2019 Semi-Annual Groundwater Monitoring and Corrective Action Report

Georgia Power Company – Plant Mitchell
Ash Ponds A, 1, and 2
Project No.: 6122160170

Prepared for:

Georgia Power

Atlanta, Georgia

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CERTIFICATION STATEMENT

This *2019 Semi-Annual Groundwater Monitoring and Corrective Action Report, Georgia Power Company Plant Mitchell - Ash Ponds A, 1, and 2* has been prepared in compliance with Georgia Environmental Protection Division Rules for Solid Waste Management 391-3-4-.10 under the supervision of a licensed professional engineer and a licensed professional geologist with Wood Environment & Infrastructure Solutions, Inc.

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1.0 INTRODUCTION

In accordance with the Georgia Environmental Protection Division (GA EPD) Rules of Solid Waste Management 391-3-4-.10(6)(a)-(c), this 2019 Semi-Annual Groundwater Monitoring and Corrective Action Report has been prepared to document groundwater monitoring activities conducted at Georgia Power Company's (GPC) Plant Mitchell Ash Ponds A, 1, and 2. To specify groundwater monitoring requirements, GA EPD Rule 391-3-4-.10(6)(a) incorporates by reference the United States Environmental Protection Agency (US EPA) Coal Combustion Residuals (CCR) Rule 40 Code of Federal Regulations (CFR) § 257 Subpart D. For ease of reference, the US EPA CCR rules are cited within this report.

Groundwater monitoring and reporting for Plant Mitchell are performed in accordance with the monitoring requirements of § 257.90 through § 257.95 and the Georgia EPD Rule 391-3-4-.10(6)(a)-(c). This semi-annual report documents the activities completed during the second half of 2019 in accordance with EPD Rule 391-3-4-.10(6)(c). Two monitoring events were conducted during this monitoring period: (1) an initial assessment monitoring event was conducted in August 2019 as a result of statistical exceedances during the first detection monitoring event in March 2019, and (2) the subsequent assessment event conducted in October 2019, which served as the semi-annual compliance monitoring event for the year.

1.1 Site Description and Background

Georgia Power Company's Plant Mitchell is located approximately eight miles south of Albany, Georgia. The Plant Mitchell site (the Site) is comprised of approximately 516 acres, with the northern portion of the Site located in Dougherty County and the southern portion located in Mitchell County. Baker County is located immediately to the west of the Site, with the Flint River forming the county boundary **(Figure 1: Site Location Map)**. As depicted in **Figure 2: Monitoring Network Well Location Map**, the Plant Mitchell site is generally composed of the former coal-fired electric generating facility to the north and Ash Ponds A, 1, and 2 to the south. The Site is partly bounded by the Flint River on the west, the Georgia and Florida Railway on the east, pecan orchards to the south. The northern boundary of the Site is a residential property with a mowed lot. The wooded land immediately north of the former plant buildings is owned by GPC.

There are three CCR surface impoundments (ash ponds) at the Site: Ash Pond A, Ash Pond 1, and Ash Pond 2. The three ash ponds are located adjacent to each other and are therefore considered to be one multi-unit for groundwater monitoring purposes. The former coal-fired plant buildings have been demolished. The CCR material is being removed from the ash ponds and the ponds are in the process of being closed. The removed CCR material will be transported by rail and/or by truck for disposal at an approved landfill or beneficially reused.

Plant Mitchell Ash Pond A was closed in 1962, Ash Pond 1 closed in 1980, and Ash Pond 2 ceased accepting CCR prior to October 19, 2015. Because the units ceased receiving waste prior to October 19, 2015, Ash Ponds A, 1, and 2 are not subject to Federal monitoring requirements of the CCR rule. The Plant Mitchell CCR Surface Impoundments (Ash Pond A, Ash Pond 1, and Ash Pond 2) Permit Application was submitted to Georgia EPD in November 2018 and is currently under review. Groundwater monitoring has been initiated in order to meet GA EPD CCR requirements. The CCR background study was initiated in August 2016 and was completed in October 2018. The first detection monitoring event was conducted in March 2019.

1.2 Regional Geology & Hydrogeologic Setting

The geology and hydrogeology of the Plant Mitchell Ash Ponds A, 1, and 2 are summarized below. The Plant Mitchell site is located in the Dougherty Plain physiographic district within the Gulf Coastal Plain Physiographic Province (Watson, 1981; Clark and Zisa, 1976). The Dougherty Plain is characterized as relatively flat to gently rolling lowland karst terrain consisting of solutional features including caves, ephemeral streams, springs, and solution features which manifest surficially as shallow depressions.

The surface and near surface in the region are overlain by approximately 0-70 feet of unconsolidated sediment collectively referred to as residuum or overburden. This overburden is typically composed of discontinuous layers of sand and clay derived from the in-place weathering of the underlying Ocala Limestone. The overburden clay content ranges from 10 to 70 percent, with clay content typically being greater than 25 percent (Watson, 1981) making the overburden material less permeable than the underlying carbonate bedrock.

The Ocala Limestone in the region is described as a light-colored fossiliferous friable to well-indurated limestone (Gordon and Gonthier, 2017). Regionally, the Ocala Limestone is between 125 and 275 feet thick with increasing thickness to the southeast. The Ocala Limestone is part of the Floridan aquifer, which is hydraulically separated from the underlying Claiborne aquifer by the Lisbon Confining Unit (Gordon and Gonthier, 2017).

1.2.1 Site Geology

Based on the borings drilled to establish the detection monitoring network, the lithologies underlying the ash pond area from the ground surface to depth are overburden (residuum) and carbonate bedrock. The overburden (residuum) at the Site consists of an interlayered sequence of predominantly fine-grained unconsolidated material including reddish brown to gray silty and clayey sands overlying sandy clay and clay. The overburden material is composed of the residual product of weathering of the underlying Ocala Limestone in the form of non-calcareous clay interlayered with quartz sand alluvium deposits (Hicks et al, 1981). A discontinuous zone of low permeability fine-grained sediments overlying the Ocala Limestone may serve as a barrier

that restricts vertical movement of groundwater from the overburden to the limestone beneath the ash pond area, as indicated by many of the boring logs from multiple subsurface investigations at the Site. Laboratory analysis of undisturbed samples collected from fine-grained sediment directly overlying the limestone indicate this material can exhibit a permeability on the order of 10^{-4} to 10^{-8} cm/sec or 10^{-1} to 10^{-5} ft/day. These values are generally consistent with the published range of literature values for overburden materials in the Dougherty Plain area. Hayes, et al. (1983) estimated horizontal hydraulic conductivity ranging from 0.0004 ft/day to 30 ft/day with a median value of 0.002 ft/day for samples gathered in the Dougherty Plain. A sample collected to the north of the study area of Hayes, et al. (1983) estimated a hydraulic conductivity value of 0.002 feet/day and a vertical hydraulic conductivity value of 0.001 ft/day.

Locally, the Ocala Limestone bedrock is characterized as a pink to white, slightly silty, friable to well indurated fossiliferous limestone. The contact between overburden and bedrock at the Site is noted as an abrupt and distinct change in color, texture, and carbonate content from the overburden to bedrock. The Ocala Limestone is often described in the boring logs as a fine to coarse calcareous sand with increasing consolidation and cementation with depth. The surface of the carbonate bedrock is highly irregular due to differential weathering. In general, the bedrock surface slopes from the Site toward the Flint River in the west and southwest, and toward the unnamed creek in the east. In-situ hydraulic conductivity (slug) tests in the bedrock at the Site ranged from 3.83×10^{-4} to 2.05×10^{-3} cm/sec or 1.08 to 5.81 feet/day with an average of 1.07×10^{-3} cm/sec or 3.04 feet/day.

1.2.2 Site Hydrogeology

Two main hydrostratigraphic units are present at the Site: overburden (residuum) and carbonate bedrock comprise the uppermost aquifer. The bedrock and lower part of the overburden are saturated. Where there is CCR/embankment material overlying the overburden and bedrock, it is predominantly unsaturated as indicated by several piezometers screened in the CCR/overburden contact. The monitoring well network for the Ash Ponds monitors the carbonate upper bedrock because the limestone yields usable, continuous, and persistent water, unlike the overlying overburden.

General groundwater flow in the bedrock aquifer is from the northern and eastern boundaries of the Site toward Ash Ponds 1 and 2 where a more dominant westerly flow direction is present (**Figures 3 and 4 Potentiometric Surface – Upper Bedrock – August and October 2019**).

1.3 Groundwater Monitoring System

Ash Ponds A, 1, and 2 are located adjacent to each other and are therefore considered to be one multi-unit for groundwater monitoring purposes. The groundwater monitoring system is described below.

Pursuant to § 257.91 and § 391-3-4-.10(6)(a), GPC installed a groundwater monitoring system within the uppermost aquifer at Ash Ponds A, 1, and 2. The monitoring system is designed to monitor groundwater passing the waste boundary of the Ash Ponds A, 1, and 2 within the uppermost aquifer. Wells were located to serve as upgradient or downgradient monitoring points based on groundwater flow direction (**Table 1: Summary of Monitoring Well Network Well Construction and Groundwater Elevations**). The monitoring well locations are shown in **Figure 2: Monitoring Network Well Location Map**. The current monitoring well network at Ash Ponds A, 1, and 2 consists of 14 wells (4 upgradient wells, and 10 downgradient wells). The upgradient wells used to monitor groundwater quality include wells PZ-1D, PZ-2D, PZ-31, and PZ-32. Downgradient wells used to monitor groundwater quality include wells PZ-7D, PZ-14, PZ-15, PZ-16, PZ-17, PZ-18, PZ-19, PZ-23, PZ-25, and PZ-33. Twenty-eight piezometers are used for water level measurements only (**Table 2: Summary of Piezometer Network Well Construction and Groundwater Elevations**).

2.0 GROUNDWATER MONITORING ACTIVITIES

As required by § 257.90(e), the following describes monitoring-related activities performed during the initial assessment scan and first assessment compliance monitoring events during the second half of the 2019 calendar year. The groundwater sampling was performed in accordance with § 257.93. Samples were collected from each of the 14 wells in the monitoring system shown on **Figure 2**.

2.1 Monitoring Well Installation and Maintenance

Monitoring well-related activities conducted during the second half of 2019 included 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.
- Abandoning six piezometers and one monitoring well to accommodate construction and pond closure activities. The well abandonment is documented in the *Phase I Well Abandonment Report at Plant Mitchell (CCR Wells), dated November 15, 2019*. The report is provided in **Appendix A: Well Abandonment Report.**

2.2 Detection Monitoring Program

In accordance with § 257.94(b), the detection groundwater monitoring program was implemented by collecting 8 background groundwater samples. In addition, a 9th round of groundwater samples was collected from the 14 CCR monitoring wells as the initial detection monitoring event. Groundwater samples were collected from each monitoring well and analyzed for Appendix III constituents according to § 257.94(a). The background study and the initial detection monitoring event were documented in the *2019 Annual Groundwater Monitoring & Corrective Action Report*, dated August 5, 2019.

2.3 Initial Assessment Monitoring

Statistically Significant Increases (SSI) of Appendix III constituents were identified in the initial detection monitoring event (March 2019). Pursuant to § 257.94(e)(1), GPC implemented assessment monitoring in accordance with § 257.95. The initial assessment monitoring event was conducted from August 20 to 22, 2019. Pursuant to § 257.95(b), the CCR monitoring wells were sampled for the full suite of Appendix IV constituents during the initial assessment event. Following receipt of the initial Appendix IV sample results, the 2019 semi-annual monitoring event/assessment monitoring event was conducted October 1 to 3, 2019. Pursuant to § 257.95(d)(1), groundwater samples collected from the CCR monitoring network wells were

analyzed for Appendix III constituents and those Appendix IV constituents detected during the initial assessment event in August. Data reports for the assessment monitoring events are included in **Appendix B: Laboratory Analytical and Field Sampling Reports.** Well PZ-23 was sampled on September 10, 2019 for the 2019 semi-annual monitoring event, prior to being abandoned on September 11, 2019.

3.0 SAMPLE METHODOLOGY & ANALYSES

The following sections describe the methods used to complete groundwater monitoring at Plant Mitchell Ash Ponds A, 1, and 2.

3.1 Groundwater Elevation Measurements and Flow Direction

Prior to each sampling event, groundwater elevations were recorded from each well in the network for Plant Mitchell Ash Ponds A, 1, and 2. Groundwater elevations recorded during the initial assessment and semi-annual monitoring events are summarized in **Tables 1 and 2**. Groundwater elevation data from the two monitoring events were used to develop potentiometric surface elevation contour maps (**Figure 3: Potentiometric Surface – Upper Bedrock – August 2019 and Figure 4: Potentiometric Surface – Upper Bedrock – October 2019**). Groundwater flow in the carbonate upper bedrock **(Figures 3 and 4)** is to the west-southwest. The groundwater flow pattern observed during the August and October 2019 assessment monitoring events are consistent with conditions observed during previous monitoring events.

3.2 Groundwater Gradient and Flow Velocity

The groundwater flow velocity at Plant Mitchell Ash Ponds A, 1, and 2 was calculated using a derivation of Darcy's Law. Specifically,

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

Where:

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

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

$i =$ Horizontal hydraulic gradient $\left(\frac{feet}{feet}\right)$

$n_e =$ Effective porosity

Although Darcy's equation is primarily applicable to diffuse flow in porous media, it is also used where flow is analogous to conditions in a homogenous aquifer. Stewart, et al. (1999) states that "water flow in the Upper Floridan (Ocala Limestone) can be classified generally as (1) diffuse, where flow is analogous to conditions in homogenous aquifer, and can be described by using basic Darcian equations; and (2) conduit, where water flows in distinct conduits and surrounding rock has comparatively low porosity and low permeability." While the presence of interpreted karst features is documented on the surface at the Plant Mitchell site, little evidence exists for the presence of well interconnected karst features within the upper bedrock aquifer. Groundwater flow in the shallow Ocala Limestone at Plant Mitchell likely is diffuse based on the above evidence. Based on the lack of karst features such as cavities in boring logs, the narrow

range and relatively low values of hydraulic conductivity, and relatively uniform potentiometric surface for the bedrock aquifer at the Site, the application of Darcy's equation produces approximate linear groundwater flow velocities for the shallow bulk carbonate bedrock aquifer.

Groundwater flow velocities were calculated using an average hydraulic conductivity value of 3.04 feet/day, and an effective porosity of 20% (Hayes, et al., 1983). **Table 3: Groundwater Flow Velocity Calculations – August and October 2019** summarize the groundwater flow velocities. Results for groundwater flow velocities ranged from 0.01 to 0.03 feet/day (3.6 to 10.5 feet/year).

3.3 Groundwater Sampling

Groundwater samples were collected for the two assessment monitoring events in accordance with § 257.95(b) and (d). Each of the monitoring wells at the Site is equipped with a dedicated QED bladder pump. The 14 monitoring wells were purged and sampled using low-flow sampling procedures. Sampling equipment and pump intakes were placed at the midpoint of the well screen. Care was taken to maintain a water level above the top of screen and not draw the water level down below the pump during purging. Water level stabilization was achieved when three consecutive water level measurements vary by 0.3 foot or less at a pumping rate of no less than 100 milliliters per minute (mL/min). A SmarTroll (In-Situ field instrument) was used to monitor and record field water quality parameters (pH, conductivity, dissolved oxygen, temperature, and ORP) and a Hach 2100Q was used to measure turbidity during well purging to verify stabilization prior to sampling. Groundwater samples were collected when the following stabilization criteria were met:

- pH ± 0.1 Standard Units (S.U.);
- Specific conductance ± 5%;
- 10% for DO > 0.5 mg/l. No criterion applies if DO < 0.5 mg/L.
- Turbidity measurements less than 5 NTU
- Temperature – Record only, not used for stabilization criteria
- ORP – Record only, not used for stabilization criteria

Once stabilization was achieved, samples were collected into appropriately-preserved laboratory-supplied sample containers. Sample bottles were placed in ice-packed coolers and submitted to the analytical laboratory following chain-of-custody protocol.

3.4 Laboratory Analyses

Groundwater samples collected in August 2019 for the initial assessment monitoring event were analyzed for all Appendix IV monitoring constituents only. Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in **Appendix B**.

Groundwater samples collected in September-October for the 2019 semi-annual monitoring event were analyzed for all of the Appendix III constituents and all of the Appendix IV constituents detected in the initial assessment monitoring event (August 2019). Beryllium, cadmium, and mercury were not detected in the groundwater samples collected during the initial assessment monitoring event and were, therefore, not analyzed during the subsequent semi-annual event in accordance with § 257.95(d)(1).

Laboratory analyses were performed by Pace Analytical Services, LLC, of Peachtree Corners, Georgia, and Greensburg, Pennsylvania. Both Pace laboratories are accredited by National Environmental Laboratory Accreditation Program (NELAP) and maintain a NELAP certification for all constituents analyzed. In addition, Pace laboratories are certified to perform analysis by the State of Georgia.

3.5 Groundwater Analytical Results

Table 4: Analytical Data Summary Appendix III - September-October 2019, summarize the analytical data for the Appendix III constituents for the semi-annual monitoring event. The complete laboratory and field data sheets are included in **Appendix B**.

Table 5: Analytical Data Summary Appendix IV – August and September-October 2019 summarize the analytical data for the Appendix IV constituents for the initial assessment and semi-annual monitoring events. The complete laboratory and field data sheets are included in **Appendix B**.

3.6 Quality Assurance & Quality Control

The analytical results provided in **Tables 4** and **5** provide concentrations from the two assessment sampling events as reported by the laboratory. When values are followed by a "J" flag, this indicates that the value is an estimated analyte concentration detected between the method detection limit (MDL) and the laboratory reporting limit (PQL). The estimated value is positively identified, but is below lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions.

Quality control procedures included calculating the relative percent difference (RPD) between sample and sample duplicate concentrations. This is calculated as:

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

Where:

RPD = Relative Percent Difference (%)

Conc1 = Higher concentration of the sample or field duplicate

Conc2 = Lower concentration of the sample or field duplicate

The RPD calculations are provided in **Table 6: RPD Calculations** for detected concentrations above the PQL for wells and corresponding duplicates for the two assessment events. Other constituents were below the PQL. For a RPD to be representative of the process, the concentrations have to be five times the PQL in accordance with US EPA guidance on inorganic data review, (US EPA August 2014). The RPD values of concentrations five times the PQL ranged with the allowable 20% RPD indicating good sampling precision.

4.0 STATISTICAL ANALYSIS

The Site has initiated assessment monitoring. Statistical analysis of Appendix III groundwater monitoring data was performed on samples collected from the groundwater monitoring network pursuant to § 257.93(f) and following the statistical analysis plans. The statistical analysis plan used at the Site was developed in April 2019 by Groundwater Stats Consulting in accordance with § 257.93(f) using methodology presented in Statistical Analysis of Groundwater Data at RCRA Facilities, Unified Guidance, March 2009, EPA 530/R-09-007 (US EPA, 2009). To develop the statistical method, analytical data collected during the background period were evaluated and used to develop statistical limits for each Appendix III constituent. Subsequent detection monitoring results were compared to the statistical limits to determine if concentrations were statistically different from background.

Pursuant to § 257.95(d)(2), GPC will establish groundwater protection standards for the Appendix IV monitoring constituents and complete statistical analysis of the Appendix IV groundwater monitoring data obtained during the first semi-annual assessment monitoring event within 90 days of obtaining the results. GPC will complete the assessment monitoring and statistical analysis in accordance with § 257.95 and report the results in the 2020 Annual Groundwater Monitoring and Corrective Action Report, due August 1, 2020.

4.1 Statistical Method

Sanitas groundwater statistical software was used to perform the statistical analyses at the Site. Sanitas is a commercially available decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by US EPA regulations and guidance as recommended in the Unified Guidance (US EPA, 2009) document. The Sanitas groundwater statistical software was used to perform the statistical analyses of groundwater quality data obtained in September-October 2019. The Interwell method was used for the analysis of the Appendix III constituents. Specific test information is provided below.

When using the interwell method, upgradient well data are pooled to establish a background statistical limit for each constituent. Appendix III data from the September-October 2019 monitoring event were compared to the statistical limit to determine whether downgradient well concentrations exceed background statistical limits. The interwell statistical method uses an optional 1-of-2 verification resample plan. When an initial statistically significant increase (SSI) or questionable result occurs, a second sample may be collected to verify the initial result or determine if the result was an outlier. Interwell prediction limits were used for the following locations and constituents:

- Ash Ponds A, 1, and 2: Interwell statistical methods were used for boron, calcium, chloride, fluoride, sulfate, Total Dissolved Solids (TDS), and pH.

Data from groundwater samples from downgradient wells collected in September-October 2019 detection monitoring event were compared to the statistical limits to evaluate whether concentrations exceed background statistical limits.

If data from a sampling event initially exceeds the PL, an optional resampling strategy can be used to verify the result. In 1-of-2 resampling, one independent resample is collected and evaluated within 90 days to determine whether the initial exceedance is verified. If the resample exceeds the PL, the initial exceedance is verified, and an SSI is identified. When a resample result does not verify the initial result, and does not exceed the PL, there is no SSI. If resampling is not performed, the initial exceedance is a confirmed exceedance. If the initial finding is not verified by a resampling result, the resampled value will replace the initial finding. When the resample confirms the initial finding, the exceedance will be reported.

The following table provides a summary of the statistical methodology used at Ash Ponds A, 1, and 2 for the monitoring events conducted in 2019 and will be used for routine monitoring in the future.

Table 7: Statistical Method Summary

Statistical Methodology	Data Screening on Proposed Background	Evaluate outliers, trends, and seasonality when sufficient data are available
	Statistical Limits	Interwell statistical limits will be applied on a parameter basis, depending on the appropriateness of the method as determined by the Analysis of Variance.
	Prediction Limits	Parametric when data follow a normal or transformed normal distribution and when less than 50% non-detects, utilizing Kaplan Meier non-detect adjustment when applicable. Nonparametric when data sets contain greater than 50% non-detects or when data are not normally or transformed-normally distributed.
	Management of Non-Detects	When data contain less than 15% non-detects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for non-detects is the practical quantitation limit (PQL) as reported by the laboratory. When data contain between 15-50% non-detects the Kaplan-Meier non-detect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.

Statistical Methodology	Confidence Intervals	Used in Assessment and Corrective Action monitoring.
	No Statistical Testing	Statistical testing is not required for parameters containing 100% non-detects (US EPA Unified Guidance, 2009, Chapter 6).
	Verification Resample Plan	Optional 1-of-2 with minimum of 8 samples per well for interwell testing.
	Optional	▪ Initial statistical exceedance warrants optional independent resampling within 90 days. ▪ If resample passes, well/parameter is not a confirmed statistically significant increase (SSI). ▪ If resample exceeds, well/parameter has a confirmed SSI. ▪ If no resample is collected, the original result is deemed verified.

4.2 Statistical Analyses Results – Appendix III

Analytical data for Appendix III constituents from the 2019 semi-annual monitoring event in September-October 2019 were analyzed in accordance with the statistical analysis plan. The statistical analysis and comparison to prediction limits are included as **Appendix C: Statistical Analysis**. Based on the statistical results presented in **Appendix C**, the following summarizes the SSIs identified during the 2019 semi-annual monitoring event.

Table 8: Statistical Analysis Results Summary

Constituent	Wells with Concentrations Above Prediction Limits
Boron	PZ-7D, PZ-15, PZ-16, PZ-17, PZ-18, PZ-19, PZ-23, PZ-25, PZ-33
Calcium	PZ-7D, PZ-17, PZ-18, PZ-19, PZ-23
Chloride	PZ-7D, PZ-14, PZ-15, PZ-16, PZ-17, PZ-18, PZ-19
pH	PZ-7D, PZ-18, PZ-19, PZ-23
Sulfate	PZ-7D, PZ-15, PZ-16, PZ-17, PZ-18, PZ-19, PZ-23, PZ-25, PZ-33
Total Dissolved Solids	PZ-7D, PZ-15, PZ-17, PZ-18, PZ-19, PZ-23, PZ-33

4.3 Statistical Analyses - Appendix IV

Pursuant to § 257.95, Appendix IV groundwater quality data will be statistically analyzed and compared to groundwater protection standards within 90 days of receiving data from the first (October 2019) assessment monitoring event. GPC will complete the assessment monitoring and statistical analysis in accordance with § 257.95 and report the results in the 2020 Annual Groundwater Monitoring and Corrective Action Report, due on August 1, 2020.

5.0 MONITORING PROGRAM STATUS

The Plant Mitchell Ash Ponds A, 1, and 2 CCR multi-unit is in assessment monitoring due to the detection of SSIs of Appendix III constituents in March 2019. Similar SSIs of Appendix III constituents were detected in the 2019 semi-annual event. Pursuant to § 257.94(e)(1), GPC will continue assessment monitoring in accordance with § 257.95.

6.0 CONCLUSIONS & FUTURE ACTIONS

Statistical evaluations of the groundwater monitoring data for Plant Mitchell Ash Ponds A, 1, and 2 identified SSIs of Appendix III groundwater monitoring constituents. GPC has initiated assessment monitoring pursuant to § 257.95. During the next semi-annual reporting period of 2020, GPC will establish groundwater protection standards for Appendix IV constituents and complete statistical analysis according to the regulations. The next semi-annual sampling event is planned for March-April 2020.

Monitoring wells to replace the abandoned CCR monitoring/gauging network wells (PZ-23 and PZ-24) are planned for installation prior to the next monitoring event.

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TABLES & FIGURES

TABLE 1
SUMMARY OF MONITORING WELL NETWORK WELL CONSTRUCTION and GROUNDWATER ELEVATIONS

Well	Top of Casing Elevation (ft above msl)	Ground Surface Elevation (ft above msl)	Top of Screen Elevation (ft above msl)	Screen Bottom Elevation (ft above msl)	Screen Length (feet)	Depth to Water (ft below TOC) 8/20/2019	Groundwater Elevation (ft above msl) 8/20/2019	Depth to Water (ft below TOC) 10/1/2019	Groundwater Elevation (ft above msl) 10/1/2019	Location
PZ-1D	196.21	192.7	125.1	115.1	10.0	53.98	142.23	55.95	140.26	Upgradient
PZ-2D	178.39	175.1	107.5	97.5	10.0	37.15	141.24	39.42	138.97	Upgradient
PZ-31	182.86	180.1	133.1	123.1	10.0	40.73	142.13	42.56	140.30	Upgradient
PZ-32	180.72	178.0	128.7	118.7	10.0	39.64	141.08	41.57	139.15	Upgradient
PZ-7D	173.13	170.0	123.6	113.6	10.0	35.34	137.79	37.15	135.98	Downgradient
PZ-14	183.62	180.4	140.4	130.4	10.0	45.58	138.04	46.72	136.90	Downgradient
PZ-15	170.10	166.9	96.9	86.9	10.0	32.88	137.22	34.87	135.23	Downgradient
PZ-16	173.71	170.7	130.7	120.7	10.0	36.81	136.90	38.13	135.58	Downgradient
PZ-17	172.66	169.5	119.5	109.5	10.0	34.82	137.84	36.65	136.01	Downgradient
PZ-18	169.78	166.6	116.6	106.6	10.0	32.19	137.59	33.97	135.81	Downgradient
PZ-19	171.96	169.1	120.1	110.1	10.0	34.52	137.44	35.91	136.05	Downgradient
PZ-23	191.62	188.5	138.5	128.5	10.0	52.84	138.78	abandoned		Downgradient
PZ-25	171.12	167.9	117.9	107.9	10.0	32.89	138.23	34.66	136.46	Downgradient
PZ-33	189.52	186.9	129.1	119.1	10.0	51.23	138.29	52.54	136.98	Downgradient

Notes:
1. Horizontal locations referenced to the North American Datum of 1983.
2. ft msl indicates feet mean sea level.
3. TOC indicates top of casing.

TABLE 2
SUMMARY OF PIEZOMETER NETWORK WELL CONSTRUCTION and GROUNDWATER ELEVATIONS

Well Name	Top of Casing Elevation (ft msl)	Ground Surface Elevation (ft msl)	Top of Screen Elevation (ft msl)	Bottom of Screen Elevation (ft msl)	Screen Length (feet)	Depth to Water (ft below TOC) 8/20/2019	Groundwater Elevation (ft above msl) 8/20/2019	Depth to Water (ft below TOC) 10/1/2019	Groundwater Elevation (ft above msl) 10/1/2019	Location
PZ-01R	191.87	188.2	131.7	121.7	10.0	53.39	138.48	55.54	136.33	Downgradient
PZ-02R	191.66	188.5	131.5	121.5	10.0	53.34	138.32	54.78	136.88	Downgradient
PZ-2S	178.60	175.0	131.0	121.0	10.0	37.25	141.35	39.45	139.15	Upgradient
PZ-03R	192.35	189.3	143.2	133.2	10.0	54.71	137.64	56.00	136.35	Downgradient
PZ-3D	190.82	187.7	110.1	100.1	10.0	50.27	140.55	52.24	138.58	Upgradient
PZ-4D	190.84	187.7	142.1	132.1	10.0	51.16	139.68	52.49	138.35	Downgradient
PZ-5D	193.82	190.5	143.0	133.0	10.0	52.99	140.83	abandoned		Downgradient
PZ-6S	189.34	186.2	148.6	138.6	10.0	20.23	169.11	24.87	164.47	Downgradient
PZ-8D	170.27	166.7	100.1	90.1	10.0	32.95	137.32	34.89	135.38	Downgradient
PZ-9D	166.08	162.6	126.0	116.0	10.0	28.86	137.22	30.66	135.42	Downgradient
PZ-10S	175.51	172.3	136.8	126.8	10.0	38.42	137.09	39.61	135.90	Downgradient
PZ-11S	191.57	188.2	140.6	130.6	10.0	54.51	137.06	55.89	135.68	Downgradient
PZ-12S	173.19	169.8	132.2	122.2	10.0	36.26	136.93	38.13	135.06	Downgradient
PZ-20	173.43	170.4	120.9	110.9	10.0	35.87	137.56	37.15	136.28	Downgradient
PZ-21	179.83	176.7	116.7	106.7	10.0	41.04	138.79	42.61	137.22	Downgradient
PZ-22	187.68	184.5	134.5	124.5	10.0	48.25	139.43	49.63	138.05	Downgradient
PZ-24	194.91	191.8	131.8	121.8	10.0	56.26	138.65	abandoned		Downgradient
PZ-26	166.60	163.7	125.2	115.2	10.0	29.28	137.32	31.26	135.34	Downgradient
PZ-27	164.40	161.5	123.2	113.2	10.0	27.47	136.93	28.83	135.57	Downgradient
PZ-28	165.67	163.0	126.0	116.0	10.0	28.83	136.84	29.73	135.94	Downgradient
PZ-29	172.95	170.0	123.5	113.5	10.0	35.44	137.51	37.41	135.54	Downgradient
MW-102	170.75	168.0	131.9	122.7	9.2	32.65	138.10	34.38	136.37	Downgradient
MW-105	187.52	184.8	119.8	110.3	9.5	48.19	139.33	abandoned		Downgradient
MW-108	185.59	183.0	145.3	136.2	9.1	47.62	137.97	48.69	136.90	Downgradient
MW-111	168.00	165.3	127.8	118.8	9.0	30.63	137.37	32.6	135.40	Downgradient
MW-113	174.76	172.1	129.8	120.4	9.5	37.42	137.34	38.33	136.43	Downgradient
MW-115	168.97	166.2	88.6	79.5	9.1	31.15	137.82	33.11	135.86	Downgradient
MW-116	171.86	169.0	100.8	94.4	6.4	34.21	137.65	35.72	136.14	Downgradient

Notes:
1. Horizontal locations referenced to the North American Datum of 1983.
2. ft msl indicates feet mean sea level.
3. TOC indicates top of casing.

TABLE 3
GROUNDWATER FLOW VELOCITY CALCULATIONS - AUGUST and OCTOBER 2019

Potentiometric Map Date	Water-Bearing Zone	Location	Hydraulic Gradient (i) (feet/feet)	Average Hydraulic Conductivity (K) (feet/day)	Estimated Effective Porosity (n_e)	Calculated Groundwater Flow Velocity (V) (feet/day)	Calculated Groundwater Flow Velocity (V) (feet/year)
August 2019	Limestone	PZ-01D to PZ-21	0.002	3.04	0.2	0.03	10.5
August 2019	Limestone	PZ-22 to PZ-19	0.001	3.04	0.2	0.02	6.6
August 2019	Limestone	PZ-2R to PZ-16	0.001	3.04	0.2	0.01	3.6
October 2019	Limestone	PZ-01D to PZ-1R	0.002	3.04	0.2	0.03	9.6
October 2019	Limestone	PZ-24 to PZ-19	0.001	3.04	0.2	0.02	6.2
October 2019	Limestone	PZ-33 to PZ-15	0.001	3.04	0.2	0.01	4.6

TABLE 4
ANALYTICAL DATA SUMMARY
APPENDIX III
SEPTEMBER-OCTOBER 2019

Well Name	Sample Date	Boron	Calcium	Chloride	Fluoride	pH	Sulfate	TDS
PZ-1D	10/1/2019	0.0064 (J)	46.8	3.6	0.062 (J)	7.5	2.8	146
PZ-2D	10/2/2019	0.011 (J)	21.0	2.7	0.11 (J)	9.0	4.1	95.0
PZ-7D	10/3/2019	0.24	127	5.9	0.041 (J)	6.9	59.6	405
PZ-14	10/2/2019	0.021 (J)	103	5.4	0.056 (J)	7.0	6.2	312
PZ-15	10/2/2019	0.17	101	8.0	0.075 (J)	7.2	83.0	355
PZ-16	10/2/2019	0.19	89.1	7.7	0.053 (J)	7.2	48.5	284
PZ-17	10/2/2019	0.28	115	7.9	0.063 (J)	7.0	104	415
PZ-18	10/3/2019	0.35	139	7.0	0.043 (J)	6.8	95.8	464
PZ-19	10/3/2019	0.52	125	5.6	0.084 (J)	6.9	84.9	485
PZ-23	9/10/2019	0.15	137	3.8	< 0.30	6.8	45.1	420
PZ-25	10/2/2019	0.21	92.3	2.6	0.16 (J)	7.2	43.0	312
PZ-31	10/2/2019	0.0084 (J)	95.5	4.3	0.057 (J)	7.1	1.6	263
PZ-32	10/1/2019	0.011 (J)	64.3	3.1	0.042 (J)	7.4	2.2	187
PZ-33	10/3/2019	0.36	110	4.1	0.060 (J)	7.0	72.1	414
Dup-01 PZ-17	10/2/2019	0.30	125	7.8	0.063 (J)	7.0	102	418
Dup-02 PZ-25	10/2/2019	0.21	93.2	2.6	0.17 (J)	7.2	42.9	315

Notes:

1. (J) indicates the constituent was detected between the analytical method detection limit and the laboratory reporting limit. The value followed by (J) is qualified by the laboratory as estimated.
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. Results are reported in milligrams per liter (mg/L). Results for pH are reported in standard units.
4. TDS indicates total dissolved solids.

TABLE 5
ANALYTICAL DATA SUMMARY
APPENDIX IV
AUGUST and SEPTEMBER-OCTOBER 2019

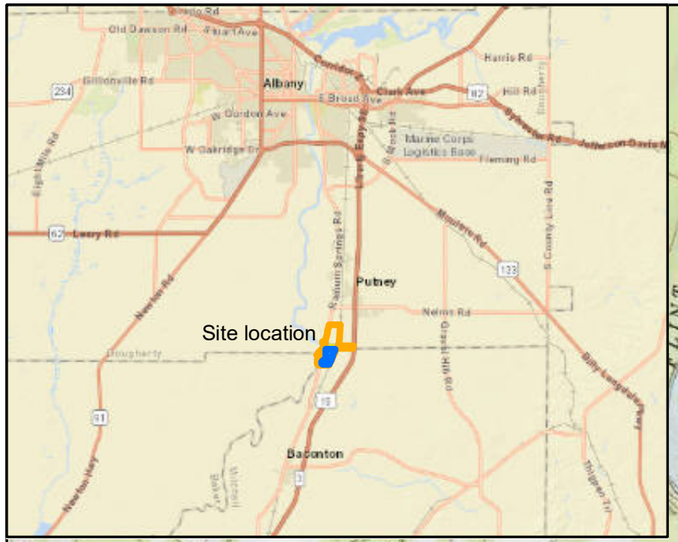
Well Name	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Radium	Selenium	Thallium
PZ-1D	8/20/2019	0.00074 (J)	< 0.0050	0.017	< 0.0030	< 0.0025	0.0028 (J)	< 0.0050	< 0.30	0.00021 (J)	< 0.030	< 0.00050	< 0.010	0.595 U	< 0.010	< 0.0010
PZ-1D	10/1/2019	0.00076 (J)	< 0.0050	0.016	NA	NA	0.0022 (J)	< 0.0050	0.062 (J)	< 0.0050	< 0.030	NA	0.0010 (J)	0.953 U	< 0.010	< 0.0010
PZ-2D	8/21/2019	0.00030 (J)	0.0014 (J)	0.0042 (J)	< 0.0030	< 0.0025	0.0057 (J)	< 0.0050	0.046 (J)	< 0.0050	0.0018 (J)	< 0.00050	< 0.010	0.710 U	< 0.010	< 0.0010
PZ-2D	10/2/2019	0.00042 (J)	0.0022 (J)	0.0046 (J)	NA	NA	0.0049 (J)	< 0.0050	0.11 (J)	0.000047 (J)	0.0016 (J)	NA	< 0.010	0.712 U	< 0.010	< 0.0010
PZ-7D	8/22/2019	< 0.0030	< 0.0050	0.0067 (J)	< 0.0030	< 0.0025	0.0013 (J)	< 0.0050	< 0.30	< 0.0050	0.0029 (J)	< 0.00050	< 0.010	0.672 U	< 0.010	0.000086 (J)
PZ-7D	10/3/2019	0.00029 (J)	< 0.0050	0.0070 (J)	NA	NA	0.00040 (J)	< 0.0050	0.041 (J)	< 0.0050	0.0032 (J)	NA	< 0.010	1.37	0.0017 (J)	0.000078 (J)
PZ-14	8/21/2019	0.00039 (J)	< 0.0050	0.017	< 0.0030	< 0.0025	0.00073 (J)	< 0.0050	< 0.30	0.000064 (J)	< 0.030	< 0.00050	< 0.010	0.705 U	< 0.010	< 0.0010
PZ-14	10/2/2019	< 0.0030	0.00083 (J)	0.017	NA	NA	< 0.010	< 0.0050	0.056 (J)	< 0.0050	< 0.030	NA	< 0.010	0.915 U	0.0015 (J)	< 0.0010
PZ-15	8/21/2019	< 0.0030	< 0.0050	0.050	< 0.0030	< 0.0025	0.00048 (J)	< 0.0050	0.044 (J)	< 0.0050	0.0013 (J)	< 0.00050	< 0.010	1.86	< 0.010	0.00022 (J)
PZ-15	10/2/2019	< 0.0030	< 0.0050	0.049	NA	NA	< 0.010	< 0.0050	0.075 (J)	< 0.0050	0.0013 (J)	NA	< 0.010	1.00 U	< 0.010	0.00016 (J)
PZ-16	8/21/2019	< 0.0030	0.00036 (J)	0.034	< 0.0030	< 0.0025	0.00095 (J)	< 0.0050	< 0.30	< 0.0050	< 0.030	< 0.00050	< 0.010	0.453 U	< 0.010	0.000057 (J)
PZ-16	10/2/2019	< 0.0030	< 0.0050	0.038	NA	NA	0.00044 (J)	< 0.0050	0.053 (J)	0.000081 (J)	< 0.030	NA	< 0.010	0.650 U	< 0.010	0.000053 (J)
PZ-17	8/22/2019	< 0.0030	< 0.0050	0.078	< 0.0030	< 0.0025	< 0.010	< 0.0050	0.11 (J)	< 0.0050	0.0025 (J)	< 0.00050	< 0.010	0.977 U	< 0.010	0.00018 (J)
PZ-17	10/2/2019	< 0.0030	< 0.0050	0.074	NA	NA	< 0.010	< 0.0050	0.063 (J)	< 0.0050	0.0024 (J)	NA	< 0.010	1.34 U	< 0.010	0.00016 (J)
PZ-18	8/22/2019	0.00045 (J)	< 0.0050	0.022	< 0.0030	< 0.0025	0.00081 (J)	< 0.0050	< 0.30	< 0.0050	0.0026 (J)	< 0.00050	< 0.010	0.753 U	< 0.010	0.000070 (J)
PZ-18	10/3/2019	< 0.0030	< 0.0050	0.025	NA	NA	< 0.010	< 0.0050	0.043 (J)	< 0.0050	0.0027 (J)	NA	< 0.010	2.07	< 0.010	< 0.0010
PZ-19	8/22/2019	< 0.0030	< 0.0050	0.047	< 0.0030	< 0.0025	< 0.010	< 0.0050	0.10 (J)	< 0.0050	0.012 (J)	< 0.00050	0.0021 (J)	1.37	< 0.010	0.00055 (J)
PZ-19	10/3/2019	0.00044 (J)	< 0.0050	0.057	NA	NA	< 0.010	< 0.0050	0.084 (J)	< 0.0050	0.016 (J)	NA	0.0024 (J)	1.90	0.0034 (J)	0.00071 (J)
PZ-23	8/21/2019	0.00055 (J)	< 0.0050	0.032	< 0.0030	< 0.0025	0.0024 (J)	< 0.0050	< 0.30	< 0.0050	0.00090 (J)	< 0.00050	< 0.010	2.31	0.0022 (J)	0.00016 (J)
PZ-23	9/10/2019	< 0.0030	0.00036 (J)	0.029	NA	NA	0.0044 (J)	< 0.0050	< 0.30	< 0.0050	< 0.030	NA	< 0.010	0.575 U	0.0018 (J)	< 0.0010
PZ-25	8/21/2019	0.0014 (J)	< 0.0050	0.10	< 0.0030	< 0.0025	< 0.010	0.0015 (J)	0.11 (J)	0.00041 (J)	0.0072 (J)	< 0.00050	0.0014 (J)	1.18 U	< 0.010	0.00046 (J)
PZ-25	10/2/2019	< 0.0030	0.00063 (J)	0.11	NA	NA	< 0.010	0.0017 (J)	0.16 (J)	< 0.0050	0.0074 (J)	NA	< 0.010	1.48	< 0.010	0.00024 (J)
PZ-31	8/21/2019	0.00056 (J)	< 0.0050	0.0070 (J)	< 0.0030	< 0.0025	0.0016 (J)	< 0.0050	< 0.30	0.00011 (J)	< 0.030	< 0.00050	< 0.010	1.20 U	< 0.010	0.000061 (J)
PZ-31	10/2/2019	< 0.0030	< 0.0050	0.0067 (J)	NA	NA	0.00043 (J)	< 0.0050	0.057 (J)	0.000081 (J)	< 0.030	NA	< 0.010	0.0883 U	< 0.010	< 0.0010
PZ-32	8/20/2019	< 0.0030	< 0.0050	0.016	< 0.0030	< 0.0025	0.00044 (J)	< 0.0050	< 0.30	< 0.0050	< 0.030	< 0.00050	< 0.010	0.334 U	< 0.010	< 0.0010
PZ-32	10/1/2019	< 0.0030	< 0.0050	0.015	NA	NA	< 0.010	< 0.0050	0.042 (J)	< 0.0050	< 0.030	NA	< 0.010	1.01 U	< 0.010	< 0.0010
PZ-33	8/22/2019	< 0.0030	< 0.0050	0.064	< 0.0030	< 0.0025	< 0.010	< 0.0050	< 0.30	< 0.0050	< 0.030	< 0.00050	< 0.010	0.513 U	< 0.010	0.00017 (J)
PZ-33	10/3/2019	< 0.0030	< 0.0050	0.057	NA	NA	< 0.010	< 0.0050	0.060 (J)	0.000047 (J)	< 0.030	NA	< 0.010	1.62 U	< 0.010	0.00018 (J)
Dup-01 PZ-19	8/22/2019	< 0.0030	< 0.0050	0.049	< 0.0030	< 0.0025	< 0.010	< 0.0050	0.079 (J)	< 0.0050	0.012 (J)	< 0.00050	0.0022 (J)	1.55	< 0.010	0.00058 (J)
Dup-02 PZ-33	8/22/2019	< 0.0030	< 0.0050	0.062	< 0.0030	< 0.0025	< 0.010	< 0.0050	< 0.30	< 0.0050	< 0.030	< 0.00050	< 0.010	0.907 U	< 0.010	0.00017 (J)
Dup-01 PZ-17	10/2/2019	< 0.0030	< 0.0050	0.083	NA	NA	< 0.010	< 0.0050	0.063 (J)	< 0.0050	0.0026 (J)	NA	< 0.010	1.17 U	< 0.010	0.00017 (J)
Dup-02 PZ-25	10/2/2019	< 0.0030	0.00045 (J)	0.12	NA	NA	< 0.010	0.0017 (J)	0.17 (J)	< 0.0050	0.0078 (J)	NA	< 0.010	0.977 U	< 0.010	0.00024 (J)

Notes:
1. (J) indicates the constituent was detected between the analytical method detection limit and the laboratory reporting limit. The value followed by (J) is qualified by the laboratory as estimated.
2. < indicates the constituent was not detected above the analytical method detection limit (MDL).
3. U indicates the constituent was not detected above the analytical Minimum Detection Concentration (MDC), specific to combined radium results. The value followed by U is qualified by the laboratory as estimated.
4. Results for metals are reported in milligrams per liter (mg/L). Results for radium are reported in pci/L (picocuries per liter)
5. NA indicates not analyzed.

TABLE 6
RPD CALCULATIONS

Parameter	**Concentration 1**	**Concentration 2**	**RPD**
8/22/2019	**Dup-01**	**PZ-19**	
Barium	0.049	0.047	4%
Radium	1.55	1.37	12%
Parameter	**Concentration 1**	**Concentration 2**	**RPD**
8/22/2019	**Dup-02**	**PZ-33**	
Barium	0.062	0.064	3%
Parameter	**Concentration 1**	**Concentration 2**	**RPD**
10/2/2019	**Dup-01**	**PZ-17**	
Barium	0.083	0.074	11%
Boron	0.30	0.28	7%
Calcium	125	115	8%
Chloride	7.8	7.9	1%
Sulfate	102	104	2%
TDS	418	415	1%
Parameter	**Concentration 1**	**Concentration 2**	**RPD**
10/2/2019	**Dup-02**	**PZ-25**	
Barium	0.12	0.11	9%
Boron	0.21	0.21	0%
Calcium	93.2	92.3	1%
Chloride	2.6	2.6	0%
Sulfate	42.9	43.0	0%
TDS	315	312	1%

Notes:
Metals concentrations are reported in milligrams per liter (mg/L)
Radium concentrations are reported in pci/L (picocuries per liter)
RPD is relative percent difference



Putney
NELMS RD
SEABOARD
STAGECOACH
Roadside Park
Dry Creek
ROAD
Blue Hole Spring
Goat Island
Creek
Geging Station
Powerplant
River Bend
DOUGHERTY CO
MITCHELL CO
BAKER CO
BLUE SPRINGS
ROAD
Mt Calvary Ch
DeWitt
N

Legend

- Ponds 1 and 2
- Approximate Property Boundary
- Pond A

0 0.5 1 Miles

Service Layer Credits: Sources: Esri, HERE, Garmin, USGS, Intermap, INCREMENT P, NRCan, Esri Japan, METI, Esri China (Hong Kong), Esri Korea, Esri (Thailand),

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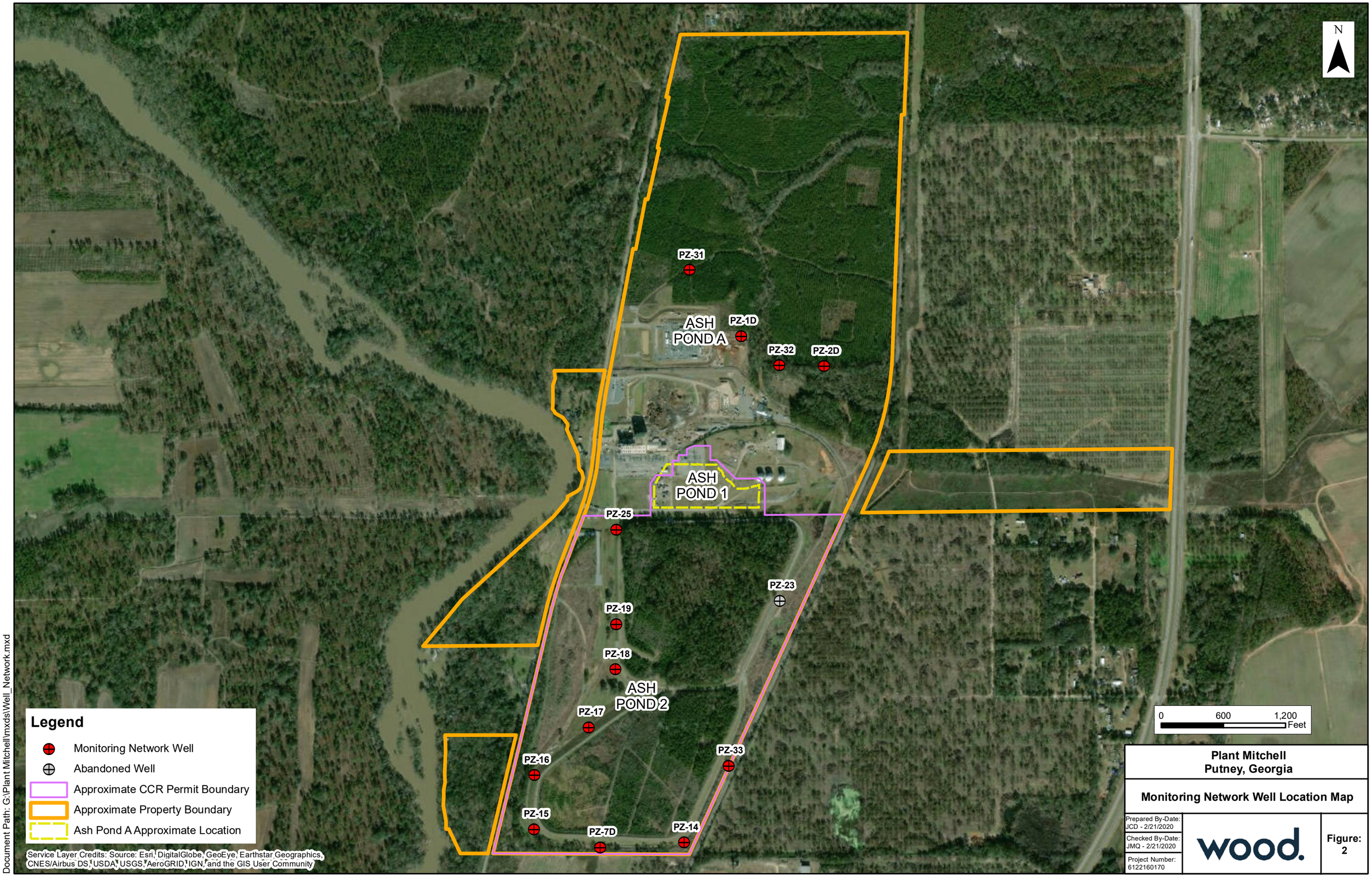
Plant Mitchell
Putney, Georgia

Site Location Map

Prepared By-Date: THP - 2/7/2020	wood.
Checked By-Date: JMQ - 2/7/2020	Figure: 1
Project Number: 6122160170	



Plant Mitchell
Putney, Georgia

Monitoring Network Well Location Map

Prepared By-Date: JCD - 2/21/2020	wood.
Checked By-Date: JMQ - 2/21/2020	Figure: 2
Project Number: 6122160170	

Notes:
1. Well PZ-2S is screened in the Overburden and its groundwater elevation was not used for contouring

2. * - Well not used in contouring

N

PZ-31
142.13

PZ-01D
142.23

PZ-02S
141.35*

PZ-02D
141.24

PZ-32
141.08

PZ-03D
140.55

ASH
POND A

PZ-22
139.43

MW-102
138.10

PZ-25
138.23

PZ-21
138.79

MW-105
139.33

PZ-01R
138.48

PZ-20
137.56

PZ-04D
139.68

PZ-29
137.51

PZ-12S
136.93*

ASH
POND 1

PZ-23
138.78

PZ-19
137.44

MW-116
137.65

PZ-05D
140.83

PZ-24
138.65

PZ-18
137.59

PZ-11S
137.06

PZ-28
136.84

MW-115
137.82

PZ-27
136.93

PZ-17
137.84

PZ-02R
138.32

PZ-10S
137.09

MW-113
137.34

PZ-33
138.29

ASH
POND 2

PZ-16
136.90

PZ-09D
137.22

MW-111
137.37

PZ-03R
137.64

MW-108
137.97

PZ-26
137.32

PZ-07D
137.79

PZ-15
137.22

PZ-14
138.04

PZ-08D
137.32

142 141.5 141 140.5 140 139.5 139 138.5 138 137.5 137

0 600 1,200 Feet

Legend

- 138.10 Groundwater Elevation (ft amsl)
- Groundwater Elevation Well (Piezometer)
- Groundwater Quality Monitoring Well in Monitoring Network
- Interpreted Groundwater Flow Direction
- Potentiometric Surface Contour (ft amsl)
- Approximate Property Boundary
- Approximate CCR Permit Boundary
- Ash Pond A Approximate Location

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Plant Mitchell
Putney, Georgia

Potentiometric Surface
Upper Bedrock - August 2019

Prepared By-Date: JCD - 2/7/2020	wood.
Checked By-Date: JMQ - 2/7/2020	Figure: 3
Project Number: 6122160170	

Notes:
1. Well PZ-2S is screened in the Overburden and its groundwater elevation was not used for contouring

2. * - Well not used in contouring

N

PZ-31
140.30

PZ-01D
140.26

PZ-02S
139.15*

PZ-32
139.15

PZ-02D
138.97

PZ-03D
138.58

ASH
POND A

PZ-21
137.22

PZ-22
138.05

MW-102
136.37

PZ-25
136.46

PZ-01R
136.33

MW-105

PZ-20
136.28

PZ-04D
138.35

PZ-29
135.54

MW-116
136.14

PZ-19
136.05

PZ-12S
135.06*

ASH
POND 1

PZ-23

PZ-05D

PZ-18
135.81

PZ-11S
135.68

PZ-24

PZ-28
135.94

MW-115
135.86

PZ-02R
136.88

PZ-27
135.57

PZ-17
136.01

MW-113
136.43

PZ-10S
135.90

PZ-33
136.98

ASH
POND 2

PZ-16
135.58

PZ-09D
135.42

PZ-03R
136.35

MW-108
136.90

MW-111
135.40

PZ-15
135.23

PZ-26
135.34

PZ-08D
135.38

PZ-07D
135.98

PZ-14
136.90

139.5
140
139
138.5
138
137.5
137
136.5
136
135.5

0 600 1,200 Feet

Legend

- 138.06 Groundwater Elevation (ft amsl)
- Groundwater Elevation Well (Piezometer)
- Groundwater Quality Monitoring Well in Monitoring Network
- Abandoned Well
- Interpreted Groundwater Flow Direction
- Potentiometric Surface Contour (ft amsl)
- Approximate Property Boundary
- Approximate CCR Permit Boundary
- Ash Pond A Approximate Location

Service Layer Credits: Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

Document Path: G:\Plant Mitchell\mxds\Event11_GWE.mxd

Plant Mitchell
Putney, Georgia

Potentiometric Surface
Upper Bedrock - October 2019

Prepared By-Date: JCD - 2/7/2020	wood.
Checked By-Date: JMQ - 2/7/2020	
Project Number: 6122160170	

Figure: 4

APPENDIX A

WELL ABANDONMENT REPORT

November 15, 2019

Environment & Infrastructure Solutions
1075 Big Shanty Road, Suite 100
Kennesaw, Georgia 30144
USA

T: +1 770-421-3400

www.woodplc.com

Mr. Ben Hodges
Southern Company
241 Ralph McGill Blvd NE
Bin 10185
Atlanta, GA 30308

Subject: **Phase I Well Abandonment Report at Plant Mitchell (CCR Wells)**
Albany, Dougherty and Mitchell County, Georgia
Wood Project No. 6122160170.1919

Dear Mr. Hodges:

Wood Environment & Infrastructure Solutions, Inc. (Wood) is pleased to submit this letter summarizing the abandonment of monitoring wells at Plant Mitchell in Albany, Dougherty County, Georgia (Site). The closure of the monitoring wells was conducted in preparation for Phase 1 construction activities relating to ash removal that would impact the current locations of select monitoring wells in the Coal Combustion Residuals (CCR) monitoring and gauging program.

Summary of Abandonment Activities

The following CCR wells located around the ash ponds were abandoned: MW-104, MW-105, PZ-05D, PZ-23 and PZ-24 located along the eastern perimeter of Ash Pond 1 and MW-106 and MW-109 located along the eastern and southern perimeter of Ash Pond 2. Well abandonment records are included as Attachment A and the locations are shown on the figure included as Attachment B.

A Wood representative provided oversight and documentation of the abandonment activities, which were conducted by Southern Company's Civil Field Services (CFS) personnel. Well abandonment activities were conducted from September 9 – 18, 2019. Abandonment activities were conducted in accordance with the guidance outlined in the Georgia Water Well Standards Act (O.C.G.A. §12-5-120 through 138), Georgia Geologic Survey (GGS) Circular 13 (Grouting and Plugging of Domestic Water Wells in Georgia), and the U.S. EPA Region 4 Science and Ecosystem Support Division (SESD) guidance (SESDGUID-101-R1, Design and Installation of Monitoring Wells, dated January 29, 2013). A summary of the abandoned wells, including construction details, are provided in Table 1.

The wells were abandoned under the direction of a Georgia Professional Engineer. The depth to groundwater and total depth of each well were measured prior to its abandonment. Each of the 7 wells were abandoned by overdrilling, although MW-105 had a 6-inch outer casing that extended to a depth of approximately 18 feet could not be removed and was cut off approximately 18 inches below ground surface and grouted in place.

Following overdrilling, the boreholes were backfilled with five to 10 percent bentonite cement grout placed into the borehole from the bottom to the top by pressure grouting via positive displacement.

Grout emplacement continued until undiluted grout was visible at the surface. The grout was allowed to settle and cure for a minimum of four hours to monitor for grout settlement and the need to add additional grout prior to restoring the surface. The protective well covers and pads were demolished, and surface restoration of the abandoned locations were completed similar to the surrounding conditions.

Thank you for the opportunity to be of service on this project. Please call us with any questions regarding the information presented herein.

Sincerely,
Wood Environment & Infrastructure Solutions, Inc.

Tanya Kinnard, CHMM
Senior Professional

Gregory J. Wrenn, PE
Project Manager

Attachments:
Table 1 – Monitoring Well Construction and Abandonment - September 2019
Attachment A – Well Abandonment Records
Attachment B – CCR Well Location Map

cc: Joju Abraham, Southern Company Services

Table 1 - Well Construction Table

GPC - Plant Mitchell (Project No. 6122-16-0170)
Phase I Well Abandonment

	Well ID	Date of Construction	Latitude*	Longitude*	Water-Bearing Zone Monitoring Interval	Well Type	Well Diameter (inches)	Boring Depth (ft bgs)	Well Depth (ft bgs)	Well Depth (ft btoc)	Field Measured Depth (ft bgs)	Field Measured Depth (ft btoc)	Well Screen Length (ft)	Stick-up Height (ft ags)	Depth to Water (ft btoc)	Date Decom-missioned	Decommission Method	Grout Volume Used (gallons)
CCR Wells	PZ-5D (05D)	5/30/2014	31.4391380	-84.1308150	Deep	Type II	2.0	58	57.6	60.9	57.60	60.70	10	3.32	DRY	9/11/2019	Overdrill	121
	PZ-23	7/27/2016	31.4402368	-84.1309165	Deep	Type II	2.0	60	60	63.1	60.50	63.50	10	3.12	52.49	9/11/2019	Overdrill	99
	PZ-24	7/26/2016	31.4385015	-84.1318094	Deep	Type II	2.0	70	70	73.1	70.00	73.00	10	3.10	57.30	9/10/2019	Overdrill	100
	MW-104	2/28/1995	31.4418320	-84.1299930	Shallow	Type II	2.0	18	17.6	20.2	17.50	20.50	10	2.58	12.53	9/11/2019	Overdrill	22
	MW-105	2/23/1995	31.4417960	-84.1300110	Deep	Type III	2.0	75	74.6	77.3	75.30	78.30	10	2.75	49.10	9/11/2019	Grout in-place	44
	MW-106	2/15/1995	31.4379010	-84.1319660	Shallow	Type II	2.0	40.5	39.6	42.3	40.00	43.30	10	2.69	22.98	9/10/2019	Overdrill	44
	MW-109	2/16/1995	31.4337420	-84.1356980	Shallow	Type II	2.0	28.5	28.2	31.5	29.00	32.00	10	3.34	17.04	9/10/2019	Overdrill	28

Notes:

ft Feet
bgs Below ground surface
btoc Below top of casing
ags Above ground surface
* Horizontal locations referenced to the North American Datum of 1983
AP-A Ash Pond A ('North' location near MW-119; 'South' location near MW-120)
NA Not applicable or not available

Prepare by: A.S. 10/9/2019
Checked by: T.K. 10/22/2019

ATTACHMENT A

WELL ABANDONMENT RECORDS

MONITORING WELL ABANDONMENT RECORD

wood.

