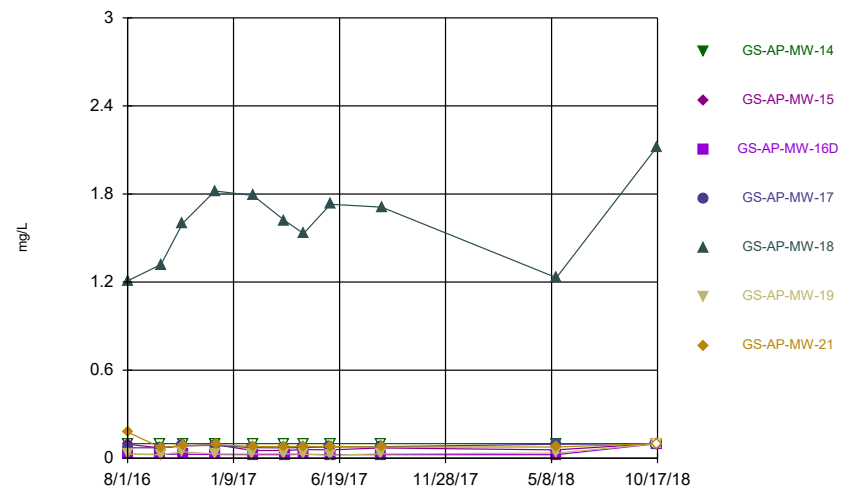
	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		<0.003	<0.003	<0.003		<0.003	
8/2/2016	<0.003				<0.003		<0.003
9/19/2016	<0.003		<0.003	<0.003			
9/20/2016		<0.003					
9/21/2016					<0.003	<0.003	<0.003
10/24/2016				<0.003	<0.003	<0.003	
10/25/2016	<0.003	<0.003	<0.003				<0.003
12/12/2016					<0.003		
12/13/2016	<0.003		<0.003	<0.003		<0.003	
12/14/2016		<0.003					<0.003
2/6/2017				<0.003			
2/7/2017						<0.003	
2/8/2017	<0.003	<0.003	<0.003		<0.003		<0.003
3/27/2017				<0.003			
3/28/2017	<0.003	<0.003			<0.003	<0.003	<0.003
3/29/2017			<0.003				
4/24/2017				<0.003			
4/26/2017	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003
6/5/2017				<0.003			
6/6/2017		<0.003	<0.003		<0.003	<0.003	<0.003
6/7/2017	<0.003						
2/19/2018				<0.003			
2/20/2018	<0.003	<0.003					<0.003
2/21/2018			<0.003		<0.003	<0.003	
5/15/2018		<0.003		<0.003			<0.003
5/16/2018	<0.003		<0.003		<0.003	<0.003	
10/15/2018		<0.003		<0.003			
10/16/2018					<0.003	<0.003	<0.003
10/17/2018	<0.003		<0.003 (J)				

### Time Series



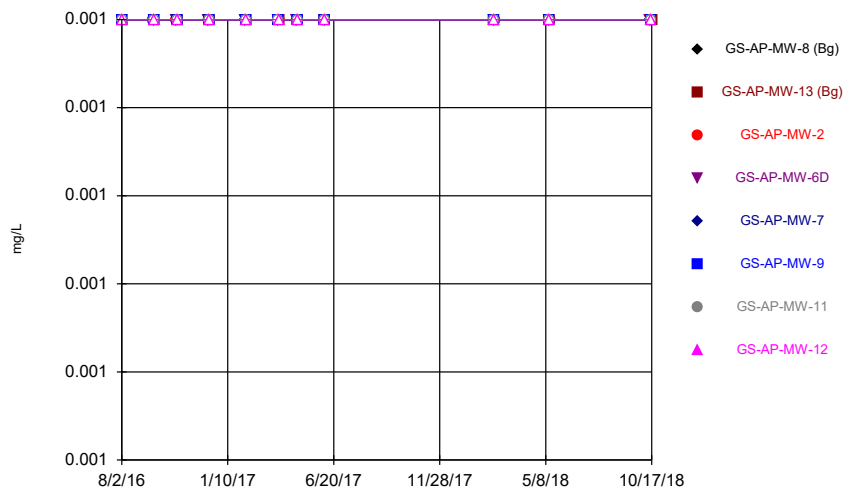
Constituent: Boron Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



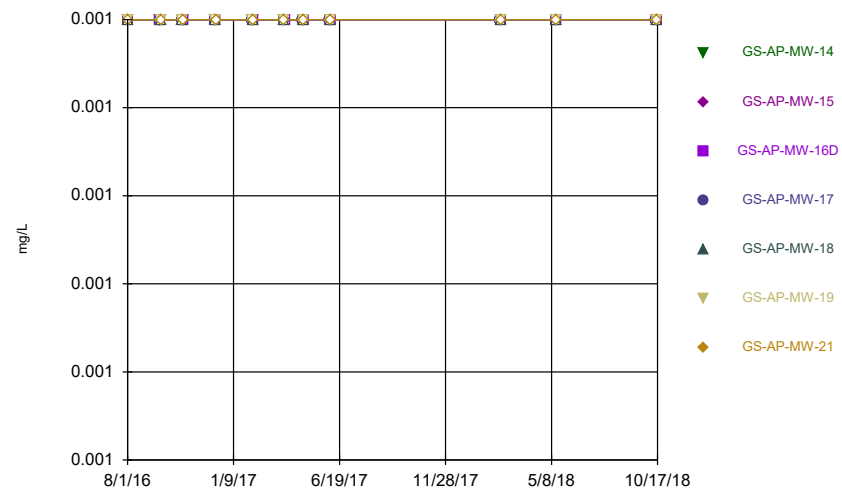
Constituent: Boron Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



Constituent: Cadmium Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



Constituent: Cadmium Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond



# Time Series

Constituent: Boron (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.1	0.178		1.57		<0.1	
8/3/2016	0.0239 (J)			1.04		0.264		0.34
9/19/2016			0.0937 (J)					
9/20/2016		<0.1		1.01				0.299
9/21/2016	<0.1				1.4	0.192	<0.1	
10/24/2016			0.0986 (J)	1.08	1.42			
10/25/2016	<0.1	<0.1				0.167	<0.1	0.323
12/12/2016				1.09	1.38			
12/13/2016	<0.1	<0.1	0.0965 (J)			0.143	0.0362 (J)	0.294
2/6/2017	<0.1			1.06	1.44			
2/8/2017		<0.1	0.0896 (J)			0.16	<0.1	0.264
3/27/2017				1.07				
3/28/2017	<0.1				1.44	0.187	<0.1	
3/29/2017		<0.1						0.246
3/30/2017			0.0871 (J)					
4/24/2017	<0.1			1.08	1.41			
4/26/2017		<0.1	0.0818 (J)			0.187	<0.1	0.234
6/6/2017			0.0805 (J)	1.11				
6/7/2017	<0.1	<0.1			1.45	0.185	<0.1	0.194
8/21/2017	<0.1		0.102	0.906	1.39			
8/22/2017		<0.1				0.191	<0.1	0.156
5/14/2018				1.04				
5/15/2018	<0.1	<0.1			1.5	0.16	0.0255 (J)	0.0781 (J)
5/16/2018			0.147					
10/15/2018				1.06	1.53			
10/16/2018	<0.1		0.169			<0.1 (J)	<0.1 (J)	<0.1 (J)
10/17/2018		<0.1						

# Time Series

Constituent: Boron (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		0.0955 (J)	0.0266 (J)	0.0712 (J)		0.0279 (J)	
8/2/2016	<0.1				1.21		0.176
9/19/2016	<0.1		0.0262 (J)	0.0716 (J)			
9/20/2016		0.0706 (J)					
9/21/2016					1.32	0.0235 (J)	0.0723 (J)
10/24/2016				0.0858 (J)	1.6	0.0444 (J)	
10/25/2016	<0.1	0.0849 (J)	0.0273 (J)				0.0867 (J)
12/12/2016					1.82		
12/13/2016	<0.1		0.0258 (J)	0.0875 (J)		0.0285 (J)	
12/14/2016		0.0914 (J)					0.092 (J)
2/6/2017				0.0729 (J)			
2/7/2017						0.03 (J)	
2/8/2017	<0.1	0.0524 (J)	0.0249 (J)		1.79		0.0803 (J)
3/27/2017				0.0706 (J)			
3/28/2017	<0.1	0.0532 (J)			1.62	0.0309 (J)	0.0804 (J)
3/29/2017			0.0247 (J)				
4/24/2017				0.0737 (J)			
4/26/2017	<0.1	0.0598 (J)	0.0264 (J)		1.53	0.0273 (J)	0.0801 (J)
6/5/2017				0.0767 (J)			
6/6/2017		0.0576 (J)	0.0247 (J)		1.73	0.0212 (J)	0.0795 (J)
6/7/2017	<0.1						
8/22/2017	<0.1	0.0702 (J)	0.0246 (J)	0.0786 (J)		0.0294 (J)	
8/23/2017					1.71		0.0764 (J)
5/15/2018		0.0567 (J)		0.0953 (J)			0.0769 (J)
5/16/2018	<0.1		0.0247 (J)		1.23	0.0356 (J)	
10/15/2018		<0.1 (J)		<0.1 (J)			
10/16/2018					2.12	<0.1 (J)	<0.1 (J)
10/17/2018	<0.1		<0.1 (J)				

# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.001	<0.001		<0.001		<0.001	
8/3/2016	<0.001			<0.001		<0.001		<0.001
9/19/2016			<0.001					
9/20/2016		<0.001		<0.001				<0.001
9/21/2016	<0.001				<0.001	<0.001	<0.001	
10/24/2016			<0.001	<0.001	<0.001			
10/25/2016	<0.001	<0.001				<0.001	<0.001	<0.001
12/12/2016				<0.001	<0.001			
12/13/2016	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
2/6/2017	<0.001			<0.001	<0.001			
2/8/2017		<0.001	<0.001			<0.001	<0.001	<0.001
3/27/2017				<0.001				
3/28/2017	<0.001				<0.001	<0.001	<0.001	
3/29/2017		<0.001						<0.001
3/30/2017			<0.001					
4/24/2017	<0.001			<0.001	<0.001			
4/26/2017		<0.001	<0.001			<0.001	<0.001	<0.001
6/6/2017			<0.001	<0.001				
6/7/2017	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001
2/19/2018	<0.001			<0.001	<0.001			
2/20/2018		<0.001				<0.001	<0.001	<0.001
2/21/2018			<0.001					
5/14/2018				<0.001				
5/15/2018	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001
5/16/2018			<0.001					
10/15/2018				<0.001	<0.001			
10/16/2018	<0.001		<0.001			<0.001	<0.001	<0.001
10/17/2018		<0.001						

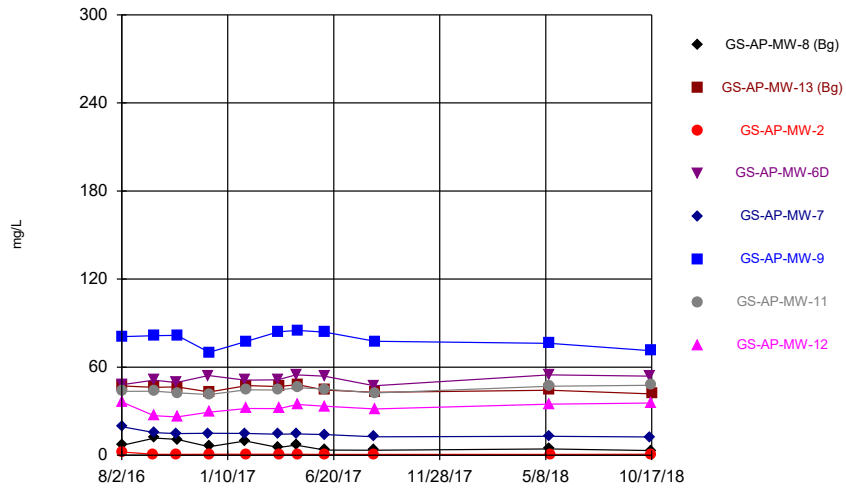
# Time Series

Constituent: Cadmium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

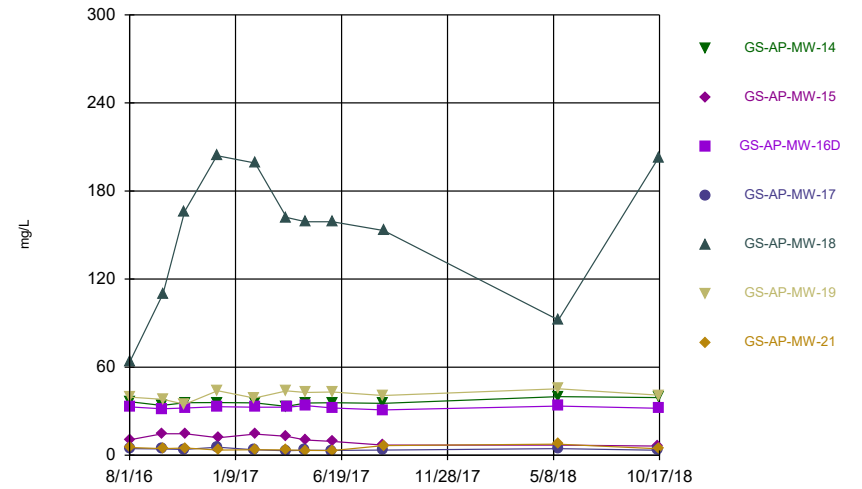
	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		<0.001	<0.001	<0.001		<0.001	
8/2/2016	<0.001				<0.001		<0.001
9/19/2016	<0.001		<0.001	<0.001			
9/20/2016		<0.001					
9/21/2016					<0.001	<0.001	<0.001
10/24/2016				<0.001	<0.001	<0.001	
10/25/2016	<0.001	<0.001	<0.001				<0.001
12/12/2016					<0.001		
12/13/2016	<0.001		<0.001	<0.001		<0.001	
12/14/2016		<0.001					<0.001
2/6/2017				<0.001			
2/7/2017						<0.001	
2/8/2017	<0.001	<0.001	<0.001		<0.001		<0.001
3/27/2017				<0.001			
3/28/2017	<0.001	<0.001			<0.001	<0.001	<0.001
3/29/2017			<0.001				
4/24/2017				<0.001			
4/26/2017	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001
6/5/2017				<0.001			
6/6/2017		<0.001	<0.001		<0.001	<0.001	<0.001
6/7/2017	<0.001						
2/19/2018				<0.001			
2/20/2018	<0.001	<0.001					<0.001
2/21/2018			<0.001		<0.001	<0.001	
5/15/2018		<0.001		<0.001			<0.001
5/16/2018	<0.001		<0.001		<0.001	<0.001	
10/15/2018		<0.001		<0.001			
10/16/2018					<0.001	<0.001	<0.001
10/17/2018	<0.001		<0.001				

Time Series



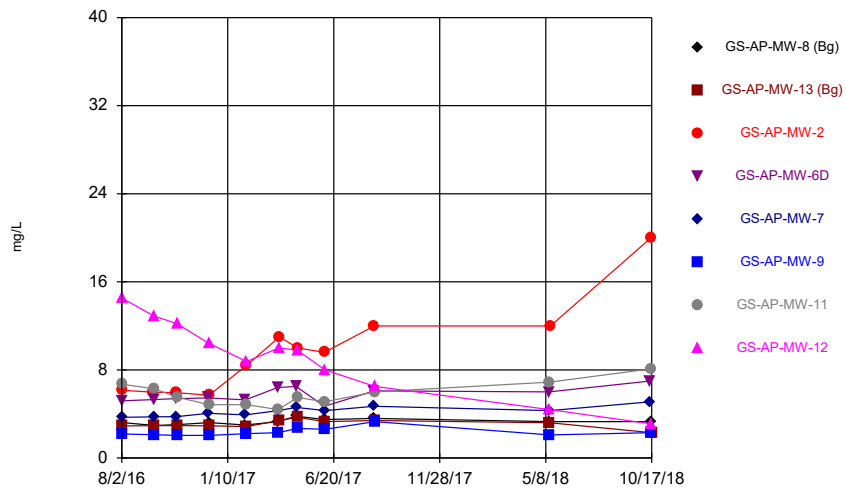
Constituent: Calcium Analysis Run 12/20/2018 6:17 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



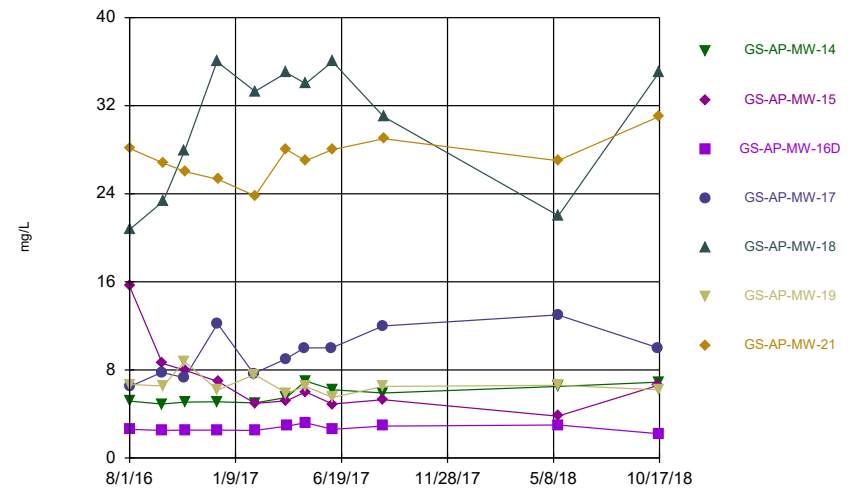
Constituent: Calcium Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Chloride Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Chloride Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Time Series

Constituent: Calcium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		47.2	2.25		19.4		43.5	
8/3/2016	6.85			48.1		80.8		36.1
9/19/2016			0.724					
9/20/2016		46.3		51.2				27
9/21/2016	11.7				15.4	81.5	43.6	
10/24/2016			0.635	49.5	14.8			
10/25/2016	10.8	46.6				81.7	42.6	26.1
12/12/2016				54.3	15			
12/13/2016	5.86	43.1	0.714			70.1	41.4	29.4
2/6/2017	9.76			51.2	14.9			
2/8/2017		47.5	0.722			77.6	44.6	31.9
3/27/2017				51.4				
3/28/2017	5.28				14.3	84.1	44.4	
3/29/2017		46.8						31.8
3/30/2017			0.686					
4/24/2017	6.89			54.7	14.5			
4/26/2017		48.1	0.646			85	46	34.6
6/6/2017			0.569	53.9				
6/7/2017	3.58	44.4			14.1	83.9	45.1	33.4
8/21/2017	3.38		0.634	47.3	12.6			
8/22/2017		42.9				77.6	42.4	31.5
5/14/2018				54.8				
5/15/2018	4.25	44.3			12.9	76.2	47	34.8
5/16/2018			0.588					
10/15/2018				53.9	12.5			
10/16/2018	3.21		0.714			71.2	47.7	35.6
10/17/2018		41.8						