WELL NO.: MW-104
PROJECT NAME: GPC – Plant Mitchell
PROJECT NO.: 6121-17-0611
DATE: 9-11-19

Name of Property Owner GPC – Plant Mitchell

Address of Property 5200 Radium Springs Road, Albany, GA 31075

Original Purpose of Well Installation ground-water quality monitoring

Total Depth of Well
(Measured from Top of Riser) 20.50 ft btoc total well depth 17.50 ft bgs total boring depth

Well Diameter 2 inches

Screen Slot Size 0.010 - inch

Length of Screen 10 ft (10.50 to 20.50 ft bgs)

Depth to Water/Date
(Measured from Top of Riser) 12.53 / ~~20.05~~ 9-11-19

Description of Well Abandonment Method Overdrilling and grouting

Type and Volume of Materials Used to Plug Well/Borehole 22 Gallons of AquaGuard Bentonite Grout

Riser and Screen Removed or Left in Place removed

Drilling Contractor GPC Drilling Driller's Name Tim Milam

Additional Notes -

Wood Environment & Infrastructure Solutions Field Representative Ever Guillen

Date Well Abandonment Completed 9-11-19

MONITORING WELL ABANDONMENT RECORD

wood.

WELL NO.: MW-105
PROJECT NAME: GPC – Plant Mitchell
PROJECT NO.: 6121-17-0611
DATE: 9-11-19

Name of Property Owner GPC – Plant Mitchell

Address of Property 5200 Radium Springs Road, Albany, GA 31075

Original Purpose of Well Installation ground-water quality monitoring

Total Depth of Well
(Measured from Top of Riser) 78.30 ft btoc total well depth 75.3 ft bgs total boring depth

Well Diameter 2 inches

Screen Slot Size 0.010 - inch

Length of Screen 10 ft (65.3 to 75.3 ft bgs)

Depth to Water/Date
(Measured from Top of Riser) 49.10 / 9-11-19

Description of Well Abandonment Method Overdrilling and grouting

Type and Volume of Materials Used to Plug Well/Borehole 44 Gallons of AquaGuard Bentonite Grout

Riser and Screen Removed or Left in Place removed

Drilling Contractor GPC Drilling Driller's Name TIM MILAM

Additional Notes - WELL HAS 6" OUTER CASING DOWN TO 18' – COULD NOT REMOVE OUTER CASING – GROUTED WELL IN PLACE FROM BOTTOM-UP. CUT CASING ± 18" BELOW GROUND SURFACE.

Wood Environment & Infrastructure Solutions Field Representative Ever Guillen

Date Well Abandonment Completed 9-11-19

MONITORING WELL ABANDONMENT RECORD

wood.

WELL NO.: MW-106
PROJECT NAME: GPC – Plant Mitchell
PROJECT NO.: 6121-17-0611
DATE: 9-10-19

Name of Property Owner GPC – Plant Mitchell

Address of Property 5200 Radium Springs Road, Albany, GA 31075

Original Purpose of Well Installation ground-water quality monitoring

Total Depth of Well
(Measured from Top of Riser) 43.30 ft btoc total well depth 40.0 ft bgs total boring depth

Well Diameter 2 inches

Screen Slot Size 0.010 - inch

Length of Screen 10 ft (30 to 40 ft bgs)

Depth to Water/Date
(Measured from Top of Riser) 22.98 / 9-10-19

Description of Well Abandonment Method Overdrilling and grouting

Type and Volume of Materials Used to Plug Well/Borehole 44 Gallons of AquaGuard Bentonite Grout

Riser and Screen Removed or Left in Place removed

Drilling Contractor GPC Drilling Driller's Name TIM MILAM

Additional Notes -

Wood Environment & Infrastructure Solutions Field Representative Ever Guillen

Date Well Abandonment Completed 9-10-19

MONITORING WELL ABANDONMENT RECORD

wood.

WELL NO.: MW-109
PROJECT NAME: GPC – Plant Mitchell
PROJECT NO.: 6121-17-0611
DATE: 9-10-19

Name of Property Owner GPC – Plant Mitchell

Address of Property 5200 Radium Springs Road, Albany, GA 31075

Original Purpose of Well Installation ground-water quality monitoring

Total Depth of Well
(Measured from Top of Riser) 32.00 ft btoc total well depth 29.0 ft bgs total boring depth

Well Diameter 2 inches

Screen Slot Size 0.010 - inch

Length of Screen 10 ft (19 to 29 ft bgs)

Depth to Water/Date
(Measured from Top of Riser) 17.04 / 9-9-19

Description of Well Abandonment Method Overdrilling and grouting

Type and Volume of Materials Used to Plug Well/Borehole 28 Gallons of AquaGuard Bentonite Grout

Riser and Screen Removed or Left in Place removed

Drilling Contractor GPC Drilling Driller's Name TIM MILAM

Additional Notes -

Wood Environment & Infrastructure Solutions Field Representative Ever Guillen

Date Well Abandonment Completed 9-10-19

MONITORING WELL ABANDONMENT RECORD

wood.

WELL NO.: PZ 5D
PROJECT NAME: GPC – Plant Mitchell
PROJECT NO.: 6121-17-0611
DATE: 9-11-19

Name of Property Owner GPC – Plant Mitchell

Address of Property 5200 Radium Springs Road, Albany, GA 31075

Original Purpose of Well Installation ground-water quality monitoring

Total Depth of Well
(Measured from Top of Riser) 60.70 ft btoc total well depth 57.60 ft bgs total boring depth

Well Diameter 2 inches

Screen Slot Size 0.010 - inch

Length of Screen 10 ft (47.60 to 57.60 ft bgs)

Depth to Water/Date
(Measured from Top of Riser) DRY / 9-11-19

Description of Well Abandonment Method Overdrilling and grouting

Type and Volume of Materials Used to Plug Well/Borehole 121 Gallons of AquaGuard Bentonite Grout

Riser and Screen Removed or Left in Place removed

Drilling Contractor GPC Drilling Driller's Name TIM MILAM

Additional Notes -

Wood Environment & Infrastructure Solutions Field Representative Ever Guillen

Date Well Abandonment Completed 9-11-19

MONITORING WELL ABANDONMENT RECORD

wood.

WELL NO.: PZ 23
PROJECT NAME: GPC – Plant Mitchell
PROJECT NO.: 6121-17-0611
DATE: 9-10-19

Name of Property Owner GPC – Plant Mitchell

Address of Property 5200 Radium Springs Road, Albany, GA 31075

Original Purpose of Well Installation ground-water quality monitoring

Total Depth of Well
(Measured from Top of Riser) 63.50 ft btoc total well depth 60.50 ft bgs total boring depth

Well Diameter 2" inches

Screen Slot Size 0.010 - inch

Length of Screen 10 ft (50.50 to 60.50 ft bgs)

Depth to Water/Date
(Measured from Top of Riser) 52.49' / 9-10-19

Description of Well Abandonment Method Overdrilling and grouting

Type and Volume of Materials Used to Plug Well/Borehole 99 Gallons of AquaGuard Bentonite Grout

Riser and Screen Removed or Left in Place removed

Drilling Contractor GPC Drilling Driller's Name Tim McLam

Additional Notes -

Wood Environment & Infrastructure Solutions Field Representative Ever Guillen

Date Well Abandonment Completed 9-11-19

MONITORING WELL ABANDONMENT RECORD

wood.

WELL NO.: PZ 24
PROJECT NAME: GPC – Plant Mitchell
PROJECT NO.: 6121-17-0611
DATE: 9-10-19

Name of Property Owner GPC – Plant Mitchell

Address of Property 5200 Radium Springs Road, Albany, GA 31075

Original Purpose of Well Installation ground-water quality monitoring

Total Depth of Well
(Measured from Top of Riser) 73.0 ft btoc total well depth 70.0 ft bgs total boring depth

Well Diameter 2 inches

Screen Slot Size 0.010 - inch

Length of Screen 10 ft (60.0 to 70.0 ft bgs)

Depth to Water/Date
(Measured from Top of Riser) 57.30 / 9-10-19

Description of Well Abandonment Method Overdrilling and grouting

Type and Volume of Materials Used to Plug Well/Borehole 100 Gallons of AquaGuard Bentonite Grout

Riser and Screen Removed or Left in Place removed

Drilling Contractor GPC Drilling Driller's Name TIM MILLER

Additional Notes -

Wood Environment & Infrastructure Solutions Field Representative Ever Guillen

Date Well Abandonment Completed 9-10-19

ATTACHMENT B

CCR WELL LOCATION MAP

LEGEND

Wells Abandoned

MW-104/105
PZ-5D
PZ-24
MW-106
PZ-23
MW-109

GEORGIA AND FLORIDA RAILWAY
DOUGHERTY COUNTY
MITCHELL COUNTY
CHARAH PROJECT OPERATIONS TRAILERS
EXISTING BORROW AREA
CHARAH TEAM TRAILER 2 X CONEX STORAGE CONTAINERS, AND 2 X 1,000 GAL DIESEL FUEL TANKS
PROPOSED RAIL LOADOUT
APPROX. LOCATION OF 2 X CONEX STORAGE CONTAINERS
WETLAND 11
WETLAND 10
WETLAND 09
PZ-2S
PZ-3D
PZ-3S
PZ-4D
PZ-4S
PZ-32
APPROX. LOCATION OF SITE OFFICE TRAILERS
PROPOSED CCR PERMIT BOUNDARY
FIRE WATER TANK
ERT BUILDING (TO BE DEMOLISHED)
FORMER FUEL TANKS
CONTACT WATER LAGOON
100-YR FLOODPLAIN (BASE FLOOD ELEV. 174.0', SEE GENERAL NOTE 13)
PZ-1S
PZ-1D
PROPOSED WASTEWATER TREATMENT FACILITY
MW-118
GPC CONTROL MARKER E-047-7
ASH STAGING AREA
ORGANIC MATERIAL MANAGEMENT AREA
STOCKPILE FOR ASH FROM AP-1 PREPARATION
MW-119
MW-120
ASH POND A
EXISTING SLUICE LINES (INACTIVE)
PZ-21
PROPOSED CONTRACTOR OFFICE TRAILER AND LAY-DOWN AREA
ASH POND 1
ASH POND 2
230-KV SWITCHYARD (TO BE DEMOLISHED)
EXISTING PIPE (TO BE DEMOLISHED)
COMBUSTION TURBINE AREA UNIT #4 (TO BE DEMOLISHED)
2 12" DIA. PLASTIC EQUALIZATION PIPES
COAL CHUTE
POWERHOUSE (TO BE DEMOLISHED)
ASH POND 1 OUTFALL STRUCTURE (TO BE ABANDONED BY REMOVAL)
LOW VOLUME SUMP DISCHARGE LINE TO BE REMOVED DURING PHASE II DEMO
FINGER DRAIN PUMP STATION 4
FINGER DRAIN D-1
PERMITTED INERT LANDFILL
LOW VOLUME SUMP DISCHARGE POINT
FINGERS DRAINS (APPROXIMATE LOCATION)
MW-107
MW-108
EXISTING SLUICE LINE (INACTIVE)
NORTH SEDIMENT POND
100-YR FLOODPLAIN (BASE FLOOD ELEV. 173.9', SEE GENERAL NOTE 13)
CONTRACTOR PARKING
115-KV SWITCHYARD (TO REMAIN IN PLACE)
ASH POND 1 EMERGENCY OVERFLOW (TO BE ABANDONED BY REMOVAL)
MW-101
MW-102
PZ-25
PZ-20
MW-116
MW-117
PZ-19
PZ-18
MW-114
MW-115
FINGER DRAIN D-2
FINGER DRAIN D-3
FINGER DRAIN D-9
PZ-7S
PZ-7D
FRENCH DRAIN
FINGER DRAIN PUMP STATION 1
TRUCK ENTRANCE
GPC CONTROL MARKER E-047-13
WETLAND
FLINT RIVER
ASH POND RECYCLE LINE - BELOW GRADE (APPROXIMATE LOCATION)
ASH POND RECYCLE LINE (ABOVE GROUND)
ASH POND 2 OUTFALL STRUCTURE (TO BE ABANDONED BY REMOVAL)
FINGER DRAIN PUMP STATION 3
FINGER DRAIN D-4
FINGER DRAIN D-6
FINGER DRAIN D-8
FINGER DRAIN D-5
FINGER DRAIN D-7
ASH POND 2 EMERGENCY OVERFLOW
ASH POND 1 EMERGENCY OVERFLOW OUTFALL 01
APPROXIMATE 100-YR FLOODPLAIN (SEE GENERAL NOTE 13)
SOUTH LIMIT OF FIELD-LOCATED LOW VOLUME SUMP DISCHARGE PIPE
PZ-12S
PZ-29
PZ-34
PZ-43
PZ-39
PZ-40
PZ-46
PZ-45
PZ-47
PZ-28
PZ-27
PZ-37
PZ-38
PZ-50
PZ-51
RADIUM SPRINGS ROAD
PROPOSED BORROW AREA
2 x 24" RCP
ASH POND 2 EMERGENCY OVERFLOW OUTFALL 04A
FINGER DRAIN PUMP STATION 2
2 x 24" RCP & 30" CARBON STEEL PIPE
PZ-52
PZ-30
PZ-31
PZ-33
PZ-14
PZ-8S
PZ-9D
PZ-9S
PZ-26
MW-110
MW-111
MW-112
MW-113
PZ-10S
PZ-11S
PZ-12A
PZ-12D
PZ-22A
PZ-22B
PZ-35
PZ-1R
PZ-1A
PZ-2A
PZ-2D
PZ-2S
PZ-3A
PZ-3D
PZ-3S
PZ-4A
PZ-4D
PZ-4S
PZ-5A
PZ-5D
PZ-6A
PZ-6D
PZ-6S
PZ-7A
PZ-7D
PZ-7S
PZ-8A
PZ-8D
PZ-8S
PZ-9A
PZ-9D
PZ-9S
PZ-10A
PZ-10D
PZ-10S
PZ-11A
PZ-11D
PZ-11S
PZ-12A
PZ-12D
PZ-12S
PZ-13A
PZ-13D
PZ-13S
PZ-14A
PZ-14D
PZ-14S
PZSPT-1A
PZSPT-1R
PZSPT-4A
PZSPT-4R
PZSPT-9A
PZSPT-9R
CPT-1
CPT-2
CPT-3
CPT-4
CPT-5
CPT-6
CPT-7
CPT-8
CPT-9
SPT-1
SPT-2
SPT-3
SPT-4
SPT-5
SPT-6
SPT-7
SPT-8
SPT-9
SPT-10
P10A
P10B
P10C
P11A
P11B
P11C
P11D
P11E
P11F
P12A
P12B
P12C
P12D
P13A
P13B
P13C
P13D
P14A
P14B
P14C
P14D
P15A
P15B
P15C
P15D
P16A
P16B
P16C
P16D
P17A
P17B
P17C
P17D
P18A
P18B
P18C
P18D
DT1A
DT1B
DT1C
DT1D
DT1E
DT1F
DT1G
DT2A
DT2B
DT2C
DT2D
DT2E
DT2F
DT2G
E 2,308,500
E 2,308,000
E 2,307,500
E 2,307,000
E 2,306,500
E 2,306,000
E 2,305,500
E 2,305,000
E 2,304,500
N 526,500
N 526,000
N 525,500
N 525,000
N 524,500
N 524,000
N 523,500
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N 522,500
N 522,000
N 521,500
N 521,000
200 0 200 400 FT
N

wood.
ENVIRONMENT & INFRASTRUCTURE SOLUTIONS, INC.
1075 BIG SHANTY ROAD, NW
SUITE 100
KENNESAW, GA 30144
TEL: (770) 421–3400

ISSUED FOR BID
NOT FOR CONSTRUCTION

SEAL

NOT VALID WITHOUT SIGNATURE AND DATE

PROJECT:

CCR SURFACE IMPOUNDMENT CLOSURES

Georgia Power

PLANT MITCHELL
5200 RADIUM SPRINGS ROAD
ALBANY, GA 31075

WOOD
PROJECT No:
6121170611.08

REVISIONS			
NO.	DATE	BY	APPROVED
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####
####	####	####	####

DESIGNED BY:	####
DRAWN BY:	####
CHECKED BY:	####
APPROVED BY:	####
DATE:	####

SHEET TITLE:

####

SHEET NUMBER:	REV. #
####	####
SHEET #### OF ####	SHEETS

Q:\GAPower\AP Closure Redesign\Exhibit\Composite Site Plan.dwg -- Overall View 07/11/2019 4:38pm daniel.jones

APPENDIX B

LABORATORY ANALYTICAL AND FIELD SAMPLING REPORTS

Well ID	Sample Date	Purge Volume (liter)	Time Elapsed	DTW (feet, TOC)	Drawdown (feet)	Temperature (C)	pH (su)	Specific Conductance (uS/cm)	Turbidity (NTU)	DO (mg/L)	ORP (mV)
PZ-1D	8/20/2019	11.0	3346	53.92	0	22.9	7.9	240.0	1.6	4.0	76.1
PZ-2D	8/21/2019	12.0	1500	37.15	0	21.5	8.8	147.8	2.9	3.0	125.2
PZ-7D	8/22/2019	7.0	2100	35.34	0	21.8	7.3	552.5	1.0	0.3	53.4
PZ-14	8/21/2019	10.0	3050	45.58	0	22.8	7.3	489.0	0.7	3.6	75.3
PZ-15	8/21/2019	7.0	2100	32.88	0	26.0	7.5	509.9	1.6	0.2	-41.2
PZ-16	8/21/2019	6.0	1800	36.81	0.01	23.5	7.2	480.6	0.5	1.3	170.3
PZ-17	8/22/2019	9.0	2701	34.82	0	23.0	7.2	592.2	1.8	0.1	-42.5
PZ-18	8/22/2019	9.0	2702	32.19	0	26.6	7.0	623.3	1.1	0.2	13.7
PZ-19	8/22/2019	6.0	1800	34.52	0.01	24.0	6.7	848.2	1.1	0.4	58.4
PZ-23	8/21/2019	5.0	1500	52.84	0	23.1	7.1	669.4	0.6	4.4	84.3
PZ-25	8/21/2019	6.0	1800	32.89	0.04	22.9	7.1	500.0	0.3	0.4	-125.2
PZ-31	8/21/2019	5.0	1500	40.73	0	21.2	7.4	428.3	0.8	4.8	77.5
PZ-32	8/20/2019	7.0	2100	39.64	0	20.7	7.4	339.1	1.1	0.8	106.3
PZ-33	8/22/2019	6.0	1800	51.23	0	22.6	6.9	661.9	1.8	0.5	61.2

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 18, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2622265

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 22, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revised report replaces the report issued on 9/3/2019. The report has been revised to correct Metals RLs to correspond with contract. No other changes have been made to this report.

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

Sincerely,

Tyler Forney for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
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CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2622265

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2622265

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622265001	**EB-1**	Water	08/21/19 08:30	08/22/19 09:10
2622265002	**PZ-2D**	Water	08/21/19 10:52	08/22/19 09:10
2622265003	**PZ-16**	Water	08/21/19 13:16	08/22/19 09:10
2622265004	**PZ-25**	Water	08/21/19 14:42	08/22/19 09:10

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SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2622265

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2622265001	**EB-1**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622265002	**PZ-2D**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622265003	**PZ-16**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622265004	**PZ-25**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1

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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622265

Sample: EB-1 **Lab ID: 2622265001** Collected: 08/21/19 08:30 Received: 08/22/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/23/19 14:17	08/26/19 19:24	7440-36-0	
Arsenic	**0.00064J**	mg/L	0.0050	0.00035	1	08/23/19 14:17	08/26/19 19:24	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	08/23/19 14:17	08/26/19 19:24	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/23/19 14:17	08/26/19 19:24	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/23/19 14:17	08/26/19 19:24	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/23/19 14:17	08/26/19 19:24	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/23/19 14:17	08/26/19 19:24	7440-48-4	
Lead	**0.000058J**	mg/L	0.0050	0.000046	1	08/23/19 14:17	08/26/19 19:24	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	08/23/19 14:17	08/26/19 19:24	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/23/19 14:17	08/26/19 19:24	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/23/19 14:17	08/26/19 19:24	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/23/19 14:17	08/26/19 19:24	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 12:39	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/29/19 22:55	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622265

Sample: PZ-2D **Lab ID: 2622265002** Collected: 08/21/19 10:52 Received: 08/22/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00030J**	mg/L	0.0030	0.00027	1	08/23/19 14:17	08/26/19 19:30	7440-36-0	
Arsenic	**0.0014J**	mg/L	0.0050	0.00035	1	08/23/19 14:17	08/26/19 19:30	7440-38-2	
Barium	**0.0042J**	mg/L	0.010	0.00049	1	08/23/19 14:17	08/26/19 19:30	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/23/19 14:17	08/26/19 19:30	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/23/19 14:17	08/26/19 19:30	7440-43-9	
Chromium	**0.0057J**	mg/L	0.010	0.00039	1	08/23/19 14:17	08/26/19 19:30	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/23/19 14:17	08/26/19 19:30	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/23/19 14:17	08/26/19 19:30	7439-92-1	
Lithium	**0.0018J**	mg/L	0.030	0.00078	1	08/23/19 14:17	08/26/19 19:30	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/23/19 14:17	08/26/19 19:30	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/23/19 14:17	08/26/19 19:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/23/19 14:17	08/26/19 19:30	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 12:42	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.046J**	mg/L	0.30	0.029	1		08/30/19 00:03	16984-48-8	

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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622265

Sample: PZ-16 **Lab ID: 2622265003** Collected: 08/21/19 13:16 Received: 08/22/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/23/19 14:17	08/26/19 19:35	7440-36-0	
Arsenic	**0.00036J**	mg/L	0.0050	0.00035	1	08/23/19 14:17	08/26/19 19:35	7440-38-2	
Barium	**0.034**	mg/L	0.010	0.00049	1	08/23/19 14:17	08/26/19 19:35	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/23/19 14:17	08/26/19 19:35	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/23/19 14:17	08/26/19 19:35	7440-43-9	
Chromium	**0.00095J**	mg/L	0.010	0.00039	1	08/23/19 14:17	08/26/19 19:35	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/23/19 14:17	08/26/19 19:35	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/23/19 14:17	08/26/19 19:35	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	08/23/19 14:17	08/26/19 19:35	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/23/19 14:17	08/26/19 19:35	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/23/19 14:17	08/26/19 19:35	7782-49-2	
Thallium	**0.000057J**	mg/L	0.0010	0.000052	1	08/23/19 14:17	08/26/19 19:35	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 12:44	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/30/19 00:26	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622265

Sample: PZ-25 **Lab ID: 2622265004** Collected: 08/21/19 14:42 Received: 08/22/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.0014J**	mg/L	0.0030	0.00027	1	08/23/19 14:12	08/26/19 19:22	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	08/23/19 14:12	08/26/19 19:22	7440-38-2	
Barium	**0.10**	mg/L	0.010	0.00049	1	08/23/19 14:12	08/26/19 19:22	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/23/19 14:12	08/26/19 19:22	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/23/19 14:12	08/26/19 19:22	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/23/19 14:12	08/26/19 19:22	7440-47-3	
Cobalt	**0.0015J**	mg/L	0.0050	0.00030	1	08/23/19 14:12	08/26/19 19:22	7440-48-4	
Lead	**0.00041J**	mg/L	0.0050	0.000046	1	08/23/19 14:12	08/26/19 19:22	7439-92-1	
Lithium	**0.0072J**	mg/L	0.030	0.00078	1	08/23/19 14:12	08/26/19 19:22	7439-93-2	
Molybdenum	**0.0014J**	mg/L	0.010	0.00095	1	08/23/19 14:12	08/26/19 19:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/23/19 14:12	08/26/19 19:22	7782-49-2	
Thallium	**0.00046J**	mg/L	0.0010	0.000052	1	08/23/19 14:12	08/26/19 19:22	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 12:46	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.11J**	mg/L	0.30	0.029	1		08/30/19 00:48	16984-48-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622265

QC Batch: 34233 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2622265001, 2622265002, 2622265003, 2622265004

METHOD BLANK: 154036 Matrix: Water
Associated Lab Samples: 2622265001, 2622265002, 2622265003, 2622265004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	08/27/19 12:05	

LABORATORY CONTROL SAMPLE: 154037

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154038 154039

Parameter	Units	2622267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0026	101	102	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622265

QC Batch: 34176 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622265001, 2622265002, 2622265003

METHOD BLANK: 153777 Matrix: Water
Associated Lab Samples: 2622265001, 2622265002, 2622265003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	08/26/19 16:54	
Arsenic	mg/L	ND	0.0050	0.00035	08/26/19 16:54	
Barium	mg/L	ND	0.010	0.00049	08/26/19 16:54	
Beryllium	mg/L	ND	0.0030	0.000074	08/26/19 16:54	
Cadmium	mg/L	ND	0.0025	0.00011	08/26/19 16:54	
Chromium	mg/L	ND	0.010	0.00039	08/26/19 16:54	
Cobalt	mg/L	ND	0.0050	0.00030	08/26/19 16:54	
Lead	mg/L	ND	0.0050	0.000046	08/26/19 16:54	
Lithium	mg/L	ND	0.030	0.00078	08/26/19 16:54	
Molybdenum	mg/L	ND	0.010	0.00095	08/26/19 16:54	
Selenium	mg/L	ND	0.010	0.0013	08/26/19 16:54	
Thallium	mg/L	ND	0.0010	0.000052	08/26/19 16:54	

LABORATORY CONTROL SAMPLE: 153778

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.11	105	80-120	
Arsenic	mg/L	0.1	0.10	102	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Beryllium	mg/L	0.1	0.10	103	80-120	
Cadmium	mg/L	0.1	0.10	103	80-120	
Chromium	mg/L	0.1	0.10	103	80-120	
Cobalt	mg/L	0.1	0.10	103	80-120	
Lead	mg/L	0.1	0.10	103	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.11	106	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.10	102	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153779 153780

Parameter	Units	2622250005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	100	101	75-125	1	20	
Arsenic	mg/L	0.00059J	0.1	0.1	0.098	0.098	97	98	75-125	1	20	
Barium	mg/L	0.020	0.1	0.1	0.12	0.12	95	96	75-125	1	20	
Beryllium	mg/L	ND	0.1	0.1	0.096	0.096	96	96	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.098	0.10	98	100	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622265

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153779 153780

Parameter	Units	2622250005 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.00051J	0.1	0.1	0.10	0.10	101	100	75-125	1	20	
Cobalt	mg/L	0.0010J	0.1	0.1	0.10	0.10	100	99	75-125	0	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	0	20	
Lithium	mg/L	0.00094J	0.1	0.1	0.096	0.096	95	95	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Selenium	mg/L	0.0030J	0.1	0.1	0.098	0.10	95	97	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.096	0.097	96	97	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622265

QC Batch: 34179
QC Batch Method: EPA 3005A
Associated Lab Samples: 2622265004

Analysis Method: EPA 6020B
Analysis Description: 6020B MET

METHOD BLANK: 153793 Matrix: Water
Associated Lab Samples: 2622265004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00075J	0.0030	0.00027	08/26/19 19:11	
Arsenic	mg/L	ND	0.0050	0.00035	08/26/19 19:11	
Barium	mg/L	ND	0.010	0.00049	08/26/19 19:11	
Beryllium	mg/L	ND	0.0030	0.000074	08/26/19 19:11	
Cadmium	mg/L	ND	0.0025	0.00011	08/26/19 19:11	
Chromium	mg/L	ND	0.010	0.00039	08/26/19 19:11	
Cobalt	mg/L	ND	0.0050	0.00030	08/26/19 19:11	
Lead	mg/L	ND	0.0050	0.000046	08/26/19 19:11	
Lithium	mg/L	ND	0.030	0.00078	08/26/19 19:11	
Molybdenum	mg/L	ND	0.010	0.00095	08/26/19 19:11	
Selenium	mg/L	ND	0.010	0.0013	08/26/19 19:11	
Thallium	mg/L	ND	0.0010	0.000052	08/26/19 19:11	

LABORATORY CONTROL SAMPLE: 153794

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.092	92	80-120	
Arsenic	mg/L	0.1	0.10	103	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	105	80-120	
Cadmium	mg/L	0.1	0.10	103	80-120	
Chromium	mg/L	0.1	0.081	81	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.086	86	80-120	
Lithium	mg/L	0.1	0.10	105	80-120	
Molybdenum	mg/L	0.1	0.091	91	80-120	
Selenium	mg/L	0.1	0.10	103	80-120	
Thallium	mg/L	0.1	0.093	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153795 153796

Parameter	Units	2622267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00039J	0.1	0.1	0.11	0.10	108	103	75-125	5	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20	
Barium	mg/L	0.017	0.1	0.1	0.13	0.12	108	101	75-125	5	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622265

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153795 153796

Parameter	Units	2622267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.00073J	0.1	0.1	0.10	0.10	99	100	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	0	20	
Lead	mg/L	0.000064J	0.1	0.1	0.095	0.097	94	97	75-125	3	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.097	101	97	75-125	5	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.099	95	98	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622265

QC Batch: 34532 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2622265001, 2622265002, 2622265003, 2622265004

METHOD BLANK: 155480 Matrix: Water
Associated Lab Samples: 2622265001, 2622265002, 2622265003, 2622265004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	08/29/19 22:10	

LABORATORY CONTROL SAMPLE: 155481

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.4	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155482 155483

Parameter	Units	2622265001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	10	10	9.3	9.2	93	92	90-110	0	15	

MATRIX SPIKE SAMPLE: 155490

Parameter	Units	2622267002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	10	8.5	85	90-110	M1

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2622265

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2622265

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622265001	**EB-1**	EPA 3005A	34176	EPA 6020B	34193
2622265002	**PZ-2D**	EPA 3005A	34176	EPA 6020B	34193
2622265003	**PZ-16**	EPA 3005A	34176	EPA 6020B	34193
2622265004	**PZ-25**	EPA 3005A	34179	EPA 6020B	34192
2622265001	**EB-1**	EPA 7470A	34233	EPA 7470A	34310
2622265002	**PZ-2D**	EPA 7470A	34233	EPA 7470A	34310
2622265003	**PZ-16**	EPA 7470A	34233	EPA 7470A	34310
2622265004	**PZ-25**	EPA 7470A	34233	EPA 7470A	34310
2622265001	**EB-1**	EPA 300.0	34532		
2622265002	**PZ-2D**	EPA 300.0	34532		
2622265003	**PZ-16**	EPA 300.0	34532		
2622265004	**PZ-25**	EPA 300.0	34532		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood E&I	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell	Pace Project Manager:	betsy.mcdaniel@pacelabs.com
Requested Due Date:	Standard	Project #:	6122160170	Pace Profile #:	333.6.2

Regulatory Agency: GA

State / Location

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analysis Test Y/N	Requested Analysis Filtered (Y/N): Metals (Appendix IV) *	Fluoride	Radium 226/228	Residual Chlorine (Y/N)
1	EB-1	WT	G			8/21/19	0830		4	X		X							X	X	X	
2	PZ-2D	WT	G				1052		4	X		X							X	X	X	
3	PZ-16	WT	G				1316		4	X		X							X	X	X	
4	PZ-25	WT	G			↓	1442		4	X		X							X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

WO# : 2622265

2622265

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals list: Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Daniel Howard/Wood	8/21/19	1715	MZalman	8/22/19	0910	
							4.5 Y Y Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard DATE Signed: 8/21/19

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
4.5	Y	Y	Y

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #

WO#: 2622265

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 612939453440

PM: BM Due Date: 08/29/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83

Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.5

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/22/19 MK

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 18, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2622267

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 22, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revised report replaces the report issued on 9/4/2019. The report has been revised to correct Metals RLs to correspond with contract. No other changes have been made to this report.

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

Sincerely,

Tyler Forney for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2622267

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2622267

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622267001	**PZ-31**	Water	08/21/19 09:45	08/22/19 09:10
2622267002	**PZ-14**	Water	08/21/19 11:40	08/22/19 09:10
2622267003	**PZ-23**	Water	08/21/19 12:45	08/22/19 09:10
2622267004	**PZ-15**	Water	08/21/19 14:10	08/22/19 09:10

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SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2622267

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2622267001	**PZ-31**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622267002	**PZ-14**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622267003	**PZ-23**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622267004	**PZ-15**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1

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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622267

Sample: PZ-31 **Lab ID: 2622267001** Collected: 08/21/19 09:45 Received: 08/22/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00056J**	mg/L	0.0030	0.00027	1	08/23/19 14:12	08/26/19 19:28	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	08/23/19 14:12	08/26/19 19:28	7440-38-2	
Barium	**0.0070J**	mg/L	0.010	0.00049	1	08/23/19 14:12	08/26/19 19:28	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/23/19 14:12	08/26/19 19:28	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/23/19 14:12	08/26/19 19:28	7440-43-9	
Chromium	**0.0016J**	mg/L	0.010	0.00039	1	08/23/19 14:12	08/26/19 19:28	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/23/19 14:12	08/26/19 19:28	7440-48-4	
Lead	**0.00011J**	mg/L	0.0050	0.000046	1	08/23/19 14:12	08/26/19 19:28	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	08/23/19 14:12	08/26/19 19:28	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/23/19 14:12	08/26/19 19:28	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/23/19 14:12	08/26/19 19:28	7782-49-2	
Thallium	**0.000061J**	mg/L	0.0010	0.000052	1	08/23/19 14:12	08/26/19 19:28	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 12:54	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/30/19 01:11	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622267

Sample: PZ-14 **Lab ID: 2622267002** Collected: 08/21/19 11:40 Received: 08/22/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00039J**	mg/L	0.0030	0.00027	1	08/23/19 14:12	08/26/19 19:33	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	08/23/19 14:12	08/26/19 19:33	7440-38-2	
Barium	**0.017**	mg/L	0.010	0.00049	1	08/23/19 14:12	08/26/19 19:33	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/23/19 14:12	08/26/19 19:33	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/23/19 14:12	08/26/19 19:33	7440-43-9	
Chromium	**0.00073J**	mg/L	0.010	0.00039	1	08/23/19 14:12	08/26/19 19:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/23/19 14:12	08/26/19 19:33	7440-48-4	
Lead	**0.000064J**	mg/L	0.0050	0.000046	1	08/23/19 14:12	08/26/19 19:33	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	08/23/19 14:12	08/26/19 19:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/23/19 14:12	08/26/19 19:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/23/19 14:12	08/26/19 19:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/23/19 14:12	08/26/19 19:33	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 12:10	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/30/19 01:33	16984-48-8	M1

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622267

Sample: PZ-23 **Lab ID: 2622267003** Collected: 08/21/19 12:45 Received: 08/22/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00055J**	mg/L	0.0030	0.00027	1	08/23/19 14:12	08/26/19 19:56	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	08/23/19 14:12	08/26/19 19:56	7440-38-2	
Barium	**0.032**	mg/L	0.010	0.00049	1	08/23/19 14:12	08/26/19 19:56	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/23/19 14:12	08/26/19 19:56	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/23/19 14:12	08/26/19 19:56	7440-43-9	
Chromium	**0.0024J**	mg/L	0.010	0.00039	1	08/23/19 14:12	08/28/19 15:15	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/23/19 14:12	08/28/19 15:15	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/23/19 14:12	08/26/19 19:56	7439-92-1	
Lithium	**0.00090J**	mg/L	0.030	0.00078	1	08/23/19 14:12	08/26/19 19:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/23/19 14:12	08/26/19 19:56	7439-98-7	
Selenium	**0.0022J**	mg/L	0.010	0.0013	1	08/23/19 14:12	08/26/19 19:56	7782-49-2	
Thallium	**0.00016J**	mg/L	0.0010	0.000052	1	08/23/19 14:12	08/26/19 19:56	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 12:56	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/30/19 01:56	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622267

Sample: PZ-15 **Lab ID: 2622267004** Collected: 08/21/19 14:10 Received: 08/22/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/23/19 14:12	08/26/19 20:02	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/23/19 14:12	08/26/19 20:02	7440-38-2	
Barium	**0.050**	mg/L	0.010	0.00049	1	08/23/19 14:12	08/26/19 20:02	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/23/19 14:12	08/26/19 20:02	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/23/19 14:12	08/26/19 20:02	7440-43-9	
Chromium	**0.00048J**	mg/L	0.010	0.00039	1	08/23/19 14:12	08/28/19 15:20	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/23/19 14:12	08/28/19 15:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/23/19 14:12	08/26/19 20:02	7439-92-1	
Lithium	**0.0013J**	mg/L	0.030	0.00078	1	08/23/19 14:12	08/26/19 20:02	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/23/19 14:12	08/26/19 20:02	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/23/19 14:12	08/26/19 20:02	7782-49-2	
Thallium	**0.00022J**	mg/L	0.0010	0.000052	1	08/23/19 14:12	08/26/19 20:02	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 12:58	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.044J**	mg/L	0.30	0.029	1		08/30/19 02:19	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622267

QC Batch: 34233 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2622267001, 2622267002, 2622267003, 2622267004

METHOD BLANK: 154036 Matrix: Water
Associated Lab Samples: 2622267001, 2622267002, 2622267003, 2622267004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	08/27/19 12:05	

LABORATORY CONTROL SAMPLE: 154037

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154038 154039

Parameter	Units	2622267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0026	101	102	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622267

QC Batch: 34179 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622267001, 2622267002, 2622267003, 2622267004

METHOD BLANK: 153793 Matrix: Water
Associated Lab Samples: 2622267001, 2622267002, 2622267003, 2622267004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00075J	0.0030	0.00027	08/26/19 19:11	
Arsenic	mg/L	ND	0.0050	0.00035	08/26/19 19:11	
Barium	mg/L	ND	0.010	0.00049	08/26/19 19:11	
Beryllium	mg/L	ND	0.0030	0.000074	08/26/19 19:11	
Cadmium	mg/L	ND	0.0025	0.00011	08/26/19 19:11	
Chromium	mg/L	ND	0.010	0.00039	08/26/19 19:11	
Cobalt	mg/L	ND	0.0050	0.00030	08/26/19 19:11	
Lead	mg/L	ND	0.0050	0.000046	08/26/19 19:11	
Lithium	mg/L	ND	0.030	0.00078	08/26/19 19:11	
Molybdenum	mg/L	ND	0.010	0.00095	08/26/19 19:11	
Selenium	mg/L	ND	0.010	0.0013	08/26/19 19:11	
Thallium	mg/L	ND	0.0010	0.000052	08/26/19 19:11	

LABORATORY CONTROL SAMPLE: 153794

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.092	92	80-120	
Arsenic	mg/L	0.1	0.10	103	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	105	80-120	
Cadmium	mg/L	0.1	0.10	103	80-120	
Chromium	mg/L	0.1	0.081	81	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.086	86	80-120	
Lithium	mg/L	0.1	0.10	105	80-120	
Molybdenum	mg/L	0.1	0.091	91	80-120	
Selenium	mg/L	0.1	0.10	103	80-120	
Thallium	mg/L	0.1	0.093	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153795 153796

Parameter	Units	2622267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00039J	0.1	0.1	0.11	0.10	108	103	75-125	5	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20	
Barium	mg/L	0.017	0.1	0.1	0.13	0.12	108	101	75-125	5	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622267

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153795 153796

Parameter	Units	2622267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.00073J	0.1	0.1	0.10	0.10	99	100	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	0	20	
Lead	mg/L	0.000064J	0.1	0.1	0.095	0.097	94	97	75-125	3	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.097	101	97	75-125	5	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.099	95	98	75-125	3	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622267

QC Batch: 34532 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2622267001, 2622267002, 2622267003, 2622267004

METHOD BLANK: 155480 Matrix: Water
Associated Lab Samples: 2622267001, 2622267002, 2622267003, 2622267004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	08/29/19 22:10	

LABORATORY CONTROL SAMPLE: 155481

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.4	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155482 155483

Parameter	Units	2622265001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	10	10	9.3	9.2	93	92	90-110	0	15	

MATRIX SPIKE SAMPLE: 155490

Parameter	Units	2622267002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	10	8.5	85	90-110	M1

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2622267

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2622267

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622267001	**PZ-31**	EPA 3005A	34179	EPA 6020B	34192
2622267002	**PZ-14**	EPA 3005A	34179	EPA 6020B	34192
2622267003	**PZ-23**	EPA 3005A	34179	EPA 6020B	34192
2622267004	**PZ-15**	EPA 3005A	34179	EPA 6020B	34192
2622267001	**PZ-31**	EPA 7470A	34233	EPA 7470A	34310
2622267002	**PZ-14**	EPA 7470A	34233	EPA 7470A	34310
2622267003	**PZ-23**	EPA 7470A	34233	EPA 7470A	34310
2622267004	**PZ-15**	EPA 7470A	34233	EPA 7470A	34310
2622267001	**PZ-31**	EPA 300.0	34532		
2622267002	**PZ-14**	EPA 300.0	34532		
2622267003	**PZ-23**	EPA 300.0	34532		
2622267004	**PZ-15**	EPA 300.0	34532		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood E&I	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell	Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Requested Due Date:	Standard	Project #:	6123160170	Pace Profile #:	333.6.2

Regulatory Agency

State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Y/N	Metals (Appendix IV) *	Fluoride	Radium 226/228	Residual Chlorine (Y/N)
1	PZ-31	WT	G			8/21/19	0945		4	X		X						N	X	X	X	
2	PZ-14+QC	WT	G				1140		6	X		X						N	X	X	X	
3	PZ-23	WT	G				1245		4	X		X						N	X	X	X	
4	PZ-15	WT	G			↓	1410		4	X		X						N	X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

WO# : 2622267

2622267

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals list: Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Daniel Howard/Wood	8/21/19	1715	MAltman	8/22/19	0910	

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Daniel Howard		
SIGNATURE of SAMPLER:	Daniel L Howard	DATE Signed:	8/21/19

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
4.2	Y	Y	Y

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # _____

WO#: 2622267

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8121 9394 5370

PM: BM Due Date: 08/29/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used 83 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.2 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C Comments:

Date and Initials of person examining contents: 8/22/19 MR

Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 18, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2622269

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 22, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revised report replaces the report issued on 8/29/2019. The report has been revised to correct Metals RLs to correspond with contract. No other changes have been made to this report.

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

Sincerely,

Tyler Forney for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2622269

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2622269

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622269001	**PZ-32**	Water	08/20/19 15:03	08/22/19 09:10
2622269002	**PZ-1D**	Water	08/20/19 16:10	08/22/19 09:10

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2622269

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2622269001	**PZ-32**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622269002	**PZ-1D**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622269

Sample: PZ-32 **Lab ID: 2622269001** Collected: 08/20/19 15:03 Received: 08/22/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/23/19 14:12	08/26/19 20:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/23/19 14:12	08/26/19 20:19	7440-38-2	
Barium	**0.016**	mg/L	0.010	0.00049	1	08/23/19 14:12	08/26/19 20:19	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/23/19 14:12	08/26/19 20:19	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/23/19 14:12	08/26/19 20:19	7440-43-9	
Chromium	**0.00044J**	mg/L	0.010	0.00039	1	08/23/19 14:12	08/28/19 15:26	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/23/19 14:12	08/28/19 15:26	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/23/19 14:12	08/26/19 20:19	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	08/23/19 14:12	08/26/19 20:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/23/19 14:12	08/26/19 20:19	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/23/19 14:12	08/26/19 20:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/23/19 14:12	08/26/19 20:19	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 13:01	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/29/19 07:06	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622269

Sample: PZ-1D **Lab ID: 2622269002** Collected: 08/20/19 16:10 Received: 08/22/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00074J**	mg/L	0.0030	0.00027	1	08/23/19 14:12	08/26/19 20:25	7440-36-0	B
Arsenic	ND	mg/L	0.0050	0.00035	1	08/23/19 14:12	08/26/19 20:25	7440-38-2	
Barium	**0.017**	mg/L	0.010	0.00049	1	08/23/19 14:12	08/26/19 20:25	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/23/19 14:12	08/26/19 20:25	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/23/19 14:12	08/26/19 20:25	7440-43-9	
Chromium	**0.0028J**	mg/L	0.010	0.00039	1	08/23/19 14:12	08/26/19 20:25	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/23/19 14:12	08/26/19 20:25	7440-48-4	
Lead	**0.00021J**	mg/L	0.0050	0.000046	1	08/23/19 14:12	08/26/19 20:25	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	08/23/19 14:12	08/26/19 20:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/23/19 14:12	08/26/19 20:25	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/23/19 14:12	08/26/19 20:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/23/19 14:12	08/26/19 20:25	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 13:03	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/29/19 07:29	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622269

QC Batch: 34233 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2622269001, 2622269002

METHOD BLANK: 154036 Matrix: Water
Associated Lab Samples: 2622269001, 2622269002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	08/27/19 12:05	

LABORATORY CONTROL SAMPLE: 154037

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0025	100	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154038 154039

Parameter	Units	2622267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0026	101	102	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622269

QC Batch: 34179 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622269001, 2622269002

METHOD BLANK: 153793 Matrix: Water
Associated Lab Samples: 2622269001, 2622269002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	0.00075J	0.0030	0.00027	08/26/19 19:11	
Arsenic	mg/L	ND	0.0050	0.00035	08/26/19 19:11	
Barium	mg/L	ND	0.010	0.00049	08/26/19 19:11	
Beryllium	mg/L	ND	0.0030	0.000074	08/26/19 19:11	
Cadmium	mg/L	ND	0.0025	0.00011	08/26/19 19:11	
Chromium	mg/L	ND	0.010	0.00039	08/26/19 19:11	
Cobalt	mg/L	ND	0.0050	0.00030	08/26/19 19:11	
Lead	mg/L	ND	0.0050	0.000046	08/26/19 19:11	
Lithium	mg/L	ND	0.030	0.00078	08/26/19 19:11	
Molybdenum	mg/L	ND	0.010	0.00095	08/26/19 19:11	
Selenium	mg/L	ND	0.010	0.0013	08/26/19 19:11	
Thallium	mg/L	ND	0.0010	0.000052	08/26/19 19:11	

LABORATORY CONTROL SAMPLE: 153794

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.092	92	80-120	
Arsenic	mg/L	0.1	0.10	103	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Beryllium	mg/L	0.1	0.10	105	80-120	
Cadmium	mg/L	0.1	0.10	103	80-120	
Chromium	mg/L	0.1	0.081	81	80-120	
Cobalt	mg/L	0.1	0.10	100	80-120	
Lead	mg/L	0.1	0.086	86	80-120	
Lithium	mg/L	0.1	0.10	105	80-120	
Molybdenum	mg/L	0.1	0.091	91	80-120	
Selenium	mg/L	0.1	0.10	103	80-120	
Thallium	mg/L	0.1	0.093	93	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153795 153796

Parameter	Units	2622267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00039J	0.1	0.1	0.11	0.10	108	103	75-125	5	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.099	101	99	75-125	2	20	
Barium	mg/L	0.017	0.1	0.1	0.13	0.12	108	101	75-125	5	20	
Beryllium	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Cadmium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622269

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153795 153796

Parameter	Units	2622267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	0.00073J	0.1	0.1	0.10	0.10	99	100	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	0	20	
Lead	mg/L	0.000064J	0.1	0.1	0.095	0.097	94	97	75-125	3	20	
Lithium	mg/L	ND	0.1	0.1	0.10	0.10	101	101	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.10	0.097	101	97	75-125	5	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	100	102	75-125	2	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.099	95	98	75-125	3	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622269

QC Batch: 34413 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2622269001, 2622269002

METHOD BLANK: 154817 Matrix: Water
Associated Lab Samples: 2622269001, 2622269002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	08/28/19 20:32	

LABORATORY CONTROL SAMPLE: 154818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.5	95	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154819 154820

Parameter	Units	2622246001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	10	10	9.9	9.8	99	98	90-110	1	15	

MATRIX SPIKE SAMPLE: 154821

Parameter	Units	2622246002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	ND	10	9.7	97	90-110	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2622269

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2622269

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622269001	**PZ-32**	EPA 3005A	34179	EPA 6020B	34192
2622269002	**PZ-1D**	EPA 3005A	34179	EPA 6020B	34192
2622269001	**PZ-32**	EPA 7470A	34233	EPA 7470A	34310
2622269002	**PZ-1D**	EPA 7470A	34233	EPA 7470A	34310
2622269001	**PZ-32**	EPA 300.0	34413		
2622269002	**PZ-1D**	EPA 300.0	34413		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A — Required Client Information:

Company:	Georgia Power - Coal Combustion Residuals
Address:	2480 Maner Road
	Atlanta, GA 30339
Email:	jabraham@southernco.com
Phone:	(404)506-7239 Fax:
Requested Due Date:	Standard

Section B — Required Project Information:

Report To:	Joju Abraham
Copy To:	Wood E&I
Purchase Order #:	SCS10382775
Project Name:	Plant Mitchell
Project #:	6122160170

Section C — Invoice Information:

Attention:	scsinvoices@southernco.com
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Pace Profile #:	333.6.2

Regulatory Agency: | State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals (Appendix IV) *	Fluoride	Radium 226/228	Residual Chlorine (Y/N)
1	PZ-32	WT	G			8/20/19	1503		4	X		X						N	X	X	X	
2	PZ-1D	WT	G			8/20/19	1610		4	X		X						N	X	X	X	
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

Matrix codes: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

WO# : 2622269

2622269

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals list: Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Daniel Howard/Wood	8/21/19	1715	MRahman	8/22/19	0910	

SAMPLE CONDITIONS	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	4.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel L Howard DATE Signed: 8/21/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #

WO# : 2622269

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8121 9394 5430

PM: BM Due Date: 08/29/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: ~~Wet~~ Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.0 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 8/22/19

Comments:

Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

January 10, 2020

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2622335

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 23, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revised report replaces the report issued on 9/3/2019. The report has been revised to correct Metals RLs to correspond with contract. No other changes have been made to this report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2622335

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2622335

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622335001	**FB-01**	Water	08/22/19 08:15	08/23/19 09:10
2622335002	**PZ-33**	Water	08/22/19 10:04	08/23/19 09:10
2622335003	**Dup-02**	Water	08/22/19 00:00	08/23/19 09:10
2622335004	**PZ-19**	Water	08/22/19 12:32	08/23/19 09:10
2622335005	**Dup-01**	Water	08/22/19 00:00	08/23/19 09:10

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2622335

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2622335001	**FB-01**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622335002	**PZ-33**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622335003	**Dup-02**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622335004	**PZ-19**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622335005	**Dup-01**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622335

Sample: FB-01 **Lab ID: 2622335001** Collected: 08/22/19 08:15 Received: 08/23/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/27/19 11:50	08/27/19 16:57	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/27/19 11:50	08/27/19 16:57	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	08/27/19 11:50	08/27/19 16:57	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/27/19 11:50	08/27/19 16:57	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/27/19 11:50	08/27/19 16:57	7440-43-9	
Chromium	**0.00050J**	mg/L	0.010	0.00039	1	08/27/19 11:50	08/27/19 16:57	7440-47-3	B
Cobalt	ND	mg/L	0.0050	0.00030	1	08/27/19 11:50	08/27/19 16:57	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/27/19 11:50	08/27/19 16:57	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	08/27/19 11:50	08/27/19 16:57	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/27/19 11:50	08/27/19 16:57	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/27/19 11:50	08/27/19 16:57	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	08/27/19 11:50	08/27/19 16:57	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 13:55	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/30/19 16:13	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622335

Sample: PZ-33 **Lab ID: 2622335002** Collected: 08/22/19 10:04 Received: 08/23/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/27/19 11:50	08/27/19 17:03	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/27/19 11:50	08/27/19 17:03	7440-38-2	
Barium	**0.064**	mg/L	0.010	0.00049	1	08/27/19 11:50	08/27/19 17:03	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/27/19 11:50	08/27/19 17:03	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/27/19 11:50	08/27/19 17:03	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/27/19 11:50	08/27/19 17:03	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/27/19 11:50	08/27/19 17:03	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/27/19 11:50	08/27/19 17:03	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	08/27/19 11:50	08/27/19 17:03	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/27/19 11:50	08/27/19 17:03	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/27/19 11:50	08/27/19 17:03	7782-49-2	
Thallium	**0.00017J**	mg/L	0.0010	0.000052	1	08/27/19 11:50	08/27/19 17:03	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 13:58	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/30/19 16:35	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622335

Sample: Dup-02 **Lab ID: 2622335003** Collected: 08/22/19 00:00 Received: 08/23/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/27/19 11:50	08/27/19 17:08	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/27/19 11:50	08/27/19 17:08	7440-38-2	
Barium	**0.062**	mg/L	0.010	0.00049	1	08/27/19 11:50	08/27/19 17:08	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/27/19 11:50	08/27/19 17:08	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/27/19 11:50	08/27/19 17:08	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/27/19 11:50	08/27/19 17:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/27/19 11:50	08/27/19 17:08	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/27/19 11:50	08/27/19 17:08	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	08/27/19 11:50	08/27/19 17:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/27/19 11:50	08/27/19 17:08	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/27/19 11:50	08/27/19 17:08	7782-49-2	
Thallium	**0.00017J**	mg/L	0.0010	0.000052	1	08/27/19 11:50	08/27/19 17:08	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 14:00	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/30/19 16:58	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622335

Sample: PZ-19 **Lab ID: 2622335004** Collected: 08/22/19 12:32 Received: 08/23/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/27/19 11:50	08/27/19 17:14	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/27/19 11:50	08/27/19 17:14	7440-38-2	
Barium	**0.047**	mg/L	0.010	0.00049	1	08/27/19 11:50	08/27/19 17:14	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/27/19 11:50	08/27/19 17:14	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/27/19 11:50	08/27/19 17:14	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/27/19 11:50	08/27/19 17:14	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/27/19 11:50	08/27/19 17:14	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/27/19 11:50	08/27/19 17:14	7439-92-1	
Lithium	**0.012J**	mg/L	0.030	0.00078	1	08/27/19 11:50	08/27/19 17:14	7439-93-2	
Molybdenum	**0.0021J**	mg/L	0.010	0.00095	1	08/27/19 11:50	08/27/19 17:14	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/27/19 11:50	08/27/19 17:14	7782-49-2	
Thallium	**0.00055J**	mg/L	0.0010	0.000052	1	08/27/19 11:50	08/27/19 17:14	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 14:02	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.10J**	mg/L	0.30	0.029	1		08/30/19 17:21	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622335

Sample: Dup-01 **Lab ID: 2622335005** Collected: 08/22/19 00:00 Received: 08/23/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/27/19 11:50	08/27/19 17:20	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/27/19 11:50	08/27/19 17:20	7440-38-2	
Barium	**0.049**	mg/L	0.010	0.00049	1	08/27/19 11:50	08/27/19 17:20	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/27/19 11:50	08/27/19 17:20	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/27/19 11:50	08/27/19 17:20	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/27/19 11:50	08/27/19 17:20	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/27/19 11:50	08/27/19 17:20	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/27/19 11:50	08/27/19 17:20	7439-92-1	
Lithium	**0.012J**	mg/L	0.030	0.00078	1	08/27/19 11:50	08/27/19 17:20	7439-93-2	
Molybdenum	**0.0022J**	mg/L	0.010	0.00095	1	08/27/19 11:50	08/27/19 17:20	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/27/19 11:50	08/27/19 17:20	7782-49-2	
Thallium	**0.00058J**	mg/L	0.0010	0.000052	1	08/27/19 11:50	08/27/19 17:20	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 14:09	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.079J**	mg/L	0.30	0.029	1		08/30/19 17:43	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622335

QC Batch: 34265 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2622335001, 2622335002, 2622335003, 2622335004, 2622335005

METHOD BLANK: 154112 Matrix: Water
Associated Lab Samples: 2622335001, 2622335002, 2622335003, 2622335004, 2622335005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	08/27/19 13:41	

LABORATORY CONTROL SAMPLE: 154113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154114 154115

Parameter	Units	2622337002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0025	101	100	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622335

QC Batch: 34320 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622335001, 2622335002, 2622335003, 2622335004, 2622335005

METHOD BLANK: 154347 Matrix: Water
Associated Lab Samples: 2622335001, 2622335002, 2622335003, 2622335004, 2622335005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	08/27/19 16:36	
Arsenic	mg/L	ND	0.0050	0.00035	08/27/19 16:36	
Barium	mg/L	ND	0.010	0.00049	08/27/19 16:36	
Beryllium	mg/L	ND	0.0030	0.000074	08/27/19 16:36	
Cadmium	mg/L	ND	0.0025	0.00011	08/27/19 16:36	
Chromium	mg/L	0.0012J	0.010	0.00039	08/27/19 16:36	
Cobalt	mg/L	ND	0.0050	0.00030	08/27/19 16:36	
Lead	mg/L	ND	0.0050	0.000046	08/27/19 16:36	
Lithium	mg/L	ND	0.030	0.00078	08/27/19 16:36	
Molybdenum	mg/L	ND	0.010	0.00095	08/27/19 16:36	
Selenium	mg/L	ND	0.010	0.0013	08/27/19 16:36	
Thallium	mg/L	ND	0.0010	0.000052	08/27/19 16:36	

LABORATORY CONTROL SAMPLE: 154348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.090	90	80-120	
Arsenic	mg/L	0.1	0.085	85	80-120	
Barium	mg/L	0.1	0.088	88	80-120	
Beryllium	mg/L	0.1	0.086	86	80-120	
Cadmium	mg/L	0.1	0.088	88	80-120	
Chromium	mg/L	0.1	0.088	88	80-120	
Cobalt	mg/L	0.1	0.086	86	80-120	
Lead	mg/L	0.1	0.086	86	80-120	
Lithium	mg/L	0.1	0.087	87	80-120	
Molybdenum	mg/L	0.1	0.089	89	80-120	
Selenium	mg/L	0.1	0.085	85	80-120	
Thallium	mg/L	0.1	0.087	87	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154349 154350

Parameter	Units	2622337002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	102	103	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	1	20	
Barium	mg/L	0.078	0.1	0.1	0.18	0.18	104	104	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.092	0.093	92	93	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622335

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154349 154350

Parameter	Units	2622337002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.098	96	98	75-125	2	20	
Lithium	mg/L	0.0025J	0.1	0.1	0.095	0.096	92	93	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	106	105	75-125	0	20	
Selenium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20	
Thallium	mg/L	0.00018J	0.1	0.1	0.098	0.099	97	99	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622335

QC Batch: 34533 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2622335001, 2622335002, 2622335003, 2622335004, 2622335005

METHOD BLANK: 155485 Matrix: Water
Associated Lab Samples: 2622335001, 2622335002, 2622335003, 2622335004, 2622335005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	08/30/19 13:57	

LABORATORY CONTROL SAMPLE: 155486

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.3	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155487 155488

Parameter	Units	2622319009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	10	10	10.8	10.7	108	107	90-110	1	15	

MATRIX SPIKE SAMPLE: 155523

Parameter	Units	2622337002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.11J	10	9.5	94	90-110	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2622335

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2622335

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622335001	**FB-01**	EPA 3005A	34320	EPA 6020B	34344
2622335002	**PZ-33**	EPA 3005A	34320	EPA 6020B	34344
2622335003	**Dup-02**	EPA 3005A	34320	EPA 6020B	34344
2622335004	**PZ-19**	EPA 3005A	34320	EPA 6020B	34344
2622335005	**Dup-01**	EPA 3005A	34320	EPA 6020B	34344
2622335001	**FB-01**	EPA 7470A	34265	EPA 7470A	34311
2622335002	**PZ-33**	EPA 7470A	34265	EPA 7470A	34311
2622335003	**Dup-02**	EPA 7470A	34265	EPA 7470A	34311
2622335004	**PZ-19**	EPA 7470A	34265	EPA 7470A	34311
2622335005	**Dup-01**	EPA 7470A	34265	EPA 7470A	34311
2622335001	**FB-01**	EPA 300.0	34533		
2622335002	**PZ-33**	EPA 300.0	34533		
2622335003	**Dup-02**	EPA 300.0	34533		
2622335004	**PZ-19**	EPA 300.0	34533		
2622335005	**Dup-01**	EPA 300.0	34533		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood E&I	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell	Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Requested Due Date:	Standard	Project #:	6122160170	Pace Profile #:	333.6.2