# Time Series

Constituent: Calcium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		10.5	33	4.52		39.6	
8/2/2016	36.4				64.2		5.29
9/19/2016	33.9		31.7	4.3			
9/20/2016		14.7					
9/21/2016					110	38.1	4.51
10/24/2016				4.02	166	34.7	
10/25/2016	35.8	14.7	32.2				4.92
12/12/2016					204		
12/13/2016	35.9		33.1	5.5		44	
12/14/2016		11.9					3.5
2/6/2017				3.79			
2/7/2017						39	
2/8/2017	35.7	14.4	32.7		199		3.75
3/27/2017				3.13			
3/28/2017	33.3	12.9			162	43.9	3.63
3/29/2017			32.7				
4/24/2017				3.41			
4/26/2017	35.6	10.4	33.8		159	42.8	3.3
6/5/2017				3.32			
6/6/2017		9.41	32.2		159	43.1	3.24
6/7/2017	35.8						
8/22/2017	35.3	6.89	30.9	3.52		40.7	
8/23/2017					153		6.6
5/15/2018		6.86		4.53			7.57
5/16/2018	39.9		33.5		92.1	45.3	
10/15/2018		6.28		3.38			
10/16/2018					203	40.9	4.4
10/17/2018	39.3		32				

# Time Series

Constituent: Chloride (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		2.91	6.15		3.7		6.7	
8/3/2016	3.21			5.2		2.18		14.5
9/19/2016			5.98					
9/20/2016		2.94		5.31				12.9
9/21/2016	2.95				3.74	2.11	6.28	
10/24/2016			5.93	5.4	3.75			
10/25/2016	3.03	2.94				2.06	5.53	12.2
12/12/2016				5.46	4.06			
12/13/2016	3.21	2.93	5.7			2.05	4.84	10.4
2/6/2017	3			5.28	3.92			
2/8/2017		2.85	8.44			2.21	4.84	8.77
3/27/2017				6.4 (D)				
3/28/2017	3.3 (D)				4.3 (D)	2.3 (D)	4.4 (D)	
3/29/2017		3.4 (D)						10 (D)
3/30/2017			11 (D)					
4/24/2017	3.8 (D)			6.5 (D)	4.6 (D)			
4/26/2017		3.7 (D)	10 (D)			2.7 (D)	5.5 (D)	9.8 (D)
6/6/2017			9.6	4.7				
6/7/2017	3.5	3.3			4.3	2.6	5.1	8
8/21/2017	3.6		12	6.1	4.7			
8/22/2017		3.4				3.3	6	6.5
5/14/2018				6				
5/15/2018	3.3	3.2			4.3	2.1	6.9	4.4
5/16/2018			12					
10/15/2018				7	5.1			
10/16/2018	3.3		20			2.3	8.1	3.1
10/17/2018		2.3						



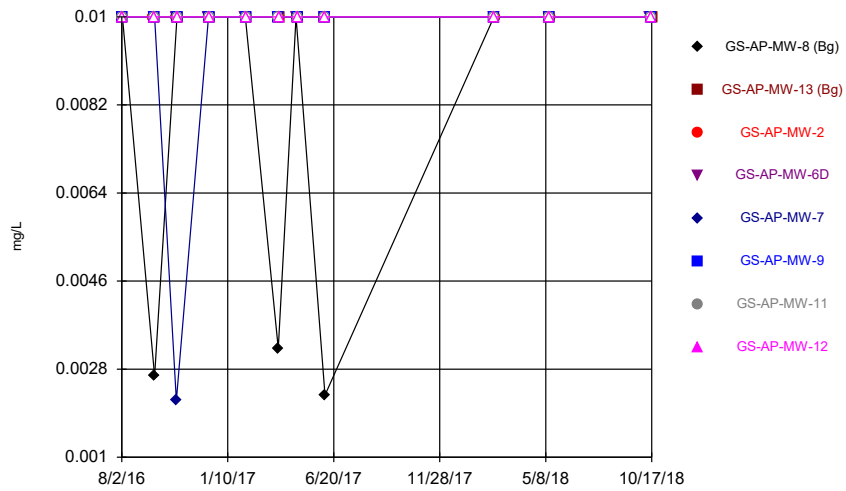
# Time Series

Constituent: Chloride (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

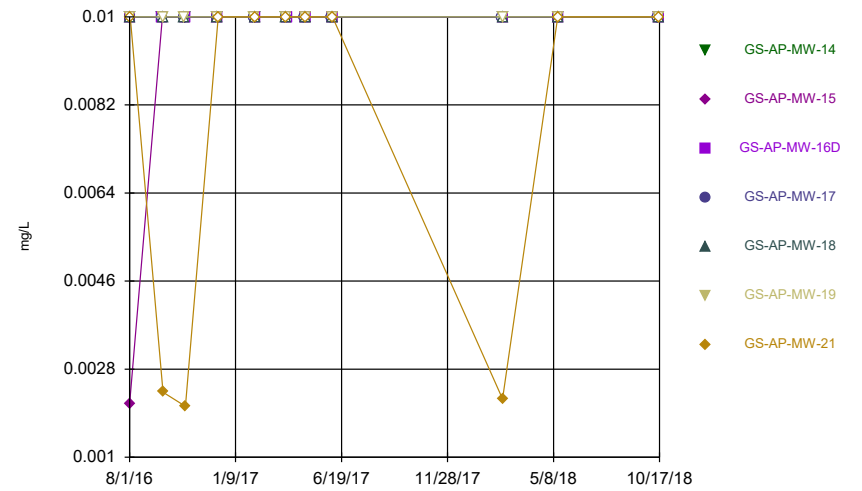
	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		15.6	2.6	6.47		6.67	
8/2/2016	5.17				20.8		28.1
9/19/2016	4.9		2.51	7.78			
9/20/2016		8.6					
9/21/2016					23.3	6.54	26.8
10/24/2016				7.29	27.9	8.77	
10/25/2016	5.08	7.96	2.53				26
12/12/2016					36		
12/13/2016	5.1		2.53	12.2		6.16	
12/14/2016		6.94					25.3
2/6/2017				7.68			
2/7/2017						7.57	
2/8/2017	5	4.96	2.5		33.3		23.8
3/27/2017				9 (D)			
3/28/2017	5.5 (D)	5.2 (D)			35 (D)	5.9 (D)	28 (D)
3/29/2017			2.9 (D)				
4/24/2017				10 (D)			
4/26/2017	7 (D)	6 (D)	3.2 (D)		34 (D)	6.5 (D)	27 (D)
6/5/2017				10			
6/6/2017		4.9	2.6		36	5.5	28
6/7/2017	6.2						
8/22/2017	5.9	5.3	2.9	12		6.5	
8/23/2017					31		29
5/15/2018		3.8		13			27
5/16/2018	6.5		3		22	6.6	
10/15/2018		6.6		10			
10/16/2018					35	6.2	31
10/17/2018	6.9		2.2				

Time Series



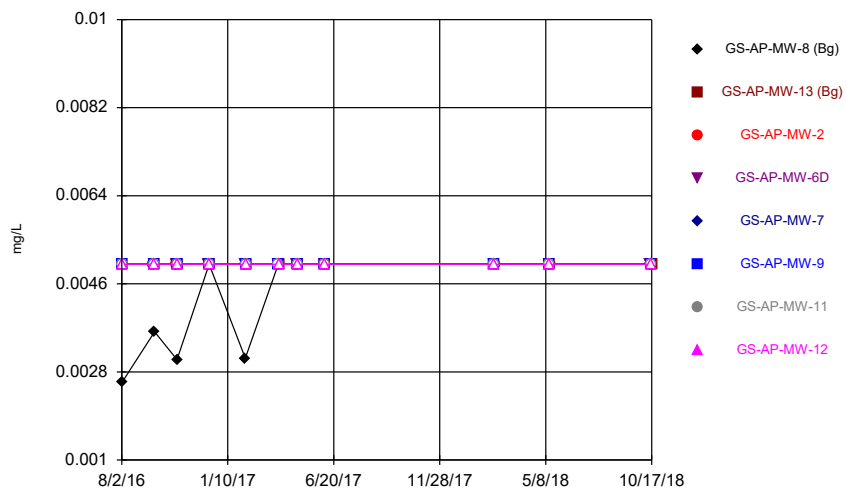
Constituent: Chromium Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



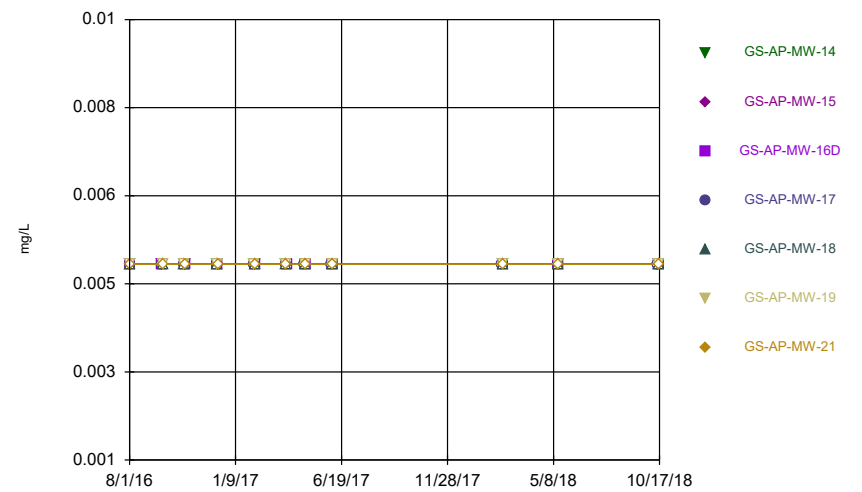
Constituent: Chromium Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Cobalt Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Cobalt Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Time Series

Constituent: Chromium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.01	<0.01		<0.01		<0.01	
8/3/2016	<0.01			<0.01		<0.01		<0.01
9/19/2016			<0.01					
9/20/2016		<0.01		<0.01				<0.01
9/21/2016	0.00266 (J)				<0.01	<0.01	<0.01	
10/24/2016			<0.01	<0.01	0.00216 (J)			
10/25/2016	<0.01	<0.01				<0.01	<0.01	<0.01
12/12/2016				<0.01	<0.01			
12/13/2016	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01
2/6/2017	<0.01			<0.01	<0.01			
2/8/2017		<0.01	<0.01			<0.01	<0.01	<0.01
3/27/2017				<0.01				
3/28/2017	0.00322 (J)				<0.01	<0.01	<0.01	
3/29/2017		<0.01						<0.01
3/30/2017			<0.01					
4/24/2017	<0.01			<0.01	<0.01			
4/26/2017		<0.01	<0.01			<0.01	<0.01	<0.01
6/6/2017			<0.01	<0.01				
6/7/2017	0.00227 (J)	<0.01			<0.01	<0.01	<0.01	<0.01
2/19/2018	<0.01			<0.01	<0.01			
2/20/2018		<0.01				<0.01	<0.01	<0.01
2/21/2018			<0.01					
5/14/2018				<0.01				
5/15/2018	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01
5/16/2018			<0.01					
10/15/2018				<0.01	<0.01			
10/16/2018	<0.01		<0.01			<0.01	<0.01	<0.01
10/17/2018		<0.01						

# Time Series

Constituent: Chromium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		0.00209 (J)	<0.01	<0.01		<0.01	
8/2/2016	<0.01				<0.01		<0.01
9/19/2016	<0.01		<0.01	<0.01			
9/20/2016		<0.01					
9/21/2016					<0.01	<0.01	0.00233 (J)
10/24/2016				<0.01	<0.01	<0.01	
10/25/2016	<0.01	<0.01	<0.01				0.00204 (J)
12/12/2016					<0.01		
12/13/2016	<0.01		<0.01	<0.01		<0.01	
12/14/2016		<0.01					<0.01
2/6/2017				<0.01			
2/7/2017						<0.01	
2/8/2017	<0.01	<0.01	<0.01		<0.01		<0.01
3/27/2017				<0.01			
3/28/2017	<0.01	<0.01			<0.01	<0.01	<0.01
3/29/2017			<0.01				
4/24/2017				<0.01			
4/26/2017	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01
6/5/2017				<0.01			
6/6/2017		<0.01	<0.01		<0.01	<0.01	<0.01
6/7/2017	<0.01						
2/19/2018				<0.01			
2/20/2018	<0.01	<0.01					0.00219 (J)
2/21/2018			<0.01		<0.01	<0.01	
5/15/2018		<0.01		<0.01			<0.01
5/16/2018	<0.01		<0.01		<0.01	<0.01	
10/15/2018		<0.01		<0.01			
10/16/2018					<0.01	<0.01	<0.01
10/17/2018	<0.01		<0.01				

# Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.005	<0.005		<0.005		<0.005	
8/3/2016	0.0026 (J)			<0.005		<0.005		<0.005
9/19/2016			<0.005					
9/20/2016		<0.005		<0.005				<0.005
9/21/2016	0.00362 (J)				<0.005	<0.005	<0.005	
10/24/2016			<0.005	<0.005	<0.005			
10/25/2016	0.00305 (J)	<0.005				<0.005	<0.005	<0.005
12/12/2016				<0.005	<0.005			
12/13/2016	<0.005	<0.005	<0.005			<0.005	<0.005	<0.005
2/6/2017	0.00308 (J)			<0.005	<0.005			
2/8/2017		<0.005	<0.005			<0.005	<0.005	<0.005
3/27/2017				<0.005				
3/28/2017	<0.005				<0.005	<0.005	<0.005	
3/29/2017		<0.005						<0.005
3/30/2017			<0.005					
4/24/2017	<0.005			<0.005	<0.005			
4/26/2017		<0.005	<0.005			<0.005	<0.005	<0.005
6/6/2017			<0.005	<0.005				
6/7/2017	<0.005	<0.005			<0.005	<0.005	<0.005	<0.005
2/19/2018	<0.005			<0.005	<0.005			
2/20/2018		<0.005				<0.005	<0.005	<0.005
2/21/2018			<0.005					
5/14/2018				<0.005				
5/15/2018	<0.005	<0.005			<0.005	<0.005	<0.005	<0.005
5/16/2018			<0.005					
10/15/2018				<0.005	<0.005			
10/16/2018	<0.005		<0.005			<0.005	<0.005	<0.005
10/17/2018		<0.005						

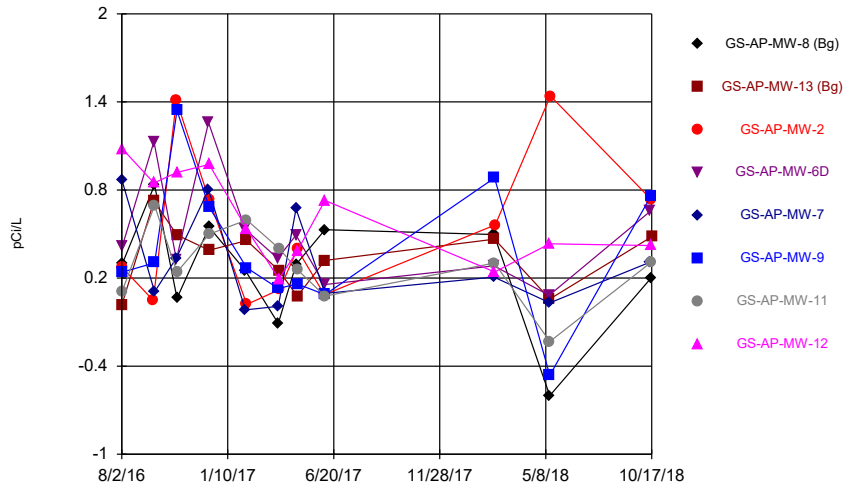
# Time Series

Constituent: Cobalt (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

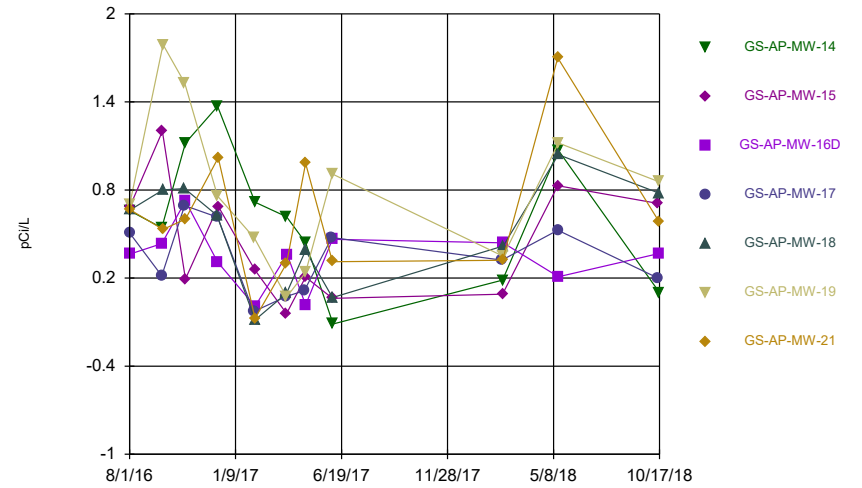
	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		<0.005	<0.005	<0.005		<0.005	
8/2/2016	<0.005				<0.005		<0.005
9/19/2016	<0.005		<0.005	<0.005			
9/20/2016		<0.005					
9/21/2016					<0.005	<0.005	<0.005
10/24/2016				<0.005	<0.005	<0.005	
10/25/2016	<0.005	<0.005	<0.005				<0.005
12/12/2016					<0.005		
12/13/2016	<0.005		<0.005	<0.005		<0.005	
12/14/2016		<0.005					<0.005
2/6/2017				<0.005			
2/7/2017						<0.005	
2/8/2017	<0.005	<0.005	<0.005		<0.005		<0.005
3/27/2017				<0.005			
3/28/2017	<0.005	<0.005			<0.005	<0.005	<0.005
3/29/2017			<0.005				
4/24/2017				<0.005			
4/26/2017	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005
6/5/2017				<0.005			
6/6/2017		<0.005	<0.005		<0.005	<0.005	<0.005
6/7/2017	<0.005						
2/19/2018				<0.005			
2/20/2018	<0.005	<0.005					<0.005
2/21/2018			<0.005		<0.005	<0.005	
5/15/2018		<0.005		<0.005			<0.005
5/16/2018	<0.005		<0.005		<0.005	<0.005	
10/15/2018		<0.005		<0.005			
10/16/2018					<0.005	<0.005	<0.005
10/17/2018	<0.005		<0.005				