Regulatory Agency: —

State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals (Appendix IV) *	Fluoride	Radium 226/228	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	N	N	N	N	
1	FB-01	WT	G			8/22/19	0815		4	X		X							X	X	X	
2	PZ-33	WT	G				1004		4	X		X							X	X	X	
3	DUP-02	WT	G				—		4	X		X							X	X	X	
4	PZ-19	WT	G				1232		4	X		X							X	X	X	
5	DUP-01	WT	G			↓	—		4	X		X							X	X	X	
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2622335

2622335

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
* Metals list: Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Daniel Howard/Wood	8/22/19	1600	MLahman	8/23/19	0910				
							4-8	Y	Y	Y
							TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard DATE Signed: 8/22/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #

WO#: 2622335

PM: BM Due Date: 08/30/19

CLIENT: GAPower-CCR

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 789315479591

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.8 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C Comments:

Date and Initials of person examining contents: 8/23/19 MR

Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☐N/A	
Pace Trip Blank Lot # (if purchased):				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 18, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2622337

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 23, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This revised report replaces the report issued on 9/4/2019. The report has been revised to correct Metals RLs to correspond with contract. No other changes have been made to this report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2622337

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2622337

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622337001	**PZ-7D**	Water	08/22/19 09:25	08/23/19 09:10
2622337002	**PZ-17**	Water	08/22/19 11:10	08/23/19 09:10
2622337003	**PZ-18**	Water	08/22/19 13:50	08/23/19 09:10

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2622337

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2622337001	**PZ-7D**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622337002	**PZ-17**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1
2622337003	**PZ-18**	EPA 6020B	CSW	12
		EPA 7470A	DRB	1
		EPA 300.0	MWB	1

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622337

Sample: PZ-7D **Lab ID: 2622337001** Collected: 08/22/19 09:25 Received: 08/23/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/27/19 11:50	08/27/19 17:26	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/27/19 11:50	08/27/19 17:26	7440-38-2	
Barium	**0.0067J**	mg/L	0.010	0.00049	1	08/27/19 11:50	08/27/19 17:26	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/27/19 11:50	08/27/19 17:26	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/27/19 11:50	08/27/19 17:26	7440-43-9	
Chromium	**0.0013J**	mg/L	0.010	0.00039	1	08/27/19 11:50	08/27/19 17:26	7440-47-3	B
Cobalt	ND	mg/L	0.0050	0.00030	1	08/27/19 11:50	08/27/19 17:26	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/27/19 11:50	08/27/19 17:26	7439-92-1	
Lithium	**0.0029J**	mg/L	0.030	0.00078	1	08/27/19 11:50	08/27/19 17:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/27/19 11:50	08/27/19 17:26	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/27/19 11:50	08/27/19 17:26	7782-49-2	
Thallium	**0.000086J**	mg/L	0.0010	0.000052	1	08/27/19 11:50	08/27/19 17:26	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 14:12	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/30/19 18:06	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622337

Sample: PZ-17 **Lab ID: 2622337002** Collected: 08/22/19 11:10 Received: 08/23/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	08/27/19 11:50	08/27/19 17:31	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/27/19 11:50	08/27/19 17:31	7440-38-2	
Barium	**0.078**	mg/L	0.010	0.00049	1	08/27/19 11:50	08/27/19 17:31	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/27/19 11:50	08/27/19 17:31	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/27/19 11:50	08/27/19 17:31	7440-43-9	
Chromium	ND	mg/L	0.010	0.00039	1	08/27/19 11:50	08/27/19 17:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	08/27/19 11:50	08/27/19 17:31	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/27/19 11:50	08/27/19 17:31	7439-92-1	
Lithium	**0.0025J**	mg/L	0.030	0.00078	1	08/27/19 11:50	08/27/19 17:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/27/19 11:50	08/27/19 17:31	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/27/19 11:50	08/27/19 17:31	7782-49-2	
Thallium	**0.00018J**	mg/L	0.0010	0.000052	1	08/27/19 11:50	08/27/19 17:31	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 13:46	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	**0.11J**	mg/L	0.30	0.029	1		08/30/19 19:36	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2622337

Sample: PZ-18 **Lab ID: 2622337003** Collected: 08/22/19 13:50 Received: 08/23/19 09:10 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00045J**	mg/L	0.0030	0.00027	1	08/27/19 11:50	08/27/19 18:06	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	08/27/19 11:50	08/27/19 18:06	7440-38-2	
Barium	**0.022**	mg/L	0.010	0.00049	1	08/27/19 11:50	08/27/19 18:06	7440-39-3	
Beryllium	ND	mg/L	0.0030	0.000074	1	08/27/19 11:50	08/27/19 18:06	7440-41-7	
Cadmium	ND	mg/L	0.0025	0.00011	1	08/27/19 11:50	08/27/19 18:06	7440-43-9	
Chromium	**0.00081J**	mg/L	0.010	0.00039	1	08/27/19 11:50	08/27/19 18:06	7440-47-3	B
Cobalt	ND	mg/L	0.0050	0.00030	1	08/27/19 11:50	08/27/19 18:06	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	08/27/19 11:50	08/27/19 18:06	7439-92-1	
Lithium	**0.0026J**	mg/L	0.030	0.00078	1	08/27/19 11:50	08/27/19 18:06	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	08/27/19 11:50	08/27/19 18:06	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	08/27/19 11:50	08/27/19 18:06	7782-49-2	
Thallium	**0.000070J**	mg/L	0.0010	0.000052	1	08/27/19 11:50	08/27/19 18:06	7440-28-0	
7470 Mercury	Analytical Method: EPA 7470A Preparation Method: EPA 7470A								
Mercury	ND	mg/L	0.00050	0.00014	1	08/26/19 14:21	08/27/19 14:14	7439-97-6	
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Fluoride	ND	mg/L	0.30	0.029	1		08/30/19 19:59	16984-48-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622337

QC Batch: 34265 Analysis Method: EPA 7470A
QC Batch Method: EPA 7470A Analysis Description: 7470 Mercury
Associated Lab Samples: 2622337001, 2622337002, 2622337003

METHOD BLANK: 154112 Matrix: Water
Associated Lab Samples: 2622337001, 2622337002, 2622337003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Mercury	mg/L	ND	0.00050	0.00014	08/27/19 13:41	

LABORATORY CONTROL SAMPLE: 154113

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Mercury	mg/L	0.0025	0.0026	103	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154114 154115

Parameter	Units	2622337002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0025	101	100	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622337

QC Batch: 34320 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622337001, 2622337002, 2622337003

METHOD BLANK: 154347 Matrix: Water
Associated Lab Samples: 2622337001, 2622337002, 2622337003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	08/27/19 16:36	
Arsenic	mg/L	ND	0.0050	0.00035	08/27/19 16:36	
Barium	mg/L	ND	0.010	0.00049	08/27/19 16:36	
Beryllium	mg/L	ND	0.0030	0.000074	08/27/19 16:36	
Cadmium	mg/L	ND	0.0025	0.00011	08/27/19 16:36	
Chromium	mg/L	0.0012J	0.010	0.00039	08/27/19 16:36	
Cobalt	mg/L	ND	0.0050	0.00030	08/27/19 16:36	
Lead	mg/L	ND	0.0050	0.000046	08/27/19 16:36	
Lithium	mg/L	ND	0.030	0.00078	08/27/19 16:36	
Molybdenum	mg/L	ND	0.010	0.00095	08/27/19 16:36	
Selenium	mg/L	ND	0.010	0.0013	08/27/19 16:36	
Thallium	mg/L	ND	0.0010	0.000052	08/27/19 16:36	

LABORATORY CONTROL SAMPLE: 154348

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.090	90	80-120	
Arsenic	mg/L	0.1	0.085	85	80-120	
Barium	mg/L	0.1	0.088	88	80-120	
Beryllium	mg/L	0.1	0.086	86	80-120	
Cadmium	mg/L	0.1	0.088	88	80-120	
Chromium	mg/L	0.1	0.088	88	80-120	
Cobalt	mg/L	0.1	0.086	86	80-120	
Lead	mg/L	0.1	0.086	86	80-120	
Lithium	mg/L	0.1	0.087	87	80-120	
Molybdenum	mg/L	0.1	0.089	89	80-120	
Selenium	mg/L	0.1	0.085	85	80-120	
Thallium	mg/L	0.1	0.087	87	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154349 154350

Parameter	Units	2622337002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	102	103	75-125	1	20	
Arsenic	mg/L	ND	0.1	0.1	0.098	0.098	98	98	75-125	1	20	
Barium	mg/L	0.078	0.1	0.1	0.18	0.18	104	104	75-125	0	20	
Beryllium	mg/L	ND	0.1	0.1	0.092	0.093	92	93	75-125	1	20	
Cadmium	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622337

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154349 154350

Parameter	Units	2622337002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.098	99	98	75-125	1	20	
Lead	mg/L	ND	0.1	0.1	0.096	0.098	96	98	75-125	2	20	
Lithium	mg/L	0.0025J	0.1	0.1	0.095	0.096	92	93	75-125	1	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.11	106	105	75-125	0	20	
Selenium	mg/L	ND	0.1	0.1	0.099	0.096	99	96	75-125	3	20	
Thallium	mg/L	0.00018J	0.1	0.1	0.098	0.099	97	99	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622337

QC Batch: 34533 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2622337001, 2622337002, 2622337003

METHOD BLANK: 155485 Matrix: Water
Associated Lab Samples: 2622337001, 2622337002, 2622337003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Fluoride	mg/L	ND	0.30	0.029	08/30/19 13:57	

LABORATORY CONTROL SAMPLE: 155486

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	10	9.3	93	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 155487 155488

Parameter	Units	2622319009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Fluoride	mg/L	ND	10	10	10.8	10.7	108	107	90-110	1	15	

MATRIX SPIKE SAMPLE: 155523

Parameter	Units	2622337002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Fluoride	mg/L	0.11J	10	9.5	94	90-110	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2622337

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B Analyte was detected in the associated method blank.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2622337

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622337001	**PZ-7D**	EPA 3005A	34320	EPA 6020B	34344
2622337002	**PZ-17**	EPA 3005A	34320	EPA 6020B	34344
2622337003	**PZ-18**	EPA 3005A	34320	EPA 6020B	34344
2622337001	**PZ-7D**	EPA 7470A	34265	EPA 7470A	34311
2622337002	**PZ-17**	EPA 7470A	34265	EPA 7470A	34311
2622337003	**PZ-18**	EPA 7470A	34265	EPA 7470A	34311
2622337001	**PZ-7D**	EPA 300.0	34533		
2622337002	**PZ-17**	EPA 300.0	34533		
2622337003	**PZ-18**	EPA 300.0	34533		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood E&I	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell	Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Requested Due Date:	standard	Project #:	6122160170	Pace Profile #:	333.6.2

Regulatory Agency

State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Metals (Appendix IV) *	Fluoride	Radium 226/228	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	N	N	N	N	
1	PZ-7D	WT	G			8/22/19	0925		4	X		X							X	X	X	
2	PZ-17+QC	WT	G				1110		6	X		X							X	X	X	
3	PZ-18	WT	G			↓	1350		4	X		X							X	X	X	
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2622337

2622337

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* Metals list: Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Daniel Howard/Wood	8/22/19	1600	MDahlman	8/23/19	0910				
							2.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard DATE Signed: 8/22/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #

WO#: 2622337

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8121939 43407

PM: BM Due Date: 08/30/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.0 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C Comments:

Date and Initials of person examining contents: 8/23/19 MB

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

September 20, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2622266

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 22, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2622266

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2622266

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622266001	**EB-1**	Water	08/21/19 08:30	08/22/19 09:10
2622266002	**PZ-2D**	Water	08/21/19 10:52	08/22/19 09:10
2622266003	**PZ-16**	Water	08/21/19 13:16	08/22/19 09:10
2622266004	**PZ-25**	Water	08/21/19 14:42	08/22/19 09:10

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SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2622266

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622266001	**EB-1**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622266002	**PZ-2D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622266003	**PZ-16**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622266004	**PZ-25**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622266

Sample: EB-1 **Lab ID: 2622266001** Collected: 08/21/19 08:30 Received: 08/22/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.269 ± 0.217 (0.347) C:96% T:NA**	pCi/L	09/05/19 08:06	13982-63-3	
Radium-228	EPA 9320	**0.559 ± 0.498 (1.03) C:81% T:82%**	pCi/L	09/12/19 10:38	15262-20-1	
Total Radium	Total Radium Calculation	**0.828 ± 0.715 (1.38)**	pCi/L	09/17/19 14:15	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622266

Sample: PZ-2D **Lab ID: 2622266002** Collected: 08/21/19 10:52 Received: 08/22/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.521 ± 0.318 (0.491) C:98% T:NA**	pCi/L	09/05/19 08:06	13982-63-3	
Radium-228	EPA 9320	**0.189 ± 0.409 (0.901) C:80% T:86%**	pCi/L	09/12/19 10:38	15262-20-1	
Total Radium	Total Radium Calculation	**0.710 ± 0.727 (1.39)**	pCi/L	09/17/19 14:15	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622266

Sample: PZ-16 **Lab ID: 2622266003** Collected: 08/21/19 13:16 Received: 08/22/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.453 ± 0.290 (0.442) C:95% T:NA**	pCi/L	09/05/19 08:06	13982-63-3	
Radium-228	EPA 9320	**-0.318 ± 0.391 (0.943) C:77% T:95%**	pCi/L	09/12/19 10:38	15262-20-1	
Total Radium	Total Radium Calculation	**0.453 ± 0.681 (1.39)**	pCi/L	09/17/19 14:15	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622266

Sample: PZ-25 **Lab ID: 2622266004** Collected: 08/21/19 14:42 Received: 08/22/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.777 ± 0.373 (0.482) C:89% T:NA**	pCi/L	09/05/19 08:07	13982-63-3	
Radium-228	EPA 9320	**0.399 ± 0.447 (0.941) C:79% T:86%**	pCi/L	09/12/19 11:16	15262-20-1	
Total Radium	Total Radium Calculation	**1.18 ± 0.820 (1.42)**	pCi/L	09/17/19 14:15	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622266

QC Batch: 359489 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2622266001, 2622266002, 2622266003

METHOD BLANK: 1745578 Matrix: Water
Associated Lab Samples: 2622266001, 2622266002, 2622266003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.402 ± 0.246 (0.327) C:100% T:NA	pCi/L	09/05/19 08:30	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622266

QC Batch: 358698 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2622266001, 2622266002, 2622266003, 2622266004

METHOD BLANK: 1741705 Matrix: Water
Associated Lab Samples: 2622266001, 2622266002, 2622266003, 2622266004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.944 ± 0.396 (0.631) C:81% T:90%	pCi/L	09/12/19 10:29	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622266

QC Batch: 359490 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2622266004

METHOD BLANK: 1745579 Matrix: Water
Associated Lab Samples: 2622266004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.243 ± 0.244 (0.474) C:94% T:NA	pCi/L	09/05/19 08:07	

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

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QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2622266

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2622266

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622266001	**EB-1**	EPA 9315	359489		
2622266002	**PZ-2D**	EPA 9315	359489		
2622266003	**PZ-16**	EPA 9315	359489		
2622266004	**PZ-25**	EPA 9315	359490		
2622266001	**EB-1**	EPA 9320	358698		
2622266002	**PZ-2D**	EPA 9320	358698		
2622266003	**PZ-16**	EPA 9320	358698		
2622266004	**PZ-25**	EPA 9320	358698		
2622266001	**EB-1**	Total Radium Calculation	361774		
2622266002	**PZ-2D**	Total Radium Calculation	361774		
2622266003	**PZ-16**	Total Radium Calculation	361774		
2622266004	**PZ-25**	Total Radium Calculation	361774		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Pace Analytical

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood E&I	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell	Pace Project Manager:	betsy.mcdaniel@pacelabs.com
Requested Due Date:	Standard	Project #:	6122160170	Pace Profile #:	333.6.2

Regulatory Agency: GA

State / Location

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals (Appendix IV) *	Fluoride	Radium 226/228	Residual Chlorine (Y/N)
1	EB-1	WT	G			8/21/19	0830		4	X		X							X	X	X	
2	PZ-2D	WT	G				1052		4	X		X							X	X	X	
3	PZ-16	WT	G				1316		4	X		X							X	X	X	
4	PZ-25	WT	G			↓	1442		4	X		X							X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

WO# : 2622266

2622266

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
* Metals list: Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Daniel Howard/Wood	8/21/19	1715	M Zalman	8/22/19	0910	
							4.5 Y Y Y

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard

DATE Signed: 8/21/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # _____

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

WO# : 2622266

Tracking #: 612193945440

PM: BM Due Date: 09/20/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used: 53

Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4.5

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/22/19 MK

Temp should be above freezing to 6°C

Comments:

Chain of Custody Present:	☑Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☑Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☑Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☑Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☑Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☑No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☑No	☐N/A	7.
Sufficient Volume:	☑Yes	☐No	☐N/A	8.
Correct Containers Used:	☑Yes	☐No	☐N/A	9.
-Pace Containers Used:	☑Yes	☐No	☐N/A	
Containers Intact:	☑Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☑N/A	11.
Sample Labels match COC:	☑Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked.	☑Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☑No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☑N/A	15.
Trip Blank Present:	☐Yes	☐No	☑N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☑N/A	
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
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September 20, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2622268

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 22, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2622268

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2622268

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622268001	**PZ-31**	Water	08/21/19 09:45	08/22/19 09:10
2622268002	**PZ-14**	Water	08/21/19 11:40	08/22/19 09:10
2622268003	**PZ-23**	Water	08/21/19 12:45	08/22/19 09:10
2622268004	**PZ-15**	Water	08/21/19 14:10	08/22/19 09:10

Pace Analytical Services, LLC
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SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2622268

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622268001	**PZ-31**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622268002	**PZ-14**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622268003	**PZ-23**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622268004	**PZ-15**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622268

Sample: PZ-31 **Lab ID: 2622268001** Collected: 08/21/19 09:45 Received: 08/22/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.779 ± 0.387 (0.548) C:93% T:NA**	pCi/L	09/05/19 08:08	13982-63-3	
Radium-228	EPA 9320	**0.423 ± 0.337 (0.669) C:81% T:95%**	pCi/L	09/12/19 11:17	15262-20-1	
Total Radium	Total Radium Calculation	**1.20 ± 0.724 (1.22)**	pCi/L	09/17/19 14:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622268

Sample: PZ-14 **Lab ID: 2622268002** Collected: 08/21/19 11:40 Received: 08/22/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.446 ± 0.271 (0.368) C:94% T:NA**	pCi/L	09/05/19 08:18	13982-63-3	
Radium-228	EPA 9320	**0.259 ± 0.352 (0.751) C:82% T:83%**	pCi/L	09/12/19 11:18	15262-20-1	
Total Radium	Total Radium Calculation	**0.705 ± 0.623 (1.12)**	pCi/L	09/17/19 14:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622268

Sample: PZ-23 **Lab ID: 2622268003** Collected: 08/21/19 12:45 Received: 08/22/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.459 ± 0.289 (0.431) C:89% T:NA**	pCi/L	09/05/19 08:08	13982-63-3	
Radium-228	EPA 9320	**1.85 ± 0.703 (1.10) C:56% T:90%**	pCi/L	09/12/19 10:31	15262-20-1	
Total Radium	Total Radium Calculation	**2.31 ± 0.992 (1.53)**	pCi/L	09/17/19 14:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622268

Sample: PZ-15 **Lab ID: 2622268004** Collected: 08/21/19 14:10 Received: 08/22/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • Upon receipt at the laboratory, 2.5 mls of nitric acid were added to one container to meet the sample preservation requirement of pH <2 for radiological analyses. The sample was preserved <2 within the required 5 days of collection.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.608 ± 0.321 (0.402) C:91% T:NA**	pCi/L	09/05/19 08:08	13982-63-3	
Radium-228	EPA 9320	**1.25 ± 0.558 (0.971) C:80% T:85%**	pCi/L	09/12/19 10:31	15262-20-1	
Total Radium	Total Radium Calculation	**1.86 ± 0.879 (1.37)**	pCi/L	09/17/19 14:18	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622268

QC Batch: 358698 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2622268001, 2622268002, 2622268003, 2622268004

METHOD BLANK: 1741705 Matrix: Water
Associated Lab Samples: 2622268001, 2622268002, 2622268003, 2622268004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.944 ± 0.396 (0.631) C:81% T:90%	pCi/L	09/12/19 10:29	

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

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622268

QC Batch: 359490 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2622268001, 2622268002, 2622268003, 2622268004

METHOD BLANK: 1745579 Matrix: Water
Associated Lab Samples: 2622268001, 2622268002, 2622268003, 2622268004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.243 ± 0.244 (0.474) C:94% T:NA	pCi/L	09/05/19 08:07	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2622268

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2622268

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622268001	**PZ-31**	EPA 9315	359490		
2622268002	**PZ-14**	EPA 9315	359490		
2622268003	**PZ-23**	EPA 9315	359490		
2622268004	**PZ-15**	EPA 9315	359490		
2622268001	**PZ-31**	EPA 9320	358698		
2622268002	**PZ-14**	EPA 9320	358698		
2622268003	**PZ-23**	EPA 9320	358698		
2622268004	**PZ-15**	EPA 9320	358698		
2622268001	**PZ-31**	Total Radium Calculation	361776		
2622268002	**PZ-14**	Total Radium Calculation	361776		
2622268003	**PZ-23**	Total Radium Calculation	361776		
2622268004	**PZ-15**	Total Radium Calculation	361776		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood E&I	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell	Pace Project Manager:	betsy.mcdaniel@pacelabs.com
Requested Due Date:	Standard	Project #:	6123160170	Pace Profile #:	333.6.2

Regulatory Agency: State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N) Y/N	Analyses Test: Metals (Appendix IV) *	Fluoride	Radium 226/228	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	N	N	N	N	
1	PZ-31	WT	G			8/21/19	0945		4	X		X							X	X	X	
2	PZ-14+QC	WT	G				1140		6	X		X							X	X	X	
3	PZ-23	WT	G				1245		4	X		X							X	X	X	
4	PZ-15	WT	G			↓	1410		4	X		X							X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2622268

2622268

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* Metals list: Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Daniel Howard/Wood	8/21/19	1715	MDahlman	8/22/19	0910				
							4.2	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard DATE Signed: 8/21/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

WO#: 2622268

Tracking #: 8121939455370

PM: BM Due Date: 09/20/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 4.2 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/22/19 MP

Temp should be above freezing to 6°C Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.	
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.	
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.	
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.	
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.	
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.	
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.	
Sufficient Volume:	☑Yes ☐No ☐N/A	8.	
Correct Containers Used:	☑Yes ☐No ☐N/A	9.	
-Pace Containers Used:	☑Yes ☐No ☐N/A		
Containers Intact:	☑Yes ☐No ☐N/A	10.	
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.	
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.	
-Includes date/time/ID/Analysis Matrix:	W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.	
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.	
Trip Blank Present:	☐Yes ☐No ☑N/A	16.	
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e. out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

September 20, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2622270

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 22, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2622270

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2622270

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622270001	**PZ-32**	Water	08/20/19 15:03	08/22/19 09:10
2622270002	**PZ-1D**	Water	08/20/19 16:10	08/22/19 09:10

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2622270

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622270001	**PZ-32**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622270002	**PZ-1D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622270

Sample: PZ-32 **Lab ID: 2622270001** Collected: 08/20/19 15:03 Received: 08/22/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.307 ± 0.301 (0.578) C:73% T:NA**	pCi/L	09/05/19 08:08	13982-63-3	
Radium-228	EPA 9320	**0.0268 ± 0.367 (0.841) C:79% T:93%**	pCi/L	09/12/19 11:16	15262-20-1	
Total Radium	Total Radium Calculation	**0.334 ± 0.668 (1.42)**	pCi/L	09/17/19 14:15	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622270

Sample: PZ-1D **Lab ID: 2622270002** Collected: 08/20/19 16:10 Received: 08/22/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.417 ± 0.302 (0.499) C:83% T:NA**	pCi/L	09/05/19 08:08	13982-63-3	
Radium-228	EPA 9320	**0.178 ± 0.317 (0.693) C:79% T:88%**	pCi/L	09/12/19 11:17	15262-20-1	
Total Radium	Total Radium Calculation	**0.595 ± 0.619 (1.19)**	pCi/L	09/17/19 14:15	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622270

QC Batch: 358698 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2622270001, 2622270002

METHOD BLANK: 1741705 Matrix: Water
Associated Lab Samples: 2622270001, 2622270002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.944 ± 0.396 (0.631) C:81% T:90%	pCi/L	09/12/19 10:29	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622270

QC Batch: 359490 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2622270001, 2622270002

METHOD BLANK: 1745579 Matrix: Water
Associated Lab Samples: 2622270001, 2622270002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.243 ± 0.244 (0.474) C:94% T:NA	pCi/L	09/05/19 08:07	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2622270

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2622270

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622270001	**PZ-32**	EPA 9315	359490		
2622270002	**PZ-1D**	EPA 9315	359490		
2622270001	**PZ-32**	EPA 9320	358698		
2622270002	**PZ-1D**	EPA 9320	358698		
2622270001	**PZ-32**	Total Radium Calculation	361774		
2622270002	**PZ-1D**	Total Radium Calculation	361774		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood E&I	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell	Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Requested Due Date:	Standard	Project #:	6122160170	Pace Profile #:	333.6.2

Regulatory Agency: GA

State / Location

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Metals (Appendix IV) *	Fluoride	Radium 226/228	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	N	N	N	N	
1	PZ-32	WT	G			8/20/19	1503		4	X		X							X	X	X	
2	PZ-1D	WT	G			8/20/19	1610		4	X		X							X	X	X	
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2622270

2622270

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* Metals list: Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Daniel Howard/Wood	8/21/19	1715	MRahman	8/22/19	0910	4.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel L Howard DATE Signed: 8/21/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #: _____

WO# : 2622270

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8121 9394 5430

PM: BM Due Date: 09/20/19

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

CLIENT: GAPower-CCR

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used: 83 Type of Ice: ~~Wet~~ Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4.0 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/22/19 AB

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC: -Includes date/time/ID/Analysis Matrix: W	☑Yes ☐No ☐N/A	12.
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

September 23, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2622336

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 23, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2622336

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2622336

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622336001	**FB-01**	Water	08/22/19 08:15	08/23/19 09:10
2622336002	**PZ-33**	Water	08/22/19 10:04	08/23/19 09:10
2622336003	**Dup-02**	Water	08/22/19 00:00	08/23/19 09:10
2622336004	**PZ-19**	Water	08/22/19 12:32	08/23/19 09:10
2622336005	**Dup-01**	Water	08/22/19 00:00	08/23/19 09:10

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2622336

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622336001	**FB-01**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622336002	**PZ-33**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622336003	**Dup-02**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622336004	**PZ-19**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622336005	**Dup-01**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622336

Sample: FB-01 **Lab ID: 2622336001** Collected: 08/22/19 08:15 Received: 08/23/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.461 ± 0.242 (0.330) C:81% T:NA**	pCi/L	09/09/19 08:48	13982-63-3	
Radium-228	EPA 9320	**0.307 ± 0.433 (0.930) C:65% T:80%**	pCi/L	09/19/19 12:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.768 ± 0.675 (1.26)**	pCi/L	09/20/19 12:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622336

Sample: PZ-33 **Lab ID: 2622336002** Collected: 08/22/19 10:04 Received: 08/23/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.407 ± 0.226 (0.309) C:81% T:NA**	pCi/L	09/09/19 08:48	13982-63-3	
Radium-228	EPA 9320	**0.106 ± 0.446 (1.01) C:65% T:80%**	pCi/L	09/19/19 12:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.513 ± 0.672 (1.32)**	pCi/L	09/20/19 12:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622336

Sample: Dup-02 **Lab ID: 2622336003** Collected: 08/22/19 00:00 Received: 08/23/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.623 ± 0.283 (0.360) C:81% T:NA**	pCi/L	09/09/19 08:48	13982-63-3	
Radium-228	EPA 9320	**0.284 ± 0.359 (0.763) C:69% T:88%**	pCi/L	09/19/19 12:09	15262-20-1	
Total Radium	Total Radium Calculation	**0.907 ± 0.642 (1.12)**	pCi/L	09/20/19 12:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622336

Sample: PZ-19 **Lab ID: 2622336004** Collected: 08/22/19 12:32 Received: 08/23/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.422 ± 0.221 (0.295) C:86% T:NA**	pCi/L	09/09/19 08:52	13982-63-3	
Radium-228	EPA 9320	**0.945 ± 0.480 (0.842) C:69% T:80%**	pCi/L	09/19/19 12:09	15262-20-1	
Total Radium	Total Radium Calculation	**1.37 ± 0.701 (1.14)**	pCi/L	09/20/19 12:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622336

Sample: Dup-01 **Lab ID: 2622336005** Collected: 08/22/19 00:00 Received: 08/23/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.632 ± 0.297 (0.408) C:79% T:NA**	pCi/L	09/09/19 08:49	13982-63-3	
Radium-228	EPA 9320	**0.922 ± 0.463 (0.817) C:71% T:82%**	pCi/L	09/19/19 12:09	15262-20-1	
Total Radium	Total Radium Calculation	**1.55 ± 0.760 (1.23)**	pCi/L	09/20/19 12:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622336

QC Batch: 358895 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2622336001, 2622336002, 2622336003, 2622336004, 2622336005

METHOD BLANK: 1742554 Matrix: Water
Associated Lab Samples: 2622336001, 2622336002, 2622336003, 2622336004, 2622336005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.167 ± 0.291 (0.635) C:73% T:86%	pCi/L	09/19/19 12:11	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622336

QC Batch: 359801 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2622336001, 2622336002, 2622336003, 2622336004, 2622336005

METHOD BLANK: 1746802 Matrix: Water
Associated Lab Samples: 2622336001, 2622336002, 2622336003, 2622336004, 2622336005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.563 ± 0.229 (0.205) C:97% T:NA	pCi/L	09/09/19 09:06	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2622336

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2622336

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622336001	**FB-01**	EPA 9315	359801		
2622336002	**PZ-33**	EPA 9315	359801		
2622336003	**Dup-02**	EPA 9315	359801		
2622336004	**PZ-19**	EPA 9315	359801		
2622336005	**Dup-01**	EPA 9315	359801		
2622336001	**FB-01**	EPA 9320	358895		
2622336002	**PZ-33**	EPA 9320	358895		
2622336003	**Dup-02**	EPA 9320	358895		
2622336004	**PZ-19**	EPA 9320	358895		
2622336005	**Dup-01**	EPA 9320	358895		
2622336001	**FB-01**	Total Radium Calculation	362430		
2622336002	**PZ-33**	Total Radium Calculation	362430		
2622336003	**Dup-02**	Total Radium Calculation	362430		
2622336004	**PZ-19**	Total Radium Calculation	362430		
2622336005	**Dup-01**	Total Radium Calculation	362430		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood E&I	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell	Pace Project Manager:	betsy.mcdaniel@pacelabs.com
Requested Due Date:	Standard	Project #:	6122160170	Pace Profile #:	333.6.2

Regulatory Agency: —

State / Location: GA

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX	CODE
Drinking Water	DW
Water	WT
Waste Water	WW
Product	P
Soil/Solid	SL
Oil	OL
Wipe	WP
Air	AR
Other	OT
Tissue	TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Metals (Appendix IV) *	Fluoride	Radium 226/228	Residual Chlorine (Y/N)
																		Y/N	N	N	N	
1	FB-01	WT	G			8/22/19	0815		4	X		X							X	X	X	
2	PZ-33	WT	G				1004		4	X		X							X	X	X	
3	DUP-02	WT	G				—		4	X		X							X	X	X	
4	PZ-19	WT	G				1232		4	X		X							X	X	X	
5	DUP-01	WT	G			↓	—		4	X		X							X	X	X	
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2622336

2622336

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
* Metals list: Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Daniel Howard/Wood	8/22/19	1600	M Lahman	8/23/19	0910				
							4.8	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard DATE Signed: 8/22/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # _____

WO#: 2622336

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 789315479591

PM: BM Due Date: 09/23/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐ no

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used: 83 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature: 4.8 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C Comments:

Date and Initials of person examining contents: 8/23/19 MR

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☐Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

September 23, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2622338

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on August 23, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2622338

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2622338

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622338001	**PZ-7D**	Water	08/22/19 09:25	08/23/19 09:10
2622338002	**PZ-17**	Water	08/22/19 11:10	08/23/19 09:10
2622338003	**PZ-18**	Water	08/22/19 13:50	08/23/19 09:10

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2622338

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622338001	**PZ-7D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622338002	**PZ-17**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622338003	**PZ-18**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622338

Sample: PZ-7D **Lab ID: 2622338001** Collected: 08/22/19 09:25 Received: 08/23/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.304 ± 0.185 (0.267) C:87% T:NA**	pCi/L	09/09/19 08:52	13982-63-3	
Radium-228	EPA 9320	**0.368 ± 0.374 (0.774) C:72% T:86%**	pCi/L	09/19/19 12:10	15262-20-1	
Total Radium	Total Radium Calculation	**0.672 ± 0.559 (1.04)**	pCi/L	09/20/19 12:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622338

Sample: PZ-17 **Lab ID: 2622338002** Collected: 08/22/19 11:10 Received: 08/23/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.452 ± 0.264 (0.428) C:86% T:NA**	pCi/L	09/09/19 08:52	13982-63-3	
Radium-228	EPA 9320	**0.525 ± 0.473 (0.966) C:71% T:78%**	pCi/L	09/19/19 12:10	15262-20-1	
Total Radium	Total Radium Calculation	**0.977 ± 0.737 (1.39)**	pCi/L	09/20/19 12:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622338

Sample: PZ-18 **Lab ID: 2622338003** Collected: 08/22/19 13:50 Received: 08/23/19 09:10 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.288 ± 0.194 (0.300) C:84% T:NA**	pCi/L	09/09/19 08:53	13982-63-3	
Radium-228	EPA 9320	**0.465 ± 0.426 (0.867) C:72% T:77%**	pCi/L	09/19/19 12:10	15262-20-1	
Total Radium	Total Radium Calculation	**0.753 ± 0.620 (1.17)**	pCi/L	09/20/19 12:23	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622338

QC Batch: 358895 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2622338001, 2622338002, 2622338003

METHOD BLANK: 1742554 Matrix: Water
Associated Lab Samples: 2622338001, 2622338002, 2622338003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.167 ± 0.291 (0.635) C:73% T:86%	pCi/L	09/19/19 12:11	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2622338

QC Batch: 359801 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2622338001, 2622338002, 2622338003

METHOD BLANK: 1746802 Matrix: Water
Associated Lab Samples: 2622338001, 2622338002, 2622338003

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.563 ± 0.229 (0.205) C:97% T:NA	pCi/L	09/09/19 09:06	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2622338

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2622338

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622338001	**PZ-7D**	EPA 9315	359801		
2622338002	**PZ-17**	EPA 9315	359801		
2622338003	**PZ-18**	EPA 9315	359801		
2622338001	**PZ-7D**	EPA 9320	358895		
2622338002	**PZ-17**	EPA 9320	358895		
2622338003	**PZ-18**	EPA 9320	358895		
2622338001	**PZ-7D**	Total Radium Calculation	362430		
2622338002	**PZ-17**	Total Radium Calculation	362430		
2622338003	**PZ-18**	Total Radium Calculation	362430		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood E&I	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax	Project Name:	Plant Mitchell	Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Requested Due Date:	Standard	Project #:	6122160170	Pace Profile #:	333,6,2

Regulatory Agency

State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y/N	N N N	
1	PZ-7D	WT	G			8/22/19	0925		4	X		X						Metals (Appendix IV) *	X	
2	PZ-17 + QC	WT	G				1110		6	X		X						Fluoride	X	
3	PZ-18	WT	G			↓	1350		4	X		X						Radium 226/228	X	
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

WO# : 2622338

2622338

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME
* Metals list: Hg, Sb, As, Ba, Be, Cd, Cr, Co, Pb, Li, Mo, Se, Tl	Daniel Howard/Wood	8/22/19	1600	M Rahman	8/23/19	0910

SAMPLE CONDITIONS			
TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
2.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard

DATE Signed: 8/22/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # _____

WO#: 2622338

Courier: ☒ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: 8121 9394 3407

PM: BM Due Date: 09/23/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☒ yes ☐ no Seals intact: ☒ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☒ None ☐ Other _____

Thermometer Used 83 Type of Ice: ~~Wet~~ Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 2.0 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/23/19 MP

Temp should be above freezing to 6°C Comments:

Chain of Custody Present:	☒Yes	☐No	☐N/A	1.
Chain of Custody Filled Out:	☒Yes	☐No	☐N/A	2.
Chain of Custody Relinquished:	☒Yes	☐No	☐N/A	3.
Sampler Name & Signature on COC:	☒Yes	☐No	☐N/A	4.
Samples Arrived within Hold Time:	☒Yes	☐No	☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes	☒No	☐N/A	6.
Rush Turn Around Time Requested:	☐Yes	☒No	☐N/A	7.
Sufficient Volume:	☒Yes	☐No	☐N/A	8.
Correct Containers Used:	☒Yes	☐No	☐N/A	9.
-Pace Containers Used:	☒Yes	☐No	☐N/A	
Containers Intact:	☒Yes	☐No	☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes	☐No	☒N/A	11.
Sample Labels match COC:	☒Yes	☐No	☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W				
All containers needing preservation have been checked.	☒Yes	☐No	☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☒Yes	☐No	☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes	☒No		Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes	☐No	☒N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes	☐No	☒N/A	15.
Trip Blank Present:	☐Yes	☐No	☒N/A	16.
Trip Blank Custody Seals Present	☐Yes	☐No	☒N/A	
Pace Trip Blank Lot # (if purchased): _____				

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Product Name: Low-Flow System

Date: 2019-08-20 16:07:25

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-1D	Tubing Length	81.7
ftLatitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	76.7 ft

Well Information:		Pumping Information:	
Well ID	PZ-1D	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.6788166 L
Well Total Depth	81.71 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	53.92 ft	Total Volume Pumped	11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond mS/	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 1%	+/- 0.1%	+/- 5%	+/- 5%		+/- 0.2%	+/- 10%
Last 5	15:44:02	2146.26	22.17	7.76	0.24	2.26	56.96	3.92	76.94
Last 5	15:49:02	2446.26	22.68	7.79	0.23	2.23	56.96	3.79	76.02
Last 5	15:54:02	2746.26	23.30	7.82	0.23	1.53	56.96	3.74	75.04
Last 5	15:59:02	3046.26	23.33	7.86	0.24	1.41	56.96	3.86	75.96
Last 5	16:04:02	3346.26	22.89	7.87	0.24	1.56	56.96	4.00	76.06
Variance 0			0.62	0.03	0.00			-0.05	-0.98
Variance 1			0.03	0.04	0.00			0.12	0.92
Variance 2			-0.43	0.01	0.00			0.14	0.10

Notes

Sampled @ 1610

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-21 09:21:24

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Mocro Bladder
Company Name	Wood E&I S	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.17 in
Site Name	PZ-2D	Tubing Length	81 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	478733		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	76 ft

Well Information:		Pumping Information:	
Well ID	PZ-2D	Final Pumping Rate	0 mL/min
Well diameter	2 in	Total System Volume	0.5515373 L
Well Total Depth	80.96 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	37.15 ft	Total Volume Pumped	0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:00:19	600.03	21.41	8.57	118.04	5.09	37.44	3.24	111.34
Last 5	09:05:19	900.03	21.30	8.63	124.01	4.46	37.44	3.22	122.29
Last 5	09:10:19	1200.02	21.47	8.66	129.31	3.59	37.44	3.17	125.90
Last 5	09:15:19	1500.02	21.58	8.67	133.88	3.00	37.44	3.11	128.80
Last 5	09:20:19	1799.88	21.36	8.68	136.68	3.27	37.44	3.08	126.70
Variance 0			0.17	0.03	5.31			-0.06	3.61
Variance 1			0.11	0.01	4.56			-0.06	2.91
Variance 2			-0.22	0.01	2.80			-0.03	-2.11

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-21 09:54:24

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micro Bladder
Company Name	Wood E&I S	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.17 in
Site Name	PZ-2D	Tubing Length	81 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	478733		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	76 ft

Well Information:		Pumping Information:	
Well ID	PZ-2D	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.5515373 L
Well Total Depth	80.96 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	37.15 ft	Total Volume Pumped	12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:30:45	300.03	21.61	8.74	141.14	2.51	37.44	3.01	127.80
Last 5	09:35:45	600.02	21.30	8.73	143.83	3.27	37.44	2.99	125.79
Last 5	09:40:45	900.02	21.36	8.76	143.61	2.72	37.44	2.97	124.56
Last 5	09:45:45	1200.02	21.49	8.77	146.35	3.23	37.44	2.96	124.66
Last 5	09:50:45	1500.02	21.45	8.76	147.78	2.90	37.44	2.95	125.23
Variance 0			0.06	0.04	-0.22			-0.01	-1.24
Variance 1			0.14	0.01	2.74			-0.01	0.11
Variance 2			-0.05	-0.00	1.43			-0.01	0.57

Notes

PZ-2D sample time 1052

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-22 09:24:27

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ 7D	Tubing Length	60.37 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	55.37 ft

Well Information:		Pumping Information:	
Well ID	PZ 7D	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.062735 L
Well Total Depth	60.37 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	35.34 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:02:22	900.03	21.60	7.38	552.14	1.61	35.17	0.34	53.80
Last 5	09:07:22	1199.90	21.68	7.35	552.24	1.38	35.17	0.35	53.88
Last 5	09:12:22	1499.91	21.85	7.34	552.07	1.19	35.17	0.36	53.70
Last 5	09:17:22	1799.90	21.81	7.32	551.54	1.06	35.17	0.35	53.72
Last 5	09:22:22	2099.90	21.76	7.31	552.49	0.95	35.17	0.33	53.42
Variance 0			0.17	-0.02	-0.17			0.00	-0.18
Variance 1			-0.04	-0.01	-0.53			-0.01	0.03
Variance 2			-0.05	-0.01	0.95			-0.02	-0.30

Notes

Sampled @ 0925

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-21 11:37:49

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ 14	Tubing Length	53.20 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	48.20 ft

Well Information:		Pumping Information:	
Well ID	PZ 14	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.9935253 L
Well Total Depth	53.20 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	45.58 ft	Total Volume Pumped	10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:14:32	1849.03	22.58	7.34	488.25	0.87	45.64	4.04	76.34
Last 5	11:19:32	2149.02	22.75	7.33	488.75	1.01	45.64	3.81	75.69
Last 5	11:24:32	2449.03	23.10	7.31	490.23	0.64	45.64	3.72	75.60
Last 5	11:29:33	2750.02	22.93	7.32	489.19	0.84	45.64	3.67	75.20
Last 5	11:34:33	3050.02	22.84	7.31	488.97	0.74	45.64	3.64	75.25
Variance 0			0.35	-0.02	1.47			-0.09	-0.09
Variance 1			-0.17	0.01	-1.04			-0.05	-0.39
Variance 2			-0.09	-0.00	-0.22			-0.03	0.05

Notes

Sampled @ 1140

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-21 14:09:44

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ 15	Tubing Length	83.22 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	78.22 ft

Well Information:		Pumping Information:	
Well ID	PZ 15	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.2833 L
Well Total Depth	83.22 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	32.88 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:46:24	899.90	26.62	7.51	510.60	2.66	33.78	0.19	-39.82
Last 5	13:51:24	1199.90	26.31	7.51	509.00	1.90	33.78	0.18	-38.27
Last 5	13:56:24	1499.89	26.13	7.51	511.39	1.52	33.78	0.19	-37.22
Last 5	14:01:24	1799.90	25.93	7.50	513.31	1.44	33.78	0.19	-37.81
Last 5	14:06:24	2099.95	26.00	7.51	509.87	1.63	33.78	0.19	-41.24
Variance 0			-0.18	0.00	2.39			0.01	1.05
Variance 1			-0.20	-0.01	1.92			0.00	-0.59
Variance 2			0.07	0.01	-3.43			-0.00	-3.43

Notes

Sampled @ 1410

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-21 12:18:55

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micro Bladder
Company Name	Wood E&I S	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-16	Tubing Length	53.2 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	478733		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	48.2 ft

Well Information:		Pumping Information:	
Well ID	PZ-16	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.9935253 L
Well Total Depth	53.19 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.12 in
Depth to Water	36.81 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:55:40	600.03	23.66	7.21	484.34	2.77	36.93	1.33	172.09
Last 5	12:00:40	900.02	23.60	7.22	483.01	2.95	36.93	1.32	173.20
Last 5	12:05:40	1200.02	23.86	7.22	482.74	1.79	36.93	1.30	172.35
Last 5	12:10:40	1499.86	23.69	7.23	481.99	1.07	36.93	1.30	170.69
Last 5	12:15:40	1799.86	23.53	7.23	480.56	0.54	36.93	1.30	170.29
Variance 0			0.27	0.00	-0.26			-0.02	-0.85
Variance 1			-0.18	0.00	-0.75			-0.01	-1.65
Variance 2			-0.16	0.00	-1.43			0.01	-0.40

Notes

PZ-16 sample time 1316

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-22 11:05:47

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ 17	Tubing Length	62.70 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	57.70 ft

Well Information:		Pumping Information:	
Well ID	PZ 17	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.085226 L
Well Total Depth	62.70 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	34.82 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:43:10	1500.03	22.85	7.25	593.71	7.12	34.92	0.12	-45.00
Last 5	10:48:10	1800.03	22.98	7.24	592.00	5.82	34.92	0.12	-43.07
Last 5	10:53:10	2100.03	23.06	7.24	593.68	5.39	34.92	0.13	-43.22
Last 5	10:58:11	2401.03	23.01	7.24	592.75	3.06	34.92	0.13	-42.63
Last 5	11:03:11	2701.03	22.97	7.24	592.18	1.77	34.92	0.13	-42.49
Variance 0			0.08	-0.01	1.68			0.01	-0.15
Variance 1			-0.05	0.00	-0.93			0.00	0.60
Variance 2			-0.04	0.00	-0.57			0.00	0.14

Notes

Sampled @ 1110

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-22 13:46:14

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ 18	Tubing Length	63.18 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58.18 ft

Well Information:		Pumping Information:	
Well ID	PZ 18	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.08986 L
Well Total Depth	63.18 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	32.19 ft	Total Volume Pumped	9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:22:50	1501.91	26.83	7.02	629.50	8.69	32.39	0.21	11.92
Last 5	13:27:50	1801.91	27.29	7.02	626.61	4.26	32.39	0.19	11.46
Last 5	13:32:50	2101.91	26.54	7.03	622.87	1.84	32.39	0.18	12.97
Last 5	13:37:50	2401.91	26.95	7.02	627.59	0.92	32.39	0.18	11.17
Last 5	13:42:50	2701.91	26.55	7.02	623.33	1.12	32.39	0.19	13.66
Variance 0			-0.75	0.01	-3.74			-0.01	1.51
Variance 1			0.41	-0.01	4.73			0.00	-1.80
Variance 2			-0.40	-0.00	-4.27			0.00	2.49

Notes

Sampled @ 1350

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-22 11:35:46

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micro Bladder
Company Name	Wood E&I S	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-19	Tubing Length	62.6 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	478733		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	57.6 ft

Well Information:		Pumping Information:	
Well ID	PZ-19	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.084261 L
Well Total Depth	62.63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.09 in
Depth to Water	34.52 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:10:10	599.87	23.98	6.73	856.60	2.04	34.61	0.46	62.44
Last 5	11:15:10	899.87	24.09	6.73	856.07	1.59	34.61	0.45	61.58
Last 5	11:20:10	1199.87	24.10	6.73	851.00	1.72	34.61	0.44	61.00
Last 5	11:25:10	1499.87	24.05	6.73	848.11	1.21	34.61	0.43	59.98
Last 5	11:30:10	1799.87	24.00	6.73	848.17	1.10	34.61	0.42	58.40
Variance 0			0.01	-0.00	-5.07			-0.01	-0.58
Variance 1			-0.05	0.01	-2.90			-0.01	-1.02
Variance 2			-0.05	-0.00	0.07			-0.01	-1.59

Notes

PZ-19 sample time 1232. DUP-01 collected.

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-21 12:44:54

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ 23	Tubing Length	63.60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58.60 ft

Well Information:		Pumping Information:	
Well ID	PZ **23**	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.093914 L
Well Total Depth	63.60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	52.84 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	12:20:50	300.10	23.33	7.14	671.82	0.94	52.61	4.34	84.68
Last 5	12:25:50	600.02	23.33	7.11	674.32	0.61	52.61	4.36	84.22
Last 5	12:30:50	900.02	23.27	7.08	673.80	0.62	52.61	4.40	84.27
Last 5	12:35:50	1200.02	23.44	7.07	671.30	0.58	52.61	4.37	84.49
Last 5	12:40:50	1499.88	23.14	7.08	669.41	0.56	52.61	4.38	84.28
Variance 0			-0.06	-0.02	-0.52			0.03	0.05
Variance 1			0.17	-0.01	-2.49			-0.02	0.22
Variance 2			-0.31	0.00	-1.89			0.00	-0.20

Notes

Sampled @ 1245 (PZ 23)

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-21 13:43:32

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micro Bladder
Company Name	Wood E&I S	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-25	Tubing Length	63.2 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	478733		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58.2 ft

Well Information:		Pumping Information:	
Well ID	PZ-25	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.090053 L
Well Total Depth	63.19 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.48 in
Depth to Water	32.89 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:20:26	600.03	23.09	7.10	499.49	0.52	33.37	0.76	-111.01
Last 5	13:25:26	900.03	22.88	7.09	498.30	0.52	33.37	0.51	-120.16
Last 5	13:30:26	1200.03	22.74	7.09	498.93	0.25	33.37	0.43	-123.81
Last 5	13:35:26	1500.03	22.71	7.09	499.76	0.67	33.37	0.37	-126.37
Last 5	13:40:26	1800.02	22.87	7.09	500.00	0.32	33.37	0.38	-125.21
Variance 0			-0.14	-0.00	0.63			-0.09	-3.66
Variance 1			-0.03	0.00	0.83			-0.06	-2.56
Variance 2			0.16	-0.01	0.25			0.00	1.16

Notes

PZ-25 sample time 1442

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-21 09:46:28

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ 31	Tubing Length	61.6 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	56.6 ft

Well Information:		Pumping Information:	
Well ID	PZ 31	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.074608 L
Well Total Depth	61.60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	40.73 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:22:56	300.17	21.30	7.39	427.88	1.28	41.73	4.79	90.60
Last 5	09:27:56	600.03	21.21	7.42	428.20	0.76	41.73	4.82	82.71
Last 5	09:32:56	900.02	21.15	7.43	428.17	0.78	41.73	4.82	82.84
Last 5	09:37:56	1200.03	21.14	7.44	427.98	0.69	41.73	4.79	79.76
Last 5	09:42:56	1499.90	21.21	7.44	428.30	0.77	41.73	4.78	77.48
Variance 0			-0.06	0.01	-0.03			-0.00	0.12
Variance 1			-0.01	0.01	-0.19			-0.02	-3.07
Variance 2			0.07	-0.00	0.32			-0.02	-2.29

Notes

Sampled @ 0945

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-20 14:06:00

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micro Bladder
Company Name	Wood E&I S	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-32	Tubing Length	65.3 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	478733		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	60.3 ft

Well Information:		Pumping Information:	
Well ID	PZ-32	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.110323 L
Well Total Depth	65.3 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	39.64 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:42:31	900.02	20.55	7.35	340.22	2.78	39.62	1.01	109.56
Last 5	13:47:31	1200.02	20.56	7.35	339.60	2.32	39.62	0.83	110.29
Last 5	13:52:31	1500.02	20.58	7.36	339.22	1.35	39.62	0.80	108.14
Last 5	13:57:31	1800.03	20.56	7.36	338.67	0.83	39.62	0.79	106.95
Last 5	14:02:31	2100.02	20.65	7.36	339.05	1.10	39.62	0.78	106.31
Variance 0			0.02	0.00	-0.38			-0.03	-2.15
Variance 1			-0.02	0.00	-0.55			-0.01	-1.19
Variance 2			0.09	0.00	0.38			-0.02	-0.63

Notes

PZ-32 sample time 1503

Grab Samples

Product Name: Low-Flow System

Date: 2019-08-22 09:08:58

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micro Bladder
Company Name	Wood E&I S	Tubing Type	LDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-33	Tubing Length	73.6 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	478733		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	68.6 ft

Well Information:		Pumping Information:	
Well ID	PZ-33	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.190441 L
Well Total Depth	73.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.02 in
Depth to Water	51.23 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	08:42:16	600.03	22.83	6.89	656.72	0.42	51.24	0.68	60.34
Last 5	08:47:16	900.03	22.88	6.90	659.53	0.29	51.24	0.57	63.46
Last 5	08:52:16	1200.03	23.01	6.92	658.54	0.35	51.24	0.49	63.44
Last 5	08:57:16	1500.03	22.76	6.94	657.52	0.91	51.25	0.46	62.50
Last 5	09:02:16	1800.02	22.61	6.94	661.91	1.76	51.25	0.45	61.23
Variance 0			0.13	0.02	-0.99			-0.08	-0.03
Variance 1			-0.25	0.01	-1.03			-0.03	-0.93
Variance 2			-0.15	0.01	4.40			-0.01	-1.27

Notes

PZ-33 sample time 1004. DUP-02 collected.

Grab Samples

Well ID	Sample Date	Purge Volume (liter)	Time Elapsed	DTW (feet, TOC)	Drawdown (feet)	Temperature (C)	pH (su)	Specific Conductance (uS/cm)	Turbidity (NTU)	DO (mg/L)	ORP (mV)
PZ-1D	10/1/2019	8.0	2400	55.86	0	22.3	7.5	250.5	0.8	3.9	71.3
PZ-2D	10/2/2019	7.0	2100	39.42	0.01	20.2	9.0	132.8	3.2	2.6	97.4
PZ-7D	10/3/2019	5.0	1500	37.15	0	21.7	6.9	612.8	0.6	0.3	58.8
PZ-14	10/2/2019	13.0	3900	46.72	0	22.6	7.0	524.5	0.5	4.1	63.9
PZ-15	10/2/2019	7.0	2100	34.87	0.02	24.2	7.2	531.4	1.2	0.2	-67.6
PZ-16	10/2/2019	6.0	1801	38.13	0	21.7	7.2	472.9	0.6	1.1	63.4
PZ-17	10/2/2019	7.0	2100	36.65	0	22.0	7.0	651.5	0.2	0.2	-66.7
PZ-18	10/3/2019	6.0	1800	33.97	0	22.2	6.8	682.3	0.5	0.2	-2.2
PZ-19	10/3/2019	6.0	1800	35.91	0.01	23.6	6.9	721.1	0.6	0.2	25.3
PZ-23	9/10/2019	7.0	2101	52.54	0	22.2	6.8	740.6	0.3	4.3	92.9
PZ-25	10/2/2019	6.0	1800	34.66	0.01	23.1	7.2	466.5	0.3	0.1	-93.5
PZ-31	10/2/2019	6.0	2400	42.56	0	21.1	7.1	458.9	0.5	4.9	63.1
PZ-32	10/1/2019	6.0	1800	41.57	0	20.9	7.4	321.5	0.2	0.5	70.9
PZ-33	10/3/2019	7.0	2100	52.54	0.02	21.9	7.0	618.2	0.2	0.3	20.0

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 19, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2623917

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2623917

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2623917

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623917001	**PZ-14+QC**	Water	10/02/19 12:30	10/03/19 09:30
2623917002	**PZ-25**	Water	10/02/19 13:15	10/03/19 09:30
2623917003	**Dup-02**	Water	10/02/19 00:00	10/03/19 09:30
2623917004	**PZ-15**	Water	10/02/19 15:23	10/03/19 09:30

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SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2623917

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623917001	**PZ-14+QC**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623917002	**PZ-25**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623917003	**Dup-02**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623917004	**PZ-15**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623917

Sample: PZ-14+QC **Lab ID: 2623917001** Collected: 10/02/19 12:30 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 19:10	7440-36-0	
Arsenic	**0.00083J**	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 19:10	7440-38-2	
Barium	**0.017**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 19:10	7440-39-3	
Boron	**0.021J**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 19:10	7440-42-8	
Calcium	**103**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 19:16	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 19:10	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 19:10	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 19:10	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 19:10	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 19:10	7439-98-7	
Selenium	**0.0015J**	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 19:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 19:10	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**312**	mg/L	10.0	10.0	1		10/08/19 21:36		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**5.4**	mg/L	1.0	0.024	1		10/09/19 17:05	16887-00-6	
Fluoride	**0.056J**	mg/L	0.30	0.029	1		10/09/19 17:05	16984-48-8	
Sulfate	**6.2**	mg/L	1.0	0.017	1		10/09/19 17:05	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623917

Sample: PZ-25 **Lab ID: 2623917002** Collected: 10/02/19 13:15 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 19:22	7440-36-0	
Arsenic	**0.00063J**	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 19:22	7440-38-2	
Barium	**0.11**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 19:22	7440-39-3	
Boron	**0.21**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 19:22	7440-42-8	
Calcium	**92.3**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 19:27	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 19:22	7440-47-3	
Cobalt	**0.0017J**	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 19:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 19:22	7439-92-1	
Lithium	**0.0074J**	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 19:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 19:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 19:22	7782-49-2	
Thallium	**0.00024J**	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 19:22	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**312**	mg/L	10.0	10.0	1		10/09/19 20:06		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**2.6**	mg/L	1.0	0.024	1		10/09/19 17:27	16887-00-6	
Fluoride	**0.16J**	mg/L	0.30	0.029	1		10/09/19 17:27	16984-48-8	
Sulfate	**43.0**	mg/L	1.0	0.017	1		10/09/19 17:27	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623917

Sample: Dup-02 **Lab ID: 2623917003** Collected: 10/02/19 00:00 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 19:33	7440-36-0	
Arsenic	**0.00045J**	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 19:33	7440-38-2	
Barium	**0.12**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 19:33	7440-39-3	
Boron	**0.21**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 19:33	7440-42-8	
Calcium	**93.2**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 19:39	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 19:33	7440-47-3	
Cobalt	**0.0017J**	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 19:33	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 19:33	7439-92-1	
Lithium	**0.0078J**	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 19:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 19:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 19:33	7782-49-2	
Thallium	**0.00024J**	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 19:33	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**315**	mg/L	10.0	10.0	1		10/09/19 20:06		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**2.6**	mg/L	1.0	0.024	1		10/09/19 17:48	16887-00-6	
Fluoride	**0.17J**	mg/L	0.30	0.029	1		10/09/19 17:48	16984-48-8	
Sulfate	**42.9**	mg/L	1.0	0.017	1		10/09/19 17:48	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623917

Sample: PZ-15 **Lab ID: 2623917004** Collected: 10/02/19 15:23 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 19:56	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 19:56	7440-38-2	
Barium	**0.049**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 19:56	7440-39-3	
Boron	**0.17**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 19:56	7440-42-8	
Calcium	**101**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 20:02	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 19:56	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 19:56	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 19:56	7439-92-1	
Lithium	**0.0013J**	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 19:56	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 19:56	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 19:56	7782-49-2	
Thallium	**0.00016J**	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 19:56	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**355**	mg/L	10.0	10.0	1		10/09/19 20:06		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**8.0**	mg/L	1.0	0.024	1		10/09/19 18:09	16887-00-6	
Fluoride	**0.075J**	mg/L	0.30	0.029	1		10/09/19 18:09	16984-48-8	
Sulfate	**83.0**	mg/L	5.0	0.085	5		10/10/19 13:47	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623917

QC Batch: 36528 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623917001, 2623917002, 2623917003, 2623917004

METHOD BLANK: 165101 Matrix: Water
Associated Lab Samples: 2623917001, 2623917002, 2623917003, 2623917004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/08/19 17:42	
Arsenic	mg/L	ND	0.0050	0.00035	10/08/19 17:42	
Barium	mg/L	ND	0.010	0.00049	10/08/19 17:42	
Boron	mg/L	ND	0.040	0.0049	10/08/19 17:42	
Calcium	mg/L	ND	0.10	0.011	10/08/19 17:42	
Chromium	mg/L	ND	0.010	0.00039	10/08/19 17:42	
Cobalt	mg/L	ND	0.0050	0.00030	10/08/19 17:42	
Lead	mg/L	ND	0.0050	0.000046	10/08/19 17:42	
Lithium	mg/L	ND	0.030	0.00078	10/08/19 17:42	
Molybdenum	mg/L	ND	0.010	0.00095	10/08/19 17:42	
Selenium	mg/L	ND	0.010	0.0013	10/08/19 17:42	
Thallium	mg/L	ND	0.0010	0.000052	10/08/19 17:42	

LABORATORY CONTROL SAMPLE: 165102

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.1	109	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.11	111	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103 165104

Parameter	Units	2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.098	0.10	98	103	75-125	5	20	
Arsenic	mg/L	0.00071J	0.1	0.1	0.095	0.10	94	100	75-125	6	20	
Barium	mg/L	0.071	0.1	0.1	0.17	0.17	94	101	75-125	4	20	
Boron	mg/L	0.018J	1	1	0.99	1.0	97	102	75-125	5	20	
Calcium	mg/L	37.2	1	1	35.7	37.8	-144	63	75-125	6	20	M6

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623917

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103 165104

Parameter	Units	2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.091	0.097	91	97	75-125	6	20	
Cobalt	mg/L	0.00041J	0.1	0.1	0.093	0.098	93	97	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	5	20	
Lithium	mg/L	0.018J	0.1	0.1	0.12	0.12	100	103	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.095	0.10	95	103	75-125	7	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.099	93	98	75-125	5	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623917

QC Batch: 36680
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623917001

LABORATORY CONTROL SAMPLE: 165650

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	398	100	84-108	

SAMPLE DUPLICATE: 165651

Parameter	Units	2623876009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	25.0	25.0	0	10	

SAMPLE DUPLICATE: 165652

Parameter	Units	2623879002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	103	98.0	5	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623917

QC Batch: 36765 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623917002, 2623917003, 2623917004

LABORATORY CONTROL SAMPLE: 166031

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	409	102	84-108	

SAMPLE DUPLICATE: 166032

Parameter	Units	2623917002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	312	305	2	10	

SAMPLE DUPLICATE: 166033

Parameter	Units	2623927002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	84.0	95.0	12	10	D6

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623917

QC Batch: 36695 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623917001, 2623917002, 2623917003, 2623917004

METHOD BLANK: 165707 Matrix: Water
Associated Lab Samples: 2623917001, 2623917002, 2623917003, 2623917004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.030J	1.0	0.024	10/09/19 15:19	
Fluoride	mg/L	ND	0.30	0.029	10/09/19 15:19	
Sulfate	mg/L	ND	1.0	0.017	10/09/19 15:19	

LABORATORY CONTROL SAMPLE: 165708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165709 165710

Parameter	Units	2623903001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	118	10	10	91.0	91.1	-269	-269	90-110	0	15	
Fluoride	mg/L	1.1	10	10	11.2	11.2	101	101	90-110	0	15	
Sulfate	mg/L	47.3	10	10	52.5	52.5	52	53	90-110	0	15	

MATRIX SPIKE SAMPLE: 165711

Parameter	Units	2623921001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.3	10	14.4	101	90-110	
Fluoride	mg/L	0.057J	10	10.7	106	90-110	
Sulfate	mg/L	1.6	10	11.9	104	90-110	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2623917

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2623917

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623917001	**PZ-14+QC**	EPA 3005A	36528	EPA 6020B	36530
2623917002	**PZ-25**	EPA 3005A	36528	EPA 6020B	36530
2623917003	**Dup-02**	EPA 3005A	36528	EPA 6020B	36530
2623917004	**PZ-15**	EPA 3005A	36528	EPA 6020B	36530
2623917001	**PZ-14+QC**	SM 2540C	36680		
2623917002	**PZ-25**	SM 2540C	36765		
2623917003	**Dup-02**	SM 2540C	36765		
2623917004	**PZ-15**	SM 2540C	36765		
2623917001	**PZ-14+QC**	EPA 300.0	36695		
2623917002	**PZ-25**	EPA 300.0	36695		
2623917003	**Dup-02**	EPA 300.0	36695		
2623917004	**PZ-15**	EPA 300.0	36695		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : | Of |

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood PLC	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell CCR	Pace Project Manager:	betsy.mcdaniel@pacelabs.com
Requested Due Date:	Standard	Project #:	6122160178	Pace Profile #:	333.1.2

Regulatory Agency: | State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	N	N	N	N	
1	PZ-14 + QC	WT	G			10/2/19	1230		6	X		X							X	X	X	
2	PZ-25	WT	G				1315		4	X	DUP	X							X	X	X	
3	DUP-02	WT	G				—		4	X		X							X	X	X	
4	PZ-15	WT	G			↓	1523		4	X		X							X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2623917

2623917

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App III metals: B, Ca	Daniel Howard/Wood	10/2/19	1800	M Zalman	10/3/19	0930	0.5
App IV metals: Sb, As, Be, Cr, Co, Pb, Li Mo, Se, Tl							Y
							Y
							Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel L Howard DATE Signed: 10/2/19

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #

WO#: 2623917

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8121 9394 5429

PM: BM Due Date: 10/10/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.5 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/03/19 MP

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☐Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present.	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 19, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 11, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

This report replaces the report issued on September 19, 2019. This report was revised to correct the Fluoride reporting limit as 0.3 mg/L in accordance with GPC contract specifications. No other changes have been made to this report

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services Asheville
2225 Riverside Drive, Asheville, NC 28804
Florida/NELAP Certification #: E87648
Massachusetts Certification #: M-NC030
North Carolina Drinking Water Certification #: 37712
North Carolina Wastewater Certification #: 40
South Carolina Certification #: 99030001
Virginia/VELAP Certification #: 460222

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622942001	**EB-01**	Water	09/10/19 08:10	09/11/19 09:00
2622942002	**PZ-23**	Water	09/10/19 09:47	09/11/19 09:00

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SAMPLE ANALYTE COUNT

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622942001	**EB-01**	EPA 6020B	CSW	12	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2622942002	**PZ-23**	EPA 6020B	CSW	12	PASI-GA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

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ANALYTICAL RESULTS

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

Sample: EB-01 **Lab ID: 2622942001** Collected: 09/10/19 08:10 Received: 09/11/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/12/19 14:21	09/16/19 19:26	7440-36-0	
Arsenic	**0.00058J**	mg/L	0.0050	0.00035	1	09/12/19 14:21	09/16/19 19:26	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	09/12/19 14:21	09/16/19 19:26	7440-39-3	
Boron	ND	mg/L	0.040	0.0049	1	09/12/19 14:21	09/16/19 19:26	7440-42-8	
Calcium	ND	mg/L	0.10	0.011	1	09/12/19 14:21	09/16/19 19:26	7440-70-2	
Chromium	**0.00053J**	mg/L	0.010	0.00039	1	09/12/19 14:21	09/16/19 19:26	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	09/12/19 14:21	09/16/19 19:26	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	09/12/19 14:21	09/16/19 19:26	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	09/12/19 14:21	09/16/19 19:26	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	09/12/19 14:21	09/16/19 19:26	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	09/12/19 14:21	09/16/19 19:26	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/12/19 14:21	09/16/19 19:26	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		09/16/19 13:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	ND	mg/L	1.0	0.60	1		09/14/19 15:12	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		09/14/19 15:12	16984-48-8	
Sulfate	**0.64J**	mg/L	1.0	0.50	1		09/14/19 15:12	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

Sample: PZ-23 **Lab ID: 2622942002** Collected: 09/10/19 09:47 Received: 09/11/19 09:00 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	09/12/19 14:21	09/16/19 19:31	7440-36-0	
Arsenic	**0.00036J**	mg/L	0.0050	0.00035	1	09/12/19 14:21	09/16/19 19:31	7440-38-2	
Barium	**0.029**	mg/L	0.010	0.00049	1	09/12/19 14:21	09/16/19 19:31	7440-39-3	
Boron	**0.15**	mg/L	0.040	0.0049	1	09/12/19 14:21	09/16/19 19:31	7440-42-8	
Calcium	**137**	mg/L	5.0	0.55	50	09/12/19 14:21	09/16/19 19:37	7440-70-2	
Chromium	**0.0044J**	mg/L	0.010	0.00039	1	09/12/19 14:21	09/16/19 19:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	09/12/19 14:21	09/16/19 19:31	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	09/12/19 14:21	09/16/19 19:31	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	09/12/19 14:21	09/16/19 19:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	09/12/19 14:21	09/16/19 19:31	7439-98-7	
Selenium	**0.0018J**	mg/L	0.010	0.0013	1	09/12/19 14:21	09/16/19 19:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	09/12/19 14:21	09/16/19 19:31	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**420**	mg/L	10.0	10.0	1		09/16/19 13:00		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993								
Chloride	**3.8**	mg/L	1.0	0.60	1		09/14/19 15:27	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		09/14/19 15:27	16984-48-8	
Sulfate	**45.1**	mg/L	1.0	0.50	1		09/14/19 15:27	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

QC Batch: 35185 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622942001, 2622942002

METHOD BLANK: 158382 Matrix: Water
Associated Lab Samples: 2622942001, 2622942002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	09/16/19 17:20	
Arsenic	mg/L	ND	0.0050	0.00035	09/16/19 17:20	
Barium	mg/L	ND	0.010	0.00049	09/16/19 17:20	
Boron	mg/L	ND	0.040	0.0049	09/16/19 17:20	
Calcium	mg/L	ND	0.10	0.011	09/16/19 17:20	
Chromium	mg/L	ND	0.010	0.00039	09/16/19 17:20	
Cobalt	mg/L	ND	0.0050	0.00030	09/16/19 17:20	
Lead	mg/L	ND	0.0050	0.000046	09/16/19 17:20	
Lithium	mg/L	ND	0.030	0.00078	09/16/19 17:20	
Molybdenum	mg/L	ND	0.010	0.00095	09/16/19 17:20	
Selenium	mg/L	ND	0.010	0.0013	09/16/19 17:20	
Thallium	mg/L	ND	0.0010	0.000052	09/16/19 17:20	

LABORATORY CONTROL SAMPLE: 158383

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.097	97	80-120	
Arsenic	mg/L	0.1	0.097	97	80-120	
Barium	mg/L	0.1	0.097	97	80-120	
Boron	mg/L	1	0.96	96	80-120	
Calcium	mg/L	1	0.94	94	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.098	98	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.095	95	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 158384 158385

Parameter	Units	2622907001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	0.00079J	0.1	0.1	0.097	0.10	97	99	75-125	2	20	
Arsenic	mg/L	0.00043J	0.1	0.1	0.098	0.099	97	99	75-125	2	20	
Barium	mg/L	0.015	0.1	0.1	0.11	0.11	96	98	75-125	2	20	
Boron	mg/L	ND	1	1	0.95	0.98	95	98	75-125	4	20	
Calcium	mg/L	11.3	1	1	12.5	12.5	121	115	75-125	0	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 158384 158385

Parameter	Units	2622907001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.098	0.10	98	100	75-125	2	20	
Cobalt	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	2	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.097	95	97	75-125	2	20	
Lithium	mg/L	ND	0.1	0.1	0.096	0.10	95	100	75-125	5	20	
Molybdenum	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.098	94	98	75-125	4	20	
Thallium	mg/L	ND	0.1	0.1	0.097	0.098	97	98	75-125	1	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

QC Batch: 35360 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2622942001, 2622942002

LABORATORY CONTROL SAMPLE: 159298

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	399	100	84-108	

SAMPLE DUPLICATE: 159299

Parameter	Units	2622885003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	2560	2560	0	10	

SAMPLE DUPLICATE: 159300

Parameter	Units	2623137006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	ND	ND		10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

QC Batch: 497758
QC Batch Method: EPA 300.0 Rev 2.1 1993
Analysis Method: EPA 300.0 Rev 2.1 1993
Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2622942001, 2622942002

METHOD BLANK: 2680201 Matrix: Water
Associated Lab Samples: 2622942001, 2622942002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	09/14/19 11:57	
Fluoride	mg/L	ND	0.10	0.050	09/14/19 11:57	
Sulfate	mg/L	ND	1.0	0.50	09/14/19 11:57	

LABORATORY CONTROL SAMPLE: 2680202

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.5	95	90-110	
Fluoride	mg/L	2.5	2.3	92	90-110	
Sulfate	mg/L	50	47.1	94	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2680203 2680204

Parameter	Units	2622846001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	150	50	50	193	192	84	83	90-110	0	10	M1
Fluoride	mg/L	1.1	2.5	2.5	3.3	3.3	88	88	90-110	0	10	M1
Sulfate	mg/L	9.4	50	50	55.8	55.0	93	91	90-110	1	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2680205 2680206

Parameter	Units	92444906011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.5	50	50	54.8	52.1	106	101	90-110	5	10	
Fluoride	mg/L	0.055J	2.5	2.5	2.7	2.6	105	101	90-110	4	10	
Sulfate	mg/L	0.59J	50	50	52.5	50.2	104	99	90-110	4	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

LABORATORIES

PASI-A	Pace Analytical Services - Asheville
PASI-GA	Pace Analytical Services - Atlanta, GA

ANALYTE QUALIFIERS

M1	Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622942001	**EB-01**	EPA 3005A	35185	EPA 6020B	35214
2622942002	**PZ-23**	EPA 3005A	35185	EPA 6020B	35214
2622942001	**EB-01**	SM 2540C	35360		
2622942002	**PZ-23**	SM 2540C	35360		
2622942001	**EB-01**	EPA 300.0 Rev 2.1 1993	497758		
2622942002	**PZ-23**	EPA 300.0 Rev 2.1 1993	497758		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood PLC	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell CCR	Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Requested Due Date:	standard	Project #:		Pace Profile #:	333.1.2

Regulatory Agency

State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226/228 *	App. III & App. IV Metals *	TDS, Cl, F, SO4 *	Residual Chlorine (Y/N)
	MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS																	Requested Analysis Filtered (Y/N)	N	N	N	
1	EB-01	WT	G			9/10/19	0810		4			X							X	X	X	
2	PZ-23	WT	G			9/10/19	0947		4			X							X	X	X	
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2622942

2622942

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
*For App III analyses: B, Ca, Cl, F, SO4, TDS	Daniel Howard/Wood	9/10/19	1745	M Lalman	9/11/19	0900				
*For App IV metals only: Sb, As, Cr, Co, Pb, Li, Mo, Se, Tl, Radium 226+228							1.2	Y	Y	Y

SAMPLER NAME AND SIGNATURE			
PRINT Name of SAMPLER:	Daniel Howard		
SIGNATURE of SAMPLER:	Daniel Howard	DATE Signed:	9/10/19

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Pace Analytical Services, LLC
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December 19, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2623919

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
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CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2623919

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

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SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2623919

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623919001	**PZ-1D**	Water	10/01/19 16:30	10/03/19 09:30
2623919002	**PZ-32**	Water	10/01/19 16:10	10/03/19 09:30
2623919003	**EB-01**	Water	10/02/19 09:15	10/03/19 09:30
2623919004	**PZ-2D**	Water	10/02/19 10:38	10/03/19 09:30

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SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2623919

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623919001	**PZ-1D**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623919002	**PZ-32**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623919003	**EB-01**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623919004	**PZ-2D**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623919

Sample: PZ-1D **Lab ID: 2623919001** Collected: 10/01/19 16:30 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00076J**	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 20:08	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 20:08	7440-38-2	
Barium	**0.016**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 20:08	7440-39-3	
Boron	**0.0064J**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 20:08	7440-42-8	
Calcium	**46.8**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 20:13	7440-70-2	
Chromium	**0.0022J**	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 20:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 20:08	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 20:08	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 20:08	7439-93-2	
Molybdenum	**0.0010J**	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 20:08	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 20:08	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 20:08	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**146**	mg/L	10.0	10.0	1		10/08/19 21:35		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**3.6**	mg/L	1.0	0.024	1		10/09/19 18:31	16887-00-6	
Fluoride	**0.062J**	mg/L	0.30	0.029	1		10/09/19 18:31	16984-48-8	
Sulfate	**2.8**	mg/L	1.0	0.017	1		10/09/19 18:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623919

Sample: PZ-32 **Lab ID: 2623919002** Collected: 10/01/19 16:10 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 20:19	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 20:19	7440-38-2	
Barium	**0.015**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 20:19	7440-39-3	
Boron	**0.011J**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 20:19	7440-42-8	
Calcium	**64.3**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 20:25	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 20:19	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 20:19	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 20:19	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 20:19	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 20:19	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 20:19	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 20:19	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**187**	mg/L	10.0	10.0	1		10/08/19 21:35		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**3.1**	mg/L	1.0	0.024	1		10/09/19 18:52	16887-00-6	
Fluoride	**0.042J**	mg/L	0.30	0.029	1		10/09/19 18:52	16984-48-8	
Sulfate	**2.2**	mg/L	1.0	0.017	1		10/09/19 18:52	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623919

Sample: EB-01 **Lab ID: 2623919003** Collected: 10/02/19 09:15 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 20:30	7440-36-0	
Arsenic	**0.0013J**	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 20:30	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 20:30	7440-39-3	
Boron	ND	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 20:30	7440-42-8	
Calcium	**0.018J**	mg/L	0.10	0.011	1	10/05/19 16:23	10/08/19 20:30	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 20:30	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 20:30	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 20:30	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 20:30	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 20:30	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 20:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 20:30	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/09/19 20:07		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.036J**	mg/L	1.0	0.024	1		10/09/19 19:13	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		10/09/19 19:13	16984-48-8	
Sulfate	**0.059J**	mg/L	1.0	0.017	1		10/09/19 19:13	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623919

Sample: PZ-2D **Lab ID: 2623919004** Collected: 10/02/19 10:38 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00042J**	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 20:36	7440-36-0	
Arsenic	**0.0022J**	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 20:36	7440-38-2	
Barium	**0.0046J**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 20:36	7440-39-3	
Boron	**0.011J**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 20:36	7440-42-8	
Calcium	**21.0**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 20:42	7440-70-2	
Chromium	**0.0049J**	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 20:36	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 20:36	7440-48-4	
Lead	**0.000047J**	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 20:36	7439-92-1	
Lithium	**0.0016J**	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 20:36	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 20:36	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 20:36	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 20:36	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**95.0**	mg/L	10.0	10.0	1		10/09/19 20:07		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**2.7**	mg/L	1.0	0.024	1		10/10/19 06:42	16887-00-6	
Fluoride	**0.11J**	mg/L	0.30	0.029	1		10/10/19 06:42	16984-48-8	
Sulfate	**4.1**	mg/L	1.0	0.017	1		10/10/19 06:42	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623919

QC Batch: 36528 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623919001, 2623919002, 2623919003, 2623919004

METHOD BLANK: 165101 Matrix: Water
Associated Lab Samples: 2623919001, 2623919002, 2623919003, 2623919004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/08/19 17:42	
Arsenic	mg/L	ND	0.0050	0.00035	10/08/19 17:42	
Barium	mg/L	ND	0.010	0.00049	10/08/19 17:42	
Boron	mg/L	ND	0.040	0.0049	10/08/19 17:42	
Calcium	mg/L	ND	0.10	0.011	10/08/19 17:42	
Chromium	mg/L	ND	0.010	0.00039	10/08/19 17:42	
Cobalt	mg/L	ND	0.0050	0.00030	10/08/19 17:42	
Lead	mg/L	ND	0.0050	0.000046	10/08/19 17:42	
Lithium	mg/L	ND	0.030	0.00078	10/08/19 17:42	
Molybdenum	mg/L	ND	0.010	0.00095	10/08/19 17:42	
Selenium	mg/L	ND	0.010	0.0013	10/08/19 17:42	
Thallium	mg/L	ND	0.0010	0.000052	10/08/19 17:42	

LABORATORY CONTROL SAMPLE: 165102

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.1	109	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.11	111	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103 165104

Parameter	Units	2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.098	0.10	98	103	75-125	5	20	
Arsenic	mg/L	0.00071J	0.1	0.1	0.095	0.10	94	100	75-125	6	20	
Barium	mg/L	0.071	0.1	0.1	0.17	0.17	94	101	75-125	4	20	
Boron	mg/L	0.018J	1	1	0.99	1.0	97	102	75-125	5	20	
Calcium	mg/L	37.2	1	1	35.7	37.8	-144	63	75-125	6	20	M6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623919

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103 165104

Parameter	Units	2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.091	0.097	91	97	75-125	6	20	
Cobalt	mg/L	0.00041J	0.1	0.1	0.093	0.098	93	97	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	5	20	
Lithium	mg/L	0.018J	0.1	0.1	0.12	0.12	100	103	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.095	0.10	95	103	75-125	7	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.099	93	98	75-125	5	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623919

QC Batch: 36680
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623919001, 2623919002

LABORATORY CONTROL SAMPLE: 165650

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	398	100	84-108	

SAMPLE DUPLICATE: 165651

Parameter	Units	2623876009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	25.0	25.0	0	10	

SAMPLE DUPLICATE: 165652

Parameter	Units	2623879002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	103	98.0	5	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623919

QC Batch: 36765
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623919003, 2623919004

LABORATORY CONTROL SAMPLE: 166031

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	409	102	84-108	

SAMPLE DUPLICATE: 166032

Parameter	Units	2623917002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	312	305	2	10	

SAMPLE DUPLICATE: 166033

Parameter	Units	2623927002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	84.0	95.0	12	10	D6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623919

QC Batch: 36695 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623919001, 2623919002, 2623919003, 2623919004

METHOD BLANK: 165707 Matrix: Water
Associated Lab Samples: 2623919001, 2623919002, 2623919003, 2623919004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.030J	1.0	0.024	10/09/19 15:19	
Fluoride	mg/L	ND	0.30	0.029	10/09/19 15:19	
Sulfate	mg/L	ND	1.0	0.017	10/09/19 15:19	

LABORATORY CONTROL SAMPLE: 165708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165709 165710

Parameter	Units	2623903001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	118	10	10	91.0	91.1	-269	-269	90-110	0	15	
Fluoride	mg/L	1.1	10	10	11.2	11.2	101	101	90-110	0	15	
Sulfate	mg/L	47.3	10	10	52.5	52.5	52	53	90-110	0	15	

MATRIX SPIKE SAMPLE: 165711

Parameter	Units	2623921001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.3	10	14.4	101	90-110	
Fluoride	mg/L	0.057J	10	10.7	106	90-110	
Sulfate	mg/L	1.6	10	11.9	104	90-110	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2623919

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2623919

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623919001	**PZ-1D**	EPA 3005A	36528	EPA 6020B	36530
2623919002	**PZ-32**	EPA 3005A	36528	EPA 6020B	36530
2623919003	**EB-01**	EPA 3005A	36528	EPA 6020B	36530
2623919004	**PZ-2D**	EPA 3005A	36528	EPA 6020B	36530
2623919001	**PZ-1D**	SM 2540C	36680		
2623919002	**PZ-32**	SM 2540C	36680		
2623919003	**EB-01**	SM 2540C	36765		
2623919004	**PZ-2D**	SM 2540C	36765		
2623919001	**PZ-1D**	EPA 300.0	36695		
2623919002	**PZ-32**	EPA 300.0	36695		
2623919003	**EB-01**	EPA 300.0	36695		
2623919004	**PZ-2D**	EPA 300.0	36695		

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A — Required Client Information:

Company:	Georgia Power - Coal Combustion Residuals
Address:	2480 Maner Road
	Atlanta, GA 30339
Email:	jabraham@southernco.com
Phone:	(404)506-7239 Fax:
Requested Due Date:	Standard

Section B — Required Project Information:

Report To:	Joju Abraham
Copy To:	Wood PLC
Purchase Order #:	SCS10382775
Project Name:	Plant Mitchell CCR
Project #:	6122160170

Section C — Invoice Information:

Attention:	scsinvoices@southernco.com
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	betsy.mcdaniel@pacelabs.com
Pace Profile #:	333.1.2

Regulatory Agency:

State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Requested Analysis Filtered (Y/N)	N	N	N	
1	PZ-1D	WT	G			10/1/19	1630		4	X		X							X	X	X	
2	PZ-32	WT	G			10/1/19	1610		4	X		X							X	X	X	
3	EB-01	WT	G			10/2/19	0915		4	X		X							X	X	X	
4	PZ-2D	WT	G			10/2/19	1038		4	X		X							X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2623919

2623919

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
App III metals: B, Ca	Daniel Howard/Wood	10/2/19	1800	M Hallman	10/03/19	0930	0.2	Y	Y	Y
App IV metals: Sb, As, Ba, Cr, Co, Pb, Li Mo, Se, Tl										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard DATE Signed: 10/2/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # _____

WO#: 2623919

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8121 9394 5418

PM: BM Due Date: 10/10/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used 83 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.2 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/03/19 MR

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☐Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:	W	
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 19, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2623953

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2623953

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2623953

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623953001	**PZ-18+QC**	Water	10/03/19 09:40	10/04/19 09:05
2623953002	**PZ-7D**	Water	10/03/19 11:10	10/04/19 09:05

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2623953

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623953001	**PZ-18+QC**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623953002	**PZ-7D**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623953

Sample: PZ-18+QC **Lab ID: 2623953001** Collected: 10/03/19 09:40 Received: 10/04/19 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 21:45	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 21:45	7440-38-2	
Barium	**0.025**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 21:45	7440-39-3	
Boron	**0.35**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 21:45	7440-42-8	
Calcium	**139**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 21:51	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 21:45	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 21:45	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 21:45	7439-92-1	
Lithium	**0.0027J**	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 21:45	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 21:45	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 21:45	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 21:45	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**464**	mg/L	10.0	10.0	1		10/10/19 13:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**7.0**	mg/L	1.0	0.024	1		10/10/19 09:11	16887-00-6	
Fluoride	**0.043J**	mg/L	0.30	0.029	1		10/10/19 09:11	16984-48-8	
Sulfate	**95.8**	mg/L	10.0	0.17	10		10/10/19 16:45	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623953

Sample: PZ-7D **Lab ID: 2623953002** Collected: 10/03/19 11:10 Received: 10/04/19 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00029J**	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 22:08	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 22:08	7440-38-2	
Barium	**0.0070J**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 22:08	7440-39-3	
Boron	**0.24**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 22:08	7440-42-8	
Calcium	**127**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 22:14	7440-70-2	
Chromium	**0.00040J**	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 22:08	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 22:08	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 22:08	7439-92-1	
Lithium	**0.0032J**	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 22:08	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 22:08	7439-98-7	
Selenium	**0.0017J**	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 22:08	7782-49-2	
Thallium	**0.000078J**	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 22:08	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**405**	mg/L	10.0	10.0	1		10/10/19 13:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**5.9**	mg/L	1.0	0.024	1		10/10/19 09:33	16887-00-6	
Fluoride	**0.041J**	mg/L	0.30	0.029	1		10/10/19 09:33	16984-48-8	
Sulfate	**59.6**	mg/L	2.0	0.034	2		10/10/19 17:08	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623953

QC Batch: 36528
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Associated Lab Samples: 2623953001, 2623953002

METHOD BLANK: 165101 Matrix: Water
Associated Lab Samples: 2623953001, 2623953002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/08/19 17:42	
Arsenic	mg/L	ND	0.0050	0.00035	10/08/19 17:42	
Barium	mg/L	ND	0.010	0.00049	10/08/19 17:42	
Boron	mg/L	ND	0.040	0.0049	10/08/19 17:42	
Calcium	mg/L	ND	0.10	0.011	10/08/19 17:42	
Chromium	mg/L	ND	0.010	0.00039	10/08/19 17:42	
Cobalt	mg/L	ND	0.0050	0.00030	10/08/19 17:42	
Lead	mg/L	ND	0.0050	0.000046	10/08/19 17:42	
Lithium	mg/L	ND	0.030	0.00078	10/08/19 17:42	
Molybdenum	mg/L	ND	0.010	0.00095	10/08/19 17:42	
Selenium	mg/L	ND	0.010	0.0013	10/08/19 17:42	
Thallium	mg/L	ND	0.0010	0.000052	10/08/19 17:42	

LABORATORY CONTROL SAMPLE: 165102

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.1	109	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.11	111	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103 165104

Parameter	Units	2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.098	0.10	98	103	75-125	5	20	
Arsenic	mg/L	0.00071J	0.1	0.1	0.095	0.10	94	100	75-125	6	20	
Barium	mg/L	0.071	0.1	0.1	0.17	0.17	94	101	75-125	4	20	
Boron	mg/L	0.018J	1	1	0.99	1.0	97	102	75-125	5	20	
Calcium	mg/L	37.2	1	1	35.7	37.8	-144	63	75-125	6	20	M6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623953

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103 165104

Parameter	Units	2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.091	0.097	91	97	75-125	6	20	
Cobalt	mg/L	0.00041J	0.1	0.1	0.093	0.098	93	97	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	5	20	
Lithium	mg/L	0.018J	0.1	0.1	0.12	0.12	100	103	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.095	0.10	95	103	75-125	7	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.099	93	98	75-125	5	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623953

QC Batch: 36798
QC Batch Method: SM 2540C
Analysis Method: SM 2540C
Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623953001, 2623953002

LABORATORY CONTROL SAMPLE: 166239

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	403	101	84-108	

SAMPLE DUPLICATE: 166240

Parameter	Units	2623927003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	86.0	90.0	5	10	

SAMPLE DUPLICATE: 166241

Parameter	Units	2623981001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	311	321	3	10	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623953

QC Batch: 36695 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623953001, 2623953002

METHOD BLANK: 165707 Matrix: Water
Associated Lab Samples: 2623953001, 2623953002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.030J	1.0	0.024	10/09/19 15:19	
Fluoride	mg/L	ND	0.30	0.029	10/09/19 15:19	
Sulfate	mg/L	ND	1.0	0.017	10/09/19 15:19	

LABORATORY CONTROL SAMPLE: 165708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165709 165710

Parameter	Units	2623903001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	118	10	10	91.0	91.1	-269	-269	90-110	0	15	
Fluoride	mg/L	1.1	10	10	11.2	11.2	101	101	90-110	0	15	
Sulfate	mg/L	47.3	10	10	52.5	52.5	52	53	90-110	0	15	

MATRIX SPIKE SAMPLE: 165711

Parameter	Units	2623921001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.3	10	14.4	101	90-110	
Fluoride	mg/L	0.057J	10	10.7	106	90-110	
Sulfate	mg/L	1.6	10	11.9	104	90-110	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2623953

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2623953

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623953001	**PZ-18+QC**	EPA 3005A	36528	EPA 6020B	36530
2623953002	**PZ-7D**	EPA 3005A	36528	EPA 6020B	36530
2623953001	**PZ-18+QC**	SM 2540C	36798		
2623953002	**PZ-7D**	SM 2540C	36798		
2623953001	**PZ-18+QC**	EPA 300.0	36695		
2623953002	**PZ-7D**	EPA 300.0	36695		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A — Required Client Information:

Company:	Georgia Power - Coal Combustion Residuals
Address:	2480 Maner Road
	Atlanta, GA 30339
Email:	jabraham@southernco.com
Phone:	(404)506-7239 Fax:
Requested Due Date:	Standard

Section B — Required Project Information:

Report To:	Joju Abraham
Copy To:	Wood PLC
Purchase Order #:	SCS10382775
Project Name:	Plant Mitchell CCR
Project #:	6122160170

Section C — Invoice Information:

Attention:	scsinvoices@southernco.com
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	betsy.mcdaniel@pacelabs.com
Pace Profile #:	333.1.2

Regulatory Agency: —

State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chlorine (Y/N)
																		Y/N	N	N	N	
1	PZ-18 + QC	WT	G			10/3/19	0940		6	X		X							X	X	X	
2	PZ-7D	WT	G			10/3/19	1110		4	X		X							X	X	X	
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

WO# : 2623953

2623953

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App III metals: B, Ca	Daniel L Howard/Wood	10/3/19	1630	[signature]	10/04/19	0905	
App IV metals: Sb, As, Ba, Cr, Co, Pb, Li Mo, Se, Tl							
							1.0

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard DATE Signed: 10/3/19

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
1.0	Y	Y	Y

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #

WO#: 2623953

PM: BM **Due Date: 10/11/19**

CLIENT: GAPower-CCR

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #:

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 **Type of Ice:** Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 1.0 **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/04/19 MP

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 19, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2623921

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2623921

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
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SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2623921

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623921001	**PZ-31**	Water	10/02/19 10:25	10/03/19 09:30
2623921002	**PZ-16**	Water	10/02/19 13:55	10/03/19 09:30
2623921003	**PZ-17**	Water	10/02/19 15:30	10/03/19 09:30
2623921004	**Dup-01**	Water	10/02/19 00:00	10/03/19 09:30

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SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2623921

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623921001	**PZ-31**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623921002	**PZ-16**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623921003	**PZ-17**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623921004	**Dup-01**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623921

Sample: PZ-31 **Lab ID: 2623921001** Collected: 10/02/19 10:25 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 20:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 20:59	7440-38-2	
Barium	**0.0067J**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 20:59	7440-39-3	
Boron	**0.0084J**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 20:59	7440-42-8	
Calcium	**95.5**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 21:05	7440-70-2	
Chromium	**0.00043J**	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 20:59	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 20:59	7440-48-4	
Lead	**0.000081J**	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 20:59	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 20:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 20:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 20:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 20:59	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**263**	mg/L	10.0	10.0	1		10/09/19 20:07		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.3**	mg/L	1.0	0.024	1		10/10/19 07:04	16887-00-6	
Fluoride	**0.057J**	mg/L	0.30	0.029	1		10/10/19 07:04	16984-48-8	
Sulfate	**1.6**	mg/L	1.0	0.017	1		10/10/19 07:04	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623921

Sample: PZ-16 **Lab ID: 2623921002** Collected: 10/02/19 13:55 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 21:11	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 21:11	7440-38-2	
Barium	**0.038**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 21:11	7440-39-3	
Boron	**0.19**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 21:11	7440-42-8	
Calcium	**89.1**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 21:16	7440-70-2	
Chromium	**0.00044J**	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 21:11	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 21:11	7440-48-4	
Lead	**0.000081J**	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 21:11	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 21:11	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 21:11	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 21:11	7782-49-2	
Thallium	**0.000053J**	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 21:11	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**284**	mg/L	10.0	10.0	1		10/09/19 20:07		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**7.7**	mg/L	1.0	0.024	1		10/10/19 07:46	16887-00-6	
Fluoride	**0.053J**	mg/L	0.30	0.029	1		10/10/19 07:46	16984-48-8	
Sulfate	**48.5**	mg/L	1.0	0.017	1		10/10/19 07:46	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623921

Sample: PZ-17 **Lab ID: 2623921003** Collected: 10/02/19 15:30 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 21:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 21:22	7440-38-2	
Barium	**0.074**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 21:22	7440-39-3	
Boron	**0.28**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 21:22	7440-42-8	
Calcium	**115**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 21:28	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 21:22	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 21:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 21:22	7439-92-1	
Lithium	**0.0024J**	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 21:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 21:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 21:22	7782-49-2	
Thallium	**0.00016J**	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 21:22	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**415**	mg/L	10.0	10.0	1		10/09/19 20:07		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**7.9**	mg/L	1.0	0.024	1		10/10/19 08:08	16887-00-6	
Fluoride	**0.063J**	mg/L	0.30	0.029	1		10/10/19 08:08	16984-48-8	
Sulfate	**104**	mg/L	5.0	0.085	5		10/10/19 18:15	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
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ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623921

Sample: Dup-01 **Lab ID: 2623921004** Collected: 10/02/19 00:00 Received: 10/03/19 09:30 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 21:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 21:33	7440-38-2	
Barium	**0.083**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 21:33	7440-39-3	
Boron	**0.30**	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 21:33	7440-42-8	
Calcium	**125**	mg/L	5.0	0.55	50	10/05/19 16:23	10/08/19 21:39	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 21:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 21:33	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 21:33	7439-92-1	
Lithium	**0.0026J**	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 21:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 21:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 21:33	7782-49-2	
Thallium	**0.00017J**	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 21:33	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**418**	mg/L	10.0	10.0	1		10/09/19 20:07		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**7.8**	mg/L	1.0	0.024	1		10/10/19 08:29	16887-00-6	
Fluoride	**0.063J**	mg/L	0.30	0.029	1		10/10/19 08:29	16984-48-8	
Sulfate	**102**	mg/L	5.0	0.085	5		10/10/19 14:31	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623921

QC Batch: 36528 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623921001, 2623921002, 2623921003, 2623921004

METHOD BLANK: 165101 Matrix: Water
Associated Lab Samples: 2623921001, 2623921002, 2623921003, 2623921004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/08/19 17:42	
Arsenic	mg/L	ND	0.0050	0.00035	10/08/19 17:42	
Barium	mg/L	ND	0.010	0.00049	10/08/19 17:42	
Boron	mg/L	ND	0.040	0.0049	10/08/19 17:42	
Calcium	mg/L	ND	0.10	0.011	10/08/19 17:42	
Chromium	mg/L	ND	0.010	0.00039	10/08/19 17:42	
Cobalt	mg/L	ND	0.0050	0.00030	10/08/19 17:42	
Lead	mg/L	ND	0.0050	0.000046	10/08/19 17:42	
Lithium	mg/L	ND	0.030	0.00078	10/08/19 17:42	
Molybdenum	mg/L	ND	0.010	0.00095	10/08/19 17:42	
Selenium	mg/L	ND	0.010	0.0013	10/08/19 17:42	
Thallium	mg/L	ND	0.0010	0.000052	10/08/19 17:42	

LABORATORY CONTROL SAMPLE: 165102

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.1	109	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.11	111	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103 165104

Parameter	Units	2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.098	0.10	98	103	75-125	5	20	
Arsenic	mg/L	0.00071J	0.1	0.1	0.095	0.10	94	100	75-125	6	20	
Barium	mg/L	0.071	0.1	0.1	0.17	0.17	94	101	75-125	4	20	
Boron	mg/L	0.018J	1	1	0.99	1.0	97	102	75-125	5	20	
Calcium	mg/L	37.2	1	1	35.7	37.8	-144	63	75-125	6	20	M6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623921

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103 165104

Parameter	Units	2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.091	0.097	91	97	75-125	6	20	
Cobalt	mg/L	0.00041J	0.1	0.1	0.093	0.098	93	97	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	5	20	
Lithium	mg/L	0.018J	0.1	0.1	0.12	0.12	100	103	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.095	0.10	95	103	75-125	7	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.099	93	98	75-125	5	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	4	20	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623921

QC Batch: 36765 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623921001, 2623921002, 2623921003, 2623921004

LABORATORY CONTROL SAMPLE: 166031

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	409	102	84-108	

SAMPLE DUPLICATE: 166032

Parameter	Units	2623917002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	312	305	2	10	

SAMPLE DUPLICATE: 166033

Parameter	Units	2623927002 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	84.0	95.0	12	10	D6

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623921

QC Batch: 36695 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623921001, 2623921002, 2623921003, 2623921004

METHOD BLANK: 165707 Matrix: Water
Associated Lab Samples: 2623921001, 2623921002, 2623921003, 2623921004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.030J	1.0	0.024	10/09/19 15:19	
Fluoride	mg/L	ND	0.30	0.029	10/09/19 15:19	
Sulfate	mg/L	ND	1.0	0.017	10/09/19 15:19	

LABORATORY CONTROL SAMPLE: 165708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165709 165710

Parameter	Units	2623903001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	118	10	10	91.0	91.1	-269	-269	90-110	0	15	
Fluoride	mg/L	1.1	10	10	11.2	11.2	101	101	90-110	0	15	
Sulfate	mg/L	47.3	10	10	52.5	52.5	52	53	90-110	0	15	

MATRIX SPIKE SAMPLE: 165711

Parameter	Units	2623921001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.3	10	14.4	101	90-110	
Fluoride	mg/L	0.057J	10	10.7	106	90-110	
Sulfate	mg/L	1.6	10	11.9	104	90-110	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2623921

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

D6	The precision between the sample and sample duplicate exceeded laboratory control limits.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2623921

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623921001	**PZ-31**	EPA 3005A	36528	EPA 6020B	36530
2623921002	**PZ-16**	EPA 3005A	36528	EPA 6020B	36530
2623921003	**PZ-17**	EPA 3005A	36528	EPA 6020B	36530
2623921004	**Dup-01**	EPA 3005A	36528	EPA 6020B	36530
2623921001	**PZ-31**	SM 2540C	36765		
2623921002	**PZ-16**	SM 2540C	36765		
2623921003	**PZ-17**	SM 2540C	36765		
2623921004	**Dup-01**	SM 2540C	36765		
2623921001	**PZ-31**	EPA 300.0	36695		
2623921002	**PZ-16**	EPA 300.0	36695		
2623921003	**PZ-17**	EPA 300.0	36695		
2623921004	**Dup-01**	EPA 300.0	36695		

X 1
DH

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A — Required Client Information:

Company:	Georgia Power - Coal Combustion Residuals
Address:	2480 Maner Road
	Atlanta, GA 30339
Email:	jabraham@southernco.com
Phone:	(404)506-7239 Fax:
Requested Due Date:	Standard

Section B — Required Project Information:

Report To:	Joju Abraham
Copy To:	Wood PLC
Purchase Order #:	SCS10382775
Project Name:	Plant Mitchell CCR
Project #:	6122160170

Section C — Invoice Information:

Attention:	scsinvoices@southernco.com
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Pace Profile #:	333.1.2

Regulatory Agency:

State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y/N:	N	N	N	
1	PZ-31	WT	G			10/2/19	1025		4	X		X							X	X	X	
2	PZ-16	WT	G			10/2/19	1355		4	X		X							X	X	X	
3	PZ-17	WT	G			10/2/19	1530		4	X		X							X	X	X	
4	DUP-01	WT	G			10/2/19	—		4	X		X							X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2623921

2623921

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
App III metals: B, Ca	Daniel Howard/Wood	10/2/19	1800	M Zaluman	10/03/19	0930				
App IV metals: Sb, As, Ba, Cr, Co, Pb, Li, Mo, Se, Tl							0.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard DATE Signed: 10/2/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project #

WO# : 2623921

PM: BM Due Date: 10/10/19

CLIENT: GAPower-CCR

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8121 9394 6079

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: ~~Wet~~ Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.5 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/03/19 MK

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

December 19, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2623955

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Kevin Herring for
Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2623955

Pace Analytical Services Atlanta
110 Technology Parkway Peachtree Corners, GA 30092
Florida DOH Certification #: E87315
Georgia DW Inorganics Certification #: 812
Georgia DW Microbiology Certification #: 812
North Carolina Certification #: 381
South Carolina Certification #: 98011001
Virginia Certification #: 460204

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2623955

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623955001	**FB-01**	Water	10/03/19 08:10	10/04/19 09:05
2623955002	**EB-02**	Water	10/03/19 08:25	10/04/19 09:05
2623955003	**PZ-33**	Water	10/03/19 09:50	10/04/19 09:05
2623955004	**PZ-19**	Water	10/03/19 12:00	10/04/19 09:05

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2623955

Lab ID	Sample ID	Method	Analysts	Analytes Reported
2623955001	**FB-01**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623955002	**EB-02**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623955003	**PZ-33**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3
2623955004	**PZ-19**	EPA 6020B	CSW	12
		SM 2540C	ALW	1
		EPA 300.0	MWB	3

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623955

Sample: FB-01 **Lab ID: 2623955001** Collected: 10/03/19 08:10 Received: 10/04/19 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 22:25	7440-36-0	
Arsenic	**0.00072J**	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 22:25	7440-38-2	
Barium	**0.0023J**	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 22:25	7440-39-3	
Boron	ND	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 22:25	7440-42-8	
Calcium	ND	mg/L	0.10	0.011	1	10/05/19 16:23	10/08/19 22:25	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 22:25	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 22:25	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 22:25	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 22:25	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 22:25	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 22:25	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 22:25	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/10/19 13:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.033J**	mg/L	1.0	0.024	1		10/10/19 09:54	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		10/10/19 09:54	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		10/10/19 09:54	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623955

Sample: EB-02 **Lab ID: 2623955002** Collected: 10/03/19 08:25 Received: 10/04/19 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/05/19 16:23	10/08/19 22:31	7440-36-0	
Arsenic	**0.0011J**	mg/L	0.0050	0.00035	1	10/05/19 16:23	10/08/19 22:31	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	10/05/19 16:23	10/08/19 22:31	7440-39-3	
Boron	ND	mg/L	0.040	0.0049	1	10/05/19 16:23	10/08/19 22:31	7440-42-8	
Calcium	ND	mg/L	0.10	0.011	1	10/05/19 16:23	10/08/19 22:31	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/05/19 16:23	10/08/19 22:31	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/05/19 16:23	10/08/19 22:31	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/05/19 16:23	10/08/19 22:31	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/05/19 16:23	10/08/19 22:31	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/05/19 16:23	10/08/19 22:31	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/05/19 16:23	10/08/19 22:31	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	10/05/19 16:23	10/08/19 22:31	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	ND	mg/L	10.0	10.0	1		10/10/19 13:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**0.034J**	mg/L	1.0	0.024	1		10/10/19 11:40	16887-00-6	B
Fluoride	ND	mg/L	0.30	0.029	1		10/10/19 11:40	16984-48-8	
Sulfate	ND	mg/L	1.0	0.017	1		10/10/19 11:40	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623955

Sample: PZ-33 **Lab ID: 2623955003** Collected: 10/03/19 09:50 Received: 10/04/19 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	ND	mg/L	0.0030	0.00027	1	10/09/19 16:23	10/10/19 18:18	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/09/19 16:23	10/10/19 18:18	7440-38-2	
Barium	**0.057**	mg/L	0.010	0.00049	1	10/09/19 16:23	10/10/19 18:18	7440-39-3	
Boron	**0.36**	mg/L	0.040	0.0049	1	10/09/19 16:23	10/10/19 18:18	7440-42-8	
Calcium	**110**	mg/L	5.0	0.55	50	10/09/19 16:23	10/10/19 18:23	7440-70-2	M6
Chromium	ND	mg/L	0.010	0.00039	1	10/09/19 16:23	10/10/19 18:18	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/09/19 16:23	10/10/19 18:18	7440-48-4	
Lead	**0.000047J**	mg/L	0.0050	0.000046	1	10/09/19 16:23	10/10/19 18:18	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	10/09/19 16:23	10/10/19 18:18	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	10/09/19 16:23	10/10/19 18:18	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	10/09/19 16:23	10/10/19 18:18	7782-49-2	
Thallium	**0.00018J**	mg/L	0.0010	0.000052	1	10/09/19 16:23	10/10/19 18:18	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**414**	mg/L	10.0	10.0	1		10/10/19 13:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**4.1**	mg/L	1.0	0.024	1		10/10/19 12:02	16887-00-6	
Fluoride	**0.060J**	mg/L	0.30	0.029	1		10/10/19 12:02	16984-48-8	
Sulfate	**72.1**	mg/L	5.0	0.085	5		10/10/19 17:30	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS

Project: Plant Mitchell
Pace Project No.: 2623955

Sample: PZ-19 **Lab ID: 2623955004** Collected: 10/03/19 12:00 Received: 10/04/19 09:05 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A								
Antimony	**0.00044J**	mg/L	0.0030	0.00027	1	10/09/19 16:23	10/10/19 19:09	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	10/09/19 16:23	10/10/19 19:09	7440-38-2	
Barium	**0.057**	mg/L	0.010	0.00049	1	10/09/19 16:23	10/10/19 19:09	7440-39-3	
Boron	**0.52**	mg/L	0.040	0.0049	1	10/09/19 16:23	10/10/19 19:09	7440-42-8	
Calcium	**125**	mg/L	5.0	0.55	50	10/09/19 16:23	10/10/19 19:15	7440-70-2	
Chromium	ND	mg/L	0.010	0.00039	1	10/09/19 16:23	10/10/19 19:09	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	10/09/19 16:23	10/10/19 19:09	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	10/09/19 16:23	10/10/19 19:09	7439-92-1	
Lithium	**0.016J**	mg/L	0.030	0.00078	1	10/09/19 16:23	10/10/19 19:09	7439-93-2	
Molybdenum	**0.0024J**	mg/L	0.010	0.00095	1	10/09/19 16:23	10/10/19 19:09	7439-98-7	
Selenium	**0.0034J**	mg/L	0.010	0.0013	1	10/09/19 16:23	10/10/19 19:09	7782-49-2	
Thallium	**0.00071J**	mg/L	0.0010	0.000052	1	10/09/19 16:23	10/10/19 19:09	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C								
Total Dissolved Solids	**485**	mg/L	10.0	10.0	1		10/10/19 13:33		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0								
Chloride	**5.6**	mg/L	1.0	0.024	1		10/10/19 12:23	16887-00-6	
Fluoride	**0.084J**	mg/L	0.30	0.029	1		10/10/19 12:23	16984-48-8	
Sulfate	**84.9**	mg/L	5.0	0.085	5		10/10/19 17:53	14808-79-8	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623955

QC Batch: 36528
QC Batch Method: EPA 3005A
Analysis Method: EPA 6020B
Analysis Description: 6020B MET
Associated Lab Samples: 2623955001, 2623955002

METHOD BLANK: 165101 Matrix: Water
Associated Lab Samples: 2623955001, 2623955002

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/08/19 17:42	
Arsenic	mg/L	ND	0.0050	0.00035	10/08/19 17:42	
Barium	mg/L	ND	0.010	0.00049	10/08/19 17:42	
Boron	mg/L	ND	0.040	0.0049	10/08/19 17:42	
Calcium	mg/L	ND	0.10	0.011	10/08/19 17:42	
Chromium	mg/L	ND	0.010	0.00039	10/08/19 17:42	
Cobalt	mg/L	ND	0.0050	0.00030	10/08/19 17:42	
Lead	mg/L	ND	0.0050	0.000046	10/08/19 17:42	
Lithium	mg/L	ND	0.030	0.00078	10/08/19 17:42	
Molybdenum	mg/L	ND	0.010	0.00095	10/08/19 17:42	
Selenium	mg/L	ND	0.010	0.0013	10/08/19 17:42	
Thallium	mg/L	ND	0.0010	0.000052	10/08/19 17:42	

LABORATORY CONTROL SAMPLE: 165102

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.099	99	80-120	
Barium	mg/L	0.1	0.10	103	80-120	
Boron	mg/L	1	1.1	109	80-120	
Calcium	mg/L	1	1.0	102	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.097	97	80-120	
Lithium	mg/L	0.1	0.11	111	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.098	98	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103 165104

Parameter	Units	2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.098	0.10	98	103	75-125	5	20	
Arsenic	mg/L	0.00071J	0.1	0.1	0.095	0.10	94	100	75-125	6	20	
Barium	mg/L	0.071	0.1	0.1	0.17	0.17	94	101	75-125	4	20	
Boron	mg/L	0.018J	1	1	0.99	1.0	97	102	75-125	5	20	
Calcium	mg/L	37.2	1	1	35.7	37.8	-144	63	75-125	6	20	M6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
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Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623955

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103 165104

Parameter	Units	2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.091	0.097	91	97	75-125	6	20	
Cobalt	mg/L	0.00041J	0.1	0.1	0.093	0.098	93	97	75-125	4	20	
Lead	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	5	20	
Lithium	mg/L	0.018J	0.1	0.1	0.12	0.12	100	103	75-125	2	20	
Molybdenum	mg/L	ND	0.1	0.1	0.095	0.10	95	103	75-125	7	20	
Selenium	mg/L	ND	0.1	0.1	0.094	0.099	93	98	75-125	5	20	
Thallium	mg/L	ND	0.1	0.1	0.095	0.099	95	99	75-125	4	20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623955

QC Batch: 36735 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2623955003, 2623955004

METHOD BLANK: 165916 Matrix: Water
Associated Lab Samples: 2623955003, 2623955004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	10/10/19 18:06	
Arsenic	mg/L	0.00036J	0.0050	0.00035	10/10/19 18:06	
Barium	mg/L	ND	0.010	0.00049	10/10/19 18:06	
Boron	mg/L	ND	0.040	0.0049	10/10/19 18:06	
Calcium	mg/L	ND	0.10	0.011	10/10/19 18:06	
Chromium	mg/L	0.00050J	0.010	0.00039	10/10/19 18:06	
Cobalt	mg/L	ND	0.0050	0.00030	10/10/19 18:06	
Lead	mg/L	ND	0.0050	0.000046	10/10/19 18:06	
Lithium	mg/L	ND	0.030	0.00078	10/10/19 18:06	
Molybdenum	mg/L	ND	0.010	0.00095	10/10/19 18:06	
Selenium	mg/L	ND	0.010	0.0013	10/10/19 18:06	
Thallium	mg/L	ND	0.0010	0.000052	10/10/19 18:06	

LABORATORY CONTROL SAMPLE: 165917

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	102	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.10	100	80-120	
Boron	mg/L	1	1.0	101	80-120	
Calcium	mg/L	1	1.0	104	80-120	
Chromium	mg/L	0.1	0.10	100	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.095	95	80-120	
Lithium	mg/L	0.1	0.10	105	80-120	
Molybdenum	mg/L	0.1	0.10	102	80-120	
Selenium	mg/L	0.1	0.10	102	80-120	
Thallium	mg/L	0.1	0.097	97	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165918 165919

Parameter	Units	2623955003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Antimony	mg/L	ND	0.1	0.1	0.10	0.10	105	101	75-125	3	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	100	75-125	1	20	
Barium	mg/L	0.057	0.1	0.1	0.17	0.17	117	114	75-125	2	20	
Boron	mg/L	0.36	1	1	1.3	1.3	94	94	75-125	0	20	
Calcium	mg/L	110	1	1	114	109	387	-44	75-125	4	20	M6

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623955

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165918 165919

Parameter	Units	2623955003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chromium	mg/L	ND	0.1	0.1	0.10	0.10	104	103	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	4	20	
Lead	mg/L	0.000047J	0.1	0.1	0.094	0.089	94	89	75-125	6	20	
Lithium	mg/L	ND	0.1	0.1	0.097	0.097	97	97	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.11	0.10	107	104	75-125	4	20	
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	103	100	75-125	2	20	
Thallium	mg/L	0.00018J	0.1	0.1	0.095	0.091	94	91	75-125	4	20	

SAMPLE DUPLICATE: 165920

Parameter	Units	92448261001 Result	Dup Result	RPD	Max RPD	Qualifiers
Antimony	mg/L	3.6J ug/L	ND		20	
Arsenic	mg/L	51.7 ug/L	0.046J		20	
Barium	mg/L	191 ug/L	0.20	4	20	
Boron	mg/L	404 ug/L	0.42	3	20	
Calcium	mg/L	1460000 ug/L	1490	2	20	
Chromium	mg/L	4.3J ug/L	0.0046J		20	
Cobalt	mg/L	52.8 ug/L	0.058	10	20	
Lead	mg/L	0.92J ug/L	0.00084J		20	
Lithium	mg/L	33.9J ug/L	0.034J		20	
Molybdenum	mg/L	ND	ND		20	
Selenium	mg/L	ND	ND		20	
Thallium	mg/L	0.64J ug/L	0.00065J		20	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623955

QC Batch: 36798 Analysis Method: SM 2540C
QC Batch Method: SM 2540C Analysis Description: 2540C Total Dissolved Solids
Associated Lab Samples: 2623955001, 2623955002, 2623955003, 2623955004

LABORATORY CONTROL SAMPLE: 166239

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	403	101	84-108	

SAMPLE DUPLICATE: 166240

Parameter	Units	2623927003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	86.0	90.0	5	10	

SAMPLE DUPLICATE: 166241

Parameter	Units	2623981001 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	311	321	3	10	

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REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623955

QC Batch: 36695 Analysis Method: EPA 300.0
QC Batch Method: EPA 300.0 Analysis Description: 300.0 IC Anions
Associated Lab Samples: 2623955001, 2623955002, 2623955003, 2623955004

METHOD BLANK: 165707 Matrix: Water
Associated Lab Samples: 2623955001, 2623955002, 2623955003, 2623955004

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	0.030J	1.0	0.024	10/09/19 15:19	
Fluoride	mg/L	ND	0.30	0.029	10/09/19 15:19	
Sulfate	mg/L	ND	1.0	0.017	10/09/19 15:19	

LABORATORY CONTROL SAMPLE: 165708

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	10	10.3	103	90-110	
Fluoride	mg/L	10	10.7	107	90-110	
Sulfate	mg/L	10	10.5	105	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165709 165710

Parameter	Units	2623903001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	118	10	10	91.0	91.1	-269	-269	90-110	0	15	
Fluoride	mg/L	1.1	10	10	11.2	11.2	101	101	90-110	0	15	
Sulfate	mg/L	47.3	10	10	52.5	52.5	52	53	90-110	0	15	

MATRIX SPIKE SAMPLE: 165711

Parameter	Units	2623921001 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	4.3	10	14.4	101	90-110	
Fluoride	mg/L	0.057J	10	10.7	106	90-110	
Sulfate	mg/L	1.6	10	11.9	104	90-110	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2623955

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

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

TNI - The NELAC Institute.

ANALYTE QUALIFIERS

B	Analyte was detected in the associated method blank.
M6	Matrix spike and Matrix spike duplicate recovery not evaluated against control limits due to sample dilution.