Time Series



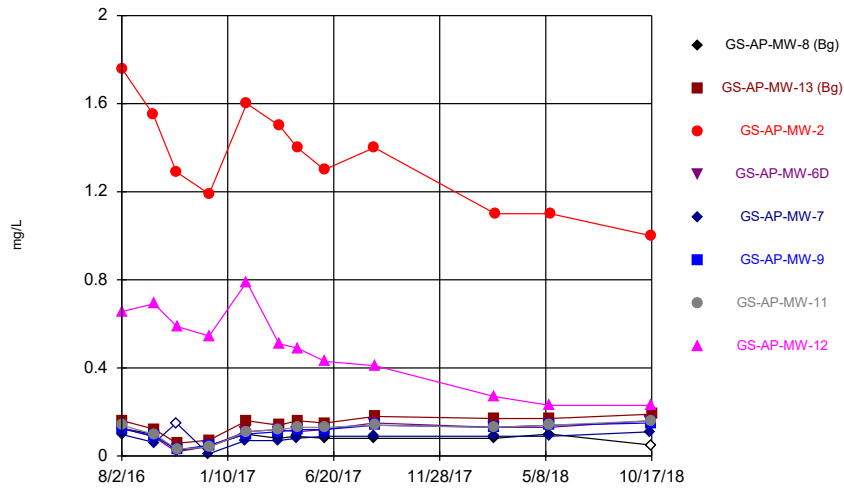
Constituent: Combined Radium 226 + 228 Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



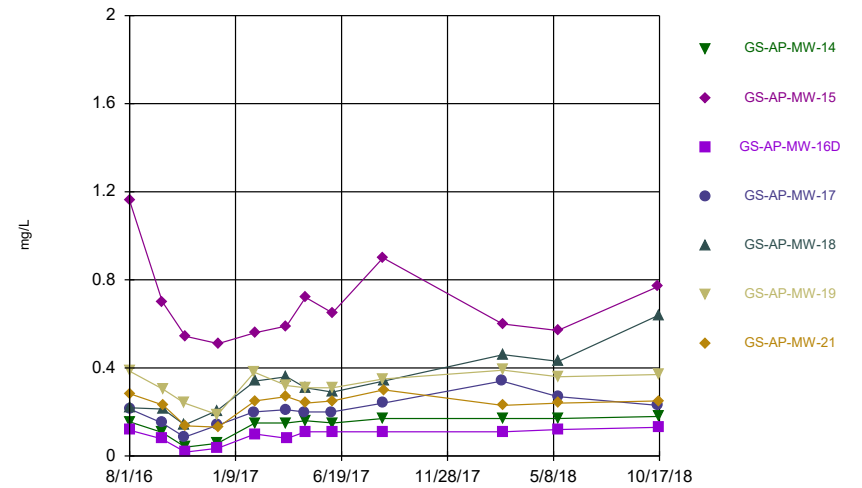
Constituent: Combined Radium 226 + 228 Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Fluoride Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Fluoride Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		0.0177 (U)	0.274 (U)		0.87		0.105 (U)	
8/3/2016	0.299 (U)			0.42 (U)		0.241 (U)		1.08
9/19/2016			0.0478 (U)					
9/20/2016		0.725		1.13				0.848
9/21/2016	0.835				0.107 (U)	0.304 (U)	0.694	
10/24/2016			1.41	0.327 (U)	0.337 (U)			
10/25/2016	0.0629 (U)	0.494 (U)				1.34	0.241 (U)	0.92
12/12/2016				1.26	0.803			
12/13/2016	0.547	0.39 (U)	0.733			0.683	0.499	0.974
2/6/2017	0.251 (U)			0.532	-0.0165 (U)			
2/8/2017		0.455 (U)	0.0206 (U)			0.27 (U)	0.596	0.535
3/27/2017				0.334 (U)				
3/28/2017	-0.109 (U)				0.00697 (U)	0.129 (U)		
3/29/2017		0.251 (U)					0.403 (U)	0.194 (U)
3/30/2017			0.122 (U)					
4/24/2017	0.293 (U)			0.492	0.672			
4/26/2017		0.0762 (U)	0.397 (U)			0.16 (U)	0.258 (U)	0.384 (U)
6/6/2017			0.0873 (U)	0.156 (U)				
6/7/2017	0.529	0.32 (U)			0.096 (U)	0.0871 (U)	0.077 (U)	0.729
2/19/2018	0.497			0.283 (U)	0.207 (U)			
2/20/2018		0.465				0.882	0.303 (U)	0.242 (U)
2/21/2018			0.562					
5/14/2018				0.083 (U)				
5/15/2018	-0.601 (U)	0.0571 (U)			0.0311 (U)	-0.462 (U)	-0.232 (U)	0.433 (U)
5/16/2018			1.44					
10/15/2018				0.656	0.309 (U)			
10/16/2018	0.2 (U)		0.736			0.761	0.307 (U)	0.421 (U)
10/17/2018		0.482						



# Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		0.682	0.363 (U)	0.508 (U)		0.697 (U)	
8/2/2016	0.657				0.665		0.665
9/19/2016	0.543		0.435 (U)	0.216 (U)			
9/20/2016		1.2					
9/21/2016					0.801	1.79	0.532 (U)
10/24/2016				0.694	0.809	1.53	
10/25/2016	1.12	0.194 (U)	0.725				0.601
12/12/2016					0.628 (U)		
12/13/2016	1.37		0.309 (U)	0.614		0.758	
12/14/2016		0.688					1.02
2/6/2017				-0.0283 (U)			
2/7/2017						0.473	
2/8/2017	0.717	0.254 (U)	0.00772 (U)		-0.0851 (U)		-0.074 (U)
3/27/2017				0.0736 (U)			
3/28/2017	0.618	-0.0411 (U)			0.0973 (U)	0.0705 (U)	0.3 (U)
3/29/2017			0.36 (U)				
4/24/2017				0.114 (U)			
4/26/2017	0.442	0.207 (U)	0.0175 (U)		0.388 (U)	0.238 (U)	0.982 (U)
6/5/2017				0.476			
6/6/2017		0.0618 (U)	0.464		0.0674 (U)	0.909	0.312 (U)
6/7/2017	-0.113 (U)						
2/19/2018				0.322 (U)			
2/20/2018	0.186 (U)	0.0898 (U)					0.321 (U)
2/21/2018			0.44		0.418 (U)	0.349 (U)	
5/15/2018		0.829		0.526			1.7
5/16/2018	1.07		0.209 (U)		1.04	1.12	
10/15/2018		0.708		0.199 (U)			
10/16/2018					0.779	0.856	0.586
10/17/2018	0.101 (U)		0.368 (U)				

# Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		0.161 (J)	1.76		0.098 (J)		0.14 (J)	
8/3/2016	0.125 (J)			0.127 (J)		0.123 (J)		0.656
9/19/2016			1.55					
9/20/2016		0.122 (J)		0.087 (J)				0.691
9/21/2016	0.098 (J)				0.061 (J)	0.09 (J)	0.098 (J)	
10/24/2016			1.29	0.019 (J)	<0.3			
10/25/2016	0.025 (J)	0.058 (J)				0.028 (J)	0.031 (J)	0.588
12/12/2016				0.043 (J)	0.01 (J)			
12/13/2016	0.045 (J)	0.072 (J)	1.19			0.049 (J)	0.04 (J)	0.545
2/6/2017	0.1 (D)			0.11 (D)	0.07 (JD)			
2/8/2017		0.16 (D)	1.6 (D)			0.1 (D)	0.11 (D)	0.79 (D)
3/27/2017				0.12 (D)				
3/28/2017	0.08 (JD)				0.07 (JD)	0.11 (D)	0.12 (D)	
3/29/2017		0.14 (D)						0.51 (D)
3/30/2017			1.5 (D)					
4/24/2017	0.09 (JD)			0.11 (D)	0.08 (JD)			
4/26/2017		0.16 (D)	1.4 (D)			0.12 (D)	0.13 (D)	0.49 (D)
6/6/2017			1.3	0.12				
6/7/2017	0.08 (J)	0.15			0.09 (J)	0.12	0.13	0.43
8/21/2017	0.08 (J)		1.4	0.15	0.09 (J)			
8/22/2017		0.18				0.14	0.14	0.41
2/19/2018	0.08 (J)			0.13	0.09 (J)			
2/20/2018		0.17				0.13	0.13	0.27
2/21/2018			1.1					
5/14/2018				0.13				
5/15/2018	0.1	0.17			0.09 (J)	0.14	0.14	0.23
5/16/2018			1.1					
10/15/2018				0.16	0.11			
10/16/2018	<0.1 (J)		1			0.15	0.16	0.23
10/17/2018		0.19						

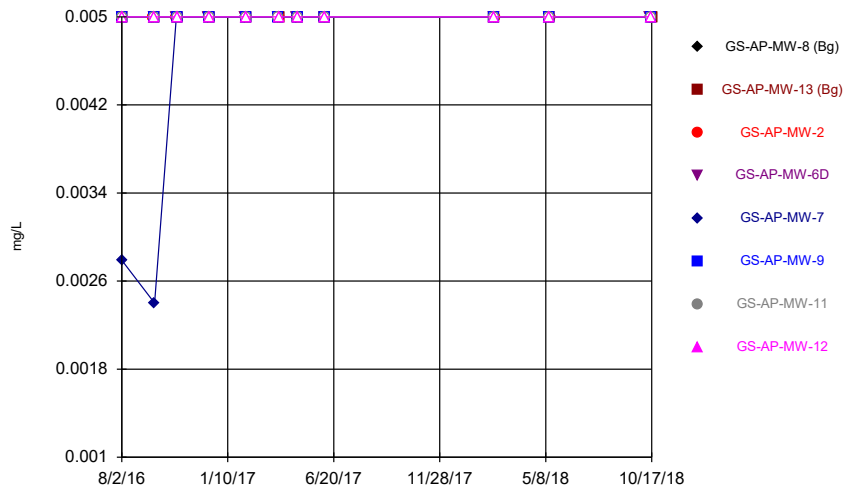
# Time Series

Constituent: Fluoride (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

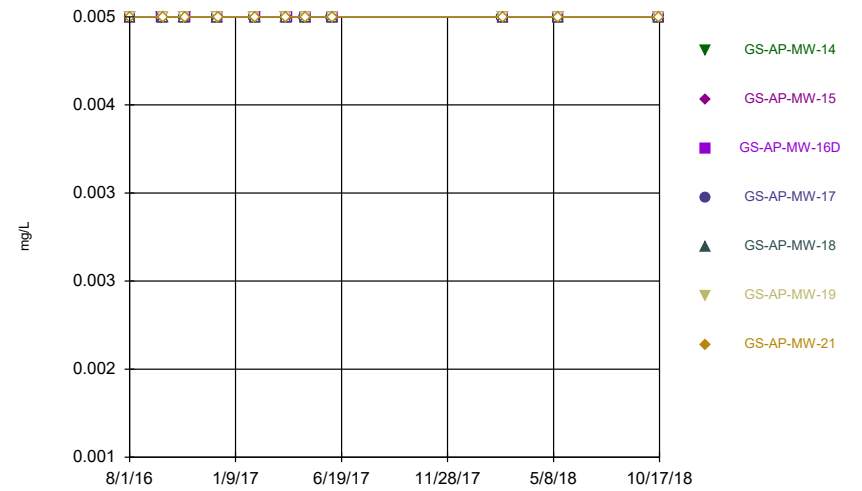
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		1.16	0.117 (J)	0.214 (J)		0.385	
8/2/2016	0.154 (J)				0.219 (J)		0.282 (J)
9/19/2016	0.108 (J)		0.078 (J)	0.151 (J)			
9/20/2016		0.7					
9/21/2016					0.213 (J)	0.303	0.231 (J)
10/24/2016				0.086 (J)	0.141 (J)	0.24 (J)	
10/25/2016	0.04 (J)	0.544	0.018 (J)				0.137 (J)
12/12/2016					0.206 (J)		
12/13/2016	0.058 (J)		0.035 (J)	0.14 (J)		0.188 (J)	
12/14/2016		0.51					0.131 (J)
2/6/2017				0.2 (D)			
2/7/2017						0.38 (D)	
2/8/2017	0.15 (D)	0.56 (D)	0.1 (D)		0.34 (D)		0.25 (D)
3/27/2017				0.21 (D)			
3/28/2017	0.15 (D)	0.59 (D)			0.36 (D)	0.32 (D)	0.27 (D)
3/29/2017			0.08 (JD)				
4/24/2017				0.2 (D)			
4/26/2017	0.16 (D)	0.72 (D)	0.11 (D)		0.31 (D)	0.31 (D)	0.24 (D)
6/5/2017				0.2			
6/6/2017		0.65	0.11		0.29	0.31	0.25
6/7/2017	0.15						
8/22/2017	0.17	0.9	0.11	0.24		0.35	
8/23/2017					0.34		0.3
2/19/2018				0.34			
2/20/2018	0.17	0.6					0.23
2/21/2018			0.11		0.46	0.39	
5/15/2018		0.57		0.27			0.24
5/16/2018	0.17		0.12		0.43	0.36	
10/15/2018		0.77		0.23			
10/16/2018					0.64	0.37	0.25
10/17/2018	0.18		0.13				

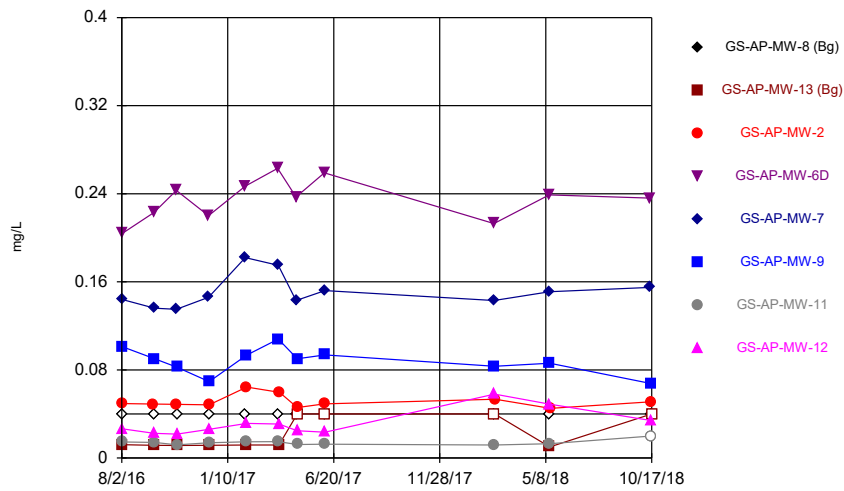
Time Series



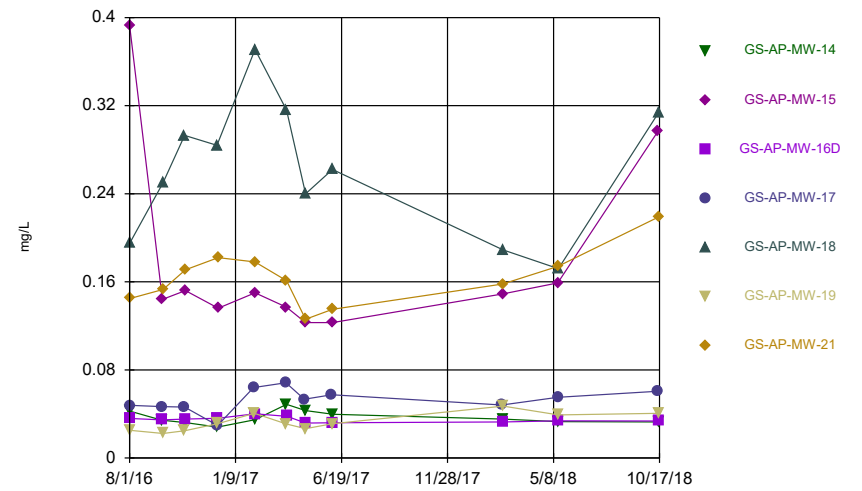
Time Series



Time Series



Time Series



# Time Series

Constituent: Lead (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.005	<0.005		0.00279 (J)		<0.005	
8/3/2016	<0.005			<0.005		<0.005		<0.005
9/19/2016			<0.005					
9/20/2016		<0.005		<0.005				<0.005
9/21/2016	<0.005				0.0024 (J)	<0.005	<0.005	
10/24/2016			<0.005	<0.005	<0.005			
10/25/2016	<0.005	<0.005				<0.005	<0.005	<0.005
12/12/2016				<0.005	<0.005			
12/13/2016	<0.005	<0.005	<0.005			<0.005	<0.005	<0.005
2/6/2017	<0.005			<0.005	<0.005			
2/8/2017		<0.005	<0.005			<0.005	<0.005	<0.005
3/27/2017				<0.005				
3/28/2017	<0.005				<0.005	<0.005	<0.005	
3/29/2017		<0.005						<0.005
3/30/2017			<0.005					
4/24/2017	<0.005			<0.005	<0.005			
4/26/2017		<0.005	<0.005			<0.005	<0.005	<0.005
6/6/2017			<0.005	<0.005				
6/7/2017	<0.005	<0.005			<0.005	<0.005	<0.005	<0.005
2/19/2018	<0.005			<0.005	<0.005			
2/20/2018		<0.005				<0.005	<0.005	<0.005
2/21/2018			<0.005					
5/14/2018				<0.005				
5/15/2018	<0.005	<0.005			<0.005	<0.005	<0.005	<0.005
5/16/2018			<0.005					
10/15/2018				<0.005	<0.005			
10/16/2018	<0.005		<0.005			<0.005	<0.005	<0.005
10/17/2018		<0.005						

# Time Series

Constituent: Lead (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		<0.005	<0.005	<0.005		<0.005	
8/2/2016	<0.005				<0.005		<0.005
9/19/2016	<0.005		<0.005	<0.005			
9/20/2016		<0.005					
9/21/2016					<0.005	<0.005	<0.005
10/24/2016				<0.005	<0.005	<0.005	
10/25/2016	<0.005	<0.005	<0.005				<0.005
12/12/2016					<0.005		
12/13/2016	<0.005		<0.005	<0.005		<0.005	
12/14/2016		<0.005					<0.005
2/6/2017				<0.005			
2/7/2017						<0.005	
2/8/2017	<0.005	<0.005	<0.005		<0.005		<0.005
3/27/2017				<0.005			
3/28/2017	<0.005	<0.005			<0.005	<0.005	<0.005
3/29/2017			<0.005				
4/24/2017				<0.005			
4/26/2017	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005
6/5/2017				<0.005			
6/6/2017		<0.005	<0.005		<0.005	<0.005	<0.005
6/7/2017	<0.005						
2/19/2018				<0.005			
2/20/2018	<0.005	<0.005					<0.005
2/21/2018			<0.005		<0.005	<0.005	
5/15/2018		<0.005		<0.005			<0.005
5/16/2018	<0.005		<0.005		<0.005	<0.005	
10/15/2018		<0.005		<0.005			
10/16/2018					<0.005	<0.005	<0.005
10/17/2018	<0.005		<0.005				

# Time Series

Constituent: Lithium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		0.0121 (J)	0.0495 (J)		0.144		0.0146 (J)	
8/3/2016	<0.04			0.204		0.101		0.0265 (J)
9/19/2016			0.049 (J)					
9/20/2016		0.0116 (J)		0.223				0.0225 (J)
9/21/2016	<0.04				0.136	0.0902	0.0141 (J)	
10/24/2016			0.0488 (J)	0.243	0.135			
10/25/2016	<0.04	0.0114 (J)				0.0825	0.012 (J)	0.0217 (J)
12/12/2016				0.22	0.146			
12/13/2016	<0.04	0.0116 (J)	0.0483 (J)			0.0693	0.0138 (J)	0.026 (J)
2/6/2017	<0.04			0.247	0.182			
2/8/2017		0.0118 (J)	0.0644			0.0935	0.0148 (J)	0.0315 (J)
3/27/2017				0.263				
3/28/2017	<0.04				0.175	0.108	0.0149 (J)	
3/29/2017		0.0118 (J)						0.0308 (J)
3/30/2017			0.0597					
4/24/2017	<0.04			0.237	0.143			
4/26/2017		<0.04	0.0459 (J)			0.0901	0.0123 (J)	0.0248 (J)
6/6/2017			0.0491 (J)	0.259				
6/7/2017	<0.04	<0.04			0.152	0.0937	0.0125 (J)	0.0234 (J)
2/19/2018	<0.04			0.213	0.143			
2/20/2018		<0.04				0.0833	0.0119 (J)	0.058
2/21/2018			0.0534					
5/14/2018				0.239				
5/15/2018	<0.04	0.0101			0.151	0.0861	0.013 (J)	0.0489 (J)
5/16/2018			0.0451 (J)					
10/15/2018				0.236	0.155			
10/16/2018	<0.04		0.0511			0.0676	<0.02 (J)	0.0341
10/17/2018		<0.04						

# Time Series

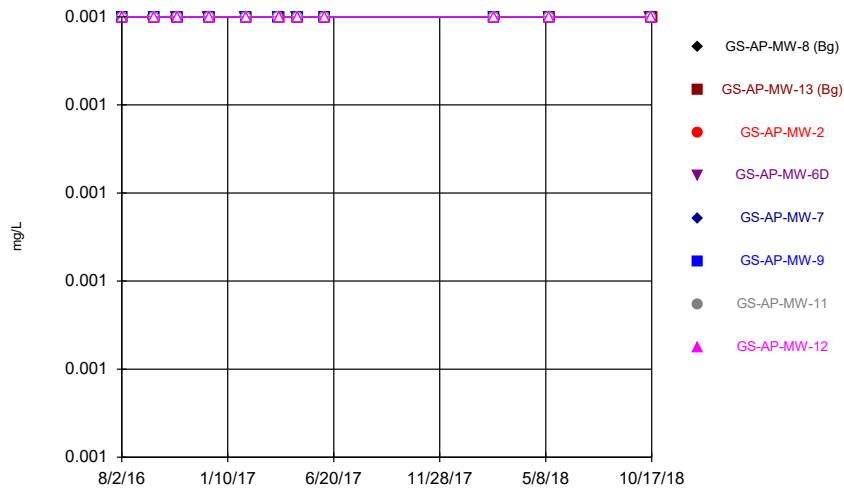
Constituent: Lithium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		0.393	0.036 (J)	0.0479 (J)		0.0252 (J)	
8/2/2016	0.0425 (J)				0.196		0.145
9/19/2016	0.0344 (J)		0.0346 (J)	0.0467 (J)			
9/20/2016		0.144					
9/21/2016					0.25	0.0223 (J)	0.153
10/24/2016				0.0462 (J)	0.293	0.0247 (J)	
10/25/2016	0.0321 (J)	0.152	0.0353 (J)				0.171
12/12/2016					0.284 (J)		
12/13/2016	0.0281 (J)		0.0361 (J)	0.0296 (J)		0.0312 (J)	
12/14/2016		0.136					0.182
2/6/2017				0.064			
2/7/2017						0.0406 (J)	
2/8/2017	0.0348 (J)	0.15	0.0401 (J)		0.371		0.178
3/27/2017				0.0683			
3/28/2017	0.0488 (J)	0.137			0.316	0.0309 (J)	0.161
3/29/2017			0.0379 (J)				
4/24/2017				0.0534			
4/26/2017	0.0431 (J)	0.123	0.0318 (J)		0.24	0.0267 (J)	0.126
6/5/2017				0.0574			
6/6/2017		0.123	0.032 (J)		0.262	0.0311 (J)	0.135
6/7/2017	0.0397 (J)						
2/19/2018				0.0481 (J)			
2/20/2018	0.0353 (J)	0.149					0.158
2/21/2018			0.0327 (J)		0.189	0.0472 (J)	
5/15/2018		0.159		0.0551			0.174
5/16/2018	0.033 (J)		0.0337 (J)		0.172	0.0391 (J)	
10/15/2018		0.297		0.0606			
10/16/2018					0.314	0.0406	0.219
10/17/2018	0.0327		0.0336				

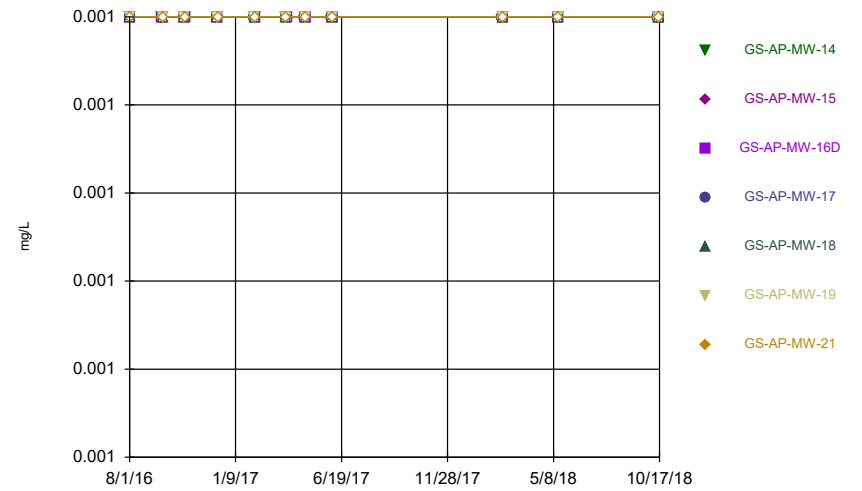


Time Series



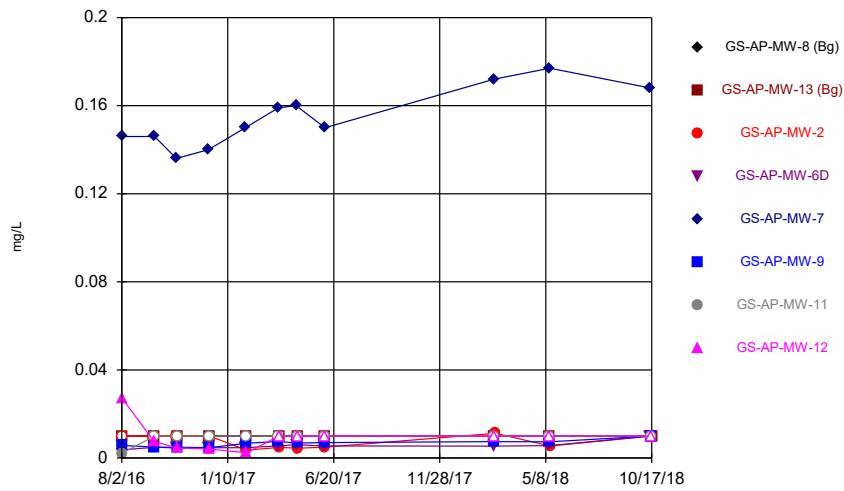
Constituent: Mercury Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



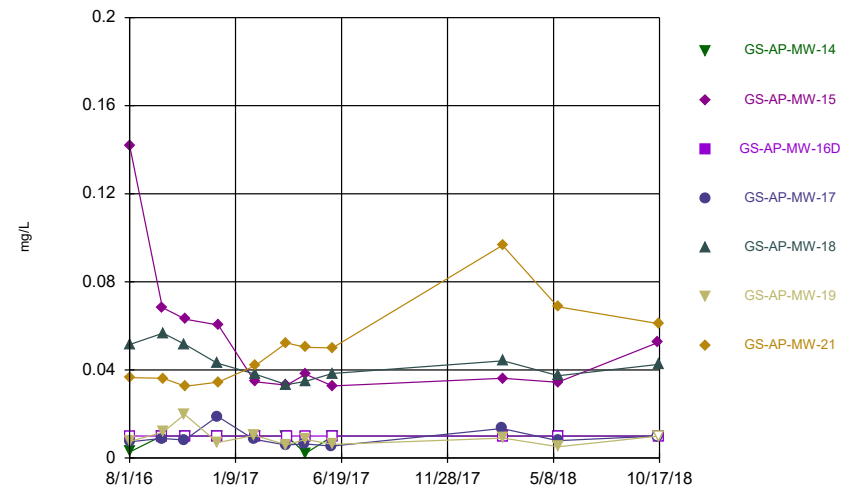
Constituent: Mercury Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Molybdenum Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Molybdenum Analysis Run 12/20/2018 6:18 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Time Series

Constituent: Mercury (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.0005	<0.0005		<0.0005		<0.0005	
8/3/2016	<0.0005			<0.0005		<0.0005		<0.0005
9/19/2016			<0.0005					
9/20/2016		<0.0005		<0.0005				<0.0005
9/21/2016	<0.0005				<0.0005	<0.0005	<0.0005	
10/24/2016			<0.0005	<0.0005	<0.0005			
10/25/2016	<0.0005	<0.0005				<0.0005	<0.0005	<0.0005
12/12/2016				<0.0005	<0.0005			
12/13/2016	<0.0005	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005
2/6/2017	<0.0005			<0.0005	<0.0005			
2/8/2017		<0.0005	<0.0005			<0.0005	<0.0005	<0.0005
3/27/2017				<0.0005				
3/28/2017	<0.0005				<0.0005	<0.0005	<0.0005	
3/29/2017		<0.0005						<0.0005
3/30/2017			<0.0005					
4/24/2017	<0.0005			<0.0005	<0.0005			
4/26/2017		<0.0005	<0.0005			<0.0005	<0.0005	<0.0005
6/6/2017			<0.0005	<0.0005				
6/7/2017	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005
2/19/2018	<0.0005			<0.0005	<0.0005			
2/20/2018		<0.0005				<0.0005	<0.0005	<0.0005
2/21/2018			<0.0005					
5/14/2018				<0.0005				
5/15/2018	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005	<0.0005
5/16/2018			<0.0005					
10/15/2018				<0.0005	<0.0005			
10/16/2018	<0.0005		<0.0005			<0.0005	<0.0005	<0.0005
10/17/2018		<0.0005						

# Time Series

Constituent: Mercury (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		<0.0005	<0.0005	<0.0005		<0.0005	
8/2/2016	<0.0005				<0.0005		<0.0005
9/19/2016	<0.0005		<0.0005	<0.0005			
9/20/2016		<0.0005					
9/21/2016					<0.0005	<0.0005	<0.0005
10/24/2016				<0.0005	<0.0005	<0.0005	
10/25/2016	<0.0005	<0.0005	<0.0005				<0.0005
12/12/2016					<0.0005		
12/13/2016	<0.0005		<0.0005	<0.0005		<0.0005	
12/14/2016		<0.0005					<0.0005
2/6/2017				<0.0005			
2/7/2017						<0.0005	
2/8/2017	<0.0005	<0.0005	<0.0005		<0.0005		<0.0005
3/27/2017				<0.0005			
3/28/2017	<0.0005	<0.0005			<0.0005	<0.0005	<0.0005
3/29/2017			<0.0005				
4/24/2017				<0.0005			
4/26/2017	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
6/5/2017				<0.0005			
6/6/2017		<0.0005	<0.0005		<0.0005	<0.0005	<0.0005
6/7/2017	<0.0005						
2/19/2018				<0.0005			
2/20/2018	<0.0005	<0.0005					<0.0005
2/21/2018			<0.0005		<0.0005	<0.0005	
5/15/2018		<0.0005		<0.0005			<0.0005
5/16/2018	<0.0005		<0.0005		<0.0005	<0.0005	
10/15/2018		<0.0005		<0.0005			
10/16/2018					<0.0005	<0.0005	<0.0005
10/17/2018	<0.0005		<0.0005				

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

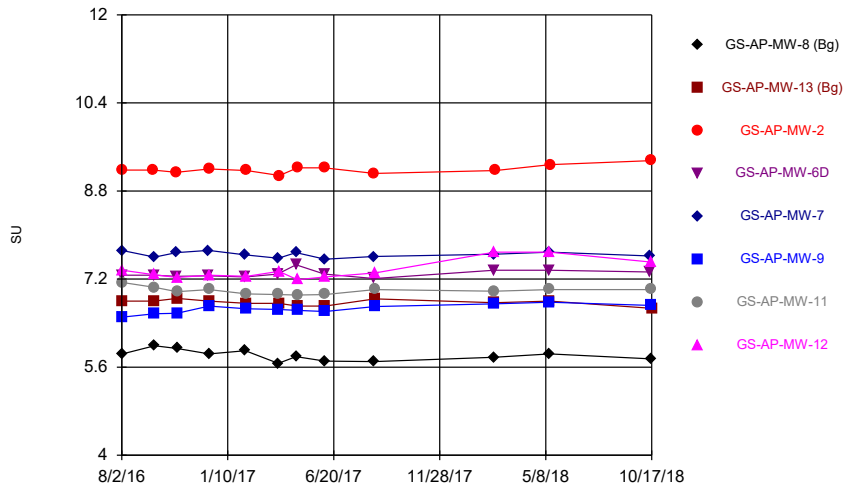
	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.01	<0.01		0.146		0.00217 (J)	
8/3/2016	<0.01			0.00372 (J)		0.00571 (J)		0.0269
9/19/2016			<0.01					
9/20/2016		<0.01		0.00481 (J)				0.00762 (J)
9/21/2016	<0.01				0.146	0.005 (J)	<0.01	
10/24/2016			<0.01	0.00496 (J)	0.136			
10/25/2016	<0.01	<0.01				0.00452 (J)	<0.01	0.00456 (J)
12/12/2016				0.00467 (J)	0.14			
12/13/2016	<0.01	<0.01	<0.01			0.00467 (J)	<0.01	0.00411 (J)
2/6/2017	<0.01			0.00468 (J)	0.15			
2/8/2017		<0.01	0.00359 (J)			0.0067 (J)	<0.01	0.00235 (J)
3/27/2017				0.00548 (J)				
3/28/2017	<0.01				0.159	0.00752 (J)	<0.01	
3/29/2017		<0.01						<0.01
3/30/2017			0.00485 (J)					
4/24/2017	<0.01			0.00606 (J)	0.16			
4/26/2017		<0.01	0.00444 (J)			0.00676 (J)	<0.01	<0.01
6/6/2017			0.00489 (J)	0.00545 (J)				
6/7/2017	<0.01	<0.01			0.15	0.00701 (J)	<0.01	<0.01
2/19/2018	<0.01			0.00537 (J)	0.172			
2/20/2018		<0.01				0.00747 (J)	<0.01	<0.01
2/21/2018			0.0112					
5/14/2018				0.00564 (J)				
5/15/2018	<0.01	<0.01			0.177	0.00736 (J)	<0.01	<0.01
5/16/2018			0.00547 (J)					
10/15/2018				<0.01 (J)	0.168			
10/16/2018	<0.01		<0.01 (J)			<0.01 (J)	<0.01	<0.01
10/17/2018		<0.01						

# Time Series

Constituent: Molybdenum (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

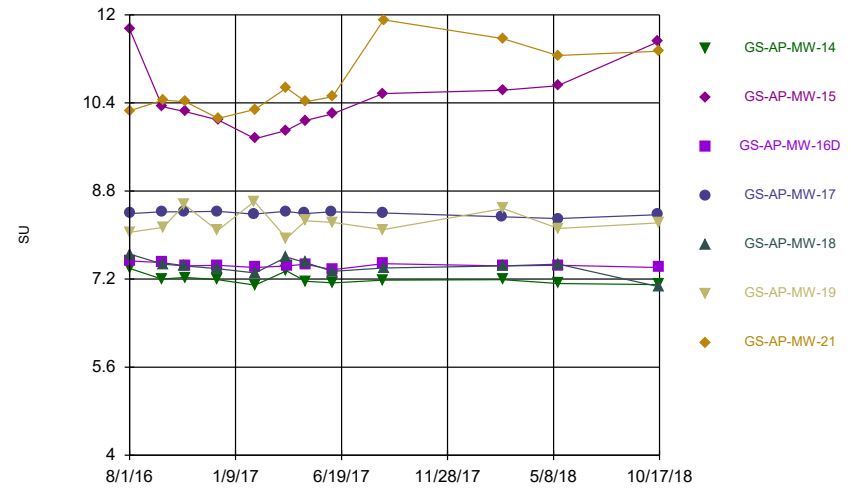
	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		0.142	<0.01	0.00738 (J)		0.00752 (J)	
8/2/2016	0.00283 (J)				0.0516		0.0365
9/19/2016	<0.01		<0.01	0.00889 (J)			
9/20/2016		0.0683					
9/21/2016					0.0567	0.0117	0.0362
10/24/2016				0.00819 (J)	0.0517	0.0198	
10/25/2016	<0.01	0.063	<0.01				0.0326
12/12/2016					0.0431		
12/13/2016	<0.01		<0.01	0.0189		0.00703 (J)	
12/14/2016		0.0604					0.0345
2/6/2017				0.00852 (J)			
2/7/2017						0.0103	
2/8/2017	<0.01	0.0346	<0.01		0.0381		0.0419
3/27/2017				0.00592 (J)			
3/28/2017	<0.01	0.0331			0.0333	0.00599 (J)	0.0523
3/29/2017			<0.01				
4/24/2017				0.00644 (J)			
4/26/2017	0.00212 (J)	0.038	<0.01		0.0348	0.00845 (J)	0.0502
6/5/2017				0.00537 (J)			
6/6/2017		0.0327	<0.01		0.0384	0.00624 (J)	0.05
6/7/2017	<0.01						
2/19/2018				0.0134			
2/20/2018	<0.01	0.0362					0.0966
2/21/2018			<0.01		0.0441	0.00903 (J)	
5/15/2018		0.0344		0.00789 (J)			0.0687
5/16/2018	<0.01		<0.01		0.0374	0.00515 (J)	
10/15/2018		0.0525		<0.01 (J)			
10/16/2018					0.0425	<0.01 (J)	0.061
10/17/2018	<0.01		<0.01				