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2623955

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623955001	**FB-01**	EPA 3005A	36528	EPA 6020B	36530
2623955002	**EB-02**	EPA 3005A	36528	EPA 6020B	36530
2623955003	**PZ-33**	EPA 3005A	36735	EPA 6020B	36742
2623955004	**PZ-19**	EPA 3005A	36735	EPA 6020B	36742
2623955001	**FB-01**	SM 2540C	36798		
2623955002	**EB-02**	SM 2540C	36798		
2623955003	**PZ-33**	SM 2540C	36798		
2623955004	**PZ-19**	SM 2540C	36798		
2623955001	**FB-01**	EPA 300.0	36695		
2623955002	**EB-02**	EPA 300.0	36695		
2623955003	**PZ-33**	EPA 300.0	36695		
2623955004	**PZ-19**	EPA 300.0	36695		

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood PLC	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell CCR	Pace Project Manager:	betsy.mcdaniel@pacelabs.com
Requested Due Date:	Standard	Project #:	6122160170	Pace Profile #:	333.1.2

Regulatory Agency: GA

State / Location

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chlorine (Y/N)
																		Y/N:	N	N	N	
1	FB-01	WT	G			10/3/19	0810		4	X		X							X	X	X	
2	EB-02	WT	G				0825		4	X		X							X	X	X	
3	PZ-33	WT	G				0950		4	X		X							X	X	X	
4	PZ-19	WT	G			↓	1200		4	X		X							X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2623955

2623955

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
App III metals: B, Ca	Daniel Howard/Wood	10/3/19	1630	MDalman	10/04/19	0905				
App IV metals: Sb, As, Ba, Cr, Co, Pb, Li Mo, Se, Tl							1.0	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard DATE Signed: 10/3/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 2623955

PM: BM Due Date: 10/11/19

CLIENT: GAPower-CCR

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #:

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 1.0 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/04/19 MK

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed: Lot # of added preservative:
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

October 09, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on September 11, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2622943001	**EB-01**	Water	09/10/19 08:10	09/11/19 09:00
2622943002	**PZ-23**	Water	09/10/19 09:47	09/11/19 09:00

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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2622943001	**EB-01**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2622943002	**PZ-23**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

Sample: EB-01 **Lab ID: 2622943001** Collected: 09/10/19 08:10 Received: 09/11/19 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.259 ± 0.246 (0.468) C:94% T:NA**	pCi/L	09/20/19 08:53	13982-63-3	
Radium-228	EPA 9320	**0.276 ± 0.437 (0.947) C:71% T:84%**	pCi/L	09/20/19 11:45	15262-20-1	
Total Radium	Total Radium Calculation	**0.535 ± 0.683 (1.42)**	pCi/L	10/01/19 15:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

Sample: PZ-23 **Lab ID: 2622943002** Collected: 09/10/19 09:47 Received: 09/11/19 09:00 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.575 ± 0.295 (0.302) C:89% T:NA**	pCi/L	09/20/19 08:54	13982-63-3	
Radium-228	EPA 9320	**-0.163 ± 0.417 (0.979) C:74% T:87%**	pCi/L	09/20/19 11:45	15262-20-1	
Total Radium	Total Radium Calculation	**0.575 ± 0.712 (1.28)**	pCi/L	10/01/19 15:28	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

QC Batch: 361438 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2622943001, 2622943002

METHOD BLANK: 1754425 Matrix: Water
Associated Lab Samples: 2622943001, 2622943002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.337 ± 0.242 (0.380) C:91% T:NA	pCi/L	09/20/19 07:12	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

QC Batch: 361439 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2622943001, 2622943002

METHOD BLANK: 1754427 Matrix: Water
Associated Lab Samples: 2622943001, 2622943002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.462 ± 0.419 (0.854) C:67% T:85%	pCi/L	09/20/19 11:52	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2622943001	**EB-01**	EPA 9315	361438		
2622943002	**PZ-23**	EPA 9315	361438		
2622943001	**EB-01**	EPA 9320	361439		
2622943002	**PZ-23**	EPA 9320	361439		
2622943001	**EB-01**	Total Radium Calculation	364083		
2622943002	**PZ-23**	Total Radium Calculation	364083		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A — Required Client Information:

Company:	Georgia Power - Coal Combustion Residuals
Address:	2480 Maner Road
	Atlanta, GA 30339
Email:	jabraham@southernco.com
Phone:	(404)506-7239 Fax:
Requested Due Date:	standard

Section B — Required Project Information:

Report To:	Joju Abraham
Copy To:	Wood PLC
Purchase Order #:	SCS10382775
Project Name:	Plant Mitchell CCR
Project #:	

Section C — Invoice Information:

Attention:	scsinvoices@southernco.com
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Pace Profile #:	333.1.2

Regulatory Agency:

State / Location: GA

Requested Analysis Filtered (Y/N): Y/N: N N N

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Radium 226/228 *	App. III & App. IV Metals *	TDS, Cl, F, SO4 *	Residual Chlorine (Y/N)
1	EB-01	WT	G			9/10/19	0810		4			X						X	X	X	
2	PZ-23	WT	G			9/10/19	0947		4			X						X	X	X	
3																					
4																					
5																					
6																					
7																					
8																					
9																					
10																					
11																					
12																					

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

WO# : 2622943

2622943

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
*For App III analyses: B, Ca, Cl, F, SO4, TDS	Daniel Howard/Wood	9/10/19	1745	MDahlman	9/11/19	0900				
*For App IV metals only: Sb, As, Cr, Co, Pb, Li, Mo, Se, Tl, Radium 226+228							1.2	Y	Y	Y

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard

DATE Signed: 9/10/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power Project # _____

WO#: 2622943

PM: BM Due Date: 10/09/19

CLIENT: GAPower-CCR

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other _____

Tracking #: _____

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other _____

Thermometer Used 83 **Type of Ice:** ~~Wet~~ Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 1.2 **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 9/11/19 MR

Comments:

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed: _____ Lot # of added preservative: _____
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased): _____		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

November 04, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2623918

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2623918

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2623918

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623918001	**PZ-14+QC**	Water	10/02/19 12:30	10/03/19 09:30
2623918002	**PZ-25**	Water	10/02/19 13:15	10/03/19 09:30
2623918003	**Dup-02**	Water	10/02/19 00:00	10/03/19 09:30
2623918004	**PZ-15**	Water	10/02/19 15:23	10/03/19 09:30

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2623918

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623918001	**PZ-14+QC**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623918002	**PZ-25**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623918003	**Dup-02**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623918004	**PZ-15**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
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(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623918

Sample: PZ-14+QC **Lab ID: 2623918001** Collected: 10/02/19 12:30 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.281 ± 0.213 (0.319) C:96% T:NA**	pCi/L	10/25/19 08:34	13982-63-3	
Radium-228	EPA 9320	**0.574 ± 0.430 (0.848) C:75% T:82%**	pCi/L	10/29/19 15:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.915 ± 1.05 (2.22)**	pCi/L	10/30/19 16:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623918

Sample: PZ-25 **Lab ID: 2623918002** Collected: 10/02/19 13:15 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.802 ± 0.411 (0.597) C:89% T:NA**	pCi/L	10/25/19 09:51	13982-63-3	
Radium-228	EPA 9320	**0.674 ± 0.426 (0.805) C:74% T:86%**	pCi/L	10/29/19 15:27	15262-20-1	
Total Radium	Total Radium Calculation	**1.48 ± 0.837 (1.40)**	pCi/L	10/30/19 16:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623918

Sample: Dup-02 **Lab ID: 2623918003** Collected: 10/02/19 00:00 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.554 ± 0.327 (0.462) C:87% T:NA**	pCi/L	10/25/19 08:34	13982-63-3	
Radium-228	EPA 9320	**0.423 ± 0.441 (0.917) C:70% T:83%**	pCi/L	10/29/19 15:27	15262-20-1	
Total Radium	Total Radium Calculation	**0.977 ± 0.768 (1.38)**	pCi/L	10/30/19 16:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623918

Sample: PZ-15 **Lab ID: 2623918004** Collected: 10/02/19 15:23 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.517 ± 0.298 (0.396) C:91% T:NA**	pCi/L	10/25/19 08:34	13982-63-3	
Radium-228	EPA 9320	**0.484 ± 0.508 (1.06) C:70% T:81%**	pCi/L	10/29/19 15:27	15262-20-1	
Total Radium	Total Radium Calculation	**1.00 ± 0.806 (1.46)**	pCi/L	10/30/19 16:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623918

QC Batch: 366498 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623918001, 2623918002, 2623918003, 2623918004

METHOD BLANK: 1777737 Matrix: Water
Associated Lab Samples: 2623918001, 2623918002, 2623918003, 2623918004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.599 ± 0.309 (0.395) C:98% T:NA	pCi/L	10/25/19 09:42	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623918

QC Batch: 366499 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623918001, 2623918002, 2623918003, 2623918004

METHOD BLANK: 1777739 Matrix: Water
Associated Lab Samples: 2623918001, 2623918002, 2623918003, 2623918004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.720 ± 0.387 (0.688) C:72% T:87%	pCi/L	10/29/19 12:24	

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

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2623918

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2623918

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623918001	**PZ-14+QC**	EPA 9315	366498		
2623918002	**PZ-25**	EPA 9315	366498		
2623918003	**Dup-02**	EPA 9315	366498		
2623918004	**PZ-15**	EPA 9315	366498		
2623918001	**PZ-14+QC**	EPA 9320	366499		
2623918002	**PZ-25**	EPA 9320	366499		
2623918003	**Dup-02**	EPA 9320	366499		
2623918004	**PZ-15**	EPA 9320	366499		
2623918001	**PZ-14+QC**	Total Radium Calculation	368618		
2623918002	**PZ-25**	Total Radium Calculation	368618		
2623918003	**Dup-02**	Total Radium Calculation	368618		
2623918004	**PZ-15**	Total Radium Calculation	368618		

3

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : | Of |

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood PLC	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell CCR	Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Requested Due Date:	Standard	Project #:	6132160178	Pace Profile #:	333.1.2

Regulatory Agency: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Requested Analysis Filtered (Y/N): Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chlorine (Y/N)
1	PZ-14+QC	WT	G			10/2/19	1230		6	X		X							X	X	X	
2	PZ-25	WT	G				1315		4	X	DUP	X							X	X	X	
3	DUP-02	WT	G				—		4	X		X							X	X	X	
4	PZ-15	WT	G			↓	1523		4	X		X							X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2623918

2623918

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS			
App III metals: B, Ca	Daniel Howard/Wood	10/2/19	1800	M Waldman	10/03/19	0930				
App IV metals: Sb, As, Ba, Cr, Co, Pb, Li Mo, Se, Tl										
							0.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE:

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel L Howard DATE Signed: 10/2/19

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 2623918

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8121 9394 5429

PM: BM Due Date: 10/31/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.5 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/03/19 MR

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present.	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

November 04, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2623920

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2623920

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

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SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2623920

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623920001	**PZ-1D**	Water	10/01/19 16:30	10/03/19 09:30
2623920002	**PZ-32**	Water	10/01/19 16:10	10/03/19 09:30
2623920003	**EB-01**	Water	10/02/19 09:15	10/03/19 09:30
2623920004	**PZ-2D**	Water	10/02/19 10:38	10/03/19 09:30

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SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2623920

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623920001	**PZ-1D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623920002	**PZ-32**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623920003	**EB-01**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623920004	**PZ-2D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623920

Sample: PZ-1D **Lab ID: 2623920001** Collected: 10/01/19 16:30 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.443 ± 0.307 (0.534) C:95% T:NA**	pCi/L	10/18/19 07:54	13982-63-3	
Radium-228	EPA 9320	**0.510 ± 0.403 (0.804) C:74% T:90%**	pCi/L	10/23/19 12:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.953 ± 0.710 (1.34)**	pCi/L	10/30/19 16:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623920

Sample: PZ-32 **Lab ID: 2623920002** Collected: 10/01/19 16:10 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.501 ± 0.308 (0.498) C:96% T:NA**	pCi/L	10/18/19 07:54	13982-63-3	
Radium-228	EPA 9320	**0.506 ± 0.429 (0.863) C:63% T:90%**	pCi/L	10/23/19 12:35	15262-20-1	
Total Radium	Total Radium Calculation	**1.01 ± 0.737 (1.36)**	pCi/L	10/30/19 16:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623920

Sample: EB-01 **Lab ID: 2623920003** Collected: 10/02/19 09:15 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.231 ± 0.210 (0.387) C:98% T:NA**	pCi/L	10/18/19 07:54	13982-63-3	
Radium-228	EPA 9320	**0.260 ± 0.394 (0.851) C:72% T:89%**	pCi/L	10/23/19 12:35	15262-20-1	
Total Radium	Total Radium Calculation	**0.491 ± 0.604 (1.24)**	pCi/L	10/30/19 16:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623920

Sample: PZ-2D **Lab ID: 2623920004** Collected: 10/02/19 10:38 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.362 ± 0.253 (0.398) C:92% T:NA**	pCi/L	10/18/19 07:53	13982-63-3	
Radium-228	EPA 9320	**0.350 ± 0.553 (1.20) C:55% T:80%**	pCi/L	10/23/19 12:36	15262-20-1	
Total Radium	Total Radium Calculation	**0.712 ± 0.806 (1.60)**	pCi/L	10/30/19 16:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623920

QC Batch: 366031 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623920001, 2623920002, 2623920003, 2623920004

METHOD BLANK: 1775592 Matrix: Water
Associated Lab Samples: 2623920001, 2623920002, 2623920003, 2623920004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.000680 ± 0.296 (0.693) C:76% T:86%	pCi/L	10/23/19 12:34	

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

REPORT OF LABORATORY ANALYSIS

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110 Technology Parkway
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QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623920

QC Batch: 366030 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623920001, 2623920002, 2623920003, 2623920004

METHOD BLANK: 1775591 Matrix: Water
Associated Lab Samples: 2623920001, 2623920002, 2623920003, 2623920004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.592 ± 0.321 (0.466) C:93% T:NA	pCi/L	10/18/19 07:54	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2623920

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2623920

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623920001	**PZ-1D**	EPA 9315	366030		
2623920002	**PZ-32**	EPA 9315	366030		
2623920003	**EB-01**	EPA 9315	366030		
2623920004	**PZ-2D**	EPA 9315	366030		
2623920001	**PZ-1D**	EPA 9320	366031		
2623920002	**PZ-32**	EPA 9320	366031		
2623920003	**EB-01**	EPA 9320	366031		
2623920004	**PZ-2D**	EPA 9320	366031		
2623920001	**PZ-1D**	Total Radium Calculation	368618		
2623920002	**PZ-32**	Total Radium Calculation	368618		
2623920003	**EB-01**	Total Radium Calculation	368618		
2623920004	**PZ-2D**	Total Radium Calculation	368618		

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Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : | Of |

Section A — Required Client Information:

Company:	Georgia Power - Coal Combustion Residuals
Address:	2480 Maner Road
	Atlanta, GA 30339
Email:	jabraham@southernco.com
Phone:	(404)506-7239 Fax:
Requested Due Date:	Standard

Section B — Required Project Information:

Report To:	Joju Abraham
Copy To:	Wood PLC
Purchase Order #:	SCS10382775
Project Name:	Plant Mitchell CCR
Project #:	6122160170

Section C — Invoice Information:

Attention:	scsinvoices@southernco.com
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Pace Profile #:	333.1.2

Regulatory Agency: | State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test: Y/N	Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chlorine (Y/N)
1	PZ-1D	WT	G			10/1/19	1630		4	X		X						N	X	X	X	
2	PZ-32	WT	G			10/1/19	1610		4	X		X						N	X	X	X	
3	EB-01	WT	G			10/2/19	0915		4	X		X						N	X	X	X	
4	PZ-2D	WT	G			10/2/19	1038		4	X		X						N	X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

WO# : 2623920

2623920

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App III metals: B, Ca	Daniel Howard/Wood	10/2/19	1800	M Dalman	10/03/19	0930	
App IV metals: Sb, As, Ba, Cr, Co, Pb, Li, Mo, Se, Tl							
							0.2
							Y
							Y
							Y

TEMP in C | Received on Ice (Y/N) | Custody Sealed Cooler (Y/N) | Samples Intact (Y/N)

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard

DATE Signed: 10/2/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Powere

Project # _____

WO# : 2623920

PM: BM **Due Date: 10/31/19**

CLIENT: GAPower-CCR

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8121 9394 5418

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes ☐

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 **Type of Ice:** Wet Blue None ☐ Samples on ice, cooling process has begun

Cooler Temperature 0.2 **Biological Tissue is Frozen:** Yes No

Temp should be above freezing to 6°C **Comments:**

Date and Initials of person examining contents: 10/03/19 MR

Chain of Custody Present:	☑Yes ☐No ☐N/A	1.	
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.	
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.	
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.	
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.	
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.	
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.	
Sufficient Volume:	☑Yes ☐No ☐N/A	8.	
Correct Containers Used:	☑Yes ☐No ☐N/A	9.	
-Pace Containers Used:	☑Yes ☐No ☐N/A		
Containers Intact:	☑Yes ☐No ☐N/A	10.	
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.	
Sample Labels match COC:	☐Yes ☐No ☐N/A	12.	
-Includes date/time/ID/Analysis Matrix: W			
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.	
All containers needing preservation are found to be in compliance with EPA recommendation	☑Yes ☐No ☐N/A		
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed	Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.	
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.	
Trip Blank Present:	☐Yes ☐No ☑N/A	16.	
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A		
Pace Trip Blank Lot # (if purchased):			

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: _____ Date/Time: _____

Comments/ Resolution: _____

Project Manager Review: _____ **Date:** _____

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

November 04, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2623922

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 03, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2623922

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2623922

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623922001	**PZ-31**	Water	10/02/19 10:25	10/03/19 09:30
2623922002	**PZ-16**	Water	10/02/19 13:55	10/03/19 09:30
2623922003	**PZ-17**	Water	10/02/19 15:30	10/03/19 09:30
2623922004	**Dup-01**	Water	10/02/19 00:00	10/03/19 09:30

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(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2623922

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623922001	**PZ-31**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623922002	**PZ-16**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623922003	**PZ-17**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623922004	**Dup-01**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623922

Sample: PZ-31 **Lab ID: 2623922001** Collected: 10/02/19 10:25 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.0883 ± 0.144 (0.313) C:95% T:NA**	pCi/L	10/18/19 08:18	13982-63-3	
Radium-228	EPA 9320	**-0.163 ± 0.563 (1.32) C:54% T:96%**	pCi/L	10/23/19 12:46	15262-20-1	
Total Radium	Total Radium Calculation	**0.0883 ± 0.707 (1.63)**	pCi/L	11/01/19 10:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623922

Sample: PZ-16 **Lab ID: 2623922002** Collected: 10/02/19 13:55 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.440 ± 0.294 (0.467) C:80% T:NA**	pCi/L	10/18/19 08:19	13982-63-3	
Radium-228	EPA 9320	**0.210 ± 0.756 (1.71) C:54% T:82%**	pCi/L	10/23/19 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**0.650 ± 1.05 (2.18)**	pCi/L	11/01/19 10:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623922

Sample: PZ-17 **Lab ID: 2623922003** Collected: 10/02/19 15:30 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.513 ± 0.297 (0.435) C:89% T:NA**	pCi/L	10/18/19 08:19	13982-63-3	
Radium-228	EPA 9320	**0.826 ± 0.691 (1.39) C:69% T:78%**	pCi/L	10/23/19 15:59	15262-20-1	
Total Radium	Total Radium Calculation	**1.34 ± 0.988 (1.83)**	pCi/L	11/01/19 10:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623922

Sample: Dup-01 **Lab ID: 2623922004** Collected: 10/02/19 00:00 Received: 10/03/19 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.637 ± 0.360 (0.563) C:93% T:NA**	pCi/L	10/18/19 09:17	13982-63-3	
Radium-228	EPA 9320	**0.531 ± 0.576 (1.20) C:68% T:82%**	pCi/L	10/23/19 16:00	15262-20-1	
Total Radium	Total Radium Calculation	**1.17 ± 0.936 (1.76)**	pCi/L	11/01/19 10:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623922

QC Batch: 366031 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623922001, 2623922002, 2623922003, 2623922004

METHOD BLANK: 1775592 Matrix: Water
Associated Lab Samples: 2623922001, 2623922002, 2623922003, 2623922004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.000680 ± 0.296 (0.693) C:76% T:86%	pCi/L	10/23/19 12:34	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623922

QC Batch: 366030 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623922001, 2623922002, 2623922003, 2623922004

METHOD BLANK: 1775591 Matrix: Water
Associated Lab Samples: 2623922001, 2623922002, 2623922003, 2623922004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.592 ± 0.321 (0.466) C:93% T:NA	pCi/L	10/18/19 07:54	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2623922

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2623922

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623922001	**PZ-31**	EPA 9315	366030		
2623922002	**PZ-16**	EPA 9315	366030		
2623922003	**PZ-17**	EPA 9315	366030		
2623922004	**Dup-01**	EPA 9315	366030		
2623922001	**PZ-31**	EPA 9320	366031		
2623922002	**PZ-16**	EPA 9320	366031		
2623922003	**PZ-17**	EPA 9320	366031		
2623922004	**Dup-01**	EPA 9320	366031		
2623922001	**PZ-31**	Total Radium Calculation	368952		
2623922002	**PZ-16**	Total Radium Calculation	368952		
2623922003	**PZ-17**	Total Radium Calculation	368952		
2623922004	**Dup-01**	Total Radium Calculation	368952		

1
DH

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A — Required Client Information:

Company	Georgia Power - Coal Combustion Residuals
Address	2480 Maner Road
	Atlanta, GA 30339
Email	jabraham@southernco.com
Phone	(404)506-7239 Fax:
Requested Due Date:	Standard

Section B — Required Project Information:

Report To:	Joju Abraham
Copy To:	Wood PLC
Purchase Order #:	SCS10382775
Project Name:	Plant Mitchell CCR
Project #:	6122160170

Section C — Invoice Information:

Attention:	scsinvoices@southernco.com
Company Name:	
Address:	
Pace Quote:	
Pace Project Manager:	betsy.mcdaniel@pacelabs.com,
Pace Profile #:	333.1.2

Regulatory Agency: —
State / Location: GA

SAMPLE ID
One Character per box.
(A-Z, 0-9 / , -)
Sample Ids must be unique

MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS

ITEM #	SAMPLE ID	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	START TIME	END DATE	END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chlorine (Y/N)
1	PZ-31	WT	G			10/2/19	1025		4	X		X						N	X	X	X	
2	PZ-16	WT	G			10/2/19	1355		4	X		X						N	X	X	X	
3	PZ-17	WT	G			10/2/19	1530		4	X		X						N	X	X	X	
4	DUP-01	WT	G			10/2/19	—		4	X		X						N	X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2623922
2623922

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App III metals: B, Ca	Daniel Howard / Wood	10/2/19	1800	M Zaluzan	10/03/19	0930	
App IV metals: Sb, As, Ba, Cr, Co, Pb, Li, Mo, Se, Tl							

	TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
	0.5	Y	Y	Y

SAMPLER NAME AND SIGNATURE
PRINT Name of SAMPLER: Daniel Howard
SIGNATURE of SAMPLER: Daniel Howard
DATE Signed: 10/2/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO# : 2623922

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #: 8121 9394 6079

PM: BM Due Date: 10/31/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: Wet Blue None

☐ Samples on ice, cooling process has begun

Cooler Temperature 0.5 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/03/19 MK

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:	W	
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☐Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

November 04, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2623954

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2623954

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2623954

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623954001	**PZ-18+QC**	Water	10/03/19 09:40	10/04/19 09:05
2623954002	**PZ-7D**	Water	10/03/19 11:10	10/04/19 09:05

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110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2623954

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623954001	**PZ-18+QC**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623954002	**PZ-7D**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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110 Technology Parkway
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(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623954

Sample: PZ-18+QC **Lab ID: 2623954001** Collected: 10/03/19 09:40 Received: 10/04/19 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.508 ± 0.297 (0.343) C:85% T:NA**	pCi/L	10/25/19 08:34	13982-63-3	
Radium-228	EPA 9320	**1.56 ± 0.614 (0.971) C:71% T:78%**	pCi/L	10/29/19 15:27	15262-20-1	
Total Radium	Total Radium Calculation	**2.07 ± 0.911 (1.31)**	pCi/L	11/01/19 10:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623954

Sample: PZ-7D **Lab ID: 2623954002** Collected: 10/03/19 11:10 Received: 10/04/19 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.654 ± 0.329 (0.402) C:89% T:NA**	pCi/L	10/25/19 09:00	13982-63-3	
Radium-228	EPA 9320	**0.711 ± 0.444 (0.841) C:74% T:86%**	pCi/L	10/29/19 15:27	15262-20-1	
Total Radium	Total Radium Calculation	**1.37 ± 0.773 (1.24)**	pCi/L	11/01/19 14:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623954

QC Batch: 366498 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623954001, 2623954002

METHOD BLANK: 1777737 Matrix: Water
Associated Lab Samples: 2623954001, 2623954002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.599 ± 0.309 (0.395) C:98% T:NA	pCi/L	10/25/19 09:42	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623954

QC Batch: 366499 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623954001, 2623954002

METHOD BLANK: 1777739 Matrix: Water
Associated Lab Samples: 2623954001, 2623954002

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.720 ± 0.387 (0.688) C:72% T:87%	pCi/L	10/29/19 12:24	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2623954

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2623954

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623954001	**PZ-18+QC**	EPA 9315	366498		
2623954002	**PZ-7D**	EPA 9315	366498		
2623954001	**PZ-18+QC**	EPA 9320	366499		
2623954002	**PZ-7D**	EPA 9320	366499		
2623954001	**PZ-18+QC**	Total Radium Calculation	368952		
2623954002	**PZ-7D**	Total Radium Calculation	369016		

Pace Analytical

CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood PLC	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell CCR	Pace Project Manager:	betsy.mcdaniel@pacelabs.com
Requested Due Date:	Standard	Project #:	6122160170	Pace Profile #:	333.1.2

Regulatory Agency:

State / Location: GA

Requested Analysis Filtered (Y/N)

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Analyses Test Y/N	Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chlorine (Y/N)
	MATRIX: Drinking Water DW, Water WT, Waste Water WW, Product P, Soil/Solid SL, Oil OL, Wipe WP, Air AR, Other OT, Tissue TS																	Y/N	N	N	N	
1	PZ-18 + QC	WT	G			10/3/19	0940		6	X		X							X	X	X	
2	PZ-7D	WT	G			10/3/19	1110		4	X		X							X	X	X	
3																						
4																						
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2623954

2623954

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App III metals: B, Ca	Daniel Howard/Wood	10/3/19	1630	McKalman	10/04/19	0905	
App IV metals: Sb, As, Ba, Cr, Co, Pb, Li, Mo, Se, Tl							

SAMPLER NAME AND SIGNATURE					
PRINT Name of SAMPLER:	Daniel Howard				
SIGNATURE of SAMPLER:	Daniel Howard	DATE Signed:	10/3/19		

TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
1.0	Y	Y	Y

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 2623954

PM: BM **Due Date: 11/01/19**

CLIENT: GAPower-CCR

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #:

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 **Type of Ice:** Wet Blue None

☐ Samples on ice, cooling process has begun

Cooler Temperature 1.0 **Biological Tissue is Frozen:** Yes No

Date and Initials of person examining contents: 10/04/19

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix:	W	
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed / Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

November 04, 2019

Joju Abraham
Georgia Power - Coal Combustion Residuals
2480 Maner Road
Atlanta, GA 30339

RE: Project: Plant Mitchell
Pace Project No.: 2623956

Dear Joju Abraham:
Enclosed are the analytical results for sample(s) received by the laboratory on October 04, 2019. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

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

Sincerely,

Betsy McDaniel
betsy.mcdaniel@pacelabs.com
(770)734-4200
Project Manager

Enclosures

cc: Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw
Rebecca Thornton, Pace Analytical Atlanta
Greg Wrenn, Wood PLC

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

CERTIFICATIONS

Project: Plant Mitchell
Pace Project No.: 2623956

Pennsylvania Certification IDs

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991
Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE SUMMARY

Project: Plant Mitchell
Pace Project No.: 2623956

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2623956001	**FB-01**	Water	10/03/19 08:10	10/04/19 09:05
2623956002	**EB-02**	Water	10/03/19 08:25	10/04/19 09:05
2623956003	**PZ-33**	Water	10/03/19 09:50	10/04/19 09:05
2623956004	**PZ-19**	Water	10/03/19 12:00	10/04/19 09:05

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

SAMPLE ANALYTE COUNT

Project: Plant Mitchell
Pace Project No.: 2623956

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2623956001	**FB-01**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623956002	**EB-02**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623956003	**PZ-33**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2623956004	**PZ-19**	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623956

Sample: FB-01 **Lab ID: 2623956001** Collected: 10/03/19 08:10 Received: 10/04/19 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.341 ± 0.244 (0.410) C:98% T:NA**	pCi/L	10/18/19 08:02	13982-63-3	
Radium-228	EPA 9320	**0.397 ± 0.420 (0.868) C:54% T:91%**	pCi/L	10/23/19 13:10	15262-20-1	
Total Radium	Total Radium Calculation	**0.738 ± 0.664 (1.28)**	pCi/L	10/30/19 16:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623956

Sample: EB-02 **Lab ID: 2623956002** Collected: 10/03/19 08:25 Received: 10/04/19 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.362 ± 0.261 (0.439) C:95% T:NA**	pCi/L	10/18/19 07:53	13982-63-3	
Radium-228	EPA 9320	**-0.0922 ± 0.336 (0.806) C:64% T:95%**	pCi/L	10/23/19 12:56	15262-20-1	
Total Radium	Total Radium Calculation	**0.362 ± 0.597 (1.25)**	pCi/L	10/30/19 16:01	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623956

Sample: PZ-33 **Lab ID: 2623956003** Collected: 10/03/19 09:50 Received: 10/04/19 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**0.548 ± 0.359 (0.621) C:85% T:NA**	pCi/L	10/18/19 07:53	13982-63-3	
Radium-228	EPA 9320	**1.07 ± 0.656 (1.26) C:59% T:87%**	pCi/L	10/23/19 12:46	15262-20-1	
Total Radium	Total Radium Calculation	**1.62 ± 1.02 (1.88)**	pCi/L	11/01/19 10:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623956

Sample: PZ-19 **Lab ID: 2623956004** Collected: 10/03/19 12:00 Received: 10/04/19 09:05 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Radium-226	EPA 9315	**1.12 ± 0.426 (0.349) C:84% T:NA**	pCi/L	10/18/19 08:18	13982-63-3	
Radium-228	EPA 9320	**0.780 ± 0.564 (1.12) C:60% T:86%**	pCi/L	10/23/19 12:46	15262-20-1	
Total Radium	Total Radium Calculation	**1.90 ± 0.990 (1.47)**	pCi/L	11/01/19 10:40	7440-14-4	

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623956

QC Batch: 366031 Analysis Method: EPA 9320
QC Batch Method: EPA 9320 Analysis Description: 9320 Radium 228
Associated Lab Samples: 2623956001, 2623956002, 2623956003, 2623956004

METHOD BLANK: 1775592 Matrix: Water
Associated Lab Samples: 2623956001, 2623956002, 2623956003, 2623956004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.000680 ± 0.296 (0.693) C:76% T:86%	pCi/L	10/23/19 12:34	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL - RADIOCHEMISTRY

Project: Plant Mitchell
Pace Project No.: 2623956

QC Batch: 366030 Analysis Method: EPA 9315
QC Batch Method: EPA 9315 Analysis Description: 9315 Total Radium
Associated Lab Samples: 2623956001, 2623956002, 2623956003, 2623956004

METHOD BLANK: 1775591 Matrix: Water
Associated Lab Samples: 2623956001, 2623956002, 2623956003, 2623956004

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.592 ± 0.321 (0.466) C:93% T:NA	pCi/L	10/18/19 07:54	

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

REPORT OF LABORATORY ANALYSIS

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALIFIERS

Project: Plant Mitchell
Pace Project No.: 2623956

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

Unc - Uncertainty: SDWA = 1.96 sigma count uncertainty, all other matrices = Expanded Uncertainty (95% confidence interval). Gamma Spec = Expanded Uncertainty (95.4% Confidence Interval)

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

LABORATORIES

PASI-PA Pace Analytical Services - Greensburg

Pace Analytical Services, LLC
110 Technology Parkway
Peachtree Corners, GA 30092
(770)734-4200

QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Plant Mitchell
Pace Project No.: 2623956

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2623956001	**FB-01**	EPA 9315	366030		
2623956002	**EB-02**	EPA 9315	366030		
2623956003	**PZ-33**	EPA 9315	366030		
2623956004	**PZ-19**	EPA 9315	366030		
2623956001	**FB-01**	EPA 9320	366031		
2623956002	**EB-02**	EPA 9320	366031		
2623956003	**PZ-33**	EPA 9320	366031		
2623956004	**PZ-19**	EPA 9320	366031		
2623956001	**FB-01**	Total Radium Calculation	368618		
2623956002	**EB-02**	Total Radium Calculation	368618		
2623956003	**PZ-33**	Total Radium Calculation	368952		
2623956004	**PZ-19**	Total Radium Calculation	368952		

CHAIN-OF-CUSTODY / Analytical Request Document

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

Page : 1 Of 1

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Joju Abraham	Attention:	scsinvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood PLC	Company Name:	
	Atlanta, GA 30339			Address:	
Email:	jabraham@southernco.com	Purchase Order #:	SCS10382775	Pace Quote:	
Phone:	(404)506-7239 Fax:	Project Name:	Plant Mitchell CCR	Pace Project Manager:	betsy.mcdaniel@pacelabs.com
Requested Due Date:	Standard	Project #:	6122160170	Pace Profile #:	333.1.2

Regulatory Agency: —
State / Location: GA

ITEM #	SAMPLE ID (One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique)	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED START DATE	COLLECTED START TIME	COLLECTED END DATE	COLLECTED END TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives: Unpreserved	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol	Other	Requested Analysis Filtered (Y/N): Y/N	Analyses Test: Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chlorine (Y/N)
	MATRIX CODE: Drinking Water DW; Water WT; Waste Water WW; Product P; Soil/Solid SL; Oil OL; Wipe WP; Air AR; Other OT; Tissue TS																	N	N	N	N	
1	FB-01	WT	G			10/3/19	0810		4	X		X							X	X	X	
2	EB-02	WT	G				0825		4	X		X							X	X	X	
3	PZ-33	WT	G				0950		4	X		X							X	X	X	
4	PZ-19	WT	G			↓	1200		4	X		X							X	X	X	
5																						
6																						
7																						
8																						
9																						
10																						
11																						
12																						

WO# : 2623956

2623956

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS: TEMP in C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
App III metals: B, Co	Daniel Howard/Wood	10/3/19	1630	M Zalman	10/04/19	0905	1.0	Y	Y	Y
App IV metals: Sb, As, Ba, Cr, Co, Pb, Li, Mo, Se, Tl										

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard

DATE Signed: 10/3/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GA Power

Project #

WO#: 2623956

Courier: ☑ Fed Ex ☐ UPS ☐ USPS ☐ Client ☐ Commercial ☐ Pace Other

Tracking #:

PM: BM Due Date: 11/01/19

CLIENT: GAPower-CCR

Custody Seal on Cooler/Box Present: ☑ yes ☐ no Seals intact: ☑ yes

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☑ None ☐ Other

Thermometer Used 83 Type of Ice: Wet Blue None

☐ Samples on ice, cooling process has begun

Cooler Temperature 1.0 Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/04/19 MR

Temp should be above freezing to 6°C

		Comments:
Chain of Custody Present:	☑Yes ☐No ☐N/A	1.
Chain of Custody Filled Out:	☑Yes ☐No ☐N/A	2.
Chain of Custody Relinquished:	☑Yes ☐No ☐N/A	3.
Sampler Name & Signature on COC:	☑Yes ☐No ☐N/A	4.
Samples Arrived within Hold Time:	☑Yes ☐No ☐N/A	5.
Short Hold Time Analysis (<72hr):	☐Yes ☑No ☐N/A	6.
Rush Turn Around Time Requested:	☐Yes ☑No ☐N/A	7.
Sufficient Volume:	☑Yes ☐No ☐N/A	8.
Correct Containers Used:	☑Yes ☐No ☐N/A	9.
-Pace Containers Used:	☑Yes ☐No ☐N/A	
Containers Intact:	☑Yes ☐No ☐N/A	10.
Filtered volume received for Dissolved tests	☐Yes ☐No ☑N/A	11.
Sample Labels match COC:	☑Yes ☐No ☐N/A	12.
-Includes date/time/ID/Analysis Matrix: W		
All containers needing preservation have been checked.	☑Yes ☐No ☐N/A	13.
All containers needing preservation are found to be in compliance with EPA recommendation.	☑Yes ☐No ☐N/A	
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	☐Yes ☑No	Initial when completed: Lot # of added preservative
Samples checked for dechlorination:	☐Yes ☐No ☑N/A	14.
Headspace in VOA Vials (>6mm):	☐Yes ☐No ☑N/A	15.
Trip Blank Present:	☐Yes ☐No ☑N/A	16.
Trip Blank Custody Seals Present	☐Yes ☐No ☑N/A	
Pace Trip Blank Lot # (if purchased):		

Client Notification/ Resolution: Field Data Required? Y / N

Person Contacted: Date/Time:

Comments/ Resolution:

Project Manager Review: **Date:**

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

Product Name: Low-Flow System

Date: 2019-10-01 16:29:08

Project Information:		Pump Information:	
Operator Name	Ever Guillem	Pump Model/Type	QED
Company Name	Wood	Tubing Type	PE
Project Name	Plant Mitchell	Tubing Diameter	.17 in
Site Name	PZ-1D	Tubing Length	55.86 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	N/A	Pump placement from TOC	55.86 ft

Well Information:		Pumping Information:	
Well ID	PZ-1D	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.7293268 L
Well Total Depth	81.71 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	55.86 ft	Total Volume Pumped	8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	16:04:09	1200.02	22.61	7.36	242.53	1.37	55.97	3.67	75.39
Last 5	16:09:09	1500.03	22.35	7.41	245.00	1.24	55.97	3.73	76.91
Last 5	16:14:09	1800.02	22.26	7.45	248.00	1.06	55.97	3.80	75.49
Last 5	16:19:09	2100.02	22.17	7.47	249.34	0.91	55.97	3.89	73.56
Last 5	16:24:09	2400.02	22.30	7.50	250.52	0.82	55.97	3.93	71.31
Variance 0			-0.09	0.04	3.01			0.07	-1.42
Variance 1			-0.09	0.02	1.33			0.09	-1.93
Variance 2			0.13	0.03	1.18			0.04	-2.25

Notes

PZ-1D Sampled at 1630

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-02 10:42:04

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Bladder Pump
Company Name	Wood E&I S	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	0.17 in
Site Name	PZ-2D	Tubing Length	81 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	369555		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	76 ft

Well Information:		Pumping Information:	
Well ID	PZ-2D	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.8415373 L
Well Total Depth	81.01 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.16 in
Depth to Water	39.42 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:16:51	900.02	20.40	8.86	121.36	4.44	39.58	2.50	89.12
Last 5	10:21:51	1200.02	20.33	8.89	126.08	3.23	39.58	2.55	91.78
Last 5	10:26:51	1500.02	20.29	8.93	130.28	2.88	39.58	2.57	99.79
Last 5	10:31:51	1800.02	20.23	8.94	132.68	2.34	39.58	2.58	103.53
Last 5	10:36:51	2100.02	20.16	8.97	132.84	3.19	39.58	2.57	97.44
Variance 0			-0.04	0.03	4.20			0.01	8.01
Variance 1			-0.06	0.01	2.39			0.01	3.75
Variance 2			-0.07	0.03	0.16			-0.01	-6.09

Notes

PZ-2D sample time 1038

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-03 11:09:42

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-7D	Tubing Length	50.37 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	55.37 ft

Well Information:		Pumping Information:	
Well ID	PZ-7D	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.966208 L
Well Total Depth	60.37 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	37.15 ft	Total Volume Pumped	5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:45:49	300.03	21.90	6.91	611.18	3.34	37.55	0.40	47.14
Last 5	10:50:49	600.03	21.72	6.87	613.78	2.42	37.55	0.29	53.70
Last 5	10:55:49	900.03	21.76	6.86	614.80	1.03	37.55	0.29	55.52
Last 5	11:00:49	1200.03	21.72	6.85	613.66	0.86	37.55	0.28	56.95
Last 5	11:05:49	1500.03	21.72	6.85	612.82	0.64	37.55	0.27	58.76
Variance 0			0.04	-0.01	1.01			-0.00	1.82
Variance 1			-0.04	-0.01	-1.13			-0.01	1.43
Variance 2			-0.00	0.00	-0.84			-0.01	1.81

Notes

Sampled at 1110

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-02 12:32:49

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-14	Tubing Length	43.20 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	38.20 ft

Well Information:		Pumping Information:	
Well ID	PZ-14	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.896998 L
Well Total Depth	53.20 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	46.72 ft	Total Volume Pumped	13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:07:07	2700.02	22.51	6.96	525.15	0.38	42.83	4.22	64.80
Last 5	12:12:07	3000.02	22.64	6.96	525.62	0.32	42.83	4.16	64.72
Last 5	12:17:07	3300.03	22.45	6.96	525.17	0.68	42.83	4.11	64.20
Last 5	12:22:07	3600.02	22.49	6.96	525.43	0.66	42.83	4.08	64.33
Last 5	12:27:07	3900.02	22.57	6.96	524.50	0.53	42.83	4.05	63.93
Variance 0			-0.19	0.01	-0.45			-0.05	-0.52
Variance 1			0.04	-0.00	0.26			-0.03	0.13
Variance 2			0.08	0.00	-0.93			-0.03	-0.40

Notes

Sampled at 1230

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-02 15:24:42

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Bladder Pump
Company Name	Wood E&I S	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	0.25 in
Site Name	PZ-15	Tubing Length	83.2 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	369555		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	78.22 ft

Well Information:		Pumping Information:	
Well ID	PZ-15	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.283107 L
Well Total Depth	83.22 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.21 in
Depth to Water	34.87 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:01:28	900.03	24.93	7.26	535.29	2.15	35.08	0.27	-76.83
Last 5	15:06:28	1200.03	24.85	7.24	536.54	2.02	35.08	0.22	-67.03
Last 5	15:11:28	1500.02	24.41	7.23	534.97	1.35	35.08	0.20	-61.33
Last 5	15:16:28	1800.02	24.51	7.23	533.28	1.30	35.09	0.19	-64.25
Last 5	15:21:28	2100.02	24.23	7.22	531.44	1.24	35.08	0.18	-67.60
Variance 0			-0.45	-0.01	-1.57			-0.02	5.70
Variance 1			0.10	-0.00	-1.69			-0.01	-2.92
Variance 2			-0.28	-0.00	-1.85			-0.01	-3.35

Notes

PZ-15 sample time 1523

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-02 13:52:33

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-16	Tubing Length	43.19 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	48.19 ft

Well Information:		Pumping Information:	
Well ID	PZ-16	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.8969014 L
Well Total Depth	53.19 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	38.13 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:24:48	300.03	21.87	7.25	468.89	1.27	38.43	1.09	64.88
Last 5	13:29:48	600.03	21.81	7.24	469.80	1.36	38.43	1.06	64.81
Last 5	13:34:48	900.02	21.85	7.24	472.28	0.47	38.43	1.06	64.39
Last 5	13:39:48	1200.02	21.82	7.22	472.32	0.46	38.43	1.06	64.39
Last 5	13:49:49	1801.02	21.70	7.22	472.91	0.58	38.43	1.05	63.41
Variance 0			0.04	-0.00	2.48			0.00	-0.43
Variance 1			-0.03	-0.01	0.04			0.00	0.00
Variance 2			-0.12	-0.00	0.59			-0.02	-0.97

Notes

Sampled at 1355

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-02 15:27:29

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-17	Tubing Length	52.70 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	57.70 ft

Well Information:		Pumping Information:	
Well ID	PZ-17	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.988699 L
Well Total Depth	62.70 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	36.65 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	15:04:16	900.03	22.55	6.99	650.52	0.54	36.92	0.16	-74.49
Last 5	15:09:16	1200.03	22.13	7.00	649.41	0.47	36.92	0.16	-73.94
Last 5	15:14:16	1500.03	22.12	6.99	650.83	0.30	36.92	0.16	-68.79
Last 5	15:19:16	1800.03	21.99	6.99	649.93	0.27	37.92	0.16	-67.34
Last 5	15:24:16	2100.03	22.02	6.99	651.49	0.24	36.92	0.16	-66.74
Variance 0			-0.00	-0.01	1.42			0.00	5.15
Variance 1			-0.14	0.00	-0.90			-0.00	1.45
Variance 2			0.04	0.00	1.56			0.00	0.60

Notes: Sampled at
1530
Also collected
DUP-01
Grab Samples

Product Name: Low-Flow System

Date: 2019-10-03 09:39:03

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-18	Tubing Length	53.18 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	58.18 ft

Well Information:		Pumping Information:	
Well ID	PZ-18	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.9933323 L
Well Total Depth	63.18 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	33.97 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:15:02	600.03	22.08	6.71	682.49	0.96	34.33	0.16	-12.33
Last 5	09:20:02	900.03	22.09	6.75	682.44	1.23	34.33	0.16	-8.22
Last 5	09:25:02	1200.03	22.11	6.77	682.66	0.93	34.33	0.16	-5.20
Last 5	09:30:02	1500.03	22.20	6.78	682.31	0.72	34.33	0.16	-3.48
Last 5	09:35:02	1800.03	22.19	6.78	682.29	0.53	34.33	0.16	-2.21
Variance 0			0.01	0.02	0.22			0.00	3.02
Variance 1			0.10	0.01	-0.35			0.00	1.73
Variance 2			-0.01	0.01	-0.02			-0.00	1.26

Notes

Sampled at 0940

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-03 12:02:19

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Bladder Pump
Company Name	Wood E&I S	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	0.25 in
Site Name	PZ-19	Tubing Length	62.6 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	369555		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	57.63 ft

Well Information:		Pumping Information:	
Well ID	PZ-19	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.084261 L
Well Total Depth	62.63 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.09 in
Depth to Water	35.91 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	11:38:47	600.03	23.68	6.99	716.38	1.32	35.99	0.38	10.73
Last 5	11:43:47	900.03	23.55	6.96	715.55	0.60	36.00	0.32	19.24
Last 5	11:48:47	1200.03	23.62	6.95	714.82	0.89	36.00	0.26	22.56
Last 5	11:53:47	1500.03	23.63	6.94	717.51	0.41	36.00	0.24	24.37
Last 5	11:58:47	1800.03	23.60	6.93	721.14	0.59	36.00	0.22	25.34
Variance 0			0.07	-0.01	-0.73			-0.06	3.31
Variance 1			0.01	-0.01	2.69			-0.02	1.82
Variance 2			-0.03	-0.01	3.63			-0.02	0.97

Notes

PZ-19 sample time 1200

Grab Samples

Product Name: Low-Flow System

Date: 2019-09-10 09:48:44

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Micropurge
Company Name	Wood E&I S	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.17 in
Site Name	PZ-23	Tubing Length	63.6 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	369323		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	58.6 ft

Well Information:		Pumping Information:	
Well ID	PZ-23	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.7638736 L
Well Total Depth	63.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	52.54 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.5	+/- 10
Last 5	09:25:07	901.02	22.06	6.78	743.90	0.30	53.14	4.31	57.20
Last 5	09:30:07	1201.02	22.08	6.78	743.03	0.32	53.14	4.31	61.67
Last 5	09:35:07	1501.02	22.07	6.78	742.02	0.38	53.15	4.29	69.39
Last 5	09:40:07	1801.02	22.15	6.78	741.09	0.41	53.16	4.31	78.58
Last 5	09:45:07	2101.02	22.24	6.78	740.63	0.26	53.16	4.29	92.90
Variance 0			-0.01	-0.00	-1.01			-0.01	7.72
Variance 1			0.08	0.00	-0.93			0.02	9.19
Variance 2			0.09	0.00	-0.46			-0.02	14.32

Notes

PZ-23 sample time 0947

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-02 13:19:09

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Bladder Pump
Company Name	Wood E&I S	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	0.25 in
Site Name	PZ-25	Tubing Length	53.2 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	369555		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	48.19 ft

Well Information:		Pumping Information:	
Well ID	PZ-25	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.9935253 L
Well Total Depth	53.19 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.13 in
Depth to Water	34.66 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	12:53:37	599.93	23.28	7.30	463.93	1.02	34.79	0.16	-86.42
Last 5	12:58:37	899.93	23.23	7.25	462.57	0.41	34.79	0.15	-90.49
Last 5	13:03:37	1199.93	23.23	7.23	464.56	0.34	34.79	0.14	-92.35
Last 5	13:08:37	1499.93	23.14	7.21	464.67	0.33	34.79	0.14	-93.12
Last 5	13:13:37	1799.93	23.06	7.20	466.53	0.31	34.79	0.14	-93.52
Variance 0			-0.00	-0.03	1.99			-0.01	-1.86
Variance 1			-0.09	-0.01	0.11			-0.00	-0.77
Variance 2			-0.08	-0.01	1.86			-0.00	-0.39

Notes

PZ-25 sample time 1315. Also collected DUP-02

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-02 10:34:42

Project Information:		Pump Information:	
Operator Name	Ever Guillen	Pump Model/Type	QED
Company Name	Wood E&IS	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	.25 in
Site Name	PZ-31	Tubing Length	51.60 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	601534		
Turbidity Make/Model	HACH 2100Q	Pump placement from TOC	66.60 ft

Well Information:		Pumping Information:	
Well ID	PZ-31	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	0.9780809 L
Well Total Depth	61.60 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0 in
Depth to Water	42.56 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:11:50	1200.03	20.38	7.04	459.62	0.67	42.72	4.64	63.67
Last 5	10:16:50	1500.03	20.43	7.05	460.35	0.54	42.72	4.66	63.56
Last 5	10:21:50	1800.03	20.47	7.06	459.04	0.51	42.72	4.67	63.64
Last 5	10:26:50	2100.02	20.48	7.08	458.99	--	--	4.88	62.85
Last 5	10:31:50	2400.02	21.12	7.09	458.93	--	--	4.90	63.05
Variance 0			0.04	0.01	-1.31			0.01	0.08
Variance 1			0.00	0.02	-0.06			0.21	-0.80
Variance 2			0.65	0.01	-0.05			0.02	0.20

Notes

Sampled at 1025

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-01 16:14:12

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Bladder Pump
Company Name	Wood E&I S	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	0.25 in
Site Name	PZ-32	Tubing Length	65.3 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	369555		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	60.3 ft

Well Information:		Pumping Information:	
Well ID	PZ-32	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.110323 L
Well Total Depth	65.30 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.04 in
Depth to Water	41.57 ft	Total Volume Pumped	6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:49:55	600.03	21.04	7.40	322.62	0.60	41.61	0.67	77.30
Last 5	15:54:55	900.02	20.97	7.41	322.23	0.64	41.61	0.61	74.94
Last 5	15:59:55	1200.03	20.96	7.42	321.71	0.32	41.61	0.57	73.32
Last 5	16:04:55	1500.03	20.95	7.42	321.55	0.24	41.61	0.54	74.18
Last 5	16:09:56	1800.61	20.90	7.43	321.47	0.20	41.61	0.53	70.92
Variance 0			-0.01	0.01	-0.52			-0.04	-1.62
Variance 1			-0.00	0.00	-0.15			-0.03	0.85
Variance 2			-0.05	0.01	-0.09			-0.01	-3.25

Notes

PZ-32 sample time 1610

Grab Samples

Product Name: Low-Flow System

Date: 2019-10-03 09:52:28

Project Information:		Pump Information:	
Operator Name	Daniel Howard	Pump Model/Type	QED Bladder Pump
Company Name	Wood E&I S	Tubing Type	HDPE
Project Name	Plant Mitchell CCR Phase II	Tubing Diameter	0.25 in
Site Name	PZ-33	Tubing Length	73.6 ft
Latitude	0º 0' 0"		
Longitude	0º 0' 0"		
Sonde SN	369555		
Turbidity Make/Model	Hach 2100Q	Pump placement from TOC	68.6 ft

Well Information:		Pumping Information:	
Well ID	PZ-33	Final Pumping Rate	200 mL/min
Well diameter	2 in	Total System Volume	1.190441 L
Well Total Depth	73.6 ft	Calculated Sample Rate	300 sec
Screen Length	10 ft	Stabilization Drawdown	0.25 in
Depth to Water	52.54 ft	Total Volume Pumped	7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond µS/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:29:03	900.03	21.76	7.02	614.97	0.21	52.79	0.49	1.27
Last 5	09:34:03	1200.03	21.83	7.01	617.34	0.24	52.79	0.38	9.26
Last 5	09:39:03	1500.03	21.81	7.01	617.67	0.24	52.79	0.32	14.08
Last 5	09:44:03	1800.03	21.84	7.01	618.28	0.14	52.79	0.29	17.32
Last 5	09:49:03	2100.03	21.89	7.01	618.19	0.20	52.79	0.28	19.96
Variance 0			-0.01	-0.00	0.33			-0.06	4.82
Variance 1			0.03	-0.00	0.61			-0.03	3.24
Variance 2			0.04	-0.00	-0.09			-0.01	2.65

Notes

PZ-33 sample time 0950.

Grab Samples

APPENDIX C

STATISTICAL ANALYSES

Prediction Limit Summary Table – App. III Significant Results

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4 Printed 2/24/2020, 1:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	PZ-23	0.028	n/a	9/10/2019	0.15	Yes	39	5.128	ln(x)	0.000...	Param Inter 1 of 2
Boron (mg/L)	PZ-15	0.028	n/a	10/2/2019	0.17	Yes	39	5.128	ln(x)	0.000...	Param Inter 1 of 2
Boron (mg/L)	PZ-7D	0.028	n/a	10/3/2019	0.24	Yes	39	5.128	ln(x)	0.000...	Param Inter 1 of 2
Boron (mg/L)	PZ-16	0.028	n/a	10/2/2019	0.19	Yes	39	5.128	ln(x)	0.000...	Param Inter 1 of 2
Boron (mg/L)	PZ-17	0.028	n/a	10/2/2019	0.28	Yes	39	5.128	ln(x)	0.000...	Param Inter 1 of 2
Boron (mg/L)	PZ-18	0.028	n/a	10/3/2019	0.35	Yes	39	5.128	ln(x)	0.000...	Param Inter 1 of 2
Boron (mg/L)	PZ-19	0.028	n/a	10/3/2019	0.52	Yes	39	5.128	ln(x)	0.000...	Param Inter 1 of 2
Boron (mg/L)	PZ-25	0.028	n/a	10/2/2019	0.21	Yes	39	5.128	ln(x)	0.000...	Param Inter 1 of 2
Boron (mg/L)	PZ-33	0.028	n/a	10/3/2019	0.36	Yes	39	5.128	ln(x)	0.000...	Param Inter 1 of 2
Calcium (mg/L)	PZ-23	110	n/a	9/10/2019	137	Yes	39	2.564	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	PZ-7D	110	n/a	10/3/2019	127	Yes	39	2.564	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	PZ-17	110	n/a	10/2/2019	115	Yes	39	2.564	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	PZ-18	110	n/a	10/3/2019	139	Yes	39	2.564	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	PZ-19	110	n/a	10/3/2019	125	Yes	39	2.564	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	PZ-14	4.8	n/a	10/2/2019	5.4	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	PZ-15	4.8	n/a	10/2/2019	8	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	PZ-7D	4.8	n/a	10/3/2019	5.9	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	PZ-16	4.8	n/a	10/2/2019	7.7	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	PZ-17	4.8	n/a	10/2/2019	7.9	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	PZ-18	4.8	n/a	10/3/2019	7	Yes	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	PZ-19	4.8	n/a	10/3/2019	5.6	Yes	39	0	No	0.000...	Param Inter 1 of 2
pH (pH units)	PZ-14	9.7	7.0	10/2/2019	6.96	Yes	44	0	n/a	0.001914	NP Inter (normality) ...
pH (pH units)	PZ-23	9.7	7.0	9/10/2019	6.78	Yes	44	0	n/a	0.001914	NP Inter (normality) ...
pH (pH units)	PZ-7D	9.7	7.0	10/3/2019	6.85	Yes	44	0	n/a	0.001914	NP Inter (normality) ...
pH (pH units)	PZ-17	9.7	7.0	10/2/2019	6.99	Yes	44	0	n/a	0.001914	NP Inter (normality) ...
pH (pH units)	PZ-18	9.7	7.0	10/3/2019	6.78	Yes	44	0	n/a	0.001914	NP Inter (normality) ...
pH (pH units)	PZ-19	9.7	7.0	10/3/2019	6.93	Yes	44	0	n/a	0.001914	NP Inter (normality) ...
Sulfate (mg/L)	PZ-23	6.4	n/a	9/10/2019	45.1	Yes	39	0	n/a	0.00117	NP Inter (normality) ...
Sulfate (mg/L)	PZ-15	6.4	n/a	10/2/2019	83	Yes	39	0	n/a	0.00117	NP Inter (normality) ...
Sulfate (mg/L)	PZ-7D	6.4	n/a	10/3/2019	59.6	Yes	39	0	n/a	0.00117	NP Inter (normality) ...
Sulfate (mg/L)	PZ-16	6.4	n/a	10/2/2019	48.5	Yes	39	0	n/a	0.00117	NP Inter (normality) ...
Sulfate (mg/L)	PZ-17	6.4	n/a	10/2/2019	104	Yes	39	0	n/a	0.00117	NP Inter (normality) ...
Sulfate (mg/L)	PZ-18	6.4	n/a	10/3/2019	95.8	Yes	39	0	n/a	0.00117	NP Inter (normality) ...
Sulfate (mg/L)	PZ-19	6.4	n/a	10/3/2019	84.9	Yes	39	0	n/a	0.00117	NP Inter (normality) ...
Sulfate (mg/L)	PZ-25	6.4	n/a	10/2/2019	43	Yes	39	0	n/a	0.00117	NP Inter (normality) ...
Sulfate (mg/L)	PZ-33	6.4	n/a	10/3/2019	72.1	Yes	39	0	n/a	0.00117	NP Inter (normality) ...
Total Dissolved Solids (mg/L)	PZ-23	320	n/a	9/10/2019	420	Yes	39	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	PZ-15	320	n/a	10/2/2019	355	Yes	39	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	PZ-7D	320	n/a	10/3/2019	405	Yes	39	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	PZ-17	320	n/a	10/2/2019	415	Yes	39	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	PZ-18	320	n/a	10/3/2019	464	Yes	39	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	PZ-19	320	n/a	10/3/2019	485	Yes	39	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	PZ-33	320	n/a	10/3/2019	414	Yes	39	0	No	0.000...	Param Inter 1 of 2

Prediction Limit Summary Table – App. IIIAll Results

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4 Printed 2/24/2020, 1:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Boron (mg/L)	PZ-14	0.028	n/a	10/2/2019	0.021	No	39	5.128	ln(x)	0.000...	Param Inter 1 of 2
Boron (mg/L)	**PZ-23**	**0.028**	**n/a**	**9/10/2019**	**0.15**	**Yes**	**39**	**5.128**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Boron (mg/L)	**PZ-15**	**0.028**	**n/a**	**10/2/2019**	**0.17**	**Yes**	**39**	**5.128**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Boron (mg/L)	**PZ-7D**	**0.028**	**n/a**	**10/3/2019**	**0.24**	**Yes**	**39**	**5.128**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Boron (mg/L)	**PZ-16**	**0.028**	**n/a**	**10/2/2019**	**0.19**	**Yes**	**39**	**5.128**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Boron (mg/L)	**PZ-17**	**0.028**	**n/a**	**10/2/2019**	**0.28**	**Yes**	**39**	**5.128**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Boron (mg/L)	**PZ-18**	**0.028**	**n/a**	**10/3/2019**	**0.35**	**Yes**	**39**	**5.128**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Boron (mg/L)	**PZ-19**	**0.028**	**n/a**	**10/3/2019**	**0.52**	**Yes**	**39**	**5.128**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Boron (mg/L)	**PZ-25**	**0.028**	**n/a**	**10/2/2019**	**0.21**	**Yes**	**39**	**5.128**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Boron (mg/L)	**PZ-33**	**0.028**	**n/a**	**10/3/2019**	**0.36**	**Yes**	**39**	**5.128**	**ln(x)**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	PZ-14	110	n/a	10/2/2019	103	No	39	2.564	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	**PZ-23**	**110**	**n/a**	**9/10/2019**	**137**	**Yes**	**39**	**2.564**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	PZ-15	110	n/a	10/2/2019	101	No	39	2.564	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	**PZ-7D**	**110**	**n/a**	**10/3/2019**	**127**	**Yes**	**39**	**2.564**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	PZ-16	110	n/a	10/2/2019	89.1	No	39	2.564	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	**PZ-17**	**110**	**n/a**	**10/2/2019**	**115**	**Yes**	**39**	**2.564**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**PZ-18**	**110**	**n/a**	**10/3/2019**	**139**	**Yes**	**39**	**2.564**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	**PZ-19**	**110**	**n/a**	**10/3/2019**	**125**	**Yes**	**39**	**2.564**	**No**	**0.000...**	**Param Inter 1 of 2**
Calcium (mg/L)	PZ-25	110	n/a	10/2/2019	92.3	No	39	2.564	No	0.000...	Param Inter 1 of 2
Calcium (mg/L)	PZ-33	110	n/a	10/3/2019	110	No	39	2.564	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	**PZ-14**	**4.8**	**n/a**	**10/2/2019**	**5.4**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Chloride (mg/L)	PZ-23	4.8	n/a	9/10/2019	3.8	No	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	**PZ-15**	**4.8**	**n/a**	**10/2/2019**	**8**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Chloride (mg/L)	**PZ-7D**	**4.8**	**n/a**	**10/3/2019**	**5.9**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Chloride (mg/L)	**PZ-16**	**4.8**	**n/a**	**10/2/2019**	**7.7**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Chloride (mg/L)	**PZ-17**	**4.8**	**n/a**	**10/2/2019**	**7.9**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Chloride (mg/L)	**PZ-18**	**4.8**	**n/a**	**10/3/2019**	**7**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Chloride (mg/L)	**PZ-19**	**4.8**	**n/a**	**10/3/2019**	**5.6**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Chloride (mg/L)	PZ-25	4.8	n/a	10/2/2019	2.6	No	39	0	No	0.000...	Param Inter 1 of 2
Chloride (mg/L)	PZ-33	4.8	n/a	10/3/2019	4.1	No	39	0	No	0.000...	Param Inter 1 of 2
Fluoride (mg/L)	PZ-14	0.29	n/a	10/2/2019	0.056	No	43	34.88	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	PZ-23	0.29	n/a	9/10/2019	0.15ND	No	43	34.88	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	PZ-15	0.29	n/a	10/2/2019	0.075	No	43	34.88	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	PZ-7D	0.29	n/a	10/3/2019	0.041	No	43	34.88	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	PZ-16	0.29	n/a	10/2/2019	0.053	No	43	34.88	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	PZ-17	0.29	n/a	10/2/2019	0.063	No	43	34.88	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	PZ-18	0.29	n/a	10/3/2019	0.043	No	43	34.88	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	PZ-19	0.29	n/a	10/3/2019	0.084	No	43	34.88	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	PZ-25	0.29	n/a	10/2/2019	0.16	No	43	34.88	n/a	0.000...	NP Inter (normality) ...
Fluoride (mg/L)	PZ-33	0.29	n/a	10/3/2019	0.06	No	43	34.88	n/a	0.000...	NP Inter (normality) ...
pH (pH units)	**PZ-14**	**9.7**	**7.0**	**10/2/2019**	**6.96**	**Yes**	**44**	**0**	**n/a**	**0.001914**	**NP Inter (normality) ...**
pH (pH units)	**PZ-23**	**9.7**	**7.0**	**9/10/2019**	**6.78**	**Yes**	**44**	**0**	**n/a**	**0.001914**	**NP Inter (normality) ...**
pH (pH units)	PZ-15	9.7	7.0	10/2/2019	7.22	No	44	0	n/a	0.001914	NP Inter (normality) ...
pH (pH units)	**PZ-7D**	**9.7**	**7.0**	**10/3/2019**	**6.85**	**Yes**	**44**	**0**	**n/a**	**0.001914**	**NP Inter (normality) ...**
pH (pH units)	PZ-16	9.7	7.0	10/2/2019	7.22	No	44	0	n/a	0.001914	NP Inter (normality) ...
pH (pH units)	**PZ-17**	**9.7**	**7.0**	**10/2/2019**	**6.99**	**Yes**	**44**	**0**	**n/a**	**0.001914**	**NP Inter (normality) ...**
pH (pH units)	**PZ-18**	**9.7**	**7.0**	**10/3/2019**	**6.78**	**Yes**	**44**	**0**	**n/a**	**0.001914**	**NP Inter (normality) ...**
pH (pH units)	**PZ-19**	**9.7**	**7.0**	**10/3/2019**	**6.93**	**Yes**	**44**	**0**	**n/a**	**0.001914**	**NP Inter (normality) ...**
pH (pH units)	PZ-25	9.7	7.0	10/2/2019	7.2	No	44	0	n/a	0.001914	NP Inter (normality) ...
pH (pH units)	PZ-33	9.7	7.0	10/3/2019	7.01	No	44	0	n/a	0.001914	NP Inter (normality) ...