Time Series



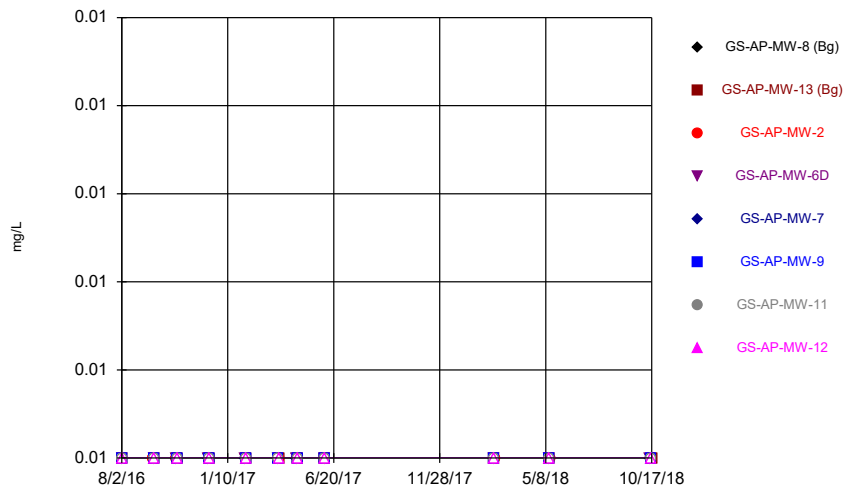
Constituent: pH Analysis Run 12/20/2018 6:19 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



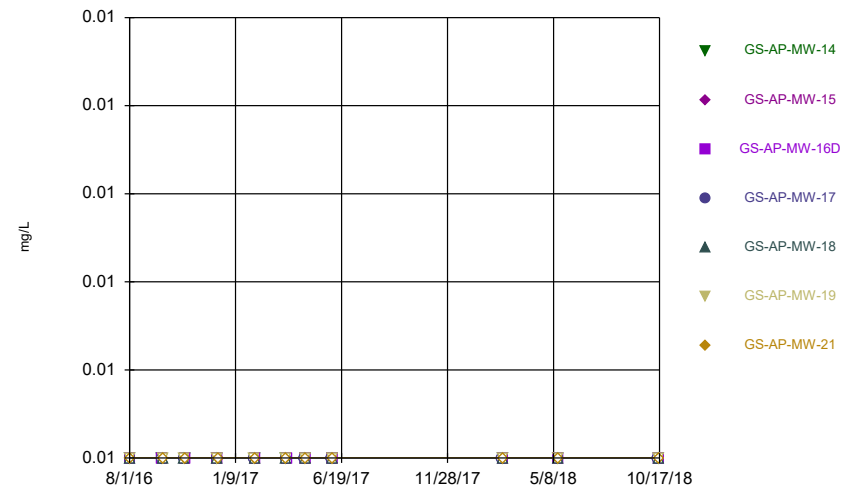
Constituent: pH Analysis Run 12/20/2018 6:19 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Selenium Analysis Run 12/20/2018 6:19 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: Selenium Analysis Run 12/20/2018 6:19 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Time Series

Constituent: pH (SU) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		6.8	9.18		7.72		7.14	
8/3/2016	5.84			7.27		6.51		7.36
9/19/2016			9.18					
9/20/2016		6.8		7.27				7.28
9/21/2016	5.99				7.6	6.57	7.05	
10/24/2016			9.14	7.25	7.68			
10/25/2016	5.94	6.85				6.58	6.97	7.23
12/12/2016				7.26	7.72			
12/13/2016	5.84	6.8	9.2			6.71	7.01	7.27
2/6/2017	5.9			7.24	7.64			
2/8/2017		6.76	9.17			6.66	6.93	7.25
3/27/2017				7.29				
3/28/2017	5.67				7.58	6.65	6.92	
3/29/2017		6.76						7.34
3/30/2017			9.08					
4/24/2017	5.79			7.46	7.68			
4/26/2017		6.71	9.22			6.63	6.91	7.19
6/6/2017			9.22	7.29				
6/7/2017	5.71	6.71			7.56	6.61	6.92	7.24
8/21/2017	5.7		9.12	7.21	7.61			
8/22/2017		6.84				6.7	7.01	7.31
2/19/2018	5.78			7.36	7.65			
2/20/2018		6.77				6.75	6.98	7.69
2/21/2018			9.17					
5/14/2018				7.36				
5/15/2018	5.84	6.8			7.69	6.78	7.01	7.69
5/16/2018			9.28					
10/15/2018				7.33	7.62			
10/16/2018	5.75		9.35			6.72	7.01	7.51
10/17/2018		6.67						

# Time Series

Constituent: pH (SU) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		11.74	7.53	8.39		8.05	
8/2/2016	7.39				7.65		10.26
9/19/2016	7.2		7.5	8.42			
9/20/2016		10.33					
9/21/2016					7.47	8.14	10.45
10/24/2016				8.42	7.44	8.55	
10/25/2016	7.23	10.24	7.44				10.42
12/12/2016					7.39		
12/13/2016	7.19		7.45	8.43		8.08	
12/14/2016		10.09					10.12
2/6/2017				8.38			
2/7/2017						8.61	
2/8/2017	7.09	9.75	7.41		7.31		10.28
3/27/2017				8.43			
3/28/2017	7.35	9.9			7.6	7.94	10.67
3/29/2017			7.44				
4/24/2017				8.39			
4/26/2017	7.16	10.08	7.47		7.5	8.26	10.42
6/5/2017				8.42			
6/6/2017		10.2	7.37		7.34	8.23	10.51
6/7/2017	7.13						
8/22/2017	7.18	10.57	7.48	8.4		8.1	
8/23/2017					7.4		11.91
2/19/2018				8.33			
2/20/2018	7.19	10.63					11.57
2/21/2018			7.44		7.44	8.48	
5/15/2018		10.71		8.3			11.26
5/16/2018	7.12		7.45		7.47	8.12	
10/15/2018		11.51		8.37			
10/16/2018					7.06	8.22	11.34
10/17/2018	7.1		7.41				



# Time Series

Constituent: Selenium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.01	<0.01		<0.01		<0.01	
8/3/2016	<0.01			<0.01		<0.01		<0.01
9/19/2016			<0.01					
9/20/2016		<0.01		<0.01				<0.01
9/21/2016	<0.01				<0.01	<0.01	<0.01	
10/24/2016			<0.01	<0.01	<0.01			
10/25/2016	<0.01	<0.01				<0.01	<0.01	<0.01
12/12/2016				<0.01	<0.01			
12/13/2016	<0.01	<0.01	<0.01			<0.01	<0.01	<0.01
2/6/2017	<0.01			<0.01	<0.01			
2/8/2017		<0.01	<0.01			<0.01	<0.01	<0.01
3/27/2017				<0.01				
3/28/2017	<0.01				<0.01	<0.01	<0.01	
3/29/2017		<0.01						<0.01
3/30/2017			<0.01					
4/24/2017	<0.01			<0.01	<0.01			
4/26/2017		<0.01	<0.01			<0.01	<0.01	<0.01
6/6/2017			<0.01	<0.01				
6/7/2017	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01
2/19/2018	<0.01			<0.01	<0.01			
2/20/2018		<0.01				<0.01	<0.01	<0.01
2/21/2018			<0.01					
5/14/2018				<0.01				
5/15/2018	<0.01	<0.01			<0.01	<0.01	<0.01	<0.01
5/16/2018			<0.01					
10/15/2018				<0.01	<0.01			
10/16/2018	<0.01		<0.01			<0.01	<0.01	<0.01
10/17/2018		<0.01						

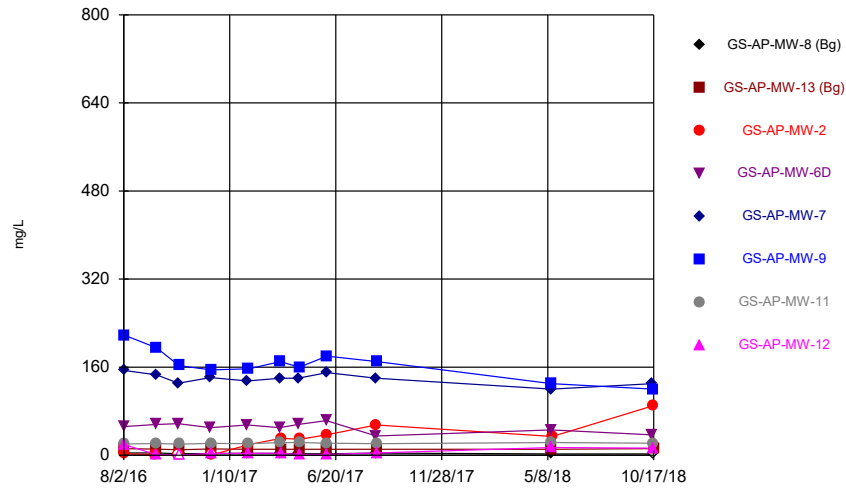
# Time Series

Constituent: Selenium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

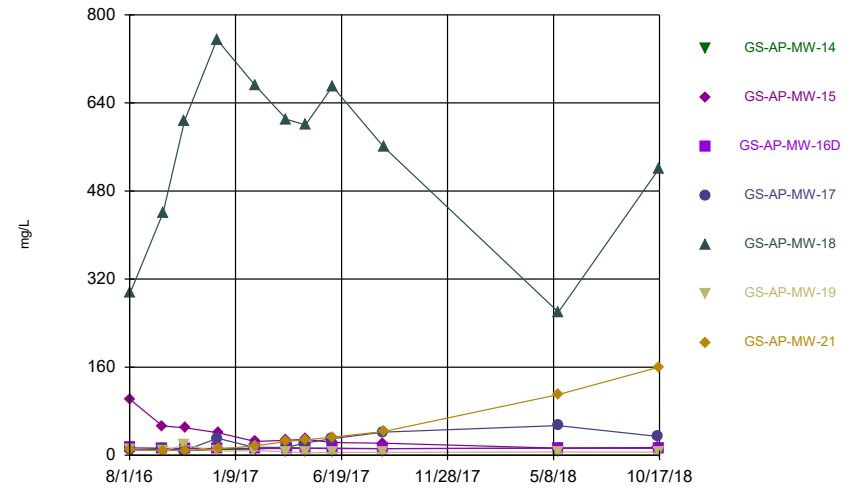
	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		<0.01	<0.01	<0.01		<0.01	
8/2/2016	<0.01				<0.01		<0.01
9/19/2016	<0.01		<0.01	<0.01			
9/20/2016		<0.01					
9/21/2016					<0.01	<0.01	<0.01
10/24/2016				<0.01	<0.01	<0.01	
10/25/2016	<0.01	<0.01	<0.01				<0.01
12/12/2016					<0.01		
12/13/2016	<0.01		<0.01	<0.01		<0.01	
12/14/2016		<0.01					<0.01
2/6/2017				<0.01			
2/7/2017						<0.01	
2/8/2017	<0.01	<0.01	<0.01		<0.01		<0.01
3/27/2017				<0.01			
3/28/2017	<0.01	<0.01			<0.01	<0.01	<0.01
3/29/2017			<0.01				
4/24/2017				<0.01			
4/26/2017	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01
6/5/2017				<0.01			
6/6/2017		<0.01	<0.01		<0.01	<0.01	<0.01
6/7/2017	<0.01						
2/19/2018				<0.01			
2/20/2018	<0.01	<0.01					<0.01
2/21/2018			<0.01		<0.01	<0.01	
5/15/2018		<0.01		<0.01			<0.01
5/16/2018	<0.01		<0.01		<0.01	<0.01	
10/15/2018		<0.01		<0.01			
10/16/2018					<0.01	<0.01	<0.01
10/17/2018	<0.01		<0.01				

Time Series



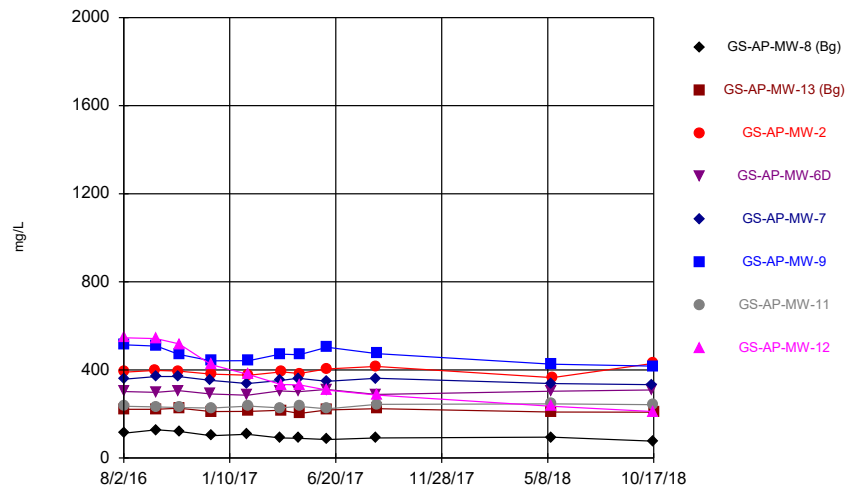
Constituent: Sulfate Analysis Run 12/20/2018 6:19 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



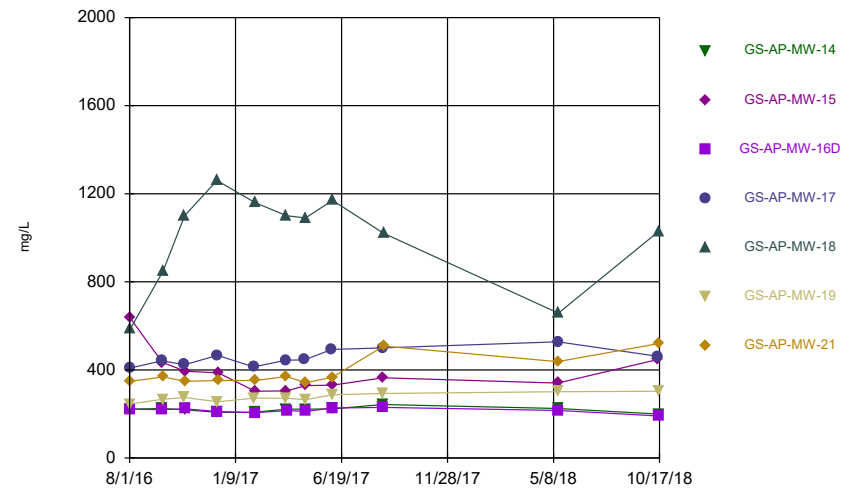
Constituent: Sulfate Analysis Run 12/20/2018 6:19 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: TDS Analysis Run 12/20/2018 6:19 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Time Series



Constituent: TDS Analysis Run 12/20/2018 6:19 AM View: Time Series - All Data  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		12	2.87		154		20.5	
8/3/2016	4.2			52		218		19.2
9/19/2016			1.22					
9/20/2016		11.2		56				1.42
9/21/2016	4.27				146	195	21.3	
10/24/2016			<1	57.5	131			
10/25/2016	2.78	10.1				163	20.1	<1
12/12/2016				50	141			
12/13/2016	3.18	11.4	<1			155	21.7	3.21
2/6/2017	3.74			54.9	135			
2/8/2017		10.9	19.4			157	21.1	3.3
3/27/2017				50 (D)				
3/28/2017	3.4 (JD)				140 (D)	170 (D)	23 (D)	
3/29/2017		11 (D)						3.8 (JD)
3/30/2017			31 (D)					
4/24/2017	2.7 (JD)			56 (D)	140 (D)			
4/26/2017		11 (D)	29 (D)			160 (D)	23 (D)	1.4 (JD)
6/6/2017			37	63				
6/7/2017	2.7 (J)	11			150	180	22	1.7 (J)
8/21/2017	3.9 (J)		55	35	140			
8/22/2017		11				170	21	4.2 (J)
5/14/2018				46				
5/15/2018	2.5 (J)	11			120	130	23	14
5/16/2018			34					
10/15/2018				37	130			
10/16/2018	<5 (J)		90			120	22	13
10/17/2018		12						

# Time Series

Constituent: Sulfate (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		102	13.4	9.56		9.02	
8/2/2016	10.6				295		9.14
9/19/2016	9.9		12.9	12.7			
9/20/2016		53.3					
9/21/2016					440	8.38	8.71
10/24/2016				8.58	608	18.5	
10/25/2016	8.12	49.8	11.6				8.54
12/12/2016					755		
12/13/2016	10.5		12.7	31		7.4	
12/14/2016		40.9					11.5
2/6/2017				14.7			
2/7/2017						8.16	
2/8/2017	11.1	25	12.2		672		17
3/27/2017				14 (D)			
3/28/2017	14 (D)	27 (D)			610 (D)	6.4 (D)	25 (D)
3/29/2017			12 (D)				
4/24/2017				22 (D)			
4/26/2017	13 (D)	29 (D)	13 (D)		600 (D)	4.6 (JD)	28 (D)
6/5/2017				30			
6/6/2017		23	12		670	5.2	33
6/7/2017	13						
8/22/2017	12	22	12	42		5.3	
8/23/2017					560		43
5/15/2018		13		54			110
5/16/2018	13		13		260	6	
10/15/2018		14		34			
10/16/2018					520	5.6	160
10/17/2018	13		13				

# Time Series

Constituent: TDS (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

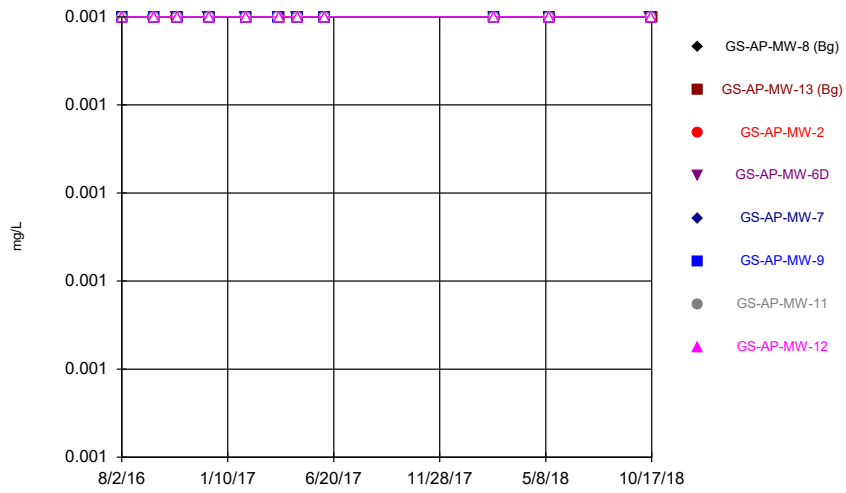
	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		221	390		358		235	
8/3/2016	113			302		514		546
9/19/2016			398					
9/20/2016		221		298				542
9/21/2016	128				370	508	232	
10/24/2016			395	306	370			
10/25/2016	121	226				470	229	518
12/12/2016				291	353			
12/13/2016	101	211	381			441	227	424
2/6/2017	108			285	338			
2/8/2017		212	376			442	236	379
3/27/2017				305				
3/28/2017	91				352	472	228	
3/29/2017		217						334
3/30/2017			391					
4/24/2017	89.3			301	362			
4/26/2017		202	384			469	234	332
6/6/2017			404	311				
6/7/2017	84	218			348	503	223	308
8/21/2017	91.3		416	289	362			
8/22/2017		224				474	244	286
5/14/2018				303				
5/15/2018	94.7	209			338	426	246	235
5/16/2018			365					
10/15/2018				309	333			
10/16/2018	76.7		430			417	242	211
10/17/2018		208						

# Time Series

Constituent: TDS (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

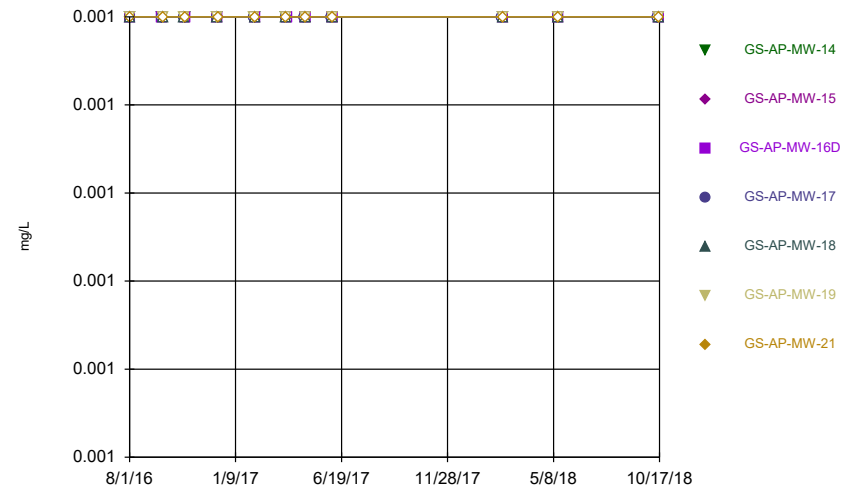
	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		640	222	408		245	
8/2/2016	222				586		348
9/19/2016	225		220	441			
9/20/2016		434					
9/21/2016					848	267	368
10/24/2016				424	1100	275	
10/25/2016	219	394	223				348
12/12/2016					1260		
12/13/2016	207		211	466		255	
12/14/2016		387					352
2/6/2017				414			
2/7/2017						272	
2/8/2017	208	303	206		1160		352
3/27/2017				444			
3/28/2017	222	305			1100	271	370
3/29/2017			215				
4/24/2017				446			
4/26/2017	222	329	212		1090	265	342
6/5/2017				493			
6/6/2017		331	227		1170	287	367
6/7/2017	223						
8/22/2017	243	364	230	500		293	
8/23/2017					1020		508
5/15/2018		340		528			438
5/16/2018	225		216		658	301	
10/15/2018		448		462			
10/16/2018					1030	303	520
10/17/2018	199		191				

### Time Series



Constituent: Thallium Analysis Run 12/20/2018 6:19 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Time Series



Constituent: Thallium Analysis Run 12/20/2018 6:19 AM View: Time Series - All Data  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond



# Time Series

Constituent: Thallium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

	GS-AP-MW-8 (Bg)	GS-AP-MW-13 (Bg)	GS-AP-MW-2	GS-AP-MW-6D	GS-AP-MW-7	GS-AP-MW-9	GS-AP-MW-11	GS-AP-MW-12
8/2/2016		<0.001	<0.001		<0.001		<0.001	
8/3/2016	<0.001			<0.001		<0.001		<0.001
9/19/2016			<0.001					
9/20/2016		<0.001		<0.001				<0.001
9/21/2016	<0.001				<0.001	<0.001	<0.001	
10/24/2016			<0.001	<0.001	<0.001			
10/25/2016	<0.001	<0.001				<0.001	<0.001	<0.001
12/12/2016				<0.001	<0.001			
12/13/2016	<0.001	<0.001	<0.001			<0.001	<0.001	<0.001
2/6/2017	<0.001			<0.001	<0.001			
2/8/2017		<0.001	<0.001			<0.001	<0.001	<0.001
3/27/2017				<0.001				
3/28/2017	<0.001				<0.001	<0.001	<0.001	
3/29/2017		<0.001						<0.001
3/30/2017			<0.001					
4/24/2017	<0.001			<0.001	<0.001			
4/26/2017		<0.001	<0.001			<0.001	<0.001	<0.001
6/6/2017			<0.001	<0.001				
6/7/2017	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001
2/19/2018	<0.001			<0.001	<0.001			
2/20/2018		<0.001				<0.001	<0.001	<0.001
2/21/2018			<0.001					
5/14/2018				<0.001				
5/15/2018	<0.001	<0.001			<0.001	<0.001	<0.001	<0.001
5/16/2018			<0.001					
10/15/2018				<0.001	<0.001			
10/16/2018	<0.001		<0.001			<0.001	<0.001	<0.001
10/17/2018		<0.001						

# Time Series

Constituent: Thallium (mg/L) Analysis Run 12/20/2018 6:26 AM View: Time Series - All Data

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

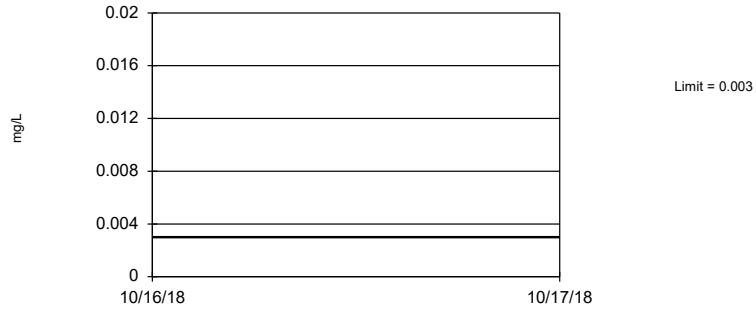
	GS-AP-MW-14	GS-AP-MW-15	GS-AP-MW-16D	GS-AP-MW-17	GS-AP-MW-18	GS-AP-MW-19	GS-AP-MW-21
8/1/2016		<0.001	<0.001	<0.001		<0.001	
8/2/2016	<0.001				<0.001		<0.001
9/19/2016	<0.001		<0.001	<0.001			
9/20/2016		<0.001					
9/21/2016					<0.001	<0.001	<0.001
10/24/2016				<0.001	<0.001	<0.001	
10/25/2016	<0.001	<0.001	<0.001				<0.001
12/12/2016					<0.001		
12/13/2016	<0.001		<0.001	<0.001		<0.001	
12/14/2016		<0.001					<0.001
2/6/2017				<0.001			
2/7/2017						<0.001	
2/8/2017	<0.001	<0.001	<0.001		<0.001		<0.001
3/27/2017				<0.001			
3/28/2017	<0.001	<0.001			<0.001	<0.001	<0.001
3/29/2017			<0.001				
4/24/2017				<0.001			
4/26/2017	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001
6/5/2017				<0.001			
6/6/2017		<0.001	<0.001		<0.001	<0.001	<0.001
6/7/2017	<0.001						
2/19/2018				<0.001			
2/20/2018	<0.001	<0.001					<0.001
2/21/2018			<0.001		<0.001	<0.001	
5/15/2018		<0.001		<0.001			<0.001
5/16/2018	<0.001		<0.001		<0.001	<0.001	
10/15/2018		<0.001		<0.001			
10/16/2018					<0.001	<0.001	<0.001
10/17/2018	<0.001		<0.001				

# Upper Tolerance Limits - App IV

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/14/2019, 11:02 AM

<u>Constituent</u>	<u>Upper Lim.</u>	<u>Bg N</u>	<u>Bg Mean</u>	<u>Std. Dev.</u>	<u>%NDs</u>	<u>ND Adj.</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	0.003	22	n/a	n/a	95.45	n/a	n/a	0.3235	NP Inter(NDs)
Arsenic (mg/L)	0.005	22	n/a	n/a	81.82	n/a	n/a	0.3235	NP Inter(NDs)
Barium (mg/L)	0.189	22	n/a	n/a	4.545	n/a	n/a	0.3235	NP Inter(normal...
Beryllium (mg/L)	0.003	22	n/a	n/a	100	n/a	n/a	0.3235	NP Inter(NDs)
Boron (mg/L)	0.1	22	n/a	n/a	95.45	n/a	n/a	0.3235	NP Inter(NDs)
Cadmium (mg/L)	0.001	22	n/a	n/a	100	n/a	n/a	0.3235	NP Inter(NDs)
Chromium (mg/L)	0.01	22	n/a	n/a	86.36	n/a	n/a	0.3235	NP Inter(NDs)
Cobalt (mg/L)	0.01	22	n/a	n/a	81.82	n/a	n/a	0.3235	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	1.02	22	0.2971	0.3077	0	None	No	0.05	Inter
Fluoride (mg/L)	0.2222	24	0.1119	0.04774	4.167	None	No	0.05	Inter
Lead (mg/L)	0.005	22	n/a	n/a	100	n/a	n/a	0.3235	NP Inter(NDs)
Lithium (mg/L)	0.05	22	n/a	n/a	68.18	n/a	n/a	0.3235	NP Inter(NDs)
Mercury (mg/L)	0.0005	22	n/a	n/a	100	n/a	n/a	0.3235	NP Inter(NDs)
Molybdenum (mg/L)	0.01	22	n/a	n/a	100	n/a	n/a	0.3235	NP Inter(NDs)
Selenium (mg/L)	0.01	22	n/a	n/a	100	n/a	n/a	0.3235	NP Inter(NDs)
Thallium (mg/L)	0.001	22	n/a	n/a	100	n/a	n/a	0.3235	NP Inter(NDs)

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 22 background values. 95.45% NDs. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Antimony Analysis Run 1/14/2019 11:01 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

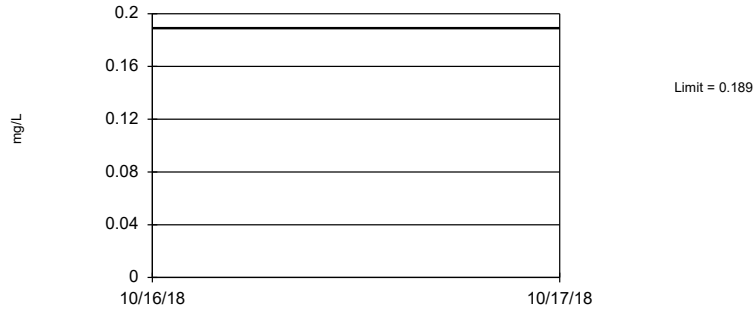
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 22 background values. 81.82% NDs. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Arsenic Analysis Run 1/14/2019 11:01 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

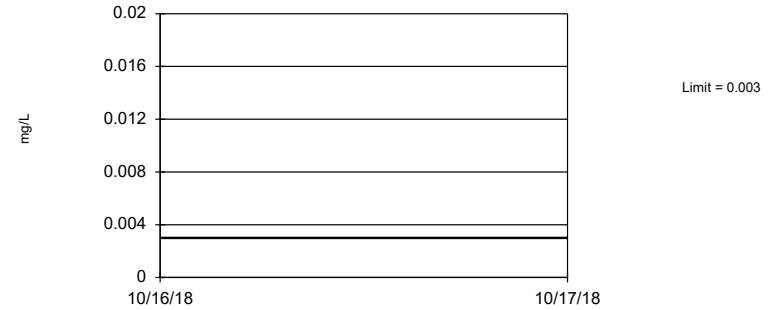
### Tolerance Limit Interwell Non-parametric



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 0.05 alpha level. Limit is highest of 22 background values. 4.545% NDs. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Barium Analysis Run 1/14/2019 11:01 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

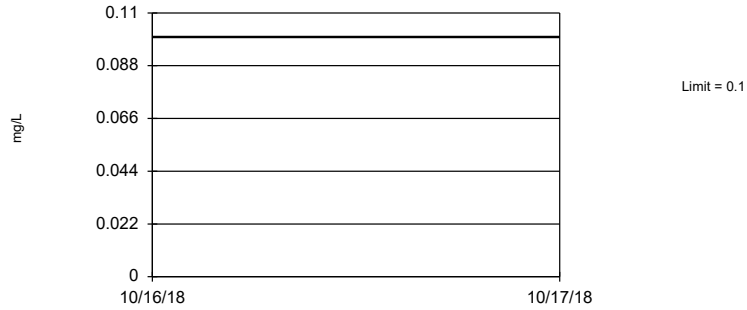
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Beryllium Analysis Run 1/14/2019 11:01 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 22 background values. 95.45% NDs. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Boron Analysis Run 1/14/2019 11:01 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Cadmium Analysis Run 1/14/2019 11:01 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

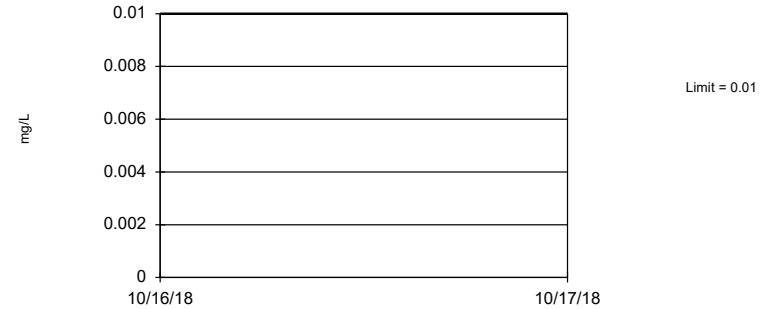
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 22 background values. 86.36% NDs. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Chromium Analysis Run 1/14/2019 11:01 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

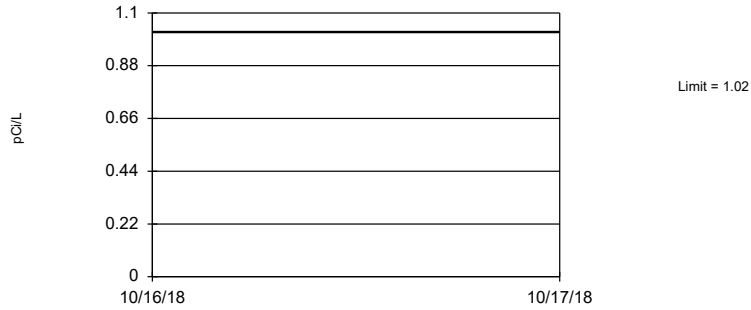
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 22 background values. 81.82% NDs. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Cobalt Analysis Run 1/14/2019 11:01 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

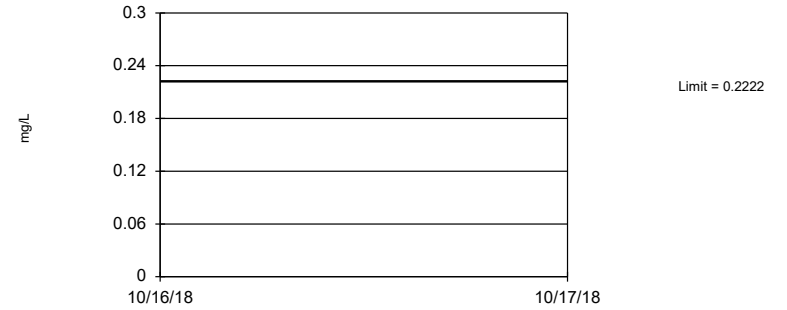
### Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.2971, Std. Dev.=0.3077, n=22. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.935, critical = 0.911. Report alpha = 0.05.

Constituent: Combined Radium 226 + 228 Analysis Run 1/14/2019 11:02 AM View: Tolerance Intervals -  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Tolerance Limit Interwell Parametric



95% coverage. Background Data Summary: Mean=0.1119, Std. Dev.=0.04774, n=24, 4.167% NDs. Normality test: Shapiro Wilk @alpha = 0.05, calculated = 0.9485, critical = 0.916. Report alpha = 0.05.