Prediction Limit Summary Table – App. IIIAll Results

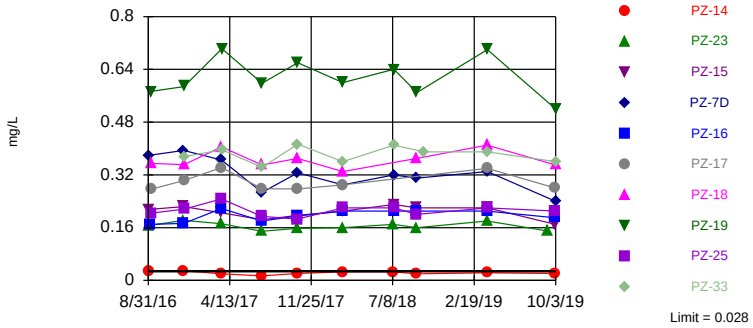
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4 Printed 2/24/2020, 1:02 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	%NDs	Transform	Alpha	Method
Sulfate (mg/L)	PZ-14	6.4	n/a	10/2/2019	6.2	No	39	0	n/a	0.00117	NP Inter (normality) ...
Sulfate (mg/L)	**PZ-23**	**6.4**	**n/a**	**9/10/2019**	**45.1**	**Yes**	**39**	**0**	**n/a**	**0.00117**	**NP Inter (normality) ...**
Sulfate (mg/L)	**PZ-15**	**6.4**	**n/a**	**10/2/2019**	**83**	**Yes**	**39**	**0**	**n/a**	**0.00117**	**NP Inter (normality) ...**
Sulfate (mg/L)	**PZ-7D**	**6.4**	**n/a**	**10/3/2019**	**59.6**	**Yes**	**39**	**0**	**n/a**	**0.00117**	**NP Inter (normality) ...**
Sulfate (mg/L)	**PZ-16**	**6.4**	**n/a**	**10/2/2019**	**48.5**	**Yes**	**39**	**0**	**n/a**	**0.00117**	**NP Inter (normality) ...**
Sulfate (mg/L)	**PZ-17**	**6.4**	**n/a**	**10/2/2019**	**104**	**Yes**	**39**	**0**	**n/a**	**0.00117**	**NP Inter (normality) ...**
Sulfate (mg/L)	**PZ-18**	**6.4**	**n/a**	**10/3/2019**	**95.8**	**Yes**	**39**	**0**	**n/a**	**0.00117**	**NP Inter (normality) ...**
Sulfate (mg/L)	**PZ-19**	**6.4**	**n/a**	**10/3/2019**	**84.9**	**Yes**	**39**	**0**	**n/a**	**0.00117**	**NP Inter (normality) ...**
Sulfate (mg/L)	**PZ-25**	**6.4**	**n/a**	**10/2/2019**	**43**	**Yes**	**39**	**0**	**n/a**	**0.00117**	**NP Inter (normality) ...**
Sulfate (mg/L)	**PZ-33**	**6.4**	**n/a**	**10/3/2019**	**72.1**	**Yes**	**39**	**0**	**n/a**	**0.00117**	**NP Inter (normality) ...**
Total Dissolved Solids (mg/L)	PZ-14	320	n/a	10/2/2019	312	No	39	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**PZ-23**	**320**	**n/a**	**9/10/2019**	**420**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**PZ-15**	**320**	**n/a**	**10/2/2019**	**355**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**PZ-7D**	**320**	**n/a**	**10/3/2019**	**405**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	PZ-16	320	n/a	10/2/2019	284	No	39	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**PZ-17**	**320**	**n/a**	**10/2/2019**	**415**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**PZ-18**	**320**	**n/a**	**10/3/2019**	**464**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	**PZ-19**	**320**	**n/a**	**10/3/2019**	**485**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**
Total Dissolved Solids (mg/L)	PZ-25	320	n/a	10/2/2019	312	No	39	0	No	0.000...	Param Inter 1 of 2
Total Dissolved Solids (mg/L)	**PZ-33**	**320**	**n/a**	**10/3/2019**	**414**	**Yes**	**39**	**0**	**No**	**0.000...**	**Param Inter 1 of 2**

Exceeds Limit: PZ-23, PZ-15, PZ-7D, PZ-16, PZ-17, PZ-18, PZ-19, PZ-25, PZ-33

Prediction Limit

Interwell Parametric



Background Data Summary (based on natural log transformation): Mean=-4.342, Std. Dev.=0.3785, n=39, 5.128% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9586, critical = 0.917. Kappa = 2.072 (c=7, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0007523. Comparing 10 points to limit.

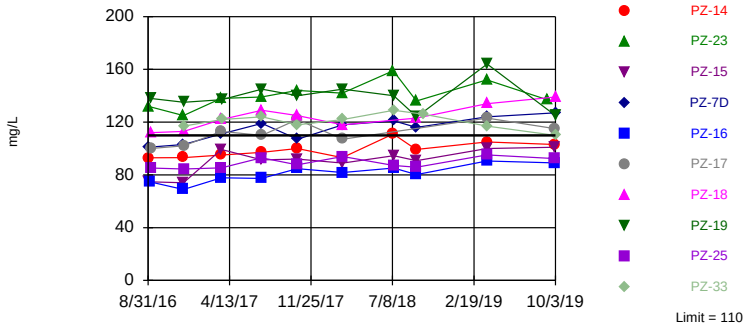
Constituent: Boron Analysis Run 2/24/2020 12:59 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Exceeds Limit: PZ-23, PZ-7D, PZ-17, PZ-18, PZ-19

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=55.01, Std. Dev.=25.36, n=39, 2.564% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9312, critical = 0.917. Kappa = 2.072 (c=7, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0007523. Comparing 10 points to limit.

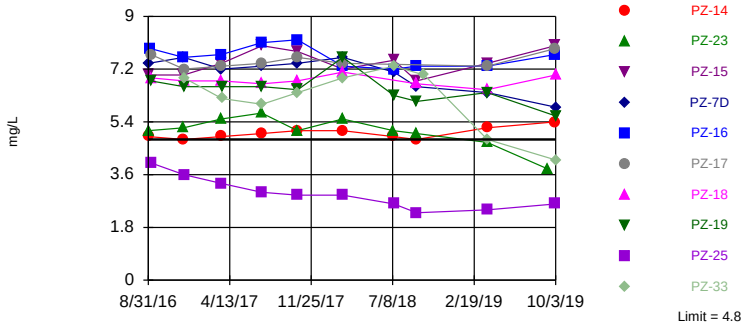
Constituent: Calcium Analysis Run 2/24/2020 12:59 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Exceeds Limit: PZ-14, PZ-15, PZ-7D, PZ-16, PZ-17, PZ-18, PZ-19

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=3.292, Std. Dev.=0.7191, n=39. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9239, critical = 0.917. Kappa = 2.072 (c=7, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0007523. Comparing 10 points to limit.

Constituent: Chloride Analysis Run 2/24/2020 12:59 PM View: App III all wells

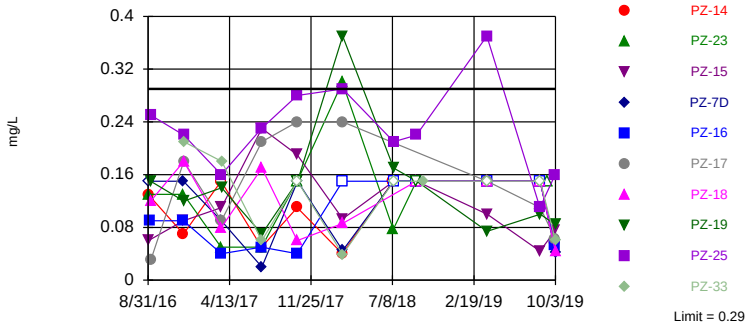
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Hollow symbols indicate censored values.

Within Limit

Prediction Limit

Interwell Non-parametric



Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 43 background values. 34.88% NDs. Annual per-constituent alpha = 0.01971. Individual comparison alpha = 0.0009949 (1 of 2). Comparing 10 points to limit.

Constituent: Fluoride Analysis Run 2/24/2020 12:59 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-23	PZ-14	PZ-7D	PZ-15	PZ-16	PZ-18	PZ-17	PZ-19
8/30/2016	0.0132 (X)								
8/31/2016		0.166	0.0285 (X)						
9/1/2016				0.379	0.215				
9/6/2016						0.17			
9/7/2016							0.355	0.276	0.573
9/8/2016									
10/18/2016									
12/6/2016	0.0096 (X)								
12/7/2016		0.182	0.0292 (X)	0.394	0.224	0.173			
12/8/2016							0.351	0.303	0.588
3/21/2017	0.0082 (X)	0.172	0.0198 (X)						
3/22/2017				0.365	0.205	0.218	0.405	0.342	
3/23/2017									0.703
7/11/2017	0.0067 (X)	0.149	0.0137 (X)			0.18			
7/12/2017				0.267	0.184		0.35	0.278	0.598
10/17/2017	0.0083 (X)								
10/18/2017		0.158	0.0212 (X)		0.197	0.195	0.37	0.277	
10/19/2017				0.326					0.66
2/20/2018	0.024 (X)	0.16	0.026 (X)						
2/21/2018				0.29	0.21	0.21	0.33	0.29	0.6
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	0.017 (X)	0.17	0.026 (X)						
7/12/2018				0.32	0.23	0.21			0.64
9/12/2018	0.012 (X)		0.02 (X)						
9/13/2018		0.16		0.31	0.22	0.21	0.37		
9/14/2018									0.57
10/4/2018									
10/24/2018									
3/26/2019	0.0082 (X)								
3/27/2019		0.18	0.023 (X)			0.21	0.41		
3/28/2019				0.33	0.22			0.34	0.7
9/10/2019		0.15							
10/1/2019	0.0064 (X)								
10/2/2019			0.021 (X)		0.17	0.19		0.28	
10/3/2019				0.24			0.35		0.52

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	0.204				
10/18/2016		0.0174 (X)	0.0156 (X)		
12/6/2016		0.0133 (X)			
12/7/2016			0.0157 (X)		
12/8/2016	0.216			0.375	
3/21/2017		0.0103 (X)			
3/22/2017	0.247				
3/23/2017			0.0103 (X)	0.396	
7/11/2017	0.194	<0.04	<0.04		
7/12/2017				0.343	
10/17/2017		0.0116 (X)	0.0142 (X)		
10/18/2017	0.186				
10/19/2017				0.413	
2/20/2018		0.046 (X)	0.011 (X)		
2/21/2018	0.22			0.36	
4/12/2018					0.016 (X)
5/23/2018					0.018 (X)
6/13/2018					0.014 (X)
7/11/2018		0.014 (X)	0.014 (X)		0.017 (X)
7/12/2018	0.22			0.41	
9/12/2018		0.0098 (X)			0.013 (X)
9/13/2018	0.2		0.013 (X)		
9/14/2018					
10/4/2018				0.39	0.016 (X)
10/24/2018					0.018 (X)
3/26/2019		0.0076 (X)			
3/27/2019	0.22		0.012 (X)		0.016 (X)
3/28/2019				0.39	
9/10/2019					
10/1/2019			0.011 (X)		
10/2/2019	0.21	0.0084 (X)			0.011 (X)
10/3/2019				0.36	

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-23	PZ-14	PZ-7D	PZ-15	PZ-16	PZ-18	PZ-17	PZ-19
8/30/2016	40.4								
8/31/2016		132	92.9						
9/1/2016				101	74.8				
9/6/2016						74.6			
9/7/2016							112	100	138
9/8/2016									
10/18/2016									
12/6/2016	43.3								
12/7/2016		125	93.1	103	74	68.9			
12/8/2016							113	102	135
3/21/2017	44.1	138	95						
3/22/2017				111	99.3	77.8	122	113	
3/23/2017									137
7/11/2017	47.4	139	97.1			77.3			
7/12/2017				119	91.4		129	110	145
10/17/2017	48.7								
10/18/2017		144	100		92	84.7	125	122	
10/19/2017				107					140
2/20/2018	46.8	142	93.1						
2/21/2018				118	89	81.8	118	107	145
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	65.3	159	111						
7/12/2018				121	94.5	85.2			140
9/12/2018	46.6		99.3						
9/13/2018		136		116	90.8	80.2	123		
9/14/2018									124
10/4/2018									
10/24/2018									
3/26/2019	43.3								
3/27/2019		152	105			90.5	134		
3/28/2019				124	100			123	164
9/10/2019		137							
10/1/2019	46.8								
10/2/2019			103		101	89.1		115	
10/3/2019				127			139		125

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	85.2				
10/18/2016		88.3	57.2		
12/6/2016		83.4			
12/7/2016			52.8		
12/8/2016	84.5			117	
3/21/2017		94			
3/22/2017	85.3				
3/23/2017			59.1	122	
7/11/2017	93	86	59.7		
7/12/2017				124	
10/17/2017		91.6	64.9		
10/18/2017	87.6				
10/19/2017				118	
2/20/2018		86.5	64.1		
2/21/2018	93.9			122	
4/12/2018					<25
5/23/2018					17.6 (X)
6/13/2018					14.3
7/11/2018		95.4	60.4		15.6
7/12/2018	87.1			129	
9/12/2018		86			26.9
9/13/2018	85.8		58.7		
9/14/2018					
10/4/2018				126	25
10/24/2018					23.8
3/26/2019		87.3			
3/27/2019	95.2		54.6		26.1
3/28/2019				117	
9/10/2019					
10/1/2019			64.3		
10/2/2019	92.3	95.5			21
10/3/2019				110	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-23	PZ-14	PZ-7D	PZ-15	PZ-16	PZ-18	PZ-17	PZ-19
8/30/2016	3.1 (B)								
8/31/2016		5.1	4.9						
9/1/2016				7.4	7				
9/6/2016						7.9 (B)			
9/7/2016							6.9 (B)	7.7 (B)	6.8 (B)
9/8/2016									
10/18/2016									
12/6/2016	3.4								
12/7/2016		5.2	4.8	7.6	7	7.6			
12/8/2016							6.8	7.2	6.6
3/21/2017	2.9	5.5	4.9						
3/22/2017				7.2	7.4	7.7	6.8	7.3	
3/23/2017									6.6
7/11/2017	3.4	5.7	5			8.1			
7/12/2017				7.3	8		6.7	7.4	6.6
10/17/2017	3.3								
10/18/2017		5.1	5.1		7.8	8.2	6.8	7.6	
10/19/2017				7.4					6.5
2/20/2018	3.3	5.5	5.1						
2/21/2018				7.6	7.2	7.3	7.1	7.4	7.6
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	2.9	5.1	4.9						
7/12/2018				7.1	7.5	7.2			6.3
9/12/2018	2.8		4.8						
9/13/2018		5		6.6	6.8	7.3	6.7		
9/14/2018									6.1
10/4/2018									
10/24/2018									
3/26/2019	3.3								
3/27/2019		4.7	5.2			7.3	6.5		
3/28/2019				6.4	7.4			7.3	6.4
9/10/2019		3.8							
10/1/2019	3.6								
10/2/2019			5.4		8	7.7		7.9	
10/3/2019				5.9			7		5.6

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	4				
10/18/2016		4.5	3.5		
12/6/2016		5			
12/7/2016			3.2		
12/8/2016	3.6			6.9	
3/21/2017		4.3			
3/22/2017	3.3				
3/23/2017			2.9	6.2	
7/11/2017	3	4.7	3.1		
7/12/2017				6	
10/17/2017		4.6	3		
10/18/2017	2.9				
10/19/2017				6.4	
2/20/2018		4.4	3		
2/21/2018	2.9			6.9	
4/12/2018					2.6
5/23/2018					2.5
6/13/2018					2.5
7/11/2018		4	2.8		2.6
7/12/2018	2.6			7.3	
9/12/2018		3.7			2.3
9/13/2018	2.3		2.2		
9/14/2018					
10/4/2018				7	2.7
10/24/2018					2.8
3/26/2019		3.8			
3/27/2019	2.4		3.1		2.5
3/28/2019				4.8	
9/10/2019					
10/1/2019			3.1		
10/2/2019	2.6	4.3			2.7
10/3/2019				4.1	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-23	PZ-14	PZ-7D	PZ-15	PZ-16	PZ-18	PZ-17	PZ-19
8/30/2016	0.06 (X)								
8/31/2016		0.13 (X)	0.13 (X)						
9/1/2016				<0.3	0.06 (X)				
9/6/2016						0.09 (X)			
9/7/2016							0.12 (X)	0.03 (X)	0.15 (X)
9/8/2016									
10/18/2016									
12/6/2016	0.06 (X)								
12/7/2016		0.13 (X)	0.07 (X)	0.15 (X)	0.09 (X)	0.09 (X)			
12/8/2016							0.18 (X)	0.18 (X)	0.12 (X)
3/21/2017	0.004 (X)	0.05 (X)	<0.3						
3/22/2017				0.09 (X)	0.11 (X)	0.04 (X)	0.08 (X)	0.09 (X)	
3/23/2017									0.14 (X)
7/11/2017	0.05 (X)	0.05 (X)	0.05 (X)			0.05 (X)			
7/12/2017				0.02 (X)	0.23 (X)		0.17 (X)	0.21 (X)	0.07 (X)
10/17/2017	<0.3								
10/18/2017		<0.3	0.11 (X)		0.19 (X)	0.04 (X)	0.06 (X)	0.24 (X)	
10/19/2017				<0.3					<0.3
2/20/2018	0.098 (X)	0.3 (X)	0.04 (X)						
2/21/2018				0.045 (X)	0.093 (X)	<0.3	0.086 (X)	0.24 (X)	0.37
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	<0.3	0.077 (X)	<0.3						
7/12/2018				<0.3	<0.3	<0.3			0.17 (X)
9/12/2018	0.034 (X)		<0.3						
9/13/2018		<0.3		<0.3	0.15 (X)	<0.3	<0.3		
9/14/2018									<0.3
10/4/2018									
10/24/2018									
3/26/2019	<0.3								
3/27/2019		<0.3	<0.3			<0.3	<0.3		
3/28/2019				<0.3	0.1 (X)			0.15 (X)	0.074 (X)
8/20/2019	<0.3								
8/21/2019		<0.3	<0.3		0.044 (X)	<0.3			
8/22/2019				<0.3			<0.3	0.11 (X)	0.1 (X)
9/10/2019		<0.3							
10/1/2019	0.062 (X)								
10/2/2019			0.056 (X)		0.075 (X)	0.053 (X)		0.063 (X)	
10/3/2019				0.041 (X)			0.043 (X)		0.084 (X)

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

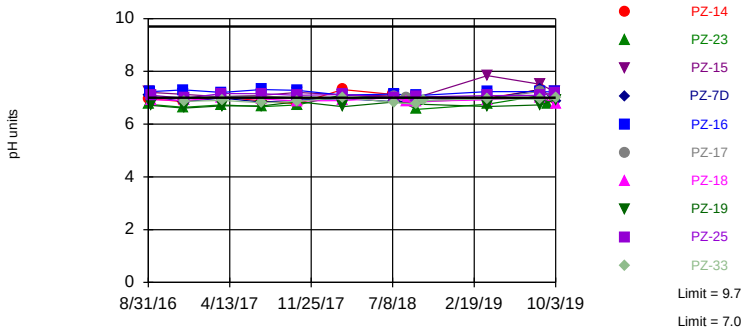
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-32 (bg)	PZ-31 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	0.25 (X)				
10/18/2016		0.11 (X)	0.16 (X)		
12/6/2016			0.15 (X)		
12/7/2016		0.07 (X)			
12/8/2016	0.22 (X)			0.21 (X)	
3/21/2017			0.02 (X)		
3/22/2017	0.16 (X)				
3/23/2017		<0.3		0.18 (X)	
7/11/2017	0.23 (X)	0.02 (X)	0.06 (X)		
7/12/2017				0.06 (X)	
10/17/2017		<0.3	0.05 (X)		
10/18/2017	0.28 (X)				
10/19/2017				<0.3	
2/20/2018		<0.3	0.21 (X)		
2/21/2018	0.29 (X)			0.039 (X)	
4/12/2018					<0.3
5/23/2018					0.063 (X)
6/13/2018					0.11 (X)
7/11/2018		<0.3	0.087 (X)		<0.3
7/12/2018	0.21 (X)			<0.3	
9/12/2018			0.049 (X)		0.093 (X)
9/13/2018	0.22 (X)	<0.3			
9/14/2018					
10/4/2018				0.15 (X)	0.15 (X)
10/24/2018					0.29 (X)
3/26/2019			<0.3		
3/27/2019	0.37	<0.3			0.04 (X)
3/28/2019				<0.3	
8/20/2019		<0.3			
8/21/2019	0.11 (X)		<0.3		0.046 (X)
8/22/2019				<0.3	
9/10/2019					
10/1/2019		0.042 (X)			
10/2/2019	0.16 (X)		0.057 (X)		0.11 (X)
10/3/2019				0.06 (X)	

Exceeds Limits: PZ-14, PZ-23, PZ-7D, PZ-17, PZ-18, PZ-19

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 44 background values. Annual per-constituent alpha = 0.03794. Individual comparison alpha = 0.001914 (1 of 2). Comparing 10 points to limit.

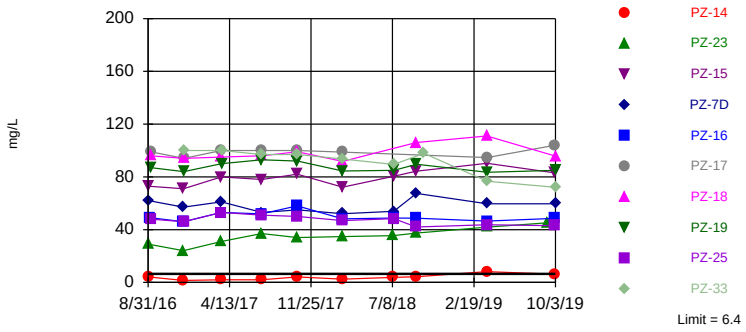
Constituent: pH Analysis Run 2/24/2020 12:59 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Exceeds Limit: PZ-23, PZ-15, PZ-7D, PZ-16, PZ-17, PZ-18, PZ-19, PZ-25, PZ-33

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 39 background values. Annual per-constituent alpha = 0.02314. Individual comparison alpha = 0.00117 (1 of 2). Comparing 10 points to limit.

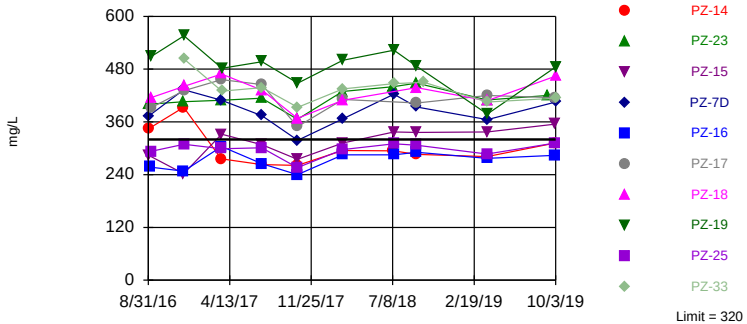
Constituent: Sulfate Analysis Run 2/24/2020 1:00 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Exceeds Limit: PZ-23, PZ-15, PZ-7D, PZ-17, PZ-18, PZ-19, PZ-33

Prediction Limit

Interwell Parametric



Background Data Summary: Mean=173.1, Std. Dev.=70.3, n=39. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9488, critical = 0.917. Kappa = 2.072 (c=7, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0007523. Comparing 10 points to limit.

Constituent: Total Dissolved Solids Analysis Run 2/24/2020 1:00 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Prediction Limit

Constituent: pH (pH units) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-23	PZ-14	PZ-7D	PZ-15	PZ-16	PZ-17	PZ-19	PZ-18
8/30/2016	7.62								
8/31/2016		6.75	6.97						
9/1/2016				7.07	7.21				
9/6/2016						7.23			
9/7/2016							7.02	6.71	6.92
9/8/2016									
10/18/2016									
12/6/2016	7.57								
12/7/2016		6.64	6.85	6.85	7.13	7.3			
12/8/2016							6.95	6.61	6.9
3/21/2017	7.54	6.73	7.04						
3/22/2017				6.99	7.04	7.2	7.05		7
3/23/2017								6.69	
7/11/2017	7.43	6.66	6.88			7.31			
7/12/2017				6.83	7.09		7.06	6.69	6.95
10/17/2017	7.7								
10/18/2017		6.73	6.77		7.2	7.28	6.99		6.88
10/19/2017				6.91				6.85	
2/20/2018	7.57	7.11	7.31						
2/21/2018				6.97	7.11	7.1	6.95	6.66	6.89
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	7.48	7	7.12						
7/12/2018				6.85	7.07	7.14	7.06	6.84	7.01
8/15/2018									6.87
8/16/2018							7.01		
8/17/2018									
9/12/2018	7.41		6.87						
9/13/2018		6.56		6.88	7.01	7.08			6.86
9/14/2018							6.83	6.76	
10/4/2018									
10/24/2018									
3/26/2019	7.49								
3/27/2019		6.75	6.98			7.23			6.92
3/28/2019				6.96	7.84		6.97	6.67	
8/20/2019	7.87								
8/21/2019		7.08	7.31		7.51	7.23			
8/22/2019				7.31			7.24	6.73	7.02
9/10/2019		6.78							
10/1/2019	7.5								
10/2/2019			6.96		7.22	7.22	6.99		
10/3/2019				6.85				6.93	6.78

Prediction Limit

Constituent: pH (pH units) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	7.1				
10/18/2016		7.15	7.45		
12/6/2016		7.04			
12/7/2016			7.29		
12/8/2016	6.98			6.86	
3/21/2017		7.01			
3/22/2017	7.16				
3/23/2017			7.26	6.9	
7/11/2017	7.15	6.96	7.31		
7/12/2017				6.81	
10/17/2017		7.31	7.29		
10/18/2017	7.09				
10/19/2017				6.86	
2/20/2018		7.37	7.26		
2/21/2018	7.12			7.02	
4/12/2018					9.54
5/23/2018					9.57
6/13/2018					9.71
7/11/2018		7.26	7.39		9.48
7/12/2018	7.01			6.82	
8/15/2018					
8/16/2018					
8/17/2018					9.31
9/12/2018		7.02			9.07
9/13/2018	7.03		7.25		
9/14/2018				6.75	
10/4/2018				6.9	9.16
10/24/2018					9.29
3/26/2019		7			
3/27/2019	7.08		7.42		8.76
3/28/2019				6.96	
8/20/2019			7.36		
8/21/2019	7.09	7.44			8.76
8/22/2019				6.94	
9/10/2019					
10/1/2019			7.43		
10/2/2019	7.2	7.09			8.97
10/3/2019				7.01	

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-23	PZ-14	PZ-7D	PZ-15	PZ-16	PZ-18	PZ-17	PZ-19
8/30/2016	2.1								
8/31/2016		29	4.1						
9/1/2016				62	73				
9/6/2016						49			
9/7/2016							96	99	87
9/8/2016									
10/18/2016									
12/6/2016	2.4								
12/7/2016		24	1.5	57	71	46			
12/8/2016							94	94	84
3/21/2017	2.5	31	2						
3/22/2017				61	80	53	95	100	
3/23/2017									90
7/11/2017	2.6	37	2			52			
7/12/2017				53	78		96	100	93
10/17/2017	2.5								
10/18/2017		34	4.2		82	58	99	100	
10/19/2017				55					92
2/20/2018	2.3	34.7	2.4						
2/21/2018				52.1	72.2	48.2	91.8	98.8	84.5
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	2.5	35.4	3.8						
7/12/2018				53.9	80.5	48.8			84.9
9/12/2018	2		4.3						
9/13/2018		37.4		67.5	84.4	48.7	106		
9/14/2018									89.5
10/4/2018									
10/24/2018									
3/26/2019	2.7								
3/27/2019		41.9	8.2			46.5	111		
3/28/2019				59.6	90.3			94.7	83.5
9/10/2019		45.1							
10/1/2019	2.8								
10/2/2019			6.2		83	48.5		104	
10/3/2019				59.6			95.8		84.9

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	48				
10/18/2016		2.2	2.3		
12/6/2016		6.1			
12/7/2016			1.9		
12/8/2016	46			100	
3/21/2017		5.7			
3/22/2017	53				
3/23/2017			1.7	100	
7/11/2017	51	4.8	1.8		
7/12/2017				97	
10/17/2017		6.4	1.9		
10/18/2017	50				
10/19/2017				97	
2/20/2018		5.2	2.1		
2/21/2018	46.8			93.6	
4/12/2018					4.8 (X)
5/23/2018					4.5
6/13/2018					5.3
7/11/2018		3.6	2		5.4
7/12/2018	48.3			89.4	
9/12/2018		2.7			4.4
9/13/2018	42		2.1		
9/14/2018					
10/4/2018				97.8	5.8
10/24/2018					6.2
3/26/2019		1.6			
3/27/2019	43.7		2.4		3.7
3/28/2019				76.7	
9/10/2019					
10/1/2019			2.2		
10/2/2019	43	1.6			4.1
10/3/2019				72.1	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-23	PZ-14	PZ-7D	PZ-15	PZ-16	PZ-19	PZ-18	PZ-17
8/30/2016	136								
8/31/2016		400	344						
9/1/2016				373	284				
9/6/2016						257			
9/7/2016							508	415	392
9/8/2016									
10/18/2016									
12/6/2016	207								
12/7/2016		406	393	433	242	248			
12/8/2016							556	441	431
3/21/2017	128	409	276						
3/22/2017				409	332	304		469	456
3/23/2017							482		
7/11/2017	138	414	263			265			
7/12/2017				374	308		497	432	445
10/17/2017	101								
10/18/2017		366	261		275	240		368	349
10/19/2017				318			448		
2/20/2018	138	429	295						
2/21/2018				367	312	285	500	409	411
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	153	440	294						
7/12/2018				423	337	285	523		
9/12/2018	146		286						
9/13/2018		448		394	336	291		438	
9/14/2018							486		403
10/4/2018									
10/24/2018									
3/26/2019	334								
3/27/2019		410	281			277		408	
3/28/2019				365	337		378		420
9/10/2019		420							
10/1/2019	146								
10/2/2019			312		355	284			415
10/3/2019				405			485	464	

Prediction Limit

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/24/2020 1:02 PM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	293				
10/18/2016		264	152		
12/6/2016		299			
12/7/2016			214		
12/8/2016	309			503	
3/21/2017		260			
3/22/2017	299				
3/23/2017			165	430	
7/11/2017	301	244	162		
7/12/2017				438	
10/17/2017		218	140		
10/18/2017	256				
10/19/2017				393	
2/20/2018		264	163		
2/21/2018	297			435	
4/12/2018					69
5/23/2018					62
6/13/2018					93
7/11/2018		273	192		84
7/12/2018	310			447	
9/12/2018		252			97
9/13/2018	307		192		
9/14/2018					
10/4/2018				450	103
10/24/2018					110
3/26/2019		253			
3/27/2019	287		167		87
3/28/2019				405	
9/10/2019					
10/1/2019			187		
10/2/2019	312	263			95
10/3/2019				414	

Sen Slope - Significant

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4 Printed 2/24/2020, 1:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
pH (pH units)	**PZ-2D (bg)**	**-0.6498**	**-38**	**-31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**

Sen Slope - All

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4 Printed 2/24/2020, 1:09 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	PZ-1D (bg)	-0.00...	-10	-27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/L)	PZ-31 (bg)	-0.00...	-19	-27	No	10	10	n/a	n/a	0.02	NP
Boron (mg/L)	PZ-32 (bg)	-0.00...	-18	-27	No	10	10	n/a	n/a	0.02	NP
Boron (mg/L)	PZ-2D (bg)	-0.00...	-8	-23	No	9	0	n/a	n/a	0.02	NP
Calcium (mg/L)	PZ-1D (bg)	1.867	13	27	No	10	0	n/a	n/a	0.02	NP
Calcium (mg/L)	PZ-31 (bg)	1.071	12	27	No	10	0	n/a	n/a	0.02	NP
Calcium (mg/L)	PZ-32 (bg)	1.851	11	27	No	10	0	n/a	n/a	0.02	NP
Calcium (mg/L)	PZ-2D (bg)	11.58	16	23	No	9	11.11	n/a	n/a	0.02	NP
Chloride (mg/L)	PZ-1D (bg)	0	0	27	No	10	0	n/a	n/a	0.02	NP
Chloride (mg/L)	PZ-31 (bg)	-0.3724	-24	-27	No	10	0	n/a	n/a	0.02	NP
Chloride (mg/L)	PZ-32 (bg)	-0.164	-15	-27	No	10	0	n/a	n/a	0.02	NP
Chloride (mg/L)	PZ-2D (bg)	0.1142	9	23	No	9	0	n/a	n/a	0.02	NP
Fluoride (mg/L)	PZ-1D (bg)	0.02291	16	31	No	11	36.36	n/a	n/a	0.02	NP
Fluoride (mg/L)	PZ-31 (bg)	-0.00...	-4	-31	No	11	18.18	n/a	n/a	0.02	NP
Fluoride (mg/L)	PZ-32 (bg)	0	8	31	No	11	63.64	n/a	n/a	0.02	NP
Fluoride (mg/L)	PZ-2D (bg)	-0.01364	-5	-27	No	10	20	n/a	n/a	0.02	NP
pH (pH units)	PZ-1D (bg)	-0.02483	-8	-31	No	11	0	n/a	n/a	0.02	NP
pH (pH units)	PZ-31 (bg)	0.02343	5	31	No	11	0	n/a	n/a	0.02	NP
pH (pH units)	PZ-32 (bg)	0.02591	7	31	No	11	0	n/a	n/a	0.02	NP
pH (pH units)	**PZ-2D (bg)**	**-0.6498**	**-38**	**-31**	**Yes**	**11**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/L)	PZ-1D (bg)	0.1304	16	27	No	10	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	PZ-31 (bg)	-1.607	-22	-27	No	10	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	PZ-32 (bg)	0.1633	19	27	No	10	0	n/a	n/a	0.02	NP
Sulfate (mg/L)	PZ-2D (bg)	-0.2891	-2	-23	No	9	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	PZ-1D (bg)	6.822	15	27	No	10	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	PZ-31 (bg)	-3.476	-6	-27	No	10	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	PZ-32 (bg)	6.152	10	27	No	10	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/L)	PZ-2D (bg)	30.96	18	23	No	9	0	n/a	n/a	0.02	NP

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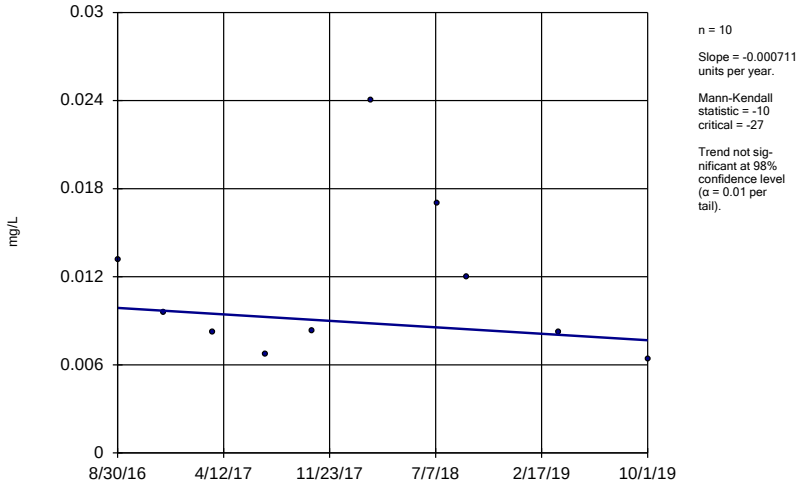
Sen's Slope Estimator

PZ-1D (bg)



n = 10

Slope = -0.000711 units per year.

Mann-Kendall statistic = -10
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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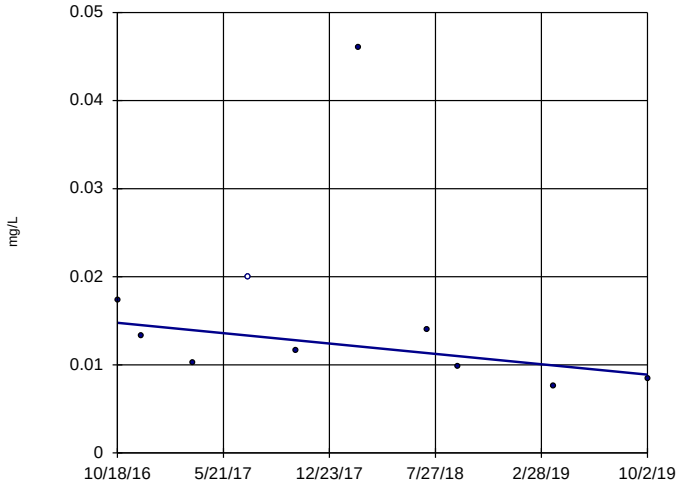
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-31 (bg)



n = 10

Slope = -0.001991 units per year.

Mann-Kendall statistic = -19
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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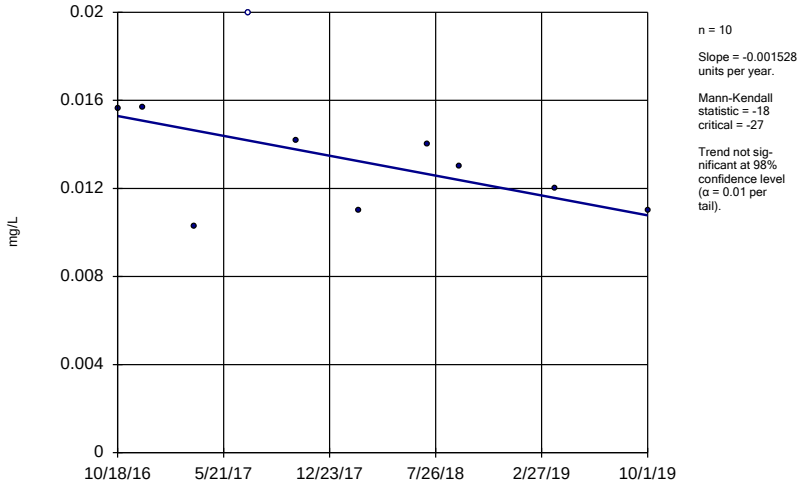
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-32 (bg)



n = 10

Slope = -0.001528 units per year.

Mann-Kendall statistic = -18
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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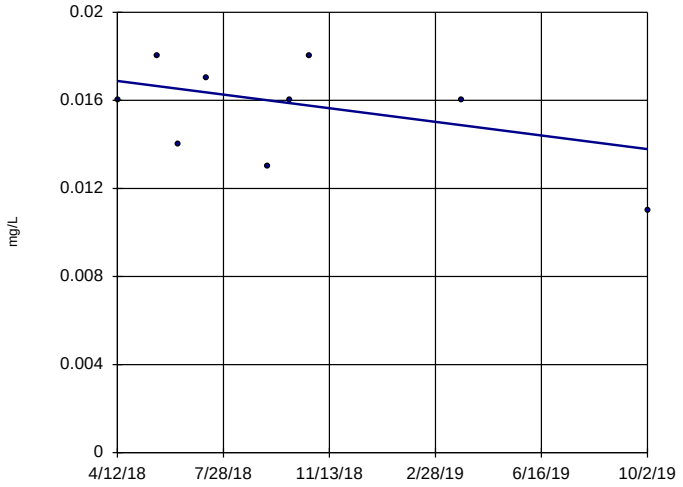
Sen's Slope Estimator

PZ-2D (bg)



n = 9

Slope = -0.002098 units per year.

Mann-Kendall statistic = -8
critical = -23

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

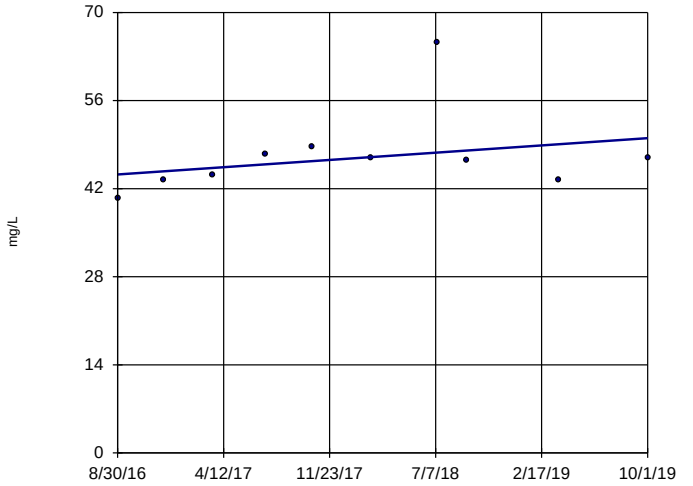
Constituent: Boron Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.0132 (X)			
10/18/2016		0.0174 (X)	0.0156 (X)	
12/6/2016	0.0096 (X)	0.0133 (X)		
12/7/2016			0.0157 (X)	
3/21/2017	0.0082 (X)	0.0103 (X)		
3/23/2017			0.0103 (X)	
7/11/2017	0.0067 (X)	<0.04	<0.04	
10/17/2017	0.0083 (X)	0.0116 (X)	0.0142 (X)	
2/20/2018	0.024 (X)	0.046 (X)	0.011 (X)	
4/12/2018				0.016 (X)
5/23/2018				0.018 (X)
6/13/2018				0.014 (X)
7/11/2018	0.017 (X)	0.014 (X)	0.014 (X)	0.017 (X)
9/12/2018	0.012 (X)	0.0098 (X)		0.013 (X)
9/13/2018			0.013 (X)	
10/4/2018				0.016 (X)
10/24/2018				0.018 (X)
3/26/2019	0.0082 (X)	0.0076 (X)		
3/27/2019			0.012 (X)	0.016 (X)
10/1/2019	0.0064 (X)		0.011 (X)	
10/2/2019		0.0084 (X)		0.011 (X)

Sen's Slope Estimator

PZ-1D (bg)



n = 10

Slope = 1.867 units per year.

Mann-Kendall statistic = 13
critical = 27

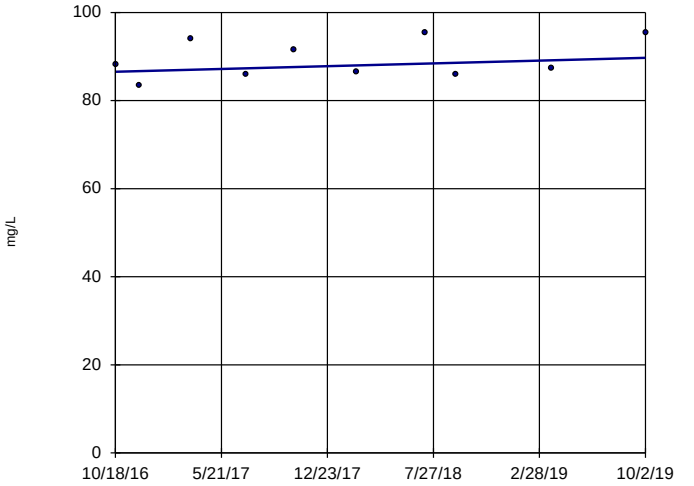
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

PZ-31 (bg)



n = 10

Slope = 1.071 units per year.

Mann-Kendall statistic = 12
critical = 27

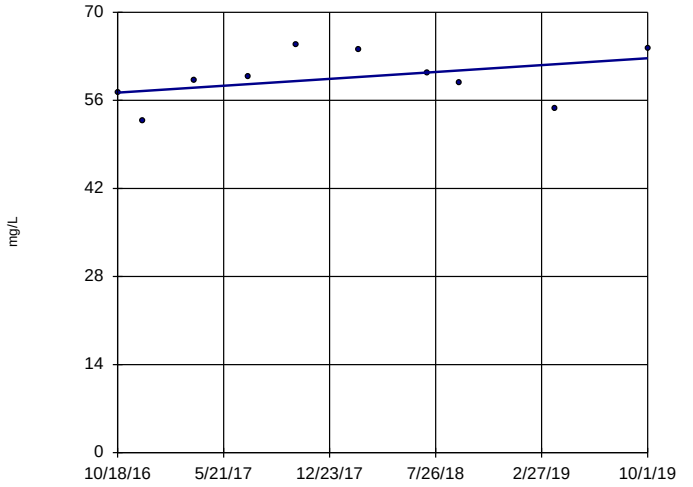
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

PZ-32 (bg)



n = 10

Slope = 1.851 units per year.

Mann-Kendall statistic = 11
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

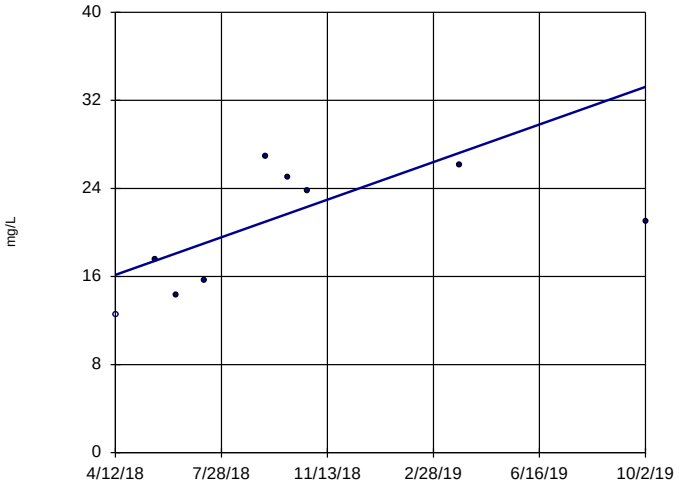
Constituent: Calcium Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2D (bg)



n = 9

Slope = 11.58 units per year.

Mann-Kendall statistic = 16
critical = 23

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

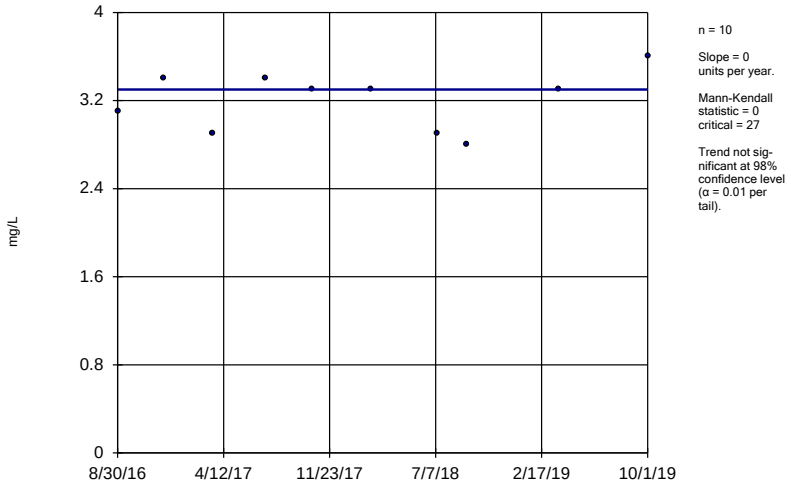
Constituent: Calcium Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	40.4			
10/18/2016		88.3	57.2	
12/6/2016	43.3	83.4		
12/7/2016			52.8	
3/21/2017	44.1	94		
3/23/2017			59.1	
7/11/2017	47.4	86	59.7	
10/17/2017	48.7	91.6	64.9	
2/20/2018	46.8	86.5	64.1	
4/12/2018				<25
5/23/2018				17.6 (X)
6/13/2018				14.3
7/11/2018	65.3	95.4	60.4	15.6
9/12/2018	46.6	86		26.9
9/13/2018			58.7	
10/4/2018				25
10/24/2018				23.8
3/26/2019	43.3	87.3		
3/27/2019			54.6	26.1
10/1/2019	46.8		64.3	
10/2/2019		95.5		21

Sen's Slope Estimator

PZ-1D (bg)



n = 10

Slope = 0 units per year.

Mann-Kendall statistic = 0 critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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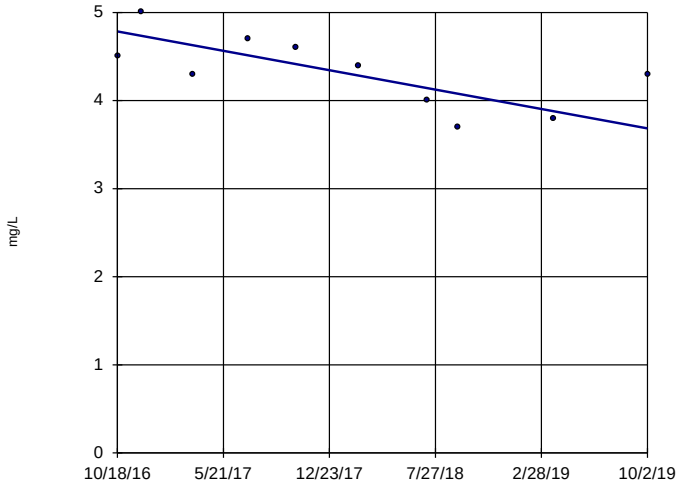
Sen's Slope Estimator

PZ-31 (bg)



n = 10

Slope = -0.3724 units per year.

Mann-Kendall statistic = -24 critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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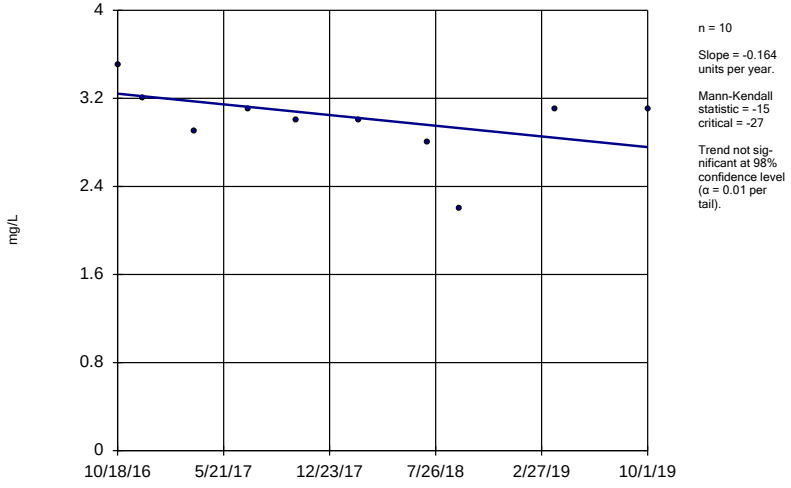
Sen's Slope Estimator

PZ-32 (bg)



n = 10

Slope = -0.164 units per year.

Mann-Kendall statistic = -15 critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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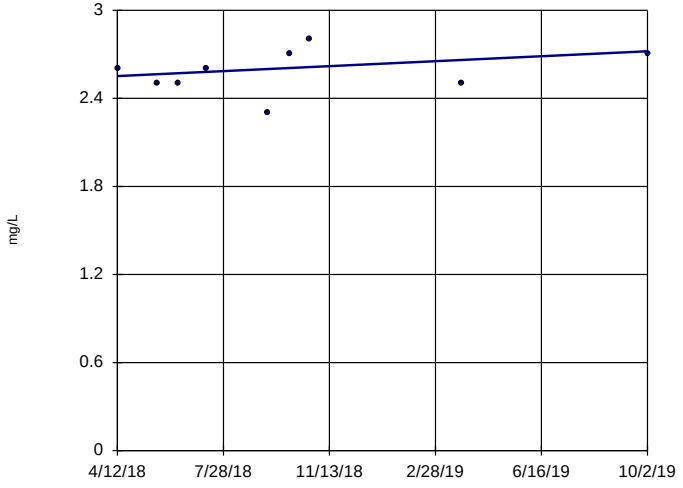
Sen's Slope Estimator

PZ-2D (bg)



n = 9

Slope = 0.1142 units per year.

Mann-Kendall statistic = 9 critical = 23

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

Constituent: Chloride Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	3.1 (B)			
10/18/2016		4.5	3.5	
12/6/2016	3.4	5		
12/7/2016			3.2	
3/21/2017	2.9	4.3		
3/23/2017			2.9	
7/11/2017	3.4	4.7	3.1	
10/17/2017	3.3	4.6	3	
2/20/2018	3.3	4.4	3	
4/12/2018				2.6
5/23/2018				2.5
6/13/2018				2.5
7/11/2018	2.9	4	2.8	2.6
9/12/2018	2.8	3.7		2.3
9/13/2018			2.2	
10/4/2018				2.7
10/24/2018				2.8
3/26/2019	3.3	3.8		
3/27/2019			3.1	2.5
10/1/2019	3.6		3.1	
10/2/2019		4.3		2.7

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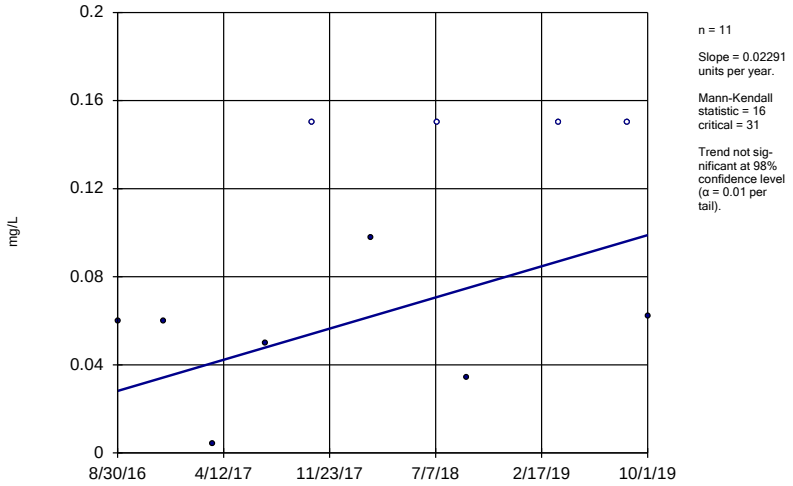
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-1D (bg)



n = 11

Slope = 0.02291 units per year.

Mann-Kendall statistic = 16
critical = 31

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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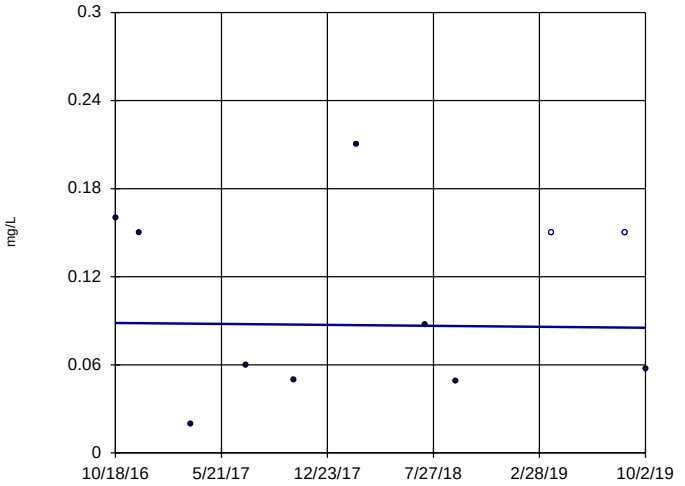
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-31 (bg)



n = 11

Slope = -0.001106 units per year.

Mann-Kendall statistic = -4
critical = -31

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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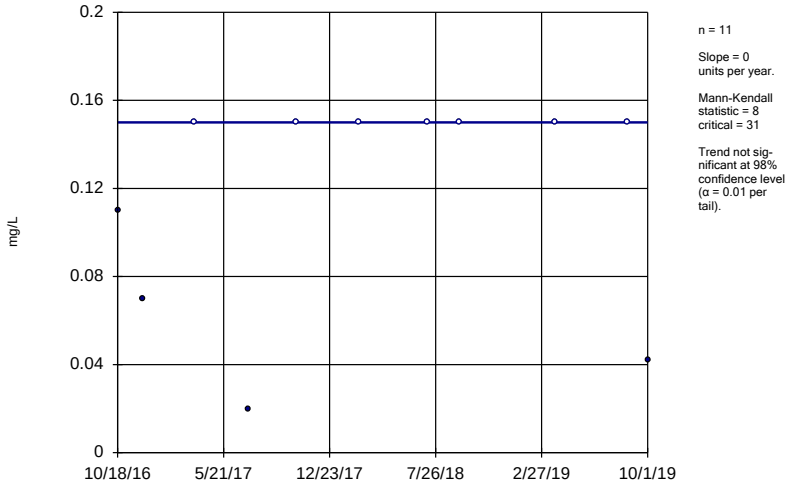
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-32 (bg)



n = 11

Slope = 0 units per year.

Mann-Kendall statistic = 8
critical = 31

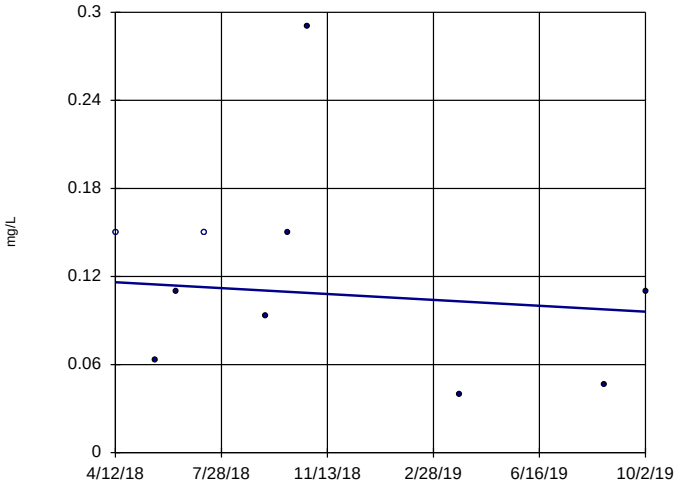
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG
Hollow symbols indicate censored values.

Sen's Slope Estimator

PZ-2D (bg)



n = 10

Slope = -0.01364 units per year.

Mann-Kendall statistic = -5
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Fluoride Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

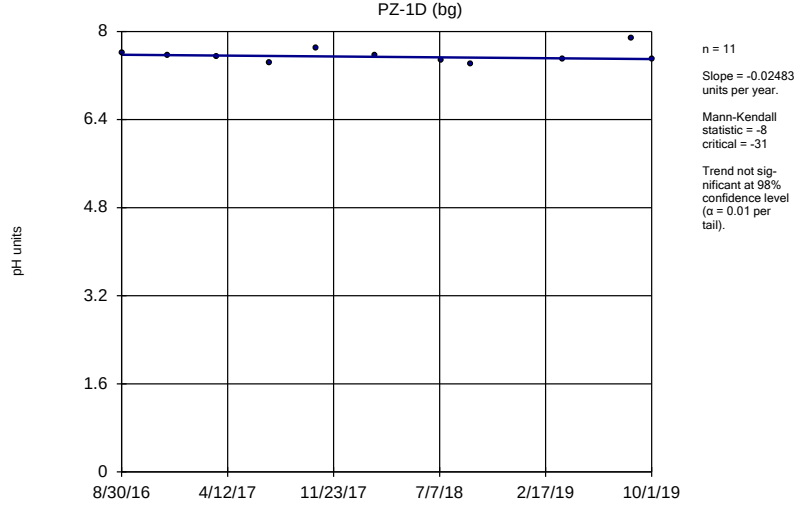
Constituent: Fluoride Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.06 (X)			
10/18/2016		0.16 (X)	0.11 (X)	
12/6/2016	0.06 (X)	0.15 (X)		
12/7/2016			0.07 (X)	
3/21/2017	0.004 (X)	0.02 (X)		
3/23/2017			<0.3	
7/11/2017	0.05 (X)	0.06 (X)	0.02 (X)	
10/17/2017	<0.3	0.05 (X)	<0.3	
2/20/2018	0.098 (X)	0.21 (X)	<0.3	
4/12/2018				<0.3
5/23/2018				0.063 (X)
6/13/2018				0.11 (X)
7/11/2018	<0.3	0.087 (X)	<0.3	<0.3
9/12/2018	0.034 (X)	0.049 (X)		0.093 (X)
9/13/2018			<0.3	
10/4/2018				0.15 (X)
10/24/2018				0.29 (X)
3/26/2019	<0.3	<0.3		
3/27/2019			<0.3	0.04 (X)
8/20/2019	<0.3		<0.3	
8/21/2019		<0.3		0.046 (X)
10/1/2019	0.062 (X)		0.042 (X)	
10/2/2019		0.057 (X)		0.11 (X)

Sen's Slope Estimator

PZ-1D (bg)



n = 11

Slope = -0.02483 units per year.

Mann-Kendall statistic = -8
critical = -31

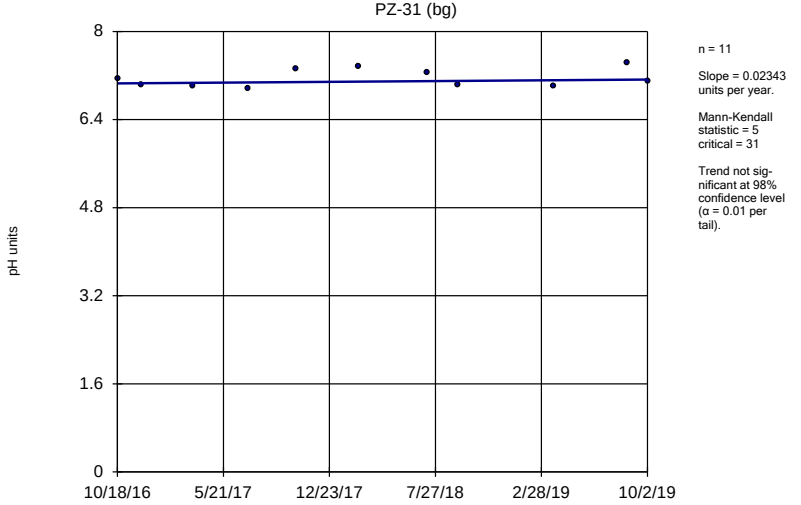
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

PZ-31 (bg)



n = 11

Slope = 0.02343 units per year.

Mann-Kendall statistic = 5
critical = 31

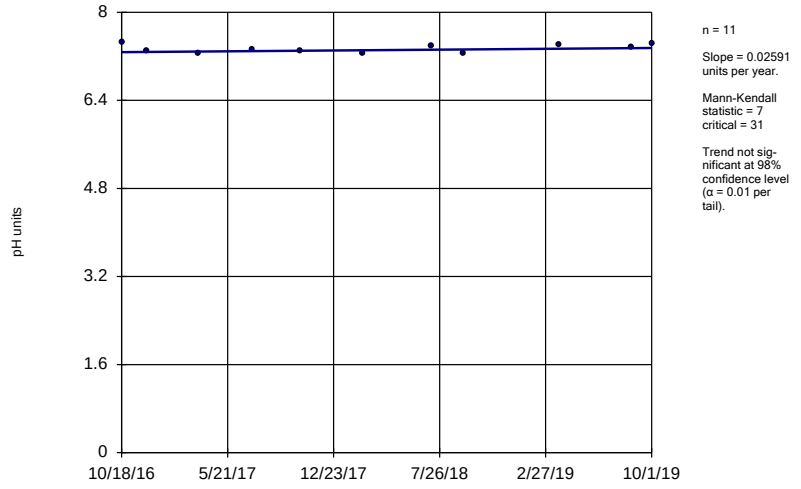
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

PZ-32 (bg)



n = 11

Slope = 0.02591 units per year.

Mann-Kendall statistic = 7
critical = 31

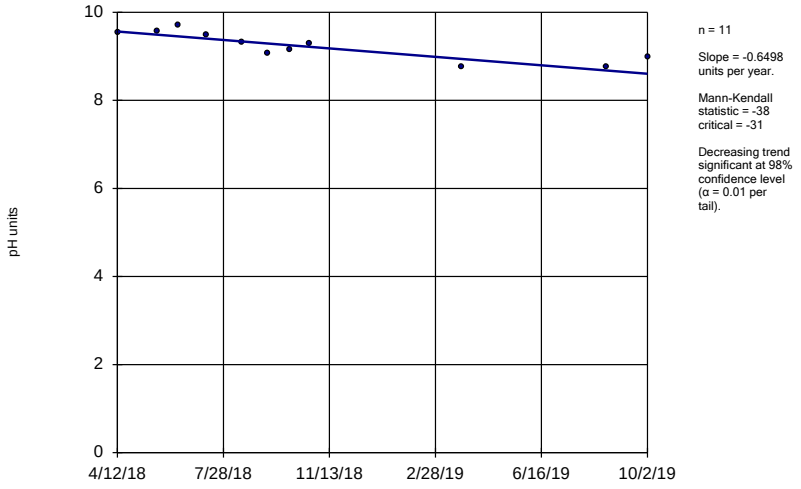
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

PZ-2D (bg)



n = 11

Slope = -0.6498 units per year.

Mann-Kendall statistic = -38
critical = -31

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

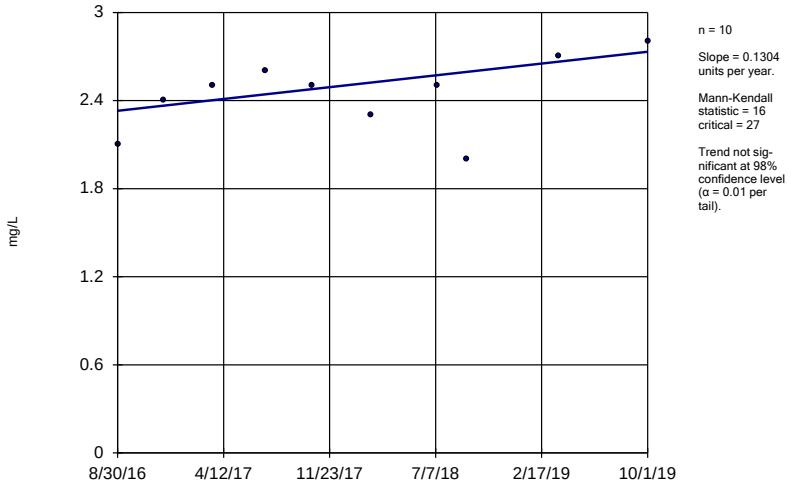
Constituent: pH Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	7.62			
10/18/2016		7.15	7.45	
12/6/2016	7.57	7.04		
12/7/2016			7.29	
3/21/2017	7.54	7.01		
3/23/2017			7.26	
7/11/2017	7.43	6.96	7.31	
10/17/2017	7.7	7.31	7.29	
2/20/2018	7.57	7.37	7.26	
4/12/2018				9.54
5/23/2018				9.57
6/13/2018				9.71
7/11/2018	7.48	7.26	7.39	9.48
8/17/2018				9.31
9/12/2018	7.41	7.02		9.07
9/13/2018			7.25	
10/4/2018				9.16
10/24/2018				9.29
3/26/2019	7.49	7		
3/27/2019			7.42	8.76
8/20/2019	7.87		7.36	
8/21/2019		7.44		8.76
10/1/2019	7.5		7.43	
10/2/2019		7.09		8.97

Sen's Slope Estimator

PZ-1D (bg)



n = 10

Slope = 0.1304 units per year.

Mann-Kendall statistic = 16
critical = 27

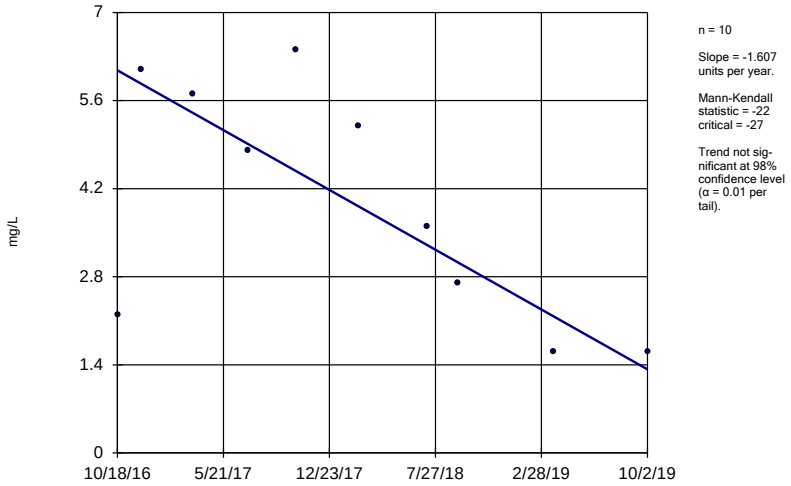
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

PZ-31 (bg)



n = 10

Slope = -1.607 units per year.

Mann-Kendall statistic = -22
critical = -27

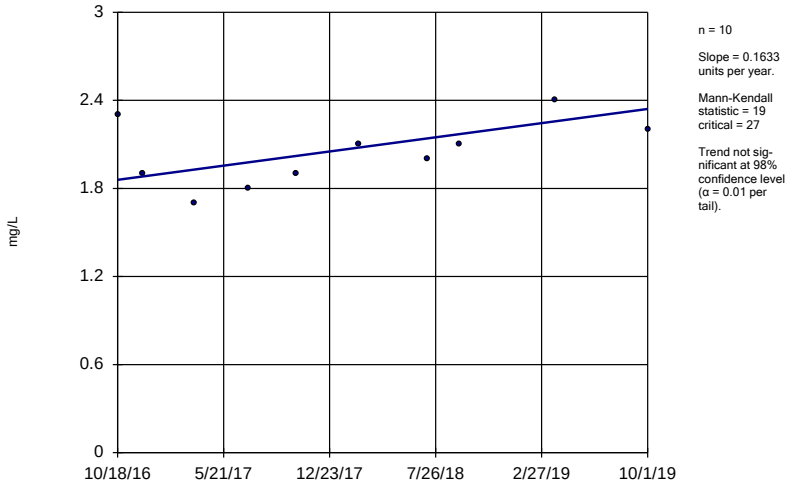
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

PZ-32 (bg)



n = 10

Slope = 0.1633 units per year.

Mann-Kendall statistic = 19
critical = 27

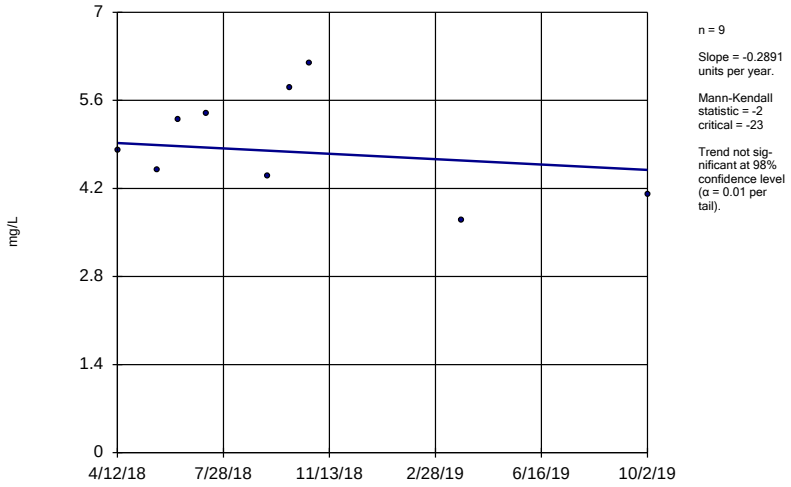
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

PZ-2D (bg)



n = 9

Slope = -0.2891 units per year.

Mann-Kendall statistic = -2
critical = -23

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

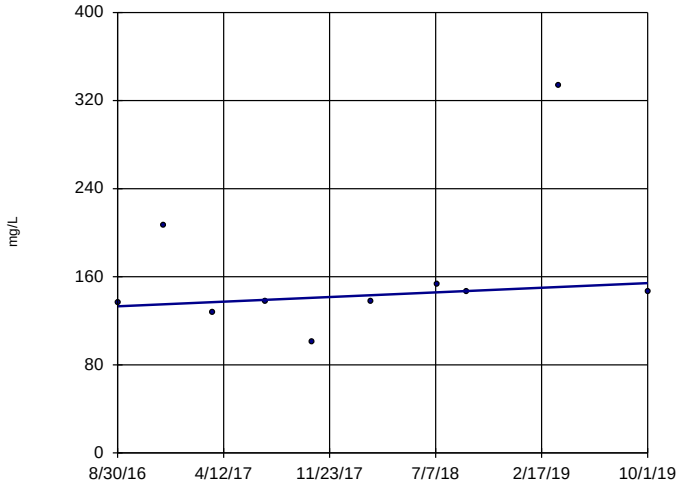
Constituent: Sulfate Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	2.1			
10/18/2016		2.2	2.3	
12/6/2016	2.4	6.1		
12/7/2016			1.9	
3/21/2017	2.5	5.7		
3/23/2017			1.7	
7/11/2017	2.6	4.8	1.8	
10/17/2017	2.5	6.4	1.9	
2/20/2018	2.3	5.2	2.1	
4/12/2018				4.8 (X)
5/23/2018				4.5
6/13/2018				5.3
7/11/2018	2.5	3.6	2	5.4
9/12/2018	2	2.7		4.4
9/13/2018			2.1	
10/4/2018				5.8
10/24/2018				6.2
3/26/2019	2.7	1.6		
3/27/2019			2.4	3.7
10/1/2019	2.8		2.2	
10/2/2019		1.6		4.1

Sen's Slope Estimator

PZ-1D (bg)



n = 10

Slope = 6.822 units per year.

Mann-Kendall statistic = 15 critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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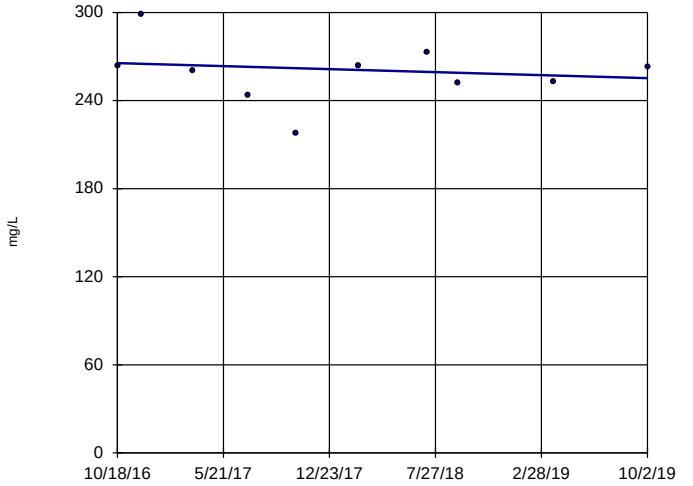
Sen's Slope Estimator

PZ-31 (bg)



n = 10

Slope = -3.476 units per year.

Mann-Kendall statistic = -6 critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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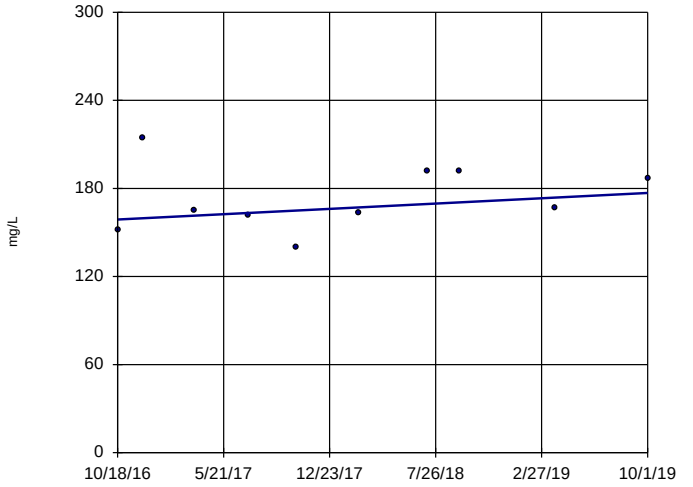
Sen's Slope Estimator

PZ-32 (bg)



n = 10

Slope = 6.152 units per year.

Mann-Kendall statistic = 10 critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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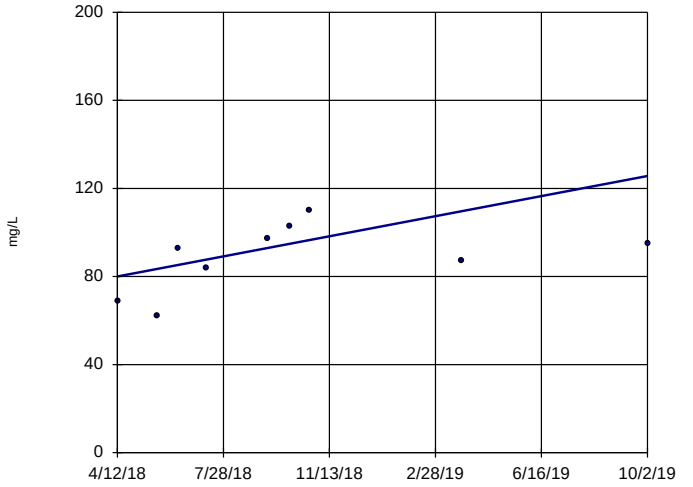
Sen's Slope Estimator

PZ-2D (bg)



n = 9

Slope = 30.96 units per year.

Mann-Kendall statistic = 18 critical = 23

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 2/24/2020 1:07 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

Constituent: Total Dissolved Solids Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	136			
10/18/2016		264	152	
12/6/2016	207	299		
12/7/2016			214	
3/21/2017	128	260		
3/23/2017			165	
7/11/2017	138	244	162	
10/17/2017	101	218	140	
2/20/2018	138	264	163	
4/12/2018				69
5/23/2018				62
6/13/2018				93
7/11/2018	153	273	192	84
9/12/2018	146	252		97
9/13/2018			192	
10/4/2018				103
10/24/2018				110
3/26/2019	334	253		
3/27/2019			167	87
10/1/2019	146		187	
10/2/2019		263		95

Downgradient Sen Slope - Significant

Plant Mitchell Client: Southern Company Data: Mitchel V3 Printed 12/19/2019, 9:52 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/l)	**PZ-18**	**6.257**	**28**	**27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Calcium (mg/l)	**PZ-7D**	**7.604**	**33**	**27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/l)	**PZ-19**	**-0.2744**	**-28**	**-27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/l)	**PZ-23**	**5.318**	**37**	**27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/l)	**PZ-33**	**-8.368**	**-33**	**-27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids (mg/l)	**PZ-15**	**23.88**	**30**	**27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**

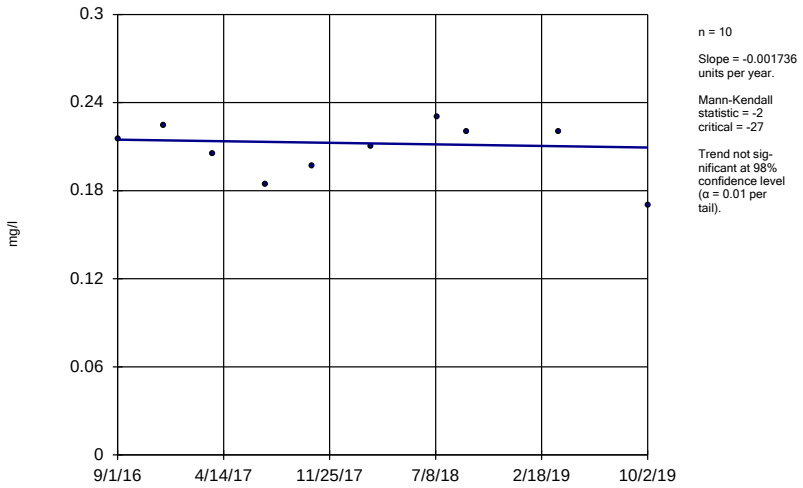
Downgradient Sen Slope - All

Plant Mitchell Client: Southern Company Data: Mitchel V3 Printed 12/19/2019, 9:52 AM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/l)	PZ-15	-0.00...	-2	-27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/l)	PZ-16	0.01183	15	27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/l)	PZ-17	0.003961	11	27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/l)	PZ-18	0	3	27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/l)	PZ-19	-0.00...	-1	-27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/l)	PZ-23	-0.00...	-6	-27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/l)	PZ-25	0	2	27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/l)	PZ-33	0	-1	-27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/l)	PZ-7D	-0.03443	-21	-27	No	10	0	n/a	n/a	0.02	NP
Calcium (mg/l)	PZ-17	4.803	22	27	No	10	0	n/a	n/a	0.02	NP
Calcium (mg/l)	**PZ-18**	**6.257**	**28**	**27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Calcium (mg/l)	PZ-19	0.9505	3	27	No	10	0	n/a	n/a	0.02	NP
Calcium (mg/l)	PZ-23	6.225	17	27	No	10	0	n/a	n/a	0.02	NP
Calcium (mg/l)	PZ-33	0	-1	-27	No	10	0	n/a	n/a	0.02	NP
Calcium (mg/l)	**PZ-7D**	**7.604**	**33**	**27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/l)	PZ-14	0.1488	20	27	No	10	0	n/a	n/a	0.02	NP
Chloride (mg/l)	PZ-15	0.1557	10	27	No	10	0	n/a	n/a	0.02	NP
Chloride (mg/l)	PZ-16	-0.1796	-11	-27	No	10	0	n/a	n/a	0.02	NP
Chloride (mg/l)	PZ-17	0.1426	14	27	No	10	0	n/a	n/a	0.02	NP
Chloride (mg/l)	PZ-18	-0.06197	-11	-27	No	10	0	n/a	n/a	0.02	NP
Chloride (mg/l)	**PZ-19**	**-0.2744**	**-28**	**-27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Chloride (mg/l)	PZ-7D	-0.4117	-27	-27	No	10	0	n/a	n/a	0.02	NP
pH (pH units)	PZ-18	-0.03596	-22	-31	No	11	0	n/a	n/a	0.02	NP
pH (pH units)	PZ-19	0.04731	12	27	No	10	0	n/a	n/a	0.02	NP
pH (pH units)	PZ-23	0.02021	9	27	No	10	0	n/a	n/a	0.02	NP
pH (pH units)	PZ-7D	-0.02844	-10	-27	No	10	0	n/a	n/a	0.02	NP
Sulfate (mg/l)	PZ-15	5.108	27	27	No	10	0	n/a	n/a	0.02	NP
Sulfate (mg/l)	PZ-16	-0.5478	-11	-27	No	10	0	n/a	n/a	0.02	NP
Sulfate (mg/l)	PZ-17	1.58	14	27	No	10	0	n/a	n/a	0.02	NP
Sulfate (mg/l)	PZ-18	3.51	18	27	No	10	0	n/a	n/a	0.02	NP
Sulfate (mg/l)	PZ-19	-0.9125	-8	-27	No	10	0	n/a	n/a	0.02	NP
Sulfate (mg/l)	**PZ-23**	**5.318**	**37**	**27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/l)	PZ-25	-2.836	-21	-27	No	10	0	n/a	n/a	0.02	NP
Sulfate (mg/l)	**PZ-33**	**-8.368**	**-33**	**-27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Sulfate (mg/l)	PZ-7D	-0.5524	-2	-27	No	10	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/l)	**PZ-15**	**23.88**	**30**	**27**	**Yes**	**10**	**0**	**n/a**	**n/a**	**0.02**	**NP**
Total Dissolved Solids (mg/l)	PZ-17	-4.78	-2	-27	No	10	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/l)	PZ-18	-0.9148	-1	-27	No	10	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/l)	PZ-19	-13.04	-15	-27	No	10	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/l)	PZ-23	16.29	23	27	No	10	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/l)	PZ-33	8	5	23	No	9	0	n/a	n/a	0.02	NP
Total Dissolved Solids (mg/l)	PZ-7D	-3.113	-5	-27	No	10	0	n/a	n/a	0.02	NP

Sen's Slope Estimator

PZ-15



n = 10

Slope = -0.001736 units per year.

Mann-Kendall statistic = -2
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 12/19/2019 9:46 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

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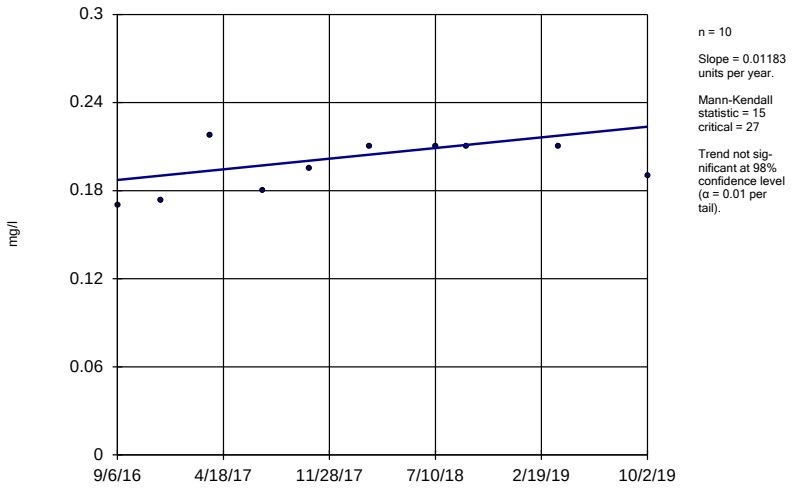
Sen's Slope Estimator

PZ-16



n = 10

Slope = 0.01183 units per year.

Mann-Kendall statistic = 15
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 12/19/2019 9:46 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

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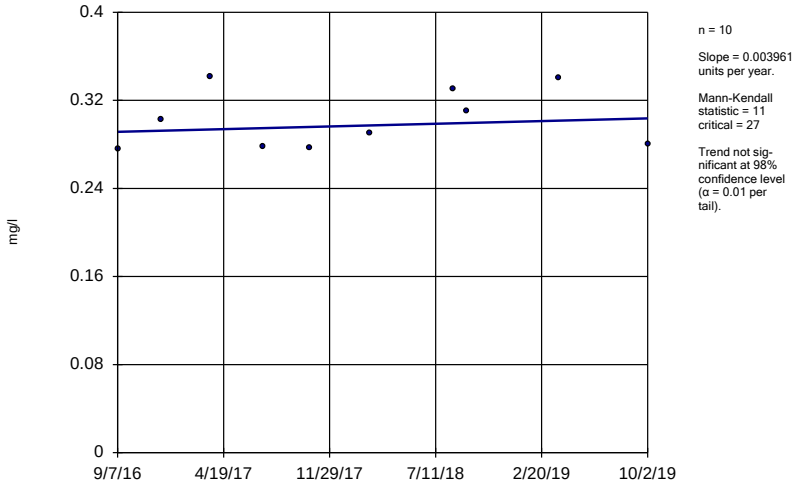
Sen's Slope Estimator

PZ-17



n = 10

Slope = 0.003961 units per year.

Mann-Kendall statistic = 11
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 12/19/2019 9:46 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

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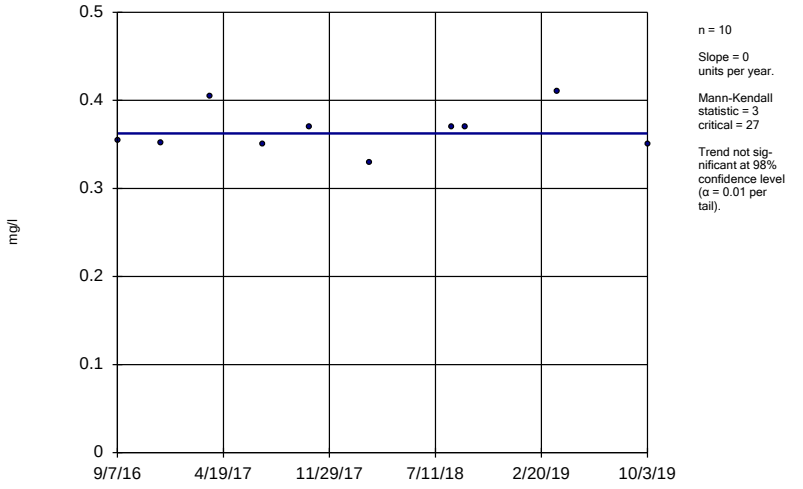
Sen's Slope Estimator

PZ-18



n = 10

Slope = 0 units per year.

Mann-Kendall statistic = 3
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 12/19/2019 9:46 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-15
9/1/2016	0.215
12/7/2016	0.224
3/22/2017	0.205
7/12/2017	0.184
10/18/2017	0.197
2/21/2018	0.21
7/12/2018	0.23
9/13/2018	0.22
3/28/2019	0.22
10/2/2019	0.17

Sen's Slope Estimator

Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-16
9/6/2016	0.17
12/7/2016	0.173
3/22/2017	0.218
7/11/2017	0.18
10/18/2017	0.195
2/21/2018	0.21
7/12/2018	0.21
9/13/2018	0.21
3/27/2019	0.21
10/2/2019	0.19

Sen's Slope Estimator

Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-17
9/7/2016	0.276
12/8/2016	0.303
3/22/2017	0.342
7/12/2017	0.278
10/18/2017	0.277
2/21/2018	0.29
8/16/2018	0.33
9/14/2018	0.31
3/28/2019	0.34
10/2/2019	0.28

Sen's Slope Estimator

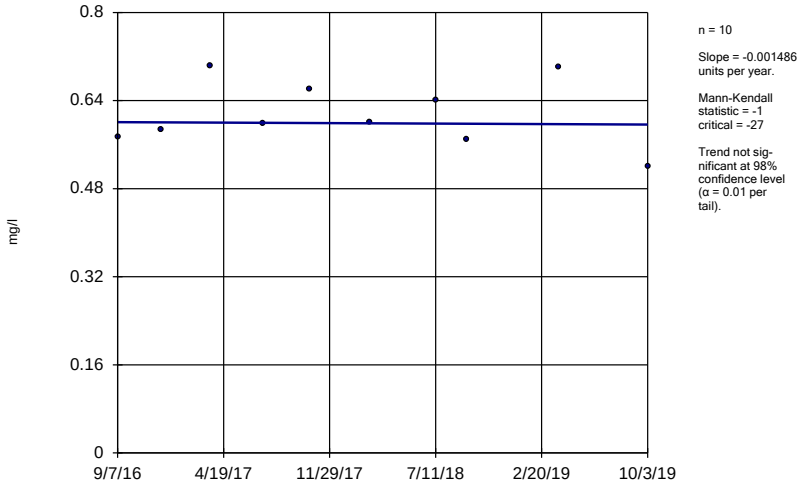
Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-18
9/7/2016	0.355
12/8/2016	0.351
3/22/2017	0.405
7/12/2017	0.35
10/18/2017	0.37
2/21/2018	0.33
8/15/2018	0.37
9/13/2018	0.37
3/27/2019	0.41
10/3/2019	0.35

Sen's Slope Estimator

PZ-19



n = 10

Slope = -0.001486 units per year.

Mann-Kendall statistic = -1
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 12/19/2019 9:46 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

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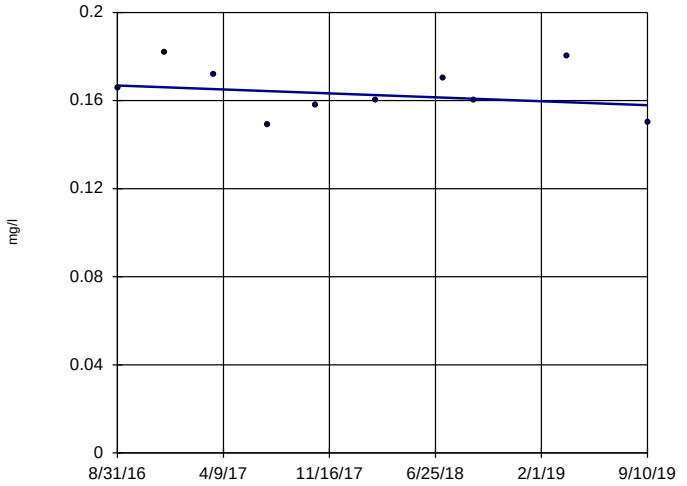
Sen's Slope Estimator

PZ-23



n = 10

Slope = -0.002948 units per year.

Mann-Kendall statistic = -6
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 12/19/2019 9:46 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

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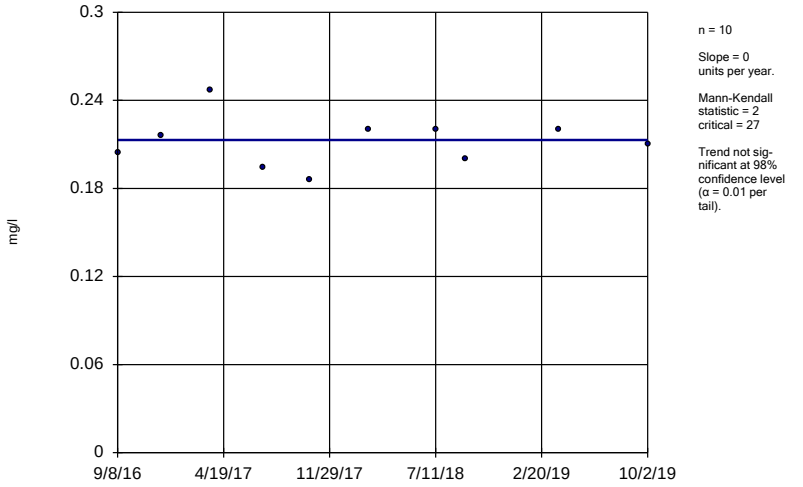
Sen's Slope Estimator

PZ-25



n = 10

Slope = 0 units per year.

Mann-Kendall statistic = 2
critical = 27

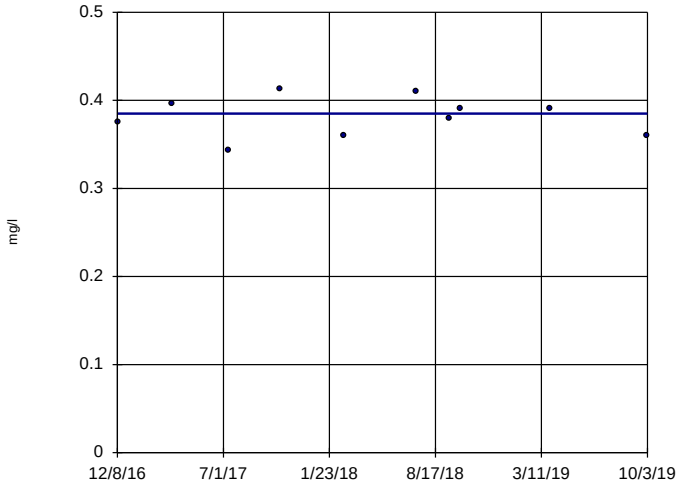
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 12/19/2019 9:46 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sanitas™ v.9.6.24 Sanitas software licensed to AMEC. UG

Sen's Slope Estimator

PZ-33



n = 10

Slope = 0 units per year.

Mann-Kendall statistic = -1
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-19
9/7/2016	0.573
12/8/2016	0.588
3/23/2017	0.703
7/12/2017	0.598
10/19/2017	0.66
2/21/2018	0.6
7/12/2018	0.64
9/14/2018	0.57
3/28/2019	0.7
10/3/2019	0.52

Sen's Slope Estimator

Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-23
8/31/2016	0.166
12/7/2016	0.182
3/21/2017	0.172
7/11/2017	0.149
10/18/2017	0.158
2/20/2018	0.16
7/11/2018	0.17
9/13/2018	0.16
3/27/2019	0.18
9/10/2019	0.15

Sen's Slope Estimator

Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-25
9/8/2016	0.204
12/8/2016	0.216
3/22/2017	0.247
7/11/2017	0.194
10/18/2017	0.186
2/21/2018	0.22
7/12/2018	0.22
9/13/2018	0.2
3/27/2019	0.22
10/2/2019	0.21

Sen's Slope Estimator

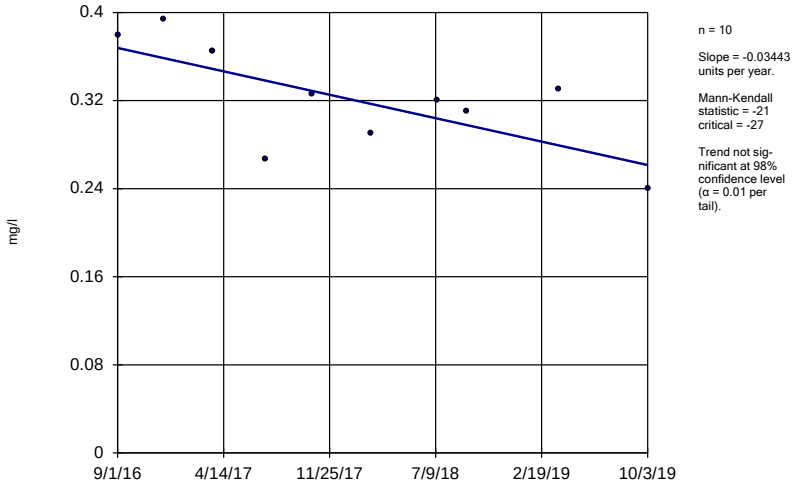
Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-33
12/8/2016	0.375
3/23/2017	0.396
7/12/2017	0.343
10/19/2017	0.413
2/21/2018	0.36
7/12/2018	0.41
9/14/2018	0.38
10/4/2018	0.39
3/28/2019	0.39
10/3/2019	0.36

Sen's Slope Estimator

PZ-7D



n = 10

Slope = -0.03443 units per year.

Mann-Kendall statistic = -21 critical = -27

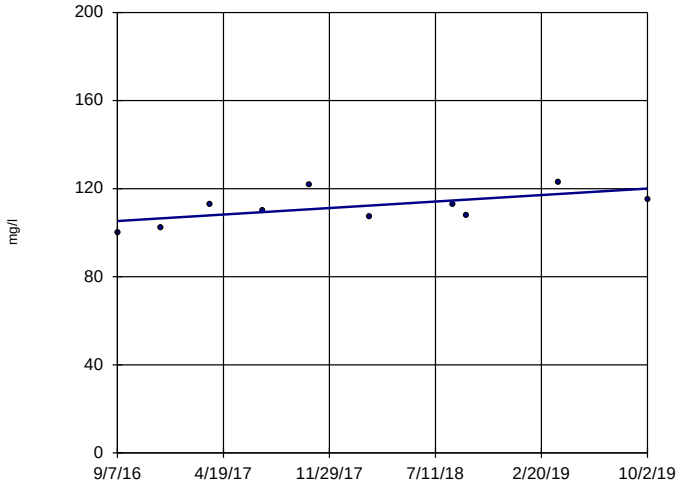
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Boron Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-17



n = 10

Slope = 4.803 units per year.

Mann-Kendall statistic = 22 critical = 27

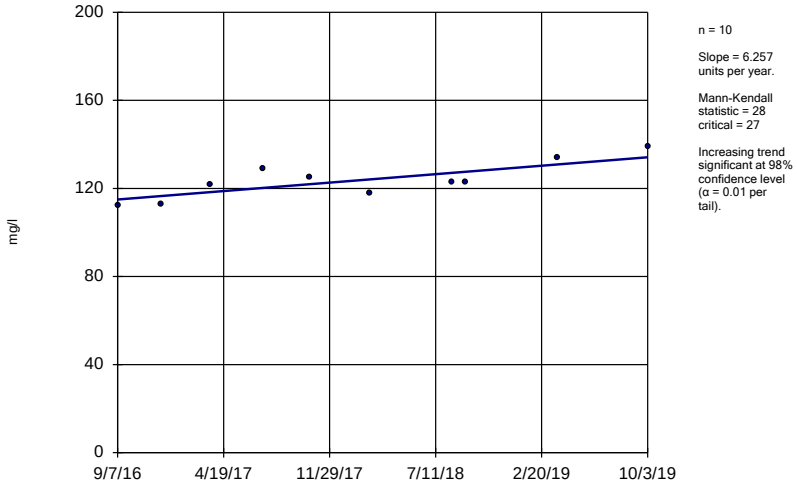
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-18



n = 10

Slope = 6.257 units per year.

Mann-Kendall statistic = 28 critical = 27

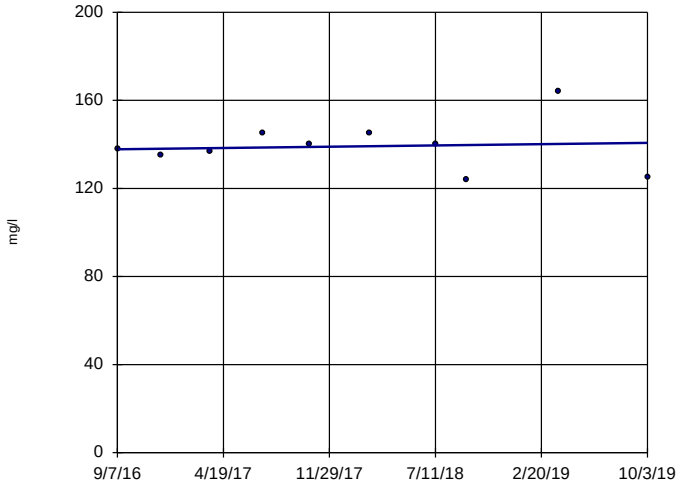
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-19



n = 10

Slope = 0.9505 units per year.

Mann-Kendall statistic = 3 critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-7D
9/1/2016	0.379
12/7/2016	0.394
3/22/2017	0.365
7/12/2017	0.267
10/19/2017	0.326
2/21/2018	0.29
7/12/2018	0.32
9/13/2018	0.31
3/28/2019	0.33
10/3/2019	0.24

Sen's Slope Estimator

Constituent: Calcium (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-17
9/7/2016	100
12/8/2016	102
3/22/2017	113
7/12/2017	110
10/18/2017	122
2/21/2018	107
8/16/2018	113
9/14/2018	108
3/28/2019	123
10/2/2019	115

Sen's Slope Estimator

Constituent: Calcium (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-18
9/7/2016	112
12/8/2016	113
3/22/2017	122
7/12/2017	129
10/18/2017	125
2/21/2018	118
8/15/2018	123
9/13/2018	123
3/27/2019	134
10/3/2019	139

Sen's Slope Estimator

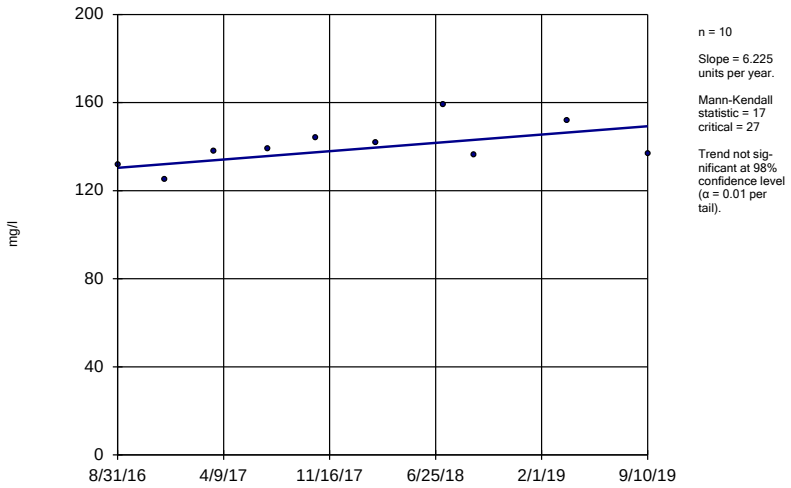
Constituent: Calcium (mg/l) Analysis Run 12/19/2019 9:52 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-19
9/7/2016	138
12/8/2016	135
3/23/2017	137
7/12/2017	145
10/19/2017	140
2/21/2018	145
7/12/2018	140
9/14/2018	124
3/28/2019	164
10/3/2019	125

Sen's Slope Estimator

PZ-23



n = 10

Slope = 6.225 units per year.

Mann-Kendall statistic = 17 critical = 27

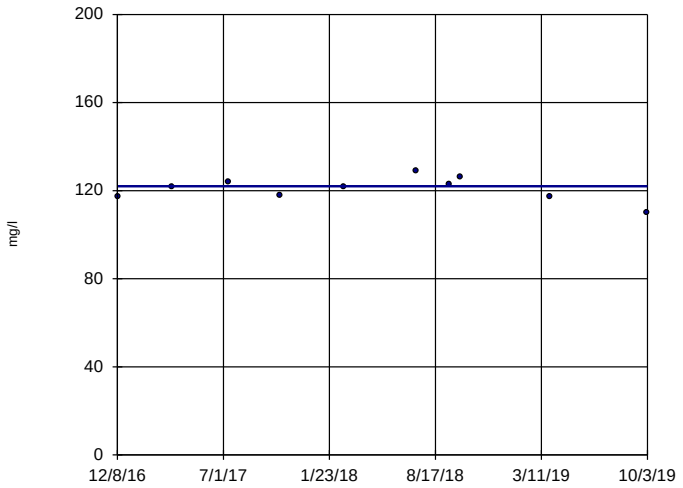
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-33



n = 10

Slope = 0 units per year.

Mann-Kendall statistic = -1 critical = -27

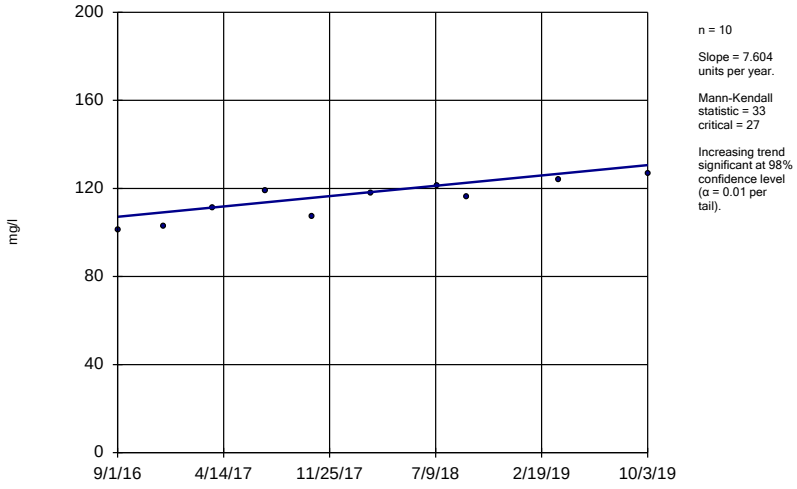
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-7D



n = 10

Slope = 7.604 units per year.

Mann-Kendall statistic = 33 critical = 27

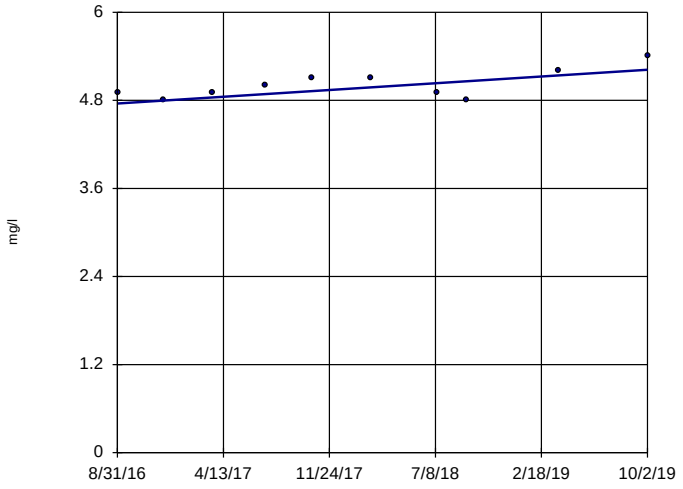
Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Calcium Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-14



n = 10

Slope = 0.1488 units per year.

Mann-Kendall statistic = 20 critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: Calcium (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-23
8/31/2016	132
12/7/2016	125
3/21/2017	138
7/11/2017	139
10/18/2017	144
2/20/2018	142
7/11/2018	159
9/13/2018	136
3/27/2019	152
9/10/2019	137

Sen's Slope Estimator

Constituent: Calcium (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-33
12/8/2016	117
3/23/2017	122
7/12/2017	124
10/19/2017	118
2/21/2018	122
7/12/2018	129
9/14/2018	123
10/4/2018	126
3/28/2019	117
10/3/2019	110

Sen's Slope Estimator

Constituent: Calcium (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-7D
9/1/2016	101
12/7/2016	103
3/22/2017	111
7/12/2017	119
10/19/2017	107
2/21/2018	118
7/12/2018	121
9/13/2018	116
3/28/2019	124
10/3/2019	127

Sen's Slope Estimator

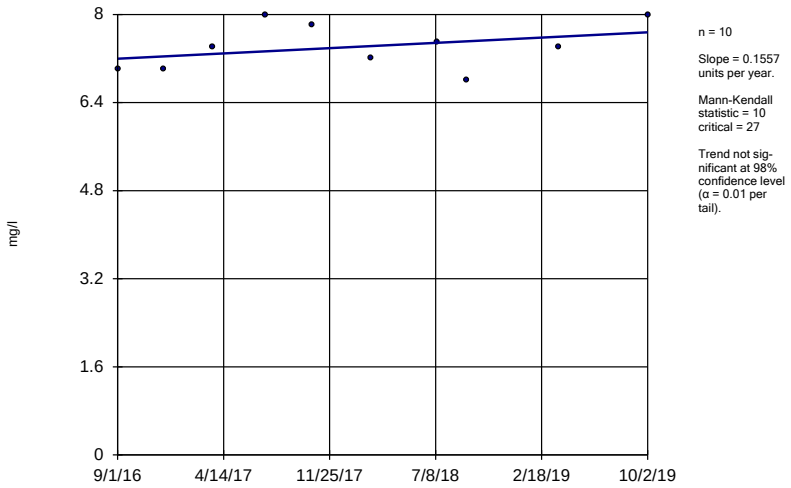
Constituent: Chloride (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-14
8/31/2016	4.9
12/7/2016	4.8
3/21/2017	4.9
7/11/2017	5
10/18/2017	5.1
2/20/2018	5.1
7/11/2018	4.9
9/12/2018	4.8
3/27/2019	5.2
10/2/2019	5.4

Sen's Slope Estimator

PZ-15



n = 10

Slope = 0.1557 units per year.

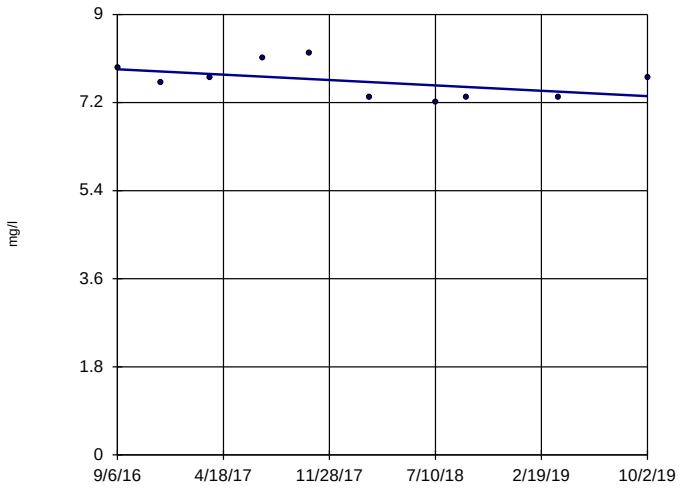
Mann-Kendall statistic = 10
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-16



n = 10

Slope = -0.1796 units per year.

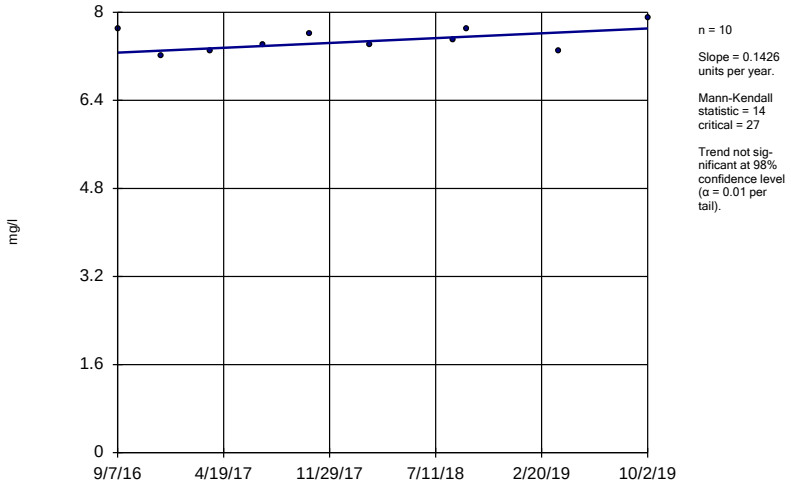
Mann-Kendall statistic = -11
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-17



n = 10

Slope = 0.1426 units per year.

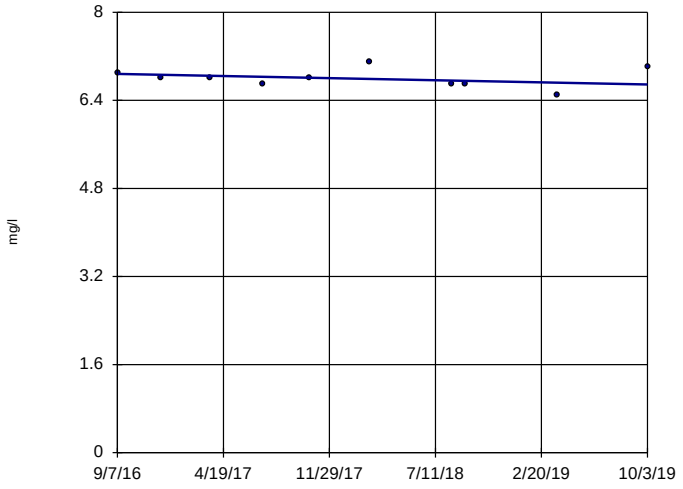
Mann-Kendall statistic = 14
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-18



n = 10

Slope = -0.06197 units per year.

Mann-Kendall statistic = -11
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: Chloride (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-15
9/1/2016	7
12/7/2016	7
3/22/2017	7.4
7/12/2017	8
10/18/2017	7.8
2/21/2018	7.2
7/12/2018	7.5
9/13/2018	6.8
3/28/2019	7.4
10/2/2019	8

Sen's Slope Estimator

Constituent: Chloride (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-16
9/6/2016	7.9
12/7/2016	7.6
3/22/2017	7.7
7/11/2017	8.1
10/18/2017	8.2
2/21/2018	7.3
7/12/2018	7.2
9/13/2018	7.3
3/27/2019	7.3
10/2/2019	7.7

Sen's Slope Estimator

Constituent: Chloride (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-17
9/7/2016	7.7
12/8/2016	7.2
3/22/2017	7.3
7/12/2017	7.4
10/18/2017	7.6
2/21/2018	7.4
8/16/2018	7.5
9/14/2018	7.7
3/28/2019	7.3
10/2/2019	7.9

Sen's Slope Estimator

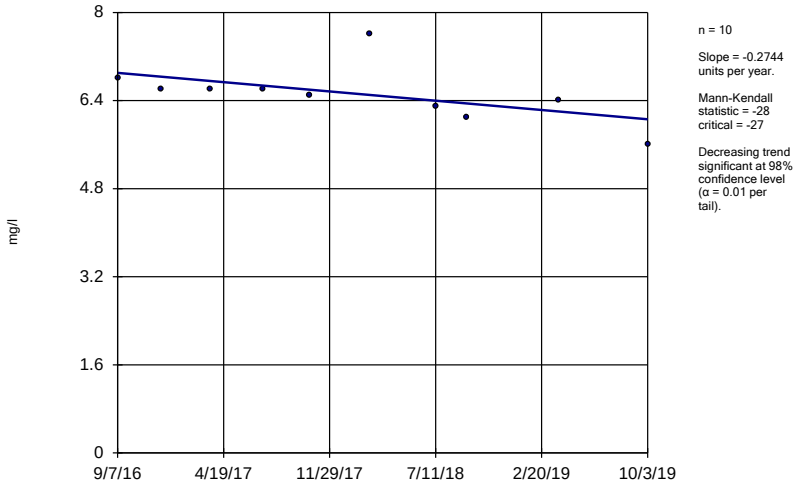
Constituent: Chloride (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-18
9/7/2016	6.9
12/8/2016	6.8
3/22/2017	6.8
7/12/2017	6.7
10/18/2017	6.8
2/21/2018	7.1
8/15/2018	6.7
9/13/2018	6.7
3/27/2019	6.5
10/3/2019	7

Sen's Slope Estimator

PZ-19



n = 10

Slope = -0.2744 units per year.

Mann-Kendall statistic = -28
critical = -27

Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

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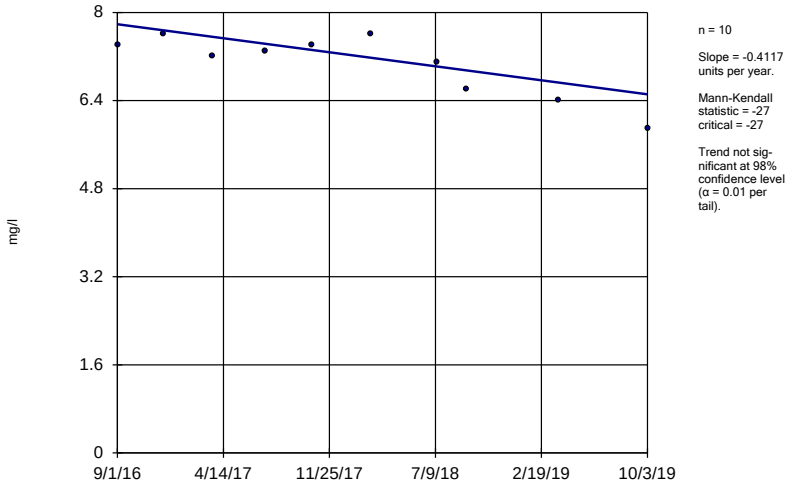
Sen's Slope Estimator

PZ-7D



n = 10

Slope = -0.4117 units per year.

Mann-Kendall statistic = -27
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Chloride Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

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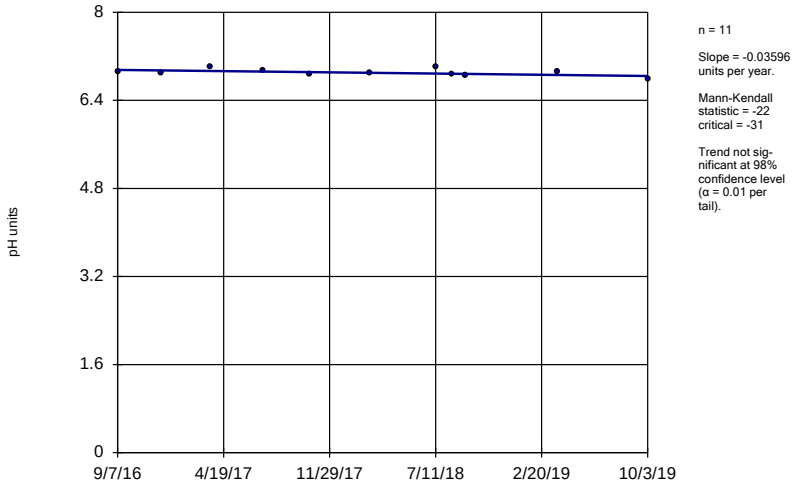
Sen's Slope Estimator

PZ-18



n = 11

Slope = -0.03596 units per year.

Mann-Kendall statistic = -22
critical = -31

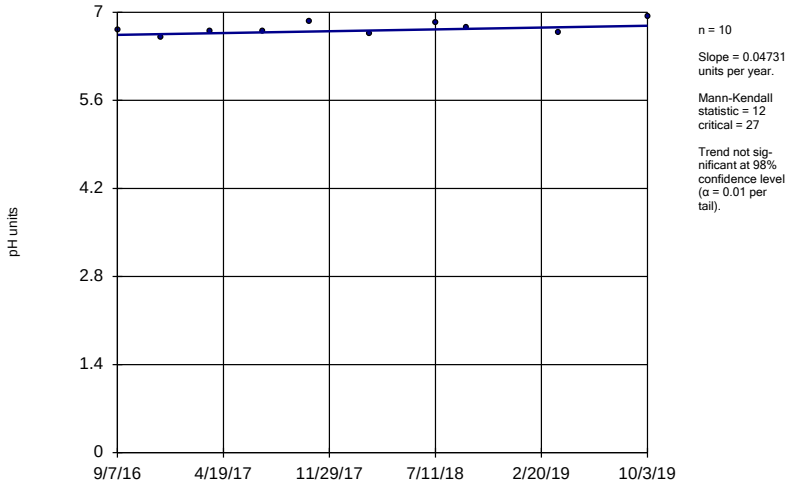
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sanitas™ v.9.6.24 Sanitas software licensed to AMEC. UG

Sen's Slope Estimator

PZ-19



n = 10

Slope = 0.04731 units per year.