Constituent: Fluoride Analysis Run 1/14/2019 11:02 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

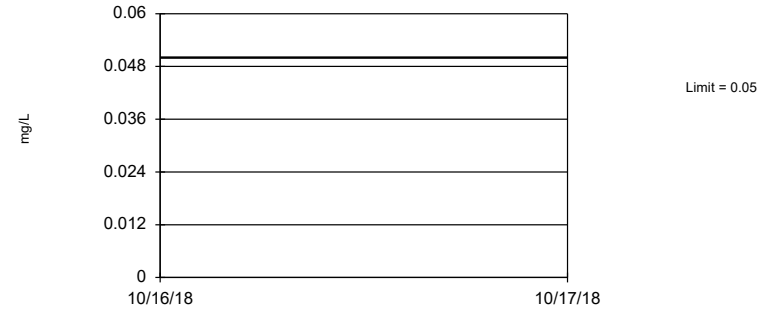
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Lead Analysis Run 1/14/2019 11:02 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

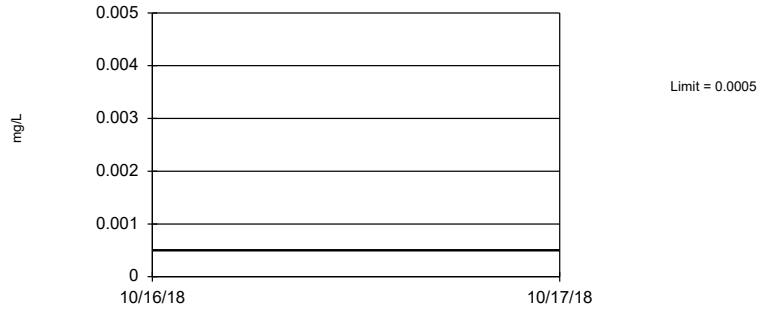
### Tolerance Limit Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. Limit is highest of 22 background values. 68.18% NDs. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Lithium Analysis Run 1/14/2019 11:02 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

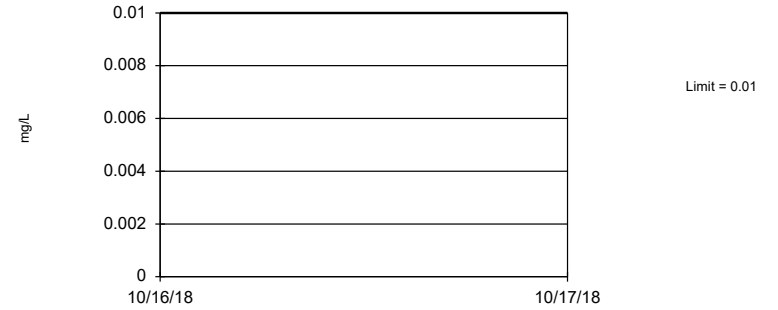
Tolerance Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Mercury Analysis Run 1/14/2019 11:02 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

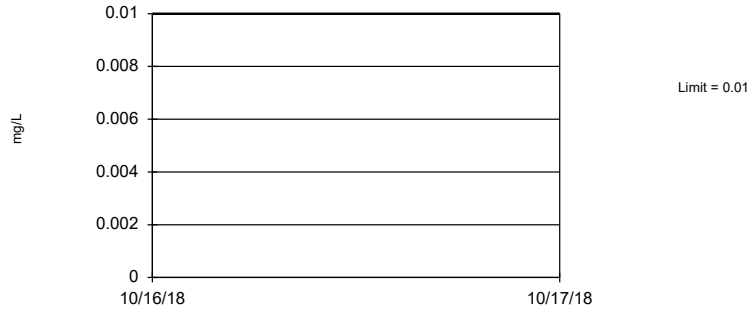
Tolerance Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Molybdenum Analysis Run 1/14/2019 11:02 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

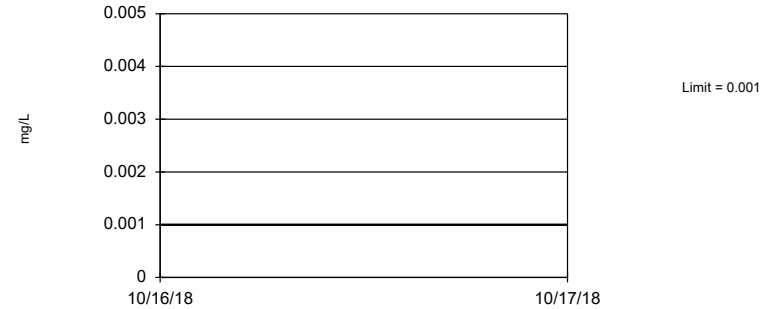
Tolerance Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Selenium Analysis Run 1/14/2019 11:02 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

Tolerance Limit  
Interwell Non-parametric



Non-parametric test used in lieu of parametric tolerance limit because censored data exceeded 50%. All background values were censored; limit is most recent reporting limit. 81.05% coverage at alpha=0.01; 87.3% coverage at alpha=0.05; 97.07% coverage at alpha=0.5. Report alpha = 0.3235.

Constituent: Thallium Analysis Run 1/14/2019 11:02 AM View: Tolerance Intervals - App IV  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

# Confidence Intervals - Significant Results

Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond Printed 1/31/2019, 11:47 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Arsenic (mg/L)	GS-AP-MW-6D	0.07479	0.06132	0.01	Yes	11	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-7	0.2064	0.176	0.01	Yes	11	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-12	0.07135	0.0261	0.01	Yes	11	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-18	0.08029	0.04655	0.01	Yes	11	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-6D	0.2503	0.2195	0.05	Yes	11	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-7	0.1636	0.1386	0.05	Yes	11	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-9	0.09783	0.07768	0.05	Yes	11	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-15	0.297	0.123	0.05	Yes	11	0	No	0.006	NP (normality)
Lithium (mg/L)	GS-AP-MW-18	0.3134	0.2115	0.05	Yes	11	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-21	0.1851	0.1426	0.05	Yes	11	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-7	0.166	0.1438	0.1	Yes	11	0	No	0.01	Param.



# Confidence Intervals - All Results

Plant William C Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 1/31/2019, 11:47 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Antimony (mg/L)	GS-AP-MW-2	0.0015	0.0015	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6D	0.0015	0.00104	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-7	0.0015	0.000891	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-9	0.0015	0.0015	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-11	0.0015	0.0015	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-12	0.0015	0.000681	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-14	0.0015	0.0015	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-15	0.0015	0.000636	0.006	No	11	63.64	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-16D	0.0015	0.000633	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-17	0.0015	0.000636	0.006	No	11	81.82	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-18	0.0015	0.0015	0.006	No	11	100	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-19	0.0015	0.000613	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-21	0.0015	0.00119	0.006	No	11	90.91	No	0.006	NP (NDs)
Antimony (mg/L)	GS-AP-MW-6S	0.0015	0.000727	0.006	No	11	90.91	No	0.006	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-2	0.0025	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.07479</b>	<b>0.06132</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.2064</b>	<b>0.176</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GS-AP-MW-9	0.007384	0.005335	0.01	No	11	9.091	x^2	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-11	0.0025	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-12</b>	<b>0.07135</b>	<b>0.0261</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GS-AP-MW-14	0.001966	0.001212	0.01	No	11	9.091	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-15	0.01168	0.006595	0.01	No	11	0	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-16D	0.0025	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-17	0.002633	0.001199	0.01	No	11	9.091	ln(x)	0.01	Param.
<b>Arsenic (mg/L)</b>	<b>GS-AP-MW-18</b>	<b>0.08029</b>	<b>0.04655</b>	<b>0.01</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Arsenic (mg/L)	GS-AP-MW-19	0.0025	0.00114	0.01	No	11	81.82	No	0.006	NP (NDs)
Arsenic (mg/L)	GS-AP-MW-21	0.004648	0.001439	0.01	No	11	27.27	No	0.01	Param.
Arsenic (mg/L)	GS-AP-MW-6S	0.01086	0.009232	0.01	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-2	0.08418	0.07262	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-6D	0.8611	0.7016	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-7	0.08386	0.05532	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-9	0.02741	0.02377	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-11	0.2317	0.2077	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-12	0.1443	0.1109	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-14	0.2838	0.2368	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-15	0.2609	0.1706	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-16D	0.3232	0.2959	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-17	0.06849	0.04971	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-18	0.1029	0.0462	2	No	11	0	ln(x)	0.01	Param.
Barium (mg/L)	GS-AP-MW-19	0.4064	0.3194	2	No	11	0	No	0.01	Param.
Barium (mg/L)	GS-AP-MW-21	0.0535	0.0402	2	No	11	0	No	0.006	NP (normality)
Barium (mg/L)	GS-AP-MW-6S	0.2437	0.1434	2	No	11	0	No	0.01	Param.
Beryllium (mg/L)	GS-AP-MW-2	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6D	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-7	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-9	0.0015	0.000705	0.004	No	11	90.91	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-11	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-12	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-14	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-15	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-16D	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-17	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-18	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-19	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-21	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Beryllium (mg/L)	GS-AP-MW-6S	0.0015	0.0015	0.004	No	11	100	No	0.006	NP (NDs)
Boron (mg/L)	GS-AP-MW-2	0.169	0.0805	4	No	11	0	No	0.006	NP (normality)
Boron (mg/L)	GS-AP-MW-6D	1.093	1.008	4	No	11	0	x^3	0.01	Param.
Boron (mg/L)	GS-AP-MW-7	1.499	1.398	4	No	11	0	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-9	0.2138	0.1291	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-11	0.05	0.0255	4	No	11	81.82	No	0.006	NP (NDs)
Boron (mg/L)	GS-AP-MW-12	0.3057	0.1449	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-14	0.05	0.05	4	No	11	100	No	0.006	NP (NDs)
Boron (mg/L)	GS-AP-MW-15	0.08114	0.05382	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-16D	0.0273	0.0246	4	No	11	9.091	No	0.006	NP (normality)
Boron (mg/L)	GS-AP-MW-17	0.08556	0.06606	4	No	11	9.091	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-18	1.836	1.378	4	No	11	0	No	0.01	Param.
Boron (mg/L)	GS-AP-MW-19	0.03888	0.02452	4	No	11	9.091	No	0.01	Param.

# Confidence Intervals - All Results

Plant William C Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 1/31/2019, 11:47 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Boron (mg/L)	GS-AP-MW-21	0.092	0.05	4	No	11	9.091	No	0.006	NP (normality)
Boron (mg/L)	GS-AP-MW-6S	1.171	1.019	4	No	11	0	No	0.01	Param.
Cadmium (mg/L)	GS-AP-MW-2	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-6D	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-7	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-9	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-11	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-12	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-14	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-15	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-16D	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-17	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-18	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-19	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-21	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Cadmium (mg/L)	GS-AP-MW-6S	0.0005	0.0005	0.005	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-2	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-6D	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-7	0.005	0.00216	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-9	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-11	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-12	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-14	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-15	0.005	0.00209	0.1	No	11	90.91	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-16D	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-17	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-18	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-19	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-21	0.005	0.00204	0.1	No	11	72.73	No	0.006	NP (NDs)
Chromium (mg/L)	GS-AP-MW-6S	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-2	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6D	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-7	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-9	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-11	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-12	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-14	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-15	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-16D	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-17	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-18	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-19	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-21	0.005	0.0025	0.01	No	11	100	No	0.006	NP (NDs)
Cobalt (mg/L)	GS-AP-MW-6S	0.005	0.00212	0.01	No	11	63.64	No	0.006	NP (NDs)
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-2	0.9569	0.103	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6D	0.8276	0.2039	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-7	0.5827	0.03955	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-9	0.8035	-0.004383	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-11	0.5111	0.08002	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-12	0.8717	0.3574	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-14	0.9881	0.2321	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-15	0.7728	0.1131	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-16D	0.5063	0.1661	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-17	0.5375	0.1379	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-18	0.8113	0.2083	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-19	1.24	0.3581	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-21	1.025	0.2374	5	No	11	0	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	GS-AP-MW-6S	1.14	0.3537	5	No	11	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-2	1.529	1.169	4	No	12	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6D	0.1412	0.07651	4	No	12	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-7	0.1098	0.0584	4	No	12	8.333	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-9	0.1374	0.07928	4	No	12	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-11	0.1424	0.09325	4	No	12	0	x^2	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-12	0.6295	0.3438	4	No	12	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-14	0.1688	0.1227	4	No	12	0	x^3	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-15	0.8209	0.5516	4	No	12	0	sqrt(x)	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-16D	0.1177	0.07557	4	No	12	0	x^2	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-17	0.2574	0.1561	4	No	12	0	No	0.01	Param.

# Confidence Intervals - All Results

Plant William C Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 1/31/2019, 11:47 AM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Fluoride (mg/L)	GS-AP-MW-18	0.4357	0.2224	4	No	12	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-19	0.3738	0.2772	4	No	12	0	No	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-21	0.2721	0.2013	4	No	12	0	x^2	0.01	Param.
Fluoride (mg/L)	GS-AP-MW-6S	0.1101	0.05804	4	No	12	0	No	0.01	Param.
Lead (mg/L)	GS-AP-MW-2	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-6D	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-7	0.0025	0.0024	0.015	No	11	81.82	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-9	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-11	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-12	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-14	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-15	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-16D	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-17	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-18	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-19	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-21	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lead (mg/L)	GS-AP-MW-6S	0.0025	0.0025	0.015	No	11	100	No	0.006	NP (NDs)
Lithium (mg/L)	GS-AP-MW-2	0.05594	0.04657	0.05	No	11	0	x^(1/3)	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-6D</b>	<b>0.2503</b>	<b>0.2195</b>	<b>0.05</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.1636</b>	<b>0.1386</b>	<b>0.05</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-9</b>	<b>0.09783</b>	<b>0.07768</b>	<b>0.05</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-11	0.01435	0.01181	0.05	No	11	9.091	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-12	0.03924	0.02308	0.05	No	11	0	ln(x)	0.01	Param.
Lithium (mg/L)	GS-AP-MW-14	0.04181	0.03173	0.05	No	11	0	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-15</b>	<b>0.297</b>	<b>0.123</b>	<b>0.05</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.006</b>	<b>NP (normality)</b>
Lithium (mg/L)	GS-AP-MW-16D	0.03701	0.03277	0.05	No	11	0	No	0.01	Param.
Lithium (mg/L)	GS-AP-MW-17	0.06129	0.04367	0.05	No	11	0	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-18</b>	<b>0.3134</b>	<b>0.2115</b>	<b>0.05</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-19	0.0394	0.02598	0.05	No	11	0	No	0.01	Param.
<b>Lithium (mg/L)</b>	<b>GS-AP-MW-21</b>	<b>0.1851</b>	<b>0.1426</b>	<b>0.05</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Lithium (mg/L)	GS-AP-MW-6S	0.025	0.0199	0.05	No	11	72.73	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-2	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-6D	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-7	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-9	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-11	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-12	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-14	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-15	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-16D	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-17	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-18	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-19	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-21	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Mercury (mg/L)	GS-AP-MW-6S	0.00025	0.00025	0.002	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-2	0.00547	0.00359	0.1	No	11	45.45	No	0.006	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-6D	0.005599	0.004554	0.1	No	11	9.091	No	0.01	Param.
<b>Molybdenum (mg/L)</b>	<b>GS-AP-MW-7</b>	<b>0.166</b>	<b>0.1438</b>	<b>0.1</b>	<b>Yes</b>	<b>11</b>	<b>0</b>	<b>No</b>	<b>0.01</b>	<b>Param.</b>
Molybdenum (mg/L)	GS-AP-MW-9	0.007149	0.005164	0.1	No	11	9.091	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-11	0.005	0.00217	0.1	No	11	90.91	No	0.006	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-12	0.00762	0.00235	0.1	No	11	54.55	No	0.006	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-14	0.005	0.00212	0.1	No	11	81.82	No	0.006	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-15	0.0683	0.0327	0.1	No	11	0	No	0.006	NP (normality)
Molybdenum (mg/L)	GS-AP-MW-16D	0.005	0.005	0.1	No	11	100	No	0.006	NP (NDs)
Molybdenum (mg/L)	GS-AP-MW-17	0.01163	0.005643	0.1	No	11	9.091	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-18	0.04921	0.03655	0.1	No	11	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-19	0.01174	0.005582	0.1	No	11	9.091	sqrt(x)	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-21	0.06681	0.0351	0.1	No	11	0	No	0.01	Param.
Molybdenum (mg/L)	GS-AP-MW-6S	0.00526	0.00202	0.1	No	11	63.64	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-2	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-6D	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-7	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-9	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-11	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-12	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-14	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-15	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)

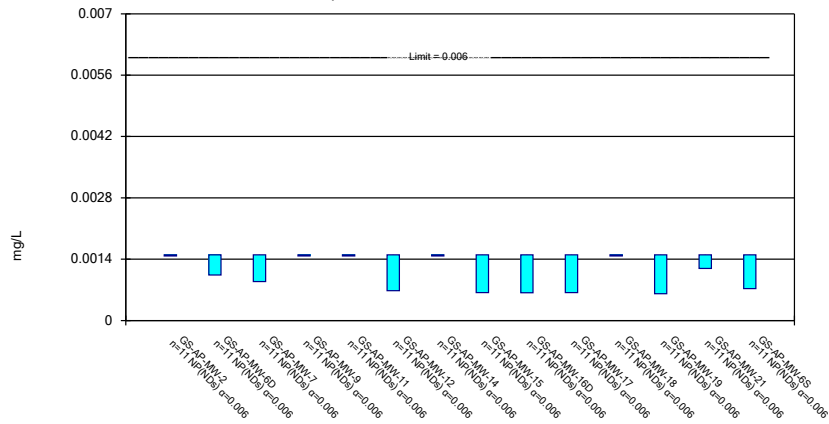
# Confidence Intervals - All Results

Plant William C Gorgas    Client: Southern Company    Data: Gorgas Ash Pond    Printed 1/31/2019, 11:47 AM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Selenium (mg/L)	GS-AP-MW-16D	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-17	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-18	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-19	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-21	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Selenium (mg/L)	GS-AP-MW-6S	0.005	0.005	0.05	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-2	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-6D	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-7	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-9	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-11	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-12	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-14	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-15	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-16D	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-17	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-18	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-19	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-21	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)
Thallium (mg/L)	GS-AP-MW-6S	0.0005	0.0005	0.002	No	11	100	No	0.006	NP (NDs)

### Non-Parametric Confidence Interval

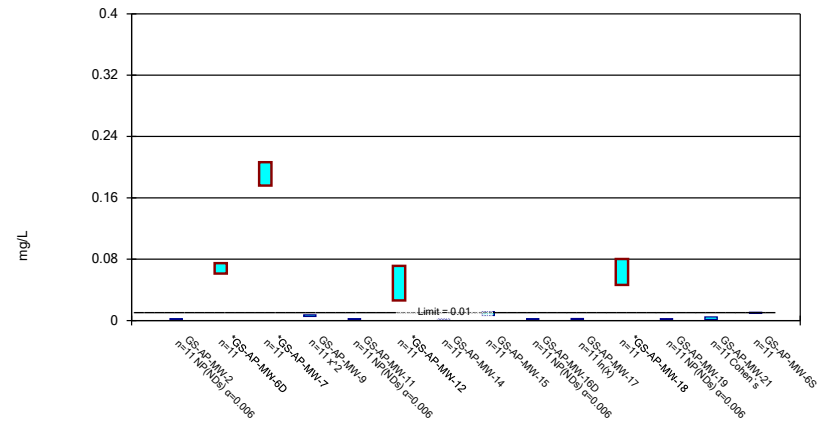
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 1/31/2019 11:45 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

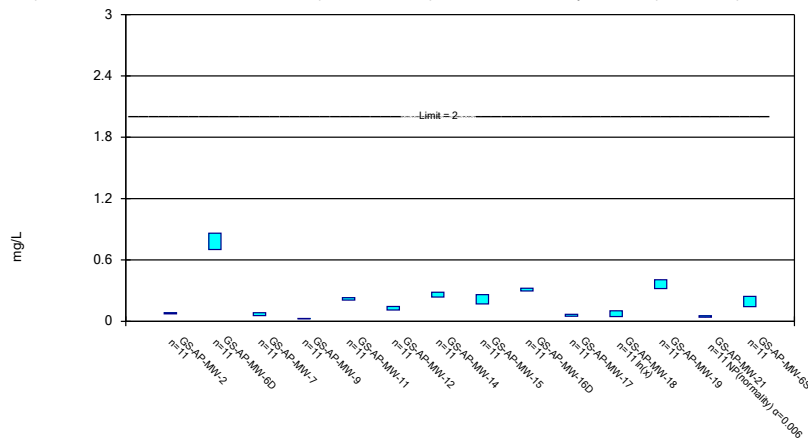
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Arsenic Analysis Run 1/31/2019 11:45 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

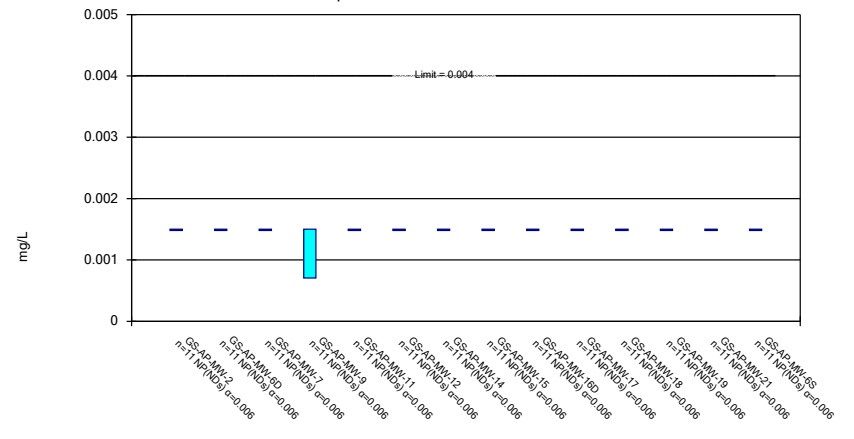
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Constituent: Barium Analysis Run 1/31/2019 11:45 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

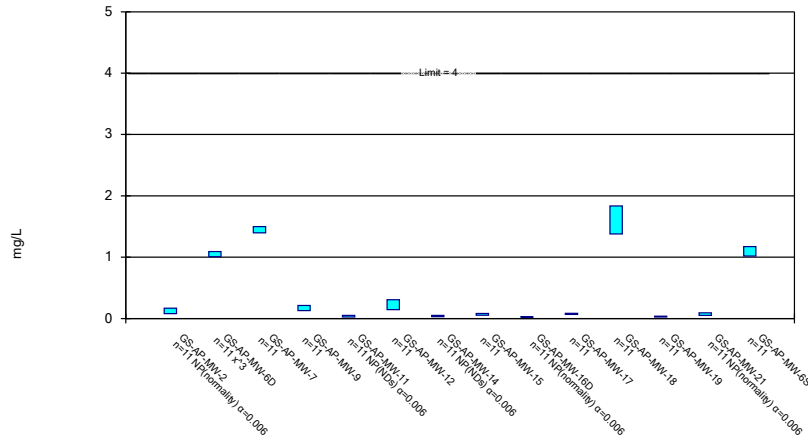
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Constituent: Beryllium Analysis Run 1/31/2019 11:45 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

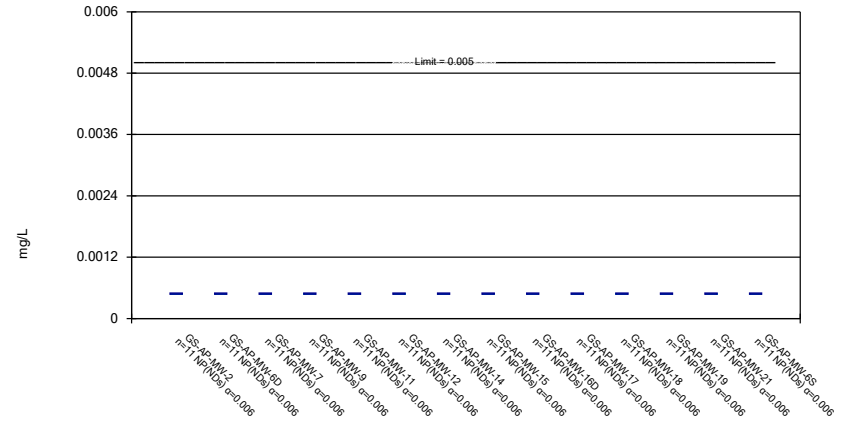
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Boron Analysis Run 1/31/2019 11:45 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

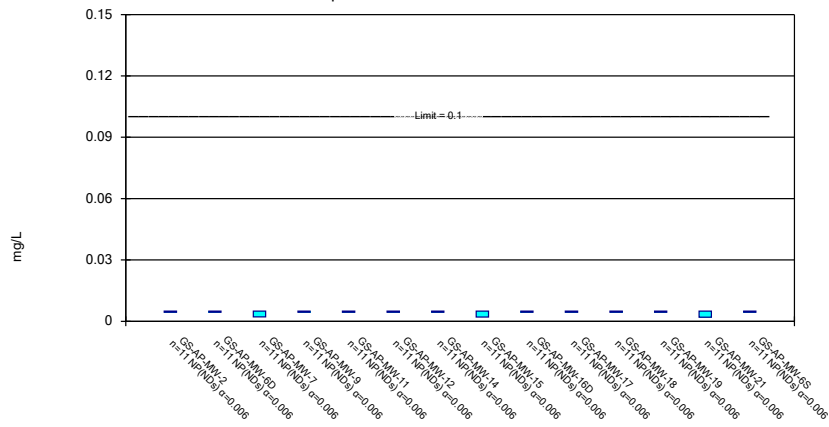
Compliance Limit is not exceeded.



Constituent: Cadmium Analysis Run 1/31/2019 11:45 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

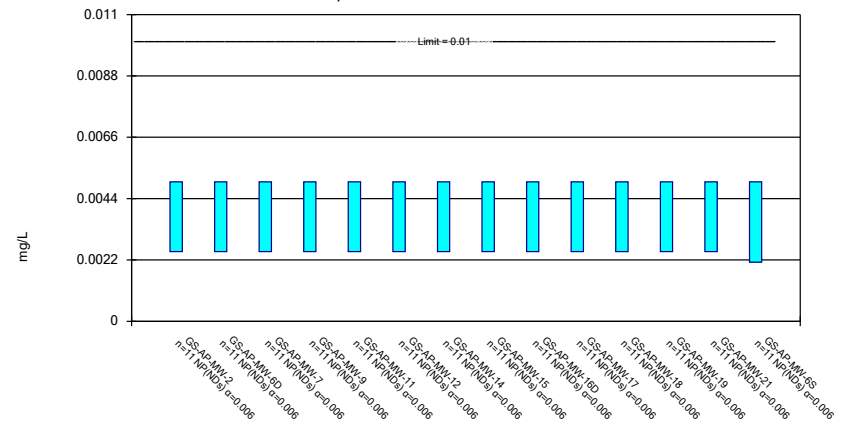
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Constituent: Chromium Analysis Run 1/31/2019 11:45 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

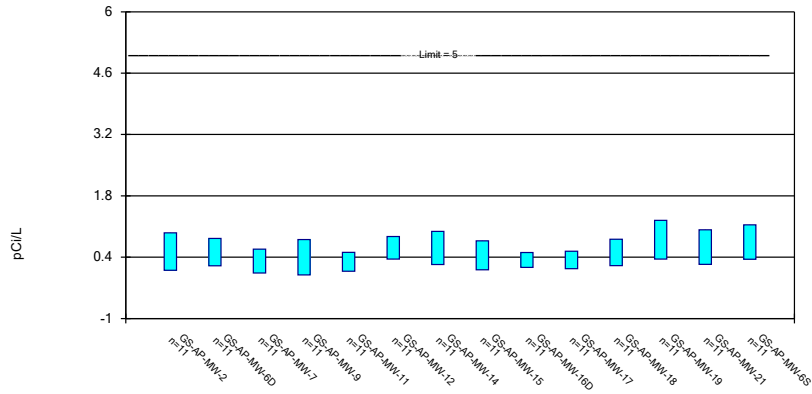
Compliance Limit is not exceeded.



Constituent: Cobalt Analysis Run 1/31/2019 11:46 AM View: Confidence Intervals  
 Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

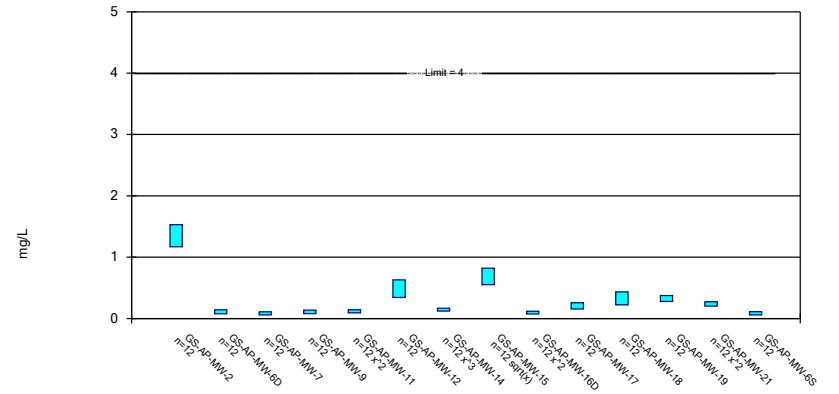
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 1/31/2019 11:46 AM View: Confidence Intervals  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric Confidence Interval

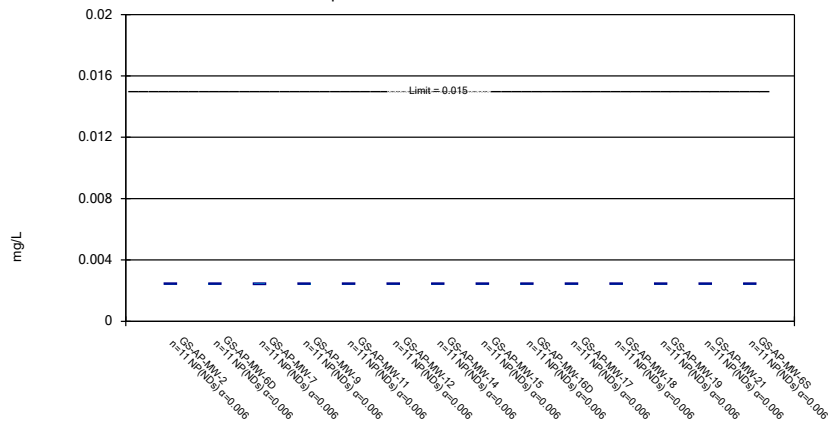
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 1/31/2019 11:46 AM View: Confidence Intervals  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

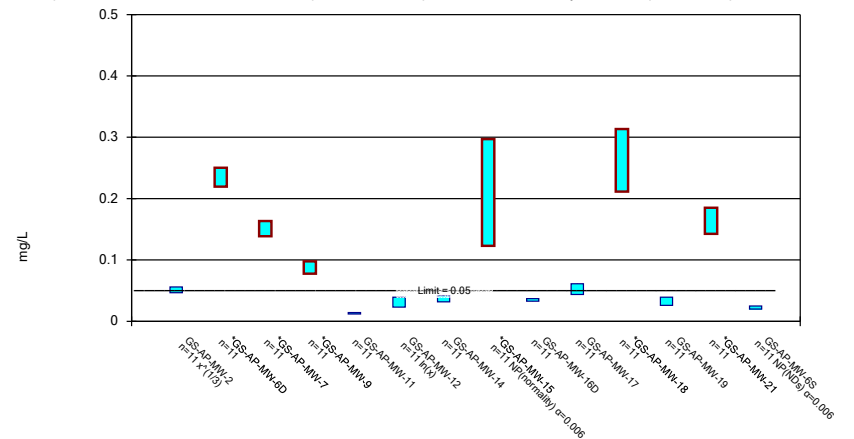
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 1/31/2019 11:46 AM View: Confidence Intervals  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

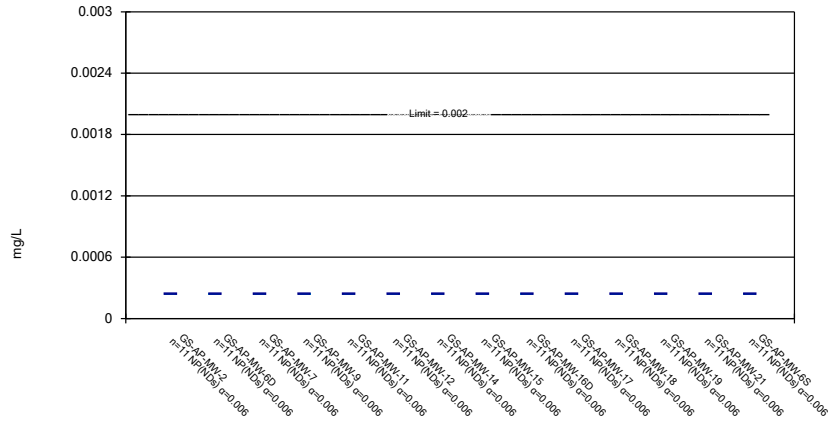
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 1/31/2019 11:46 AM View: Confidence Intervals  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

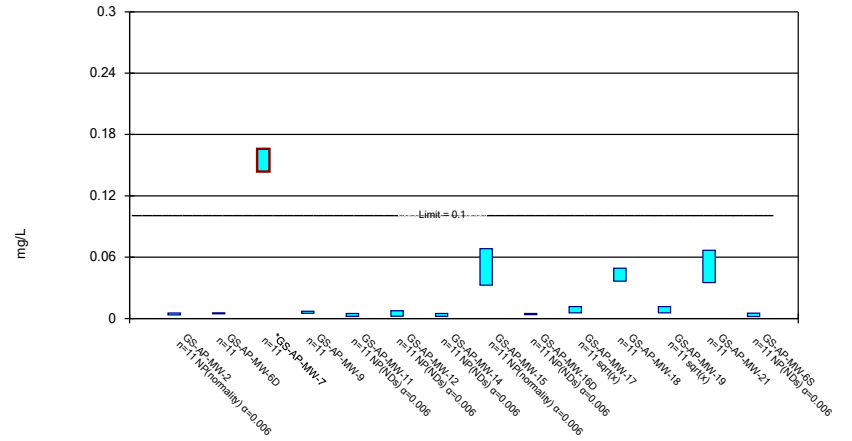
Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 1/31/2019 11:46 AM View: Confidence Intervals  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Parametric and Non-Parametric (NP) Confidence Interval

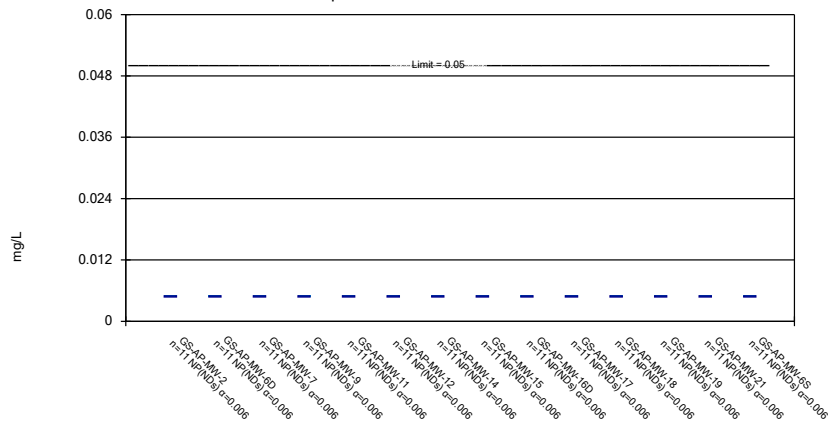
Compliance limit is exceeded.\* Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Molybdenum Analysis Run 1/31/2019 11:46 AM View: Confidence Intervals  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

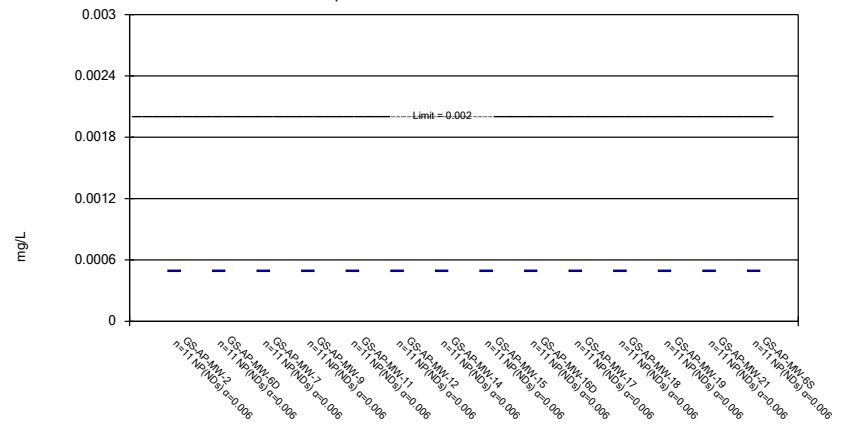
Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 1/31/2019 11:46 AM View: Confidence Intervals  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond

### Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Thallium Analysis Run 1/31/2019 11:46 AM View: Confidence Intervals  
Plant William C Gorgas Client: Southern Company Data: Gorgas Ash Pond