Mann-Kendall statistic = 12
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: pH Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: Chloride (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-19
9/7/2016	6.8
12/8/2016	6.6
3/23/2017	6.6
7/12/2017	6.6
10/19/2017	6.5
2/21/2018	7.6
7/12/2018	6.3
9/14/2018	6.1
3/28/2019	6.4
10/3/2019	5.6

Sen's Slope Estimator

Constituent: Chloride (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-7D
9/1/2016	7.4
12/7/2016	7.6
3/22/2017	7.2
7/12/2017	7.3
10/19/2017	7.4
2/21/2018	7.6
7/12/2018	7.1
9/13/2018	6.6
3/28/2019	6.4
10/3/2019	5.9

Sen's Slope Estimator

Constituent: pH (pH units) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-18
9/7/2016	6.92
12/8/2016	6.9
3/22/2017	7
7/12/2017	6.95
10/18/2017	6.88
2/21/2018	6.89
7/12/2018	7.01
8/15/2018	6.87
9/13/2018	6.86
3/27/2019	6.92
10/3/2019	6.78

Sen's Slope Estimator

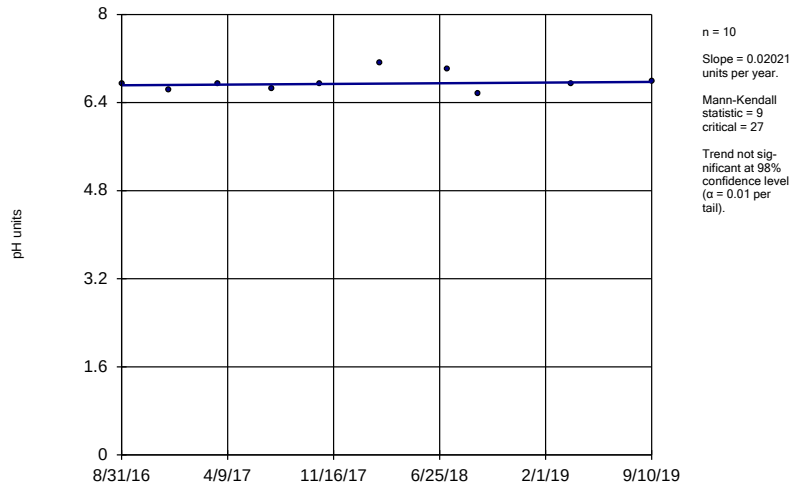
Constituent: pH (pH units) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-19
9/7/2016	6.71
12/8/2016	6.61
3/23/2017	6.69
7/12/2017	6.69
10/19/2017	6.85
2/21/2018	6.66
7/12/2018	6.84
9/14/2018	6.76
3/28/2019	6.67
10/3/2019	6.93

Sen's Slope Estimator

PZ-23

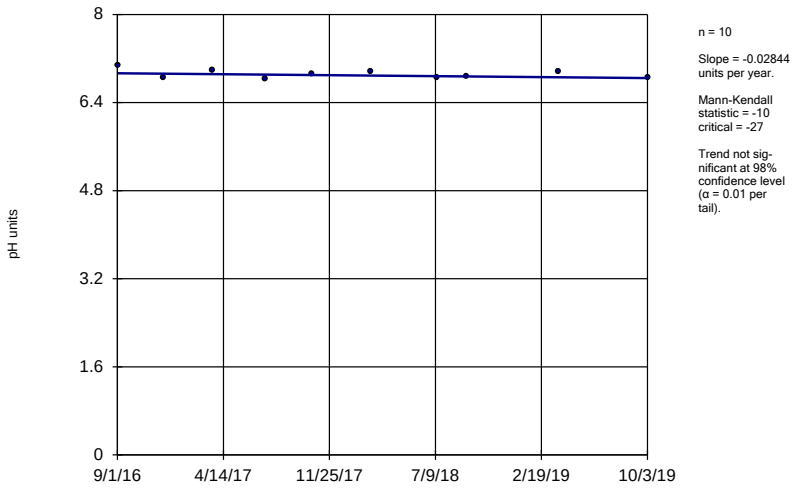


Constituent: pH Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-7D

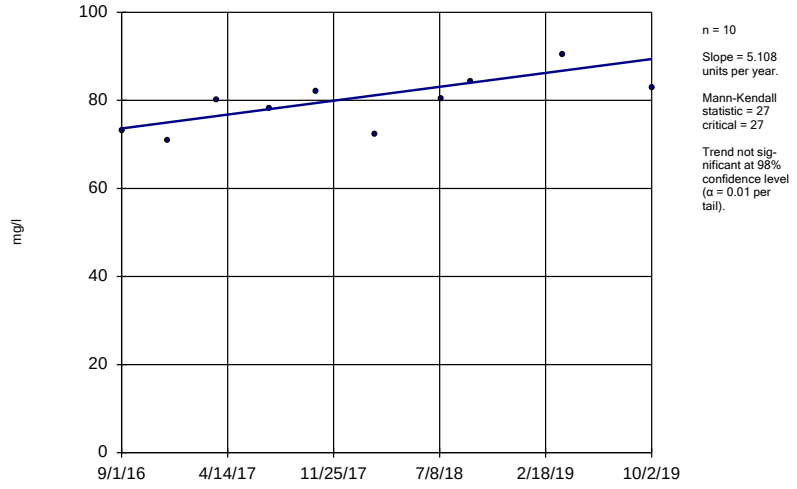


Constituent: pH Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-15

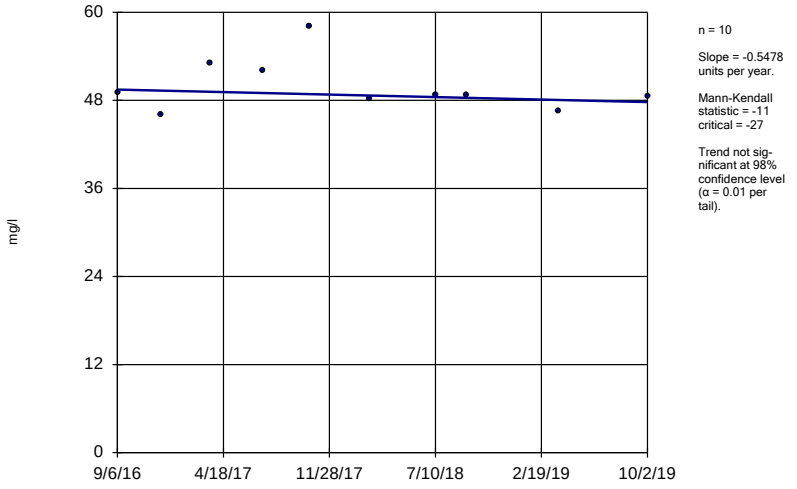


Constituent: Sulfate Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-16



Constituent: Sulfate Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: pH (pH units) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-23
8/31/2016	6.75
12/7/2016	6.64
3/21/2017	6.73
7/11/2017	6.66
10/18/2017	6.73
2/20/2018	7.11
7/11/2018	7
9/13/2018	6.56
3/27/2019	6.75
9/10/2019	6.78

Sen's Slope Estimator

Constituent: pH (pH units) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-7D
9/1/2016	7.07
12/7/2016	6.85
3/22/2017	6.99
7/12/2017	6.83
10/19/2017	6.91
2/21/2018	6.97
7/12/2018	6.85
9/13/2018	6.88
3/28/2019	6.96
10/3/2019	6.85

Sen's Slope Estimator

Constituent: Sulfate (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-15
9/1/2016	73
12/7/2016	71
3/22/2017	80
7/12/2017	78
10/18/2017	82
2/21/2018	72.2
7/12/2018	80.5
9/13/2018	84.4
3/28/2019	90.3
10/2/2019	83

Sen's Slope Estimator

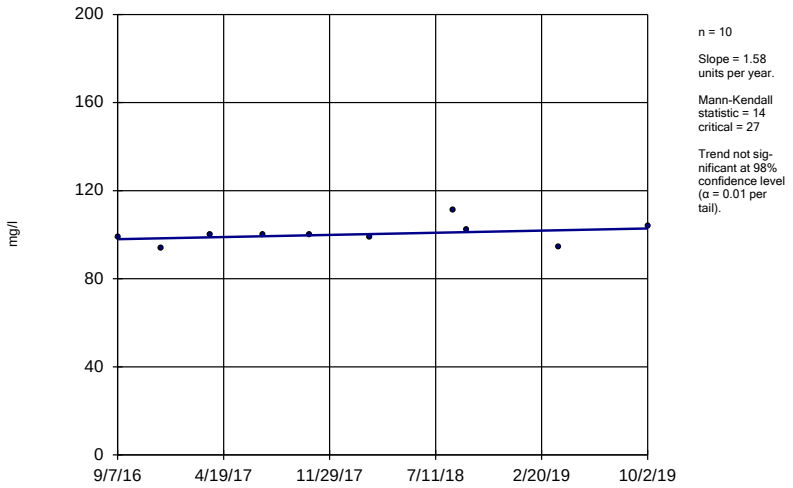
Constituent: Sulfate (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-16
9/6/2016	49
12/7/2016	46
3/22/2017	53
7/11/2017	52
10/18/2017	58
2/21/2018	48.2
7/12/2018	48.8
9/13/2018	48.7
3/27/2019	46.5
10/2/2019	48.5

Sen's Slope Estimator

PZ-17



n = 10

Slope = 1.58 units per year.

Mann-Kendall statistic = 14 critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 12/19/2019 9:49 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

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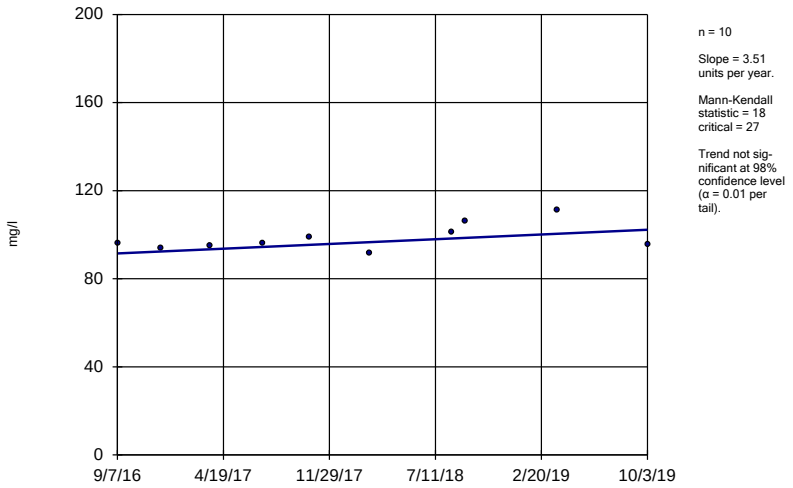
Sen's Slope Estimator

PZ-18



n = 10

Slope = 3.51 units per year.

Mann-Kendall statistic = 18 critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 12/19/2019 9:49 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

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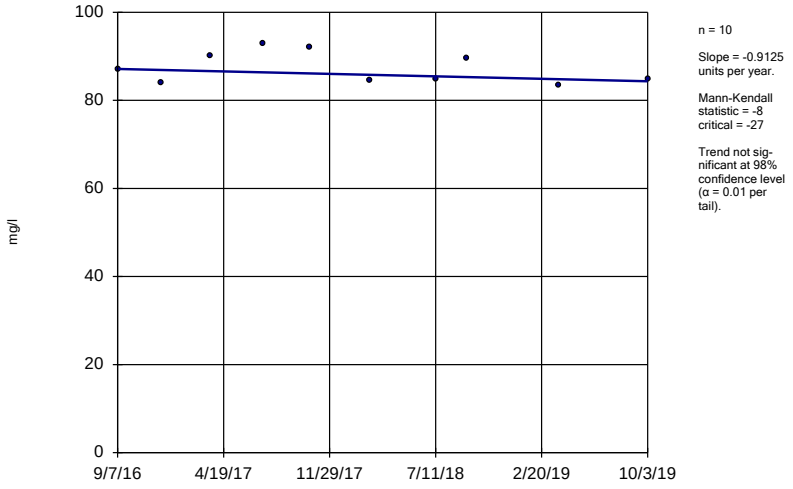
Sen's Slope Estimator

PZ-19



n = 10

Slope = -0.9125 units per year.

Mann-Kendall statistic = -8 critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 12/19/2019 9:49 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

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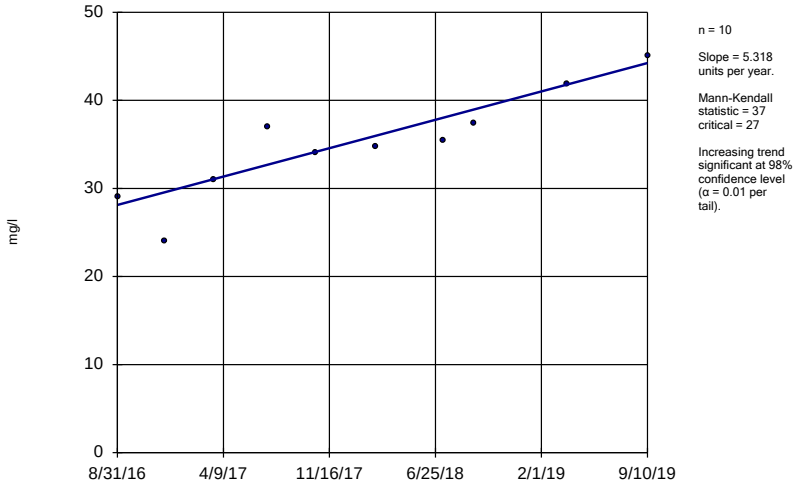
Sen's Slope Estimator

PZ-23



n = 10

Slope = 5.318 units per year.

Mann-Kendall statistic = 37 critical = 27

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 12/19/2019 9:49 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: Sulfate (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-17
9/7/2016	99
12/8/2016	94
3/22/2017	100
7/12/2017	100
10/18/2017	100
2/21/2018	98.8
8/16/2018	111
9/14/2018	102
3/28/2019	94.7
10/2/2019	104

Sen's Slope Estimator

Constituent: Sulfate (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-18
9/7/2016	96
12/8/2016	94
3/22/2017	95
7/12/2017	96
10/18/2017	99
2/21/2018	91.8
8/15/2018	101
9/13/2018	106
3/27/2019	111
10/3/2019	95.8

Sen's Slope Estimator

Constituent: Sulfate (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-19
9/7/2016	87
12/8/2016	84
3/23/2017	90
7/12/2017	93
10/19/2017	92
2/21/2018	84.5
7/12/2018	84.9
9/14/2018	89.5
3/28/2019	83.5
10/3/2019	84.9

Sen's Slope Estimator

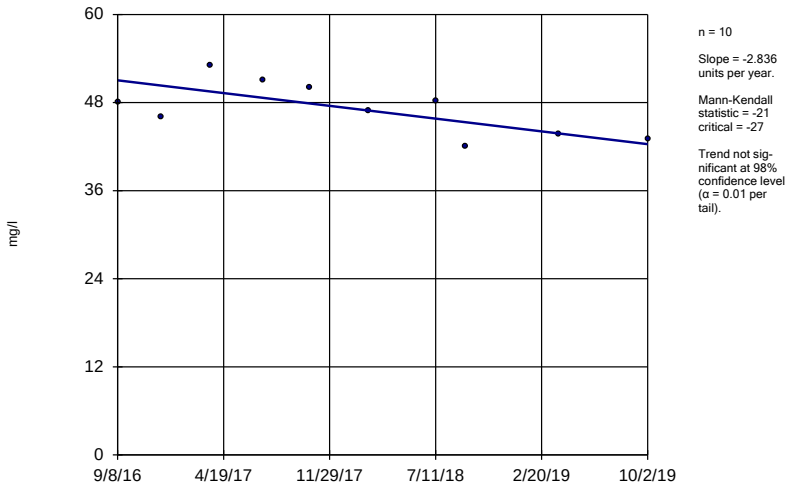
Constituent: Sulfate (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-23
8/31/2016	29
12/7/2016	24
3/21/2017	31
7/11/2017	37
10/18/2017	34
2/20/2018	34.7
7/11/2018	35.4
9/13/2018	37.4
3/27/2019	41.9
9/10/2019	45.1

Sen's Slope Estimator

PZ-25



n = 10

Slope = -2.836 units per year.

Mann-Kendall statistic = -21 critical = -27

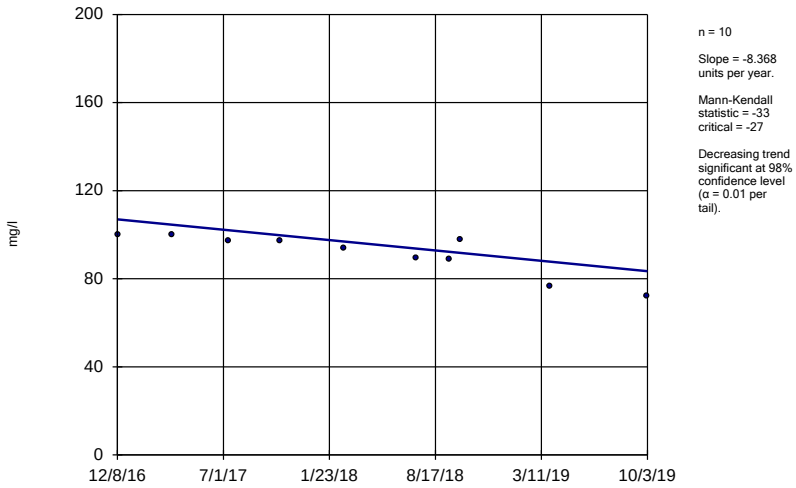
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 12/19/2019 9:49 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-33



n = 10

Slope = -8.368 units per year.

Mann-Kendall statistic = -33 critical = -27

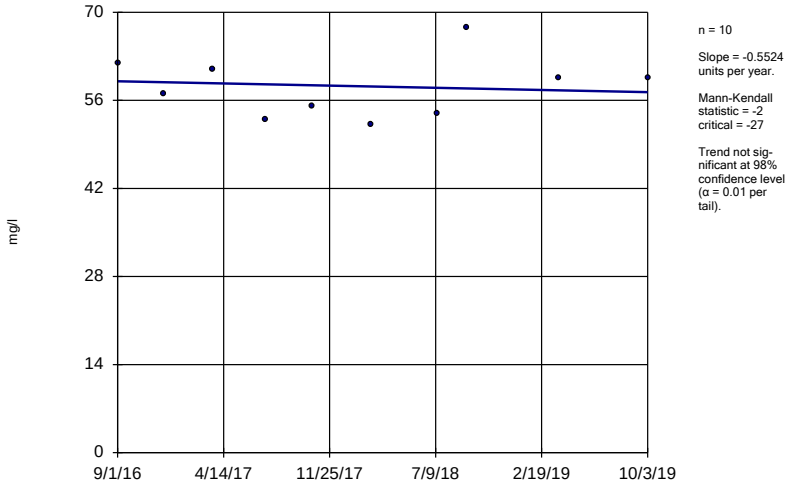
Decreasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 12/19/2019 9:49 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-7D



n = 10

Slope = -0.5524 units per year.

Mann-Kendall statistic = -2 critical = -27

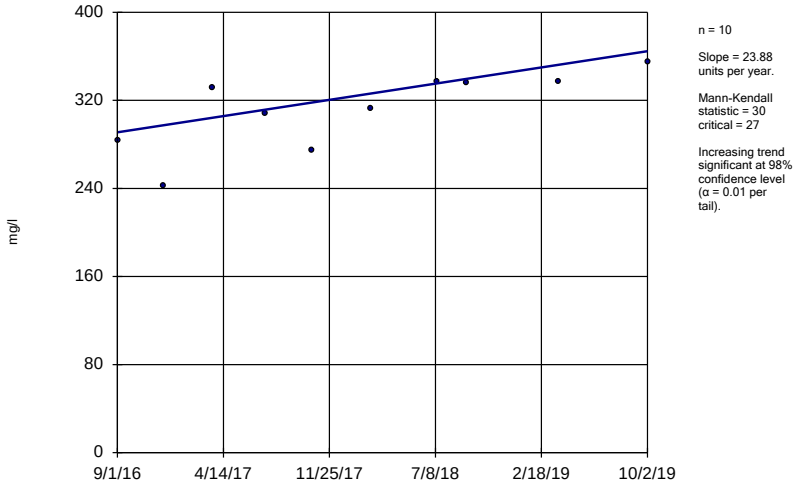
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Sulfate Analysis Run 12/19/2019 9:49 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

PZ-15



n = 10

Slope = 23.88 units per year.

Mann-Kendall statistic = 30 critical = 27

Increasing trend significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:49 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: Sulfate (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-25
9/8/2016	48
12/8/2016	46
3/22/2017	53
7/11/2017	51
10/18/2017	50
2/21/2018	46.8
7/12/2018	48.3
9/13/2018	42
3/27/2019	43.7
10/2/2019	43

Sen's Slope Estimator

Constituent: Sulfate (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-33
12/8/2016	100
3/23/2017	100
7/12/2017	97
10/19/2017	97
2/21/2018	93.6
7/12/2018	89.4
9/14/2018	88.9
10/4/2018	97.8
3/28/2019	76.7
10/3/2019	72.1

Sen's Slope Estimator

Constituent: Sulfate (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-7D
9/1/2016	62
12/7/2016	57
3/22/2017	61
7/12/2017	53
10/19/2017	55
2/21/2018	52.1
7/12/2018	53.9
9/13/2018	67.5
3/28/2019	59.6
10/3/2019	59.6

Sen's Slope Estimator

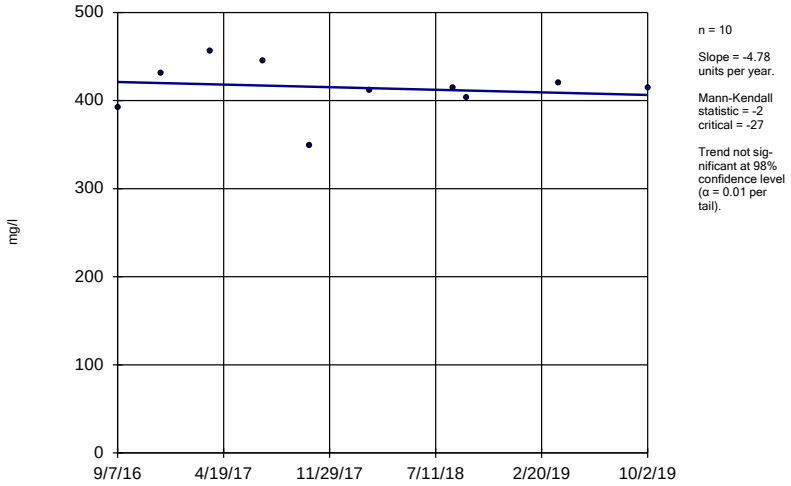
Constituent: Total Dissolved Solids (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-15
9/1/2016	284
12/7/2016	242
3/22/2017	332
7/12/2017	308
10/18/2017	275
2/21/2018	312
7/12/2018	337
9/13/2018	336
3/28/2019	337
10/2/2019	355

Sen's Slope Estimator

PZ-17



n = 10

Slope = -4.78 units per year.

Mann-Kendall statistic = -2
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:49 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

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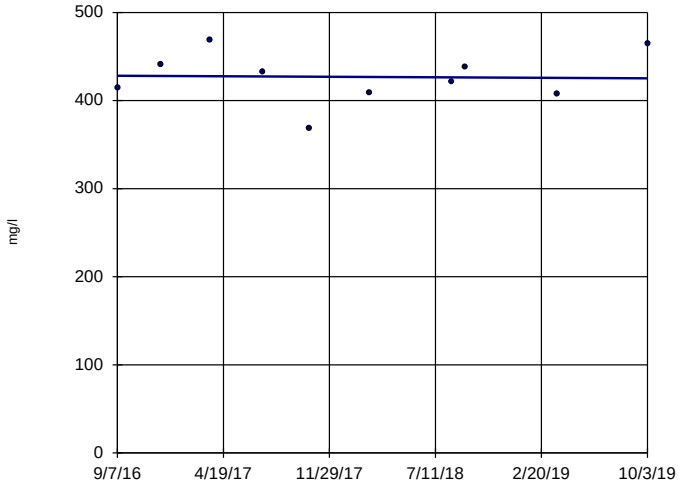
Sen's Slope Estimator

PZ-18



n = 10

Slope = -0.9148 units per year.

Mann-Kendall statistic = -1
critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:50 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

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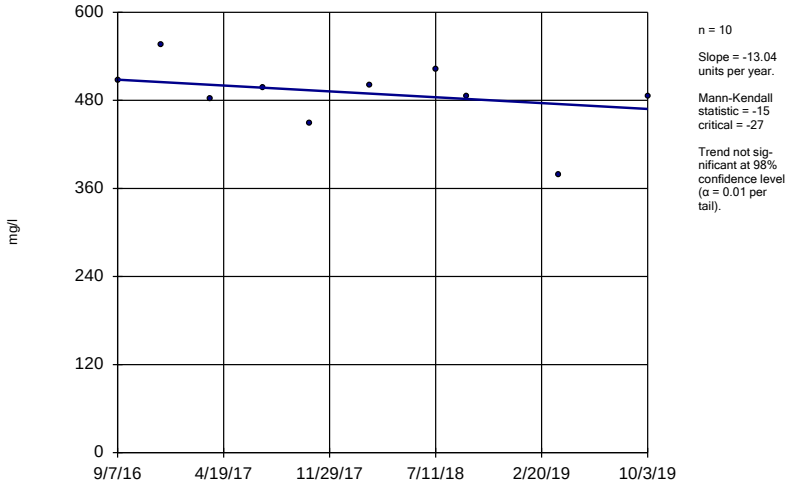
Sen's Slope Estimator

PZ-19



n = 10

Slope = -13.04 units per year.

Mann-Kendall statistic = -15
critical = -27

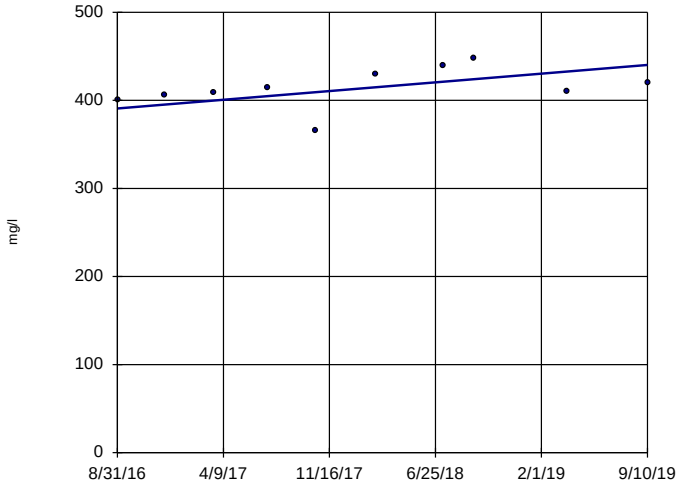
Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:50 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sanitas™ v.9.6.24 Sanitas software licensed to AMEC. UG

Sen's Slope Estimator

PZ-23



n = 10

Slope = 16.29 units per year.

Mann-Kendall statistic = 23
critical = 27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:50 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: Total Dissolved Solids (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-17
9/7/2016	392
12/8/2016	431
3/22/2017	456
7/12/2017	445
10/18/2017	349
2/21/2018	411
8/16/2018	415
9/14/2018	403
3/28/2019	420
10/2/2019	415

Sen's Slope Estimator

Constituent: Total Dissolved Solids (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-18
9/7/2016	415
12/8/2016	441
3/22/2017	469
7/12/2017	432
10/18/2017	368
2/21/2018	409
8/15/2018	422
9/13/2018	438
3/27/2019	408
10/3/2019	464

Sen's Slope Estimator

Constituent: Total Dissolved Solids (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-19
9/7/2016	508
12/8/2016	556
3/23/2017	482
7/12/2017	497
10/19/2017	448
2/21/2018	500
7/12/2018	523
9/14/2018	486
3/28/2019	378 (X)
10/3/2019	485

Sen's Slope Estimator

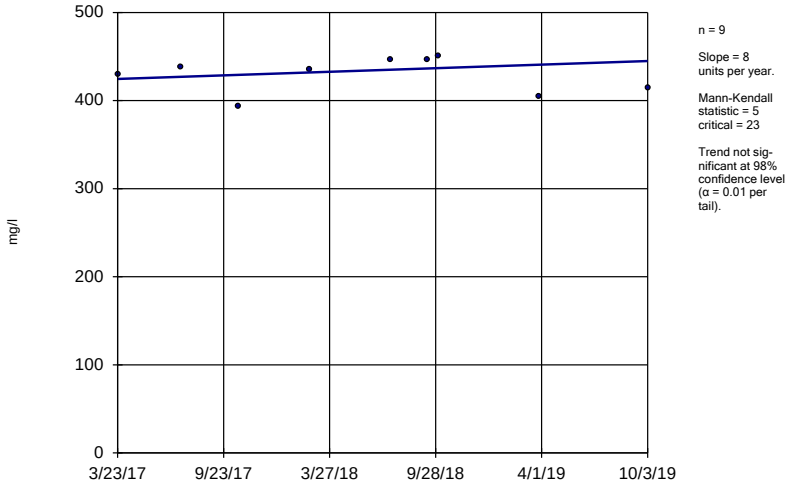
Constituent: Total Dissolved Solids (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-23
8/31/2016	400
12/7/2016	406
3/21/2017	409
7/11/2017	414
10/18/2017	366
2/20/2018	429
7/11/2018	440
9/13/2018	448
3/27/2019	410
9/10/2019	420

Sen's Slope Estimator

PZ-33



n = 9

Slope = 8 units per year.

Mann-Kendall statistic = 5 critical = 23

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:50 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

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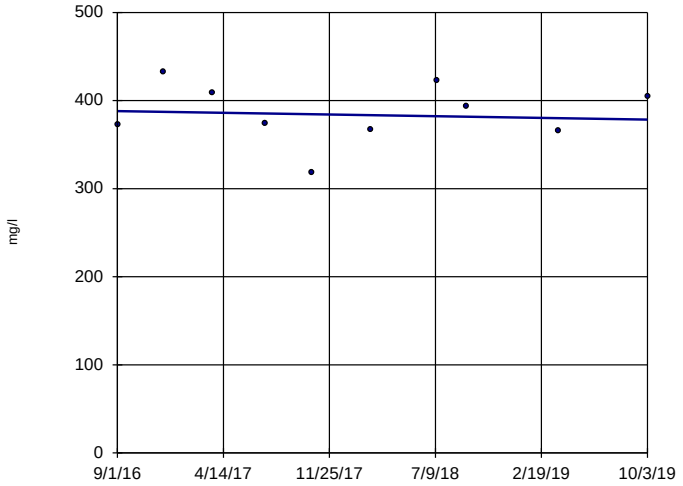
Sen's Slope Estimator

PZ-7D



n = 10

Slope = -3.113 units per year.

Mann-Kendall statistic = -5 critical = -27

Trend not significant at 98% confidence level (α = 0.01 per tail).

Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:50 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator

Constituent: Total Dissolved Solids (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-33
12/8/2016	503 (O)
3/23/2017	430
7/12/2017	438
10/19/2017	393
2/21/2018	435
7/12/2018	447
9/14/2018	447
10/4/2018	450
3/28/2019	405
10/3/2019	414

Sen's Slope Estimator

Constituent: Total Dissolved Solids (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes

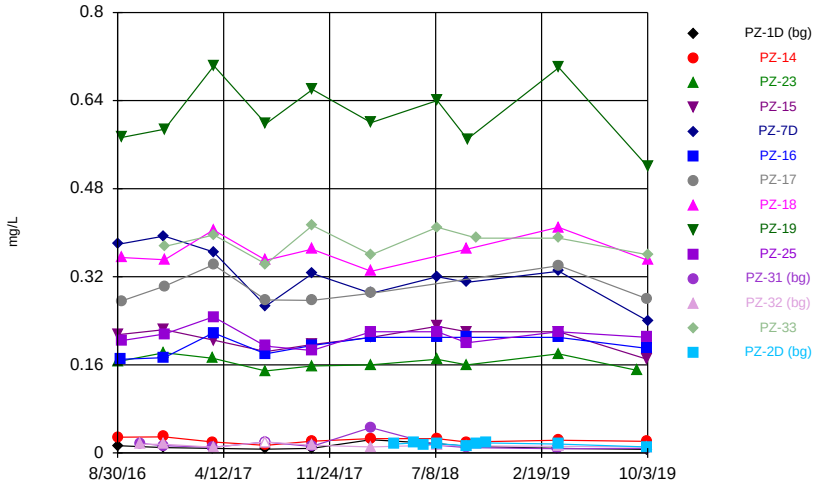
Plant Mitchell Client: Southern Company Data: Mitchel V3

	PZ-7D
9/1/2016	373
12/7/2016	433
3/22/2017	409
7/12/2017	374
10/19/2017	318
2/21/2018	367
7/12/2018	423
9/13/2018	394
3/28/2019	365
10/3/2019	405

TIME SERIES

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG
Hollow symbols indicate censored values.

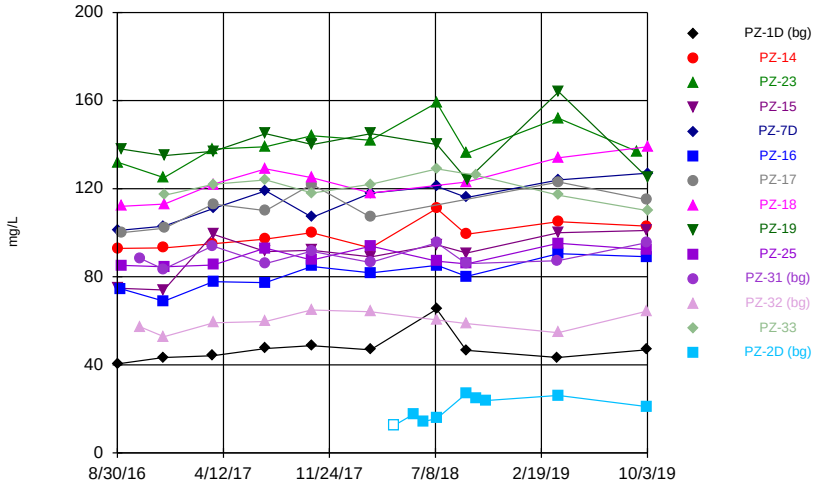
Time Series



Constituent: Boron Analysis Run 2/24/2020 11:38 AM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG
Hollow symbols indicate censored values.

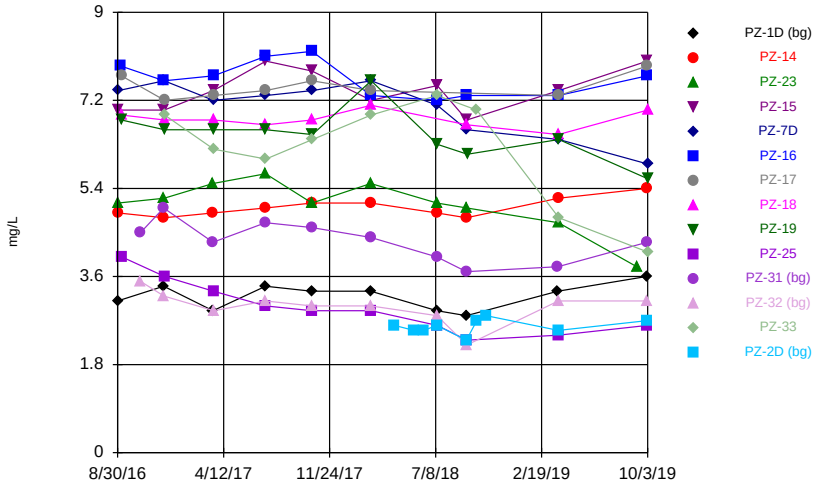
Time Series



Constituent: Calcium Analysis Run 2/24/2020 11:38 AM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG

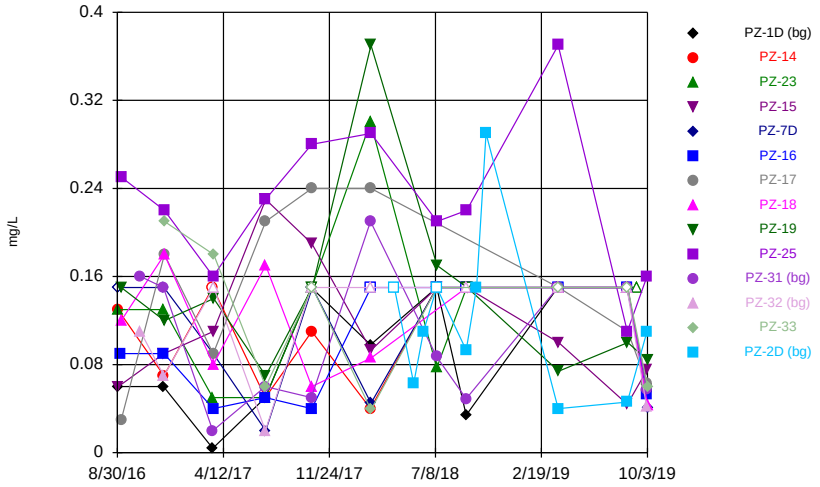
Time Series



Constituent: Chloride Analysis Run 2/24/2020 11:38 AM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 2/24/2020 11:38 AM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series

Constituent: Boron (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19
8/30/2016	0.0132 (X)								
8/31/2016		0.0285 (X)	0.166						
9/1/2016				0.215	0.379				
9/6/2016						0.17			
9/7/2016							0.276	0.355	0.573
9/8/2016									
10/18/2016									
12/6/2016	0.0096 (X)								
12/7/2016		0.0292 (X)	0.182	0.224	0.394	0.173			
12/8/2016							0.303	0.351	0.588
3/21/2017	0.0082 (X)	0.0198 (X)	0.172						
3/22/2017				0.205	0.365	0.218	0.342	0.405	
3/23/2017									0.703
7/11/2017	0.0067 (X)	0.0137 (X)	0.149			0.18			
7/12/2017				0.184	0.267		0.278	0.35	0.598
10/17/2017	0.0083 (X)								
10/18/2017		0.0212 (X)	0.158	0.197		0.195	0.277	0.37	
10/19/2017					0.326				0.66
2/20/2018	0.024 (X)	0.026 (X)	0.16						
2/21/2018				0.21	0.29	0.21	0.29	0.33	0.6
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	0.017 (X)	0.026 (X)	0.17						
7/12/2018				0.23	0.32	0.21			0.64
9/12/2018	0.012 (X)	0.02 (X)							
9/13/2018			0.16	0.22	0.31	0.21		0.37	
9/14/2018									0.57
10/4/2018									
10/24/2018									
3/26/2019	0.0082 (X)								
3/27/2019		0.023 (X)	0.18			0.21		0.41	
3/28/2019				0.22	0.33		0.34		0.7
9/10/2019			0.15						
10/1/2019	0.0064 (X)								
10/2/2019		0.021 (X)		0.17		0.19	0.28		
10/3/2019					0.24			0.35	0.52

Time Series

Constituent: Boron (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	0.204				
10/18/2016		0.0174 (X)	0.0156 (X)		
12/6/2016		0.0133 (X)			
12/7/2016			0.0157 (X)		
12/8/2016	0.216			0.375	
3/21/2017		0.0103 (X)			
3/22/2017	0.247				
3/23/2017			0.0103 (X)	0.396	
7/11/2017	0.194	<0.04	<0.04		
7/12/2017				0.343	
10/17/2017		0.0116 (X)	0.0142 (X)		
10/18/2017	0.186				
10/19/2017				0.413	
2/20/2018		0.046 (X)	0.011 (X)		
2/21/2018	0.22			0.36	
4/12/2018					0.016 (X)
5/23/2018					0.018 (X)
6/13/2018					0.014 (X)
7/11/2018		0.014 (X)	0.014 (X)		0.017 (X)
7/12/2018	0.22			0.41	
9/12/2018		0.0098 (X)			0.013 (X)
9/13/2018	0.2		0.013 (X)		
9/14/2018					
10/4/2018				0.39	0.016 (X)
10/24/2018					0.018 (X)
3/26/2019		0.0076 (X)			
3/27/2019	0.22		0.012 (X)		0.016 (X)
3/28/2019				0.39	
9/10/2019					
10/1/2019			0.011 (X)		
10/2/2019	0.21	0.0084 (X)			0.011 (X)
10/3/2019				0.36	

Time Series

Constituent: Calcium (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19
8/30/2016	40.4								
8/31/2016		92.9	132						
9/1/2016				74.8	101				
9/6/2016						74.6			
9/7/2016							100	112	138
9/8/2016									
10/18/2016									
12/6/2016	43.3								
12/7/2016		93.1	125	74	103	68.9			
12/8/2016							102	113	135
3/21/2017	44.1	95	138						
3/22/2017				99.3	111	77.8	113	122	
3/23/2017									137
7/11/2017	47.4	97.1	139			77.3			
7/12/2017				91.4	119		110	129	145
10/17/2017	48.7								
10/18/2017		100	144	92		84.7	122	125	
10/19/2017					107				140
2/20/2018	46.8	93.1	142						
2/21/2018				89	118	81.8	107	118	145
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	65.3	111	159						
7/12/2018				94.5	121	85.2			140
9/12/2018	46.6	99.3							
9/13/2018			136	90.8	116	80.2		123	
9/14/2018									124
10/4/2018									
10/24/2018									
3/26/2019	43.3								
3/27/2019		105	152			90.5		134	
3/28/2019				100	124		123		164
9/10/2019			137						
10/1/2019	46.8								
10/2/2019		103		101		89.1	115		
10/3/2019					127			139	125

Time Series

Constituent: Calcium (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	85.2				
10/18/2016		88.3	57.2		
12/6/2016		83.4			
12/7/2016			52.8		
12/8/2016	84.5			117	
3/21/2017		94			
3/22/2017	85.3				
3/23/2017			59.1	122	
7/11/2017	93	86	59.7		
7/12/2017				124	
10/17/2017		91.6	64.9		
10/18/2017	87.6				
10/19/2017				118	
2/20/2018		86.5	64.1		
2/21/2018	93.9			122	
4/12/2018					<25
5/23/2018					17.6 (X)
6/13/2018					14.3
7/11/2018		95.4	60.4		15.6
7/12/2018	87.1			129	
9/12/2018		86			26.9
9/13/2018	85.8		58.7		
9/14/2018					
10/4/2018				126	25
10/24/2018					23.8
3/26/2019		87.3			
3/27/2019	95.2		54.6		26.1
3/28/2019				117	
9/10/2019					
10/1/2019			64.3		
10/2/2019	92.3	95.5			21
10/3/2019				110	

Time Series

Constituent: Chloride (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19
8/30/2016	3.1 (B)								
8/31/2016		4.9	5.1						
9/1/2016				7	7.4				
9/6/2016						7.9 (B)			
9/7/2016							7.7 (B)	6.9 (B)	6.8 (B)
9/8/2016									
10/18/2016									
12/6/2016	3.4								
12/7/2016		4.8	5.2	7	7.6	7.6			
12/8/2016							7.2	6.8	6.6
3/21/2017	2.9	4.9	5.5						
3/22/2017				7.4	7.2	7.7	7.3	6.8	
3/23/2017									6.6
7/11/2017	3.4	5	5.7			8.1			
7/12/2017				8	7.3		7.4	6.7	6.6
10/17/2017	3.3								
10/18/2017		5.1	5.1	7.8		8.2	7.6	6.8	
10/19/2017					7.4				6.5
2/20/2018	3.3	5.1	5.5						
2/21/2018				7.2	7.6	7.3	7.4	7.1	7.6
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	2.9	4.9	5.1						
7/12/2018				7.5	7.1	7.2			6.3
9/12/2018	2.8	4.8							
9/13/2018			5	6.8	6.6	7.3		6.7	
9/14/2018									6.1
10/4/2018									
10/24/2018									
3/26/2019	3.3								
3/27/2019		5.2	4.7			7.3		6.5	
3/28/2019				7.4	6.4		7.3		6.4
9/10/2019			3.8						
10/1/2019	3.6								
10/2/2019		5.4		8		7.7	7.9		
10/3/2019					5.9			7	5.6

Time Series

Constituent: Chloride (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	4				
10/18/2016		4.5	3.5		
12/6/2016		5			
12/7/2016			3.2		
12/8/2016	3.6			6.9	
3/21/2017		4.3			
3/22/2017	3.3				
3/23/2017			2.9	6.2	
7/11/2017	3	4.7	3.1		
7/12/2017				6	
10/17/2017		4.6	3		
10/18/2017	2.9				
10/19/2017				6.4	
2/20/2018		4.4	3		
2/21/2018	2.9			6.9	
4/12/2018					2.6
5/23/2018					2.5
6/13/2018					2.5
7/11/2018		4	2.8		2.6
7/12/2018	2.6			7.3	
9/12/2018		3.7			2.3
9/13/2018	2.3		2.2		
9/14/2018					
10/4/2018				7	2.7
10/24/2018					2.8
3/26/2019		3.8			
3/27/2019	2.4		3.1		2.5
3/28/2019				4.8	
9/10/2019					
10/1/2019			3.1		
10/2/2019	2.6	4.3			2.7
10/3/2019				4.1	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19
8/30/2016	0.06 (X)								
8/31/2016		0.13 (X)	0.13 (X)						
9/1/2016				0.06 (X)	<0.3				
9/6/2016						0.09 (X)			
9/7/2016							0.03 (X)	0.12 (X)	0.15 (X)
9/8/2016									
10/18/2016									
12/6/2016	0.06 (X)								
12/7/2016		0.07 (X)	0.13 (X)	0.09 (X)	0.15 (X)	0.09 (X)			
12/8/2016							0.18 (X)	0.18 (X)	0.12 (X)
3/21/2017	0.004 (X)	<0.3	0.05 (X)						
3/22/2017				0.11 (X)	0.09 (X)	0.04 (X)	0.09 (X)	0.08 (X)	
3/23/2017									0.14 (X)
7/11/2017	0.05 (X)	0.05 (X)	0.05 (X)			0.05 (X)			
7/12/2017				0.23 (X)	0.02 (X)		0.21 (X)	0.17 (X)	0.07 (X)
10/17/2017	<0.3								
10/18/2017		0.11 (X)	<0.3	0.19 (X)		0.04 (X)	0.24 (X)	0.06 (X)	
10/19/2017					<0.3				<0.3
2/20/2018	0.098 (X)	0.04 (X)	0.3 (X)						
2/21/2018				0.093 (X)	0.045 (X)	<0.3	0.24 (X)	0.086 (X)	0.37
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	<0.3	<0.3	0.077 (X)						
7/12/2018				<0.3	<0.3	<0.3			0.17 (X)
9/12/2018	0.034 (X)	<0.3							
9/13/2018			<0.3	0.15 (X)	<0.3	<0.3		<0.3	
9/14/2018									<0.3
10/4/2018									
10/24/2018									
3/26/2019	<0.3								
3/27/2019		<0.3	<0.3			<0.3		<0.3	
3/28/2019				0.1 (X)	<0.3		0.15 (X)		0.074 (X)
8/20/2019	<0.3								
8/21/2019		<0.3	<0.3	0.044 (X)		<0.3			
8/22/2019					<0.3		0.11 (X)	<0.3	0.1 (X)
9/10/2019			<0.3						
10/1/2019	0.062 (X)								
10/2/2019		0.056 (X)		0.075 (X)		0.053 (X)	0.063 (X)		
10/3/2019					0.041 (X)			0.043 (X)	0.084 (X)

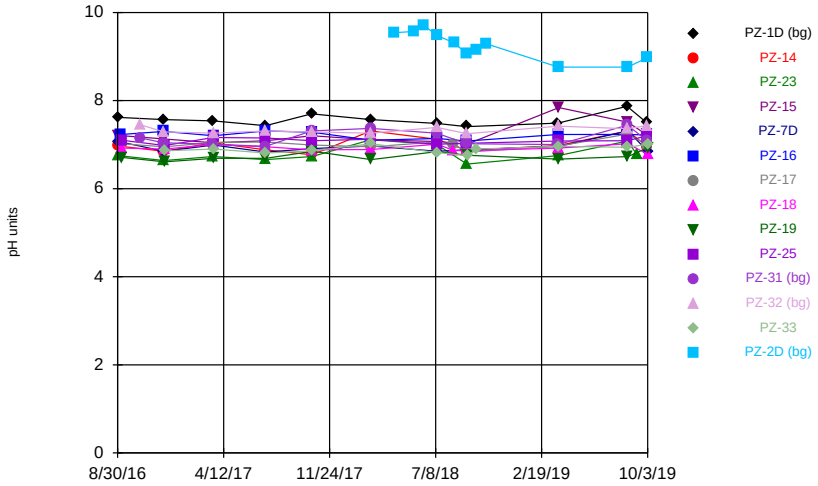
Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	0.25 (X)				
10/18/2016		0.16 (X)	0.11 (X)		
12/6/2016		0.15 (X)			
12/7/2016			0.07 (X)		
12/8/2016	0.22 (X)			0.21 (X)	
3/21/2017		0.02 (X)			
3/22/2017	0.16 (X)				
3/23/2017			<0.3	0.18 (X)	
7/11/2017	0.23 (X)	0.06 (X)	0.02 (X)		
7/12/2017				0.06 (X)	
10/17/2017		0.05 (X)	<0.3		
10/18/2017	0.28 (X)				
10/19/2017				<0.3	
2/20/2018		0.21 (X)	<0.3		
2/21/2018	0.29 (X)			0.039 (X)	
4/12/2018					<0.3
5/23/2018					0.063 (X)
6/13/2018					0.11 (X)
7/11/2018		0.087 (X)	<0.3		<0.3
7/12/2018	0.21 (X)			<0.3	
9/12/2018		0.049 (X)			0.093 (X)
9/13/2018	0.22 (X)		<0.3		
9/14/2018					
10/4/2018				0.15 (X)	0.15 (X)
10/24/2018					0.29 (X)
3/26/2019		<0.3			
3/27/2019	0.37		<0.3		0.04 (X)
3/28/2019				<0.3	
8/20/2019			<0.3		
8/21/2019	0.11 (X)	<0.3			0.046 (X)
8/22/2019				<0.3	
9/10/2019					
10/1/2019			0.042 (X)		
10/2/2019	0.16 (X)	0.057 (X)			0.11 (X)
10/3/2019				0.06 (X)	

Time Series



Constituent: pH Analysis Run 2/24/2020 11:38 AM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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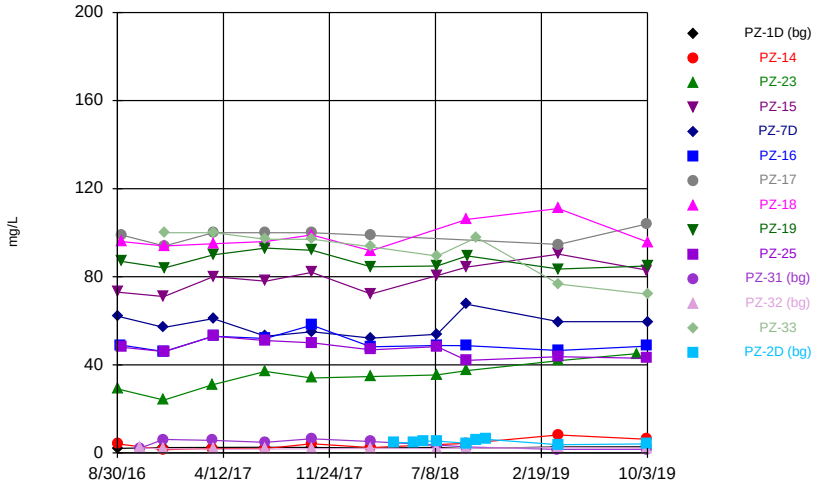
Time Series



Constituent: Sulfate Analysis Run 2/24/2020 11:38 AM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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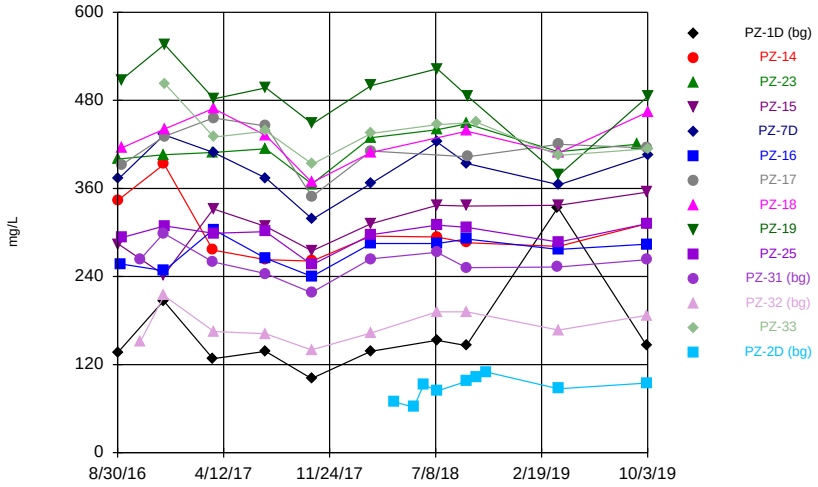
Time Series



Constituent: Total Dissolved Solids Analysis Run 2/24/2020 11:38 AM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series

Constituent: pH (pH units) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19
8/30/2016	7.62								
8/31/2016		6.97	6.75						
9/1/2016				7.21	7.07				
9/6/2016						7.23			
9/7/2016							7.02	6.92	6.71
9/8/2016									
10/18/2016									
12/6/2016	7.57								
12/7/2016		6.85	6.64	7.13	6.85	7.3			
12/8/2016							6.95	6.9	6.61
3/21/2017	7.54	7.04	6.73						
3/22/2017				7.04	6.99	7.2	7.05	7	
3/23/2017									6.69
7/11/2017	7.43	6.88	6.66			7.31			
7/12/2017				7.09	6.83		7.06	6.95	6.69
10/17/2017	7.7								
10/18/2017		6.77	6.73	7.2		7.28	6.99	6.88	
10/19/2017					6.91				6.85
2/20/2018	7.57	7.31	7.11						
2/21/2018				7.11	6.97	7.1	6.95	6.89	6.66
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	7.48	7.12	7						
7/12/2018				7.07	6.85	7.14	7.06	7.01	6.84
8/15/2018								6.87	
8/16/2018							7.01		
8/17/2018									
9/12/2018	7.41	6.87							
9/13/2018			6.56	7.01	6.88	7.08		6.86	
9/14/2018							6.83		6.76
10/4/2018									
10/24/2018									
3/26/2019	7.49								
3/27/2019		6.98	6.75			7.23		6.92	
3/28/2019				7.84	6.96		6.97		6.67
8/20/2019	7.87								
8/21/2019		7.31	7.08	7.51		7.23			
8/22/2019					7.31		7.24	7.02	6.73
9/10/2019			6.78						
10/1/2019	7.5								
10/2/2019		6.96		7.22		7.22	6.99		
10/3/2019					6.85			6.78	6.93

Time Series

Constituent: pH (pH units) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	7.1				
10/18/2016		7.15	7.45		
12/6/2016		7.04			
12/7/2016			7.29		
12/8/2016	6.98			6.86	
3/21/2017		7.01			
3/22/2017	7.16				
3/23/2017			7.26	6.9	
7/11/2017	7.15	6.96	7.31		
7/12/2017				6.81	
10/17/2017		7.31	7.29		
10/18/2017	7.09				
10/19/2017				6.86	
2/20/2018		7.37	7.26		
2/21/2018	7.12			7.02	
4/12/2018					9.54
5/23/2018					9.57
6/13/2018					9.71
7/11/2018		7.26	7.39		9.48
7/12/2018	7.01			6.82	
8/15/2018					
8/16/2018					
8/17/2018					9.31
9/12/2018		7.02			9.07
9/13/2018	7.03		7.25		
9/14/2018				6.75	
10/4/2018				6.9	9.16
10/24/2018					9.29
3/26/2019		7			
3/27/2019	7.08		7.42		8.76
3/28/2019				6.96	
8/20/2019			7.36		
8/21/2019	7.09	7.44			8.76
8/22/2019				6.94	
9/10/2019					
10/1/2019			7.43		
10/2/2019	7.2	7.09			8.97
10/3/2019				7.01	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19
8/30/2016	2.1								
8/31/2016		4.1	29						
9/1/2016				73	62				
9/6/2016						49			
9/7/2016							99	96	87
9/8/2016									
10/18/2016									
12/6/2016	2.4								
12/7/2016		1.5	24	71	57	46			
12/8/2016							94	94	84
3/21/2017	2.5	2	31						
3/22/2017				80	61	53	100	95	
3/23/2017									90
7/11/2017	2.6	2	37			52			
7/12/2017				78	53		100	96	93
10/17/2017	2.5								
10/18/2017		4.2	34	82		58	100	99	
10/19/2017					55				92
2/20/2018	2.3	2.4	34.7						
2/21/2018				72.2	52.1	48.2	98.8	91.8	84.5
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	2.5	3.8	35.4						
7/12/2018				80.5	53.9	48.8			84.9
9/12/2018	2	4.3							
9/13/2018			37.4	84.4	67.5	48.7		106	
9/14/2018									89.5
10/4/2018									
10/24/2018									
3/26/2019	2.7								
3/27/2019		8.2	41.9			46.5		111	
3/28/2019				90.3	59.6		94.7		83.5
9/10/2019			45.1						
10/1/2019	2.8								
10/2/2019		6.2		83		48.5	104		
10/3/2019					59.6			95.8	84.9

Time Series

Constituent: Sulfate (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	48				
10/18/2016		2.2	2.3		
12/6/2016		6.1			
12/7/2016			1.9		
12/8/2016	46			100	
3/21/2017		5.7			
3/22/2017	53				
3/23/2017			1.7	100	
7/11/2017	51	4.8	1.8		
7/12/2017				97	
10/17/2017		6.4	1.9		
10/18/2017	50				
10/19/2017				97	
2/20/2018		5.2	2.1		
2/21/2018	46.8			93.6	
4/12/2018					4.8 (X)
5/23/2018					4.5
6/13/2018					5.3
7/11/2018		3.6	2		5.4
7/12/2018	48.3			89.4	
9/12/2018		2.7			4.4
9/13/2018	42		2.1		
9/14/2018					
10/4/2018				97.8	5.8
10/24/2018					6.2
3/26/2019		1.6			
3/27/2019	43.7		2.4		3.7
3/28/2019				76.7	
9/10/2019					
10/1/2019			2.2		
10/2/2019	43	1.6			4.1
10/3/2019				72.1	

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19
8/30/2016	136								
8/31/2016		344	400						
9/1/2016				284	373				
9/6/2016						257			
9/7/2016							392	415	508
9/8/2016									
10/18/2016									
12/6/2016	207								
12/7/2016		393	406	242	433	248			
12/8/2016							431	441	556
3/21/2017	128	276	409						
3/22/2017				332	409	304	456	469	
3/23/2017									482
7/11/2017	138	263	414			265			
7/12/2017				308	374		445	432	497
10/17/2017	101								
10/18/2017		261	366	275		240	349	368	
10/19/2017					318				448
2/20/2018	138	295	429						
2/21/2018				312	367	285	411	409	500
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	153	294	440						
7/12/2018				337	423	285			523
9/12/2018	146	286							
9/13/2018			448	336	394	291		438	
9/14/2018							403		486
10/4/2018									
10/24/2018									
3/26/2019	334								
3/27/2019		281	410			277		408	
3/28/2019				337	365		420		378
9/10/2019			420						
10/1/2019	146								
10/2/2019		312		355		284	415		
10/3/2019					405			464	485

Time Series

Constituent: Total Dissolved Solids (mg/L) Analysis Run 2/24/2020 11:41 AM View: App III all wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	293				
10/18/2016		264	152		
12/6/2016		299			
12/7/2016			214		
12/8/2016	309			503	
3/21/2017		260			
3/22/2017	299				
3/23/2017			165	430	
7/11/2017	301	244	162		
7/12/2017				438	
10/17/2017		218	140		
10/18/2017	256				
10/19/2017				393	
2/20/2018		264	163		
2/21/2018	297			435	
4/12/2018					69
5/23/2018					62
6/13/2018					93
7/11/2018		273	192		84
7/12/2018	310			447	
9/12/2018		252			97
9/13/2018	307		192		
9/14/2018					
10/4/2018				450	103
10/24/2018					110
3/26/2019		253			
3/27/2019	287		167		87
3/28/2019				405	
9/10/2019					
10/1/2019			187		
10/2/2019	312	263			95
10/3/2019				414	

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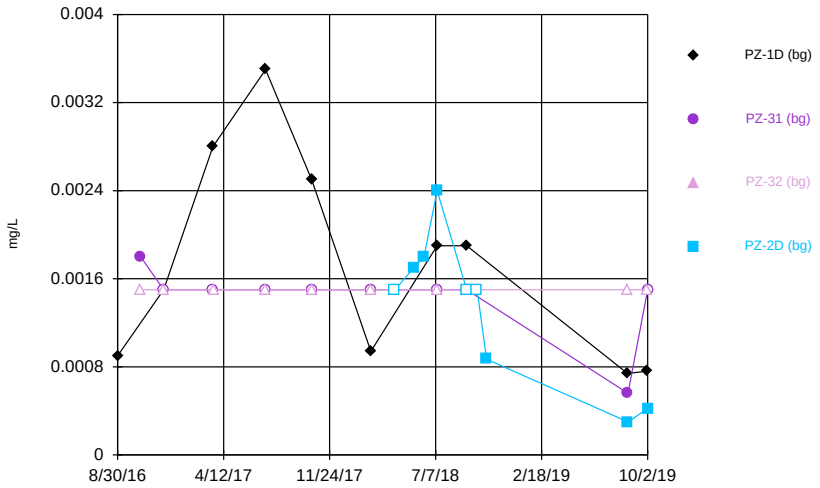
Hollow symbols indicate censored values.

Time Series



Constituent: Antimony Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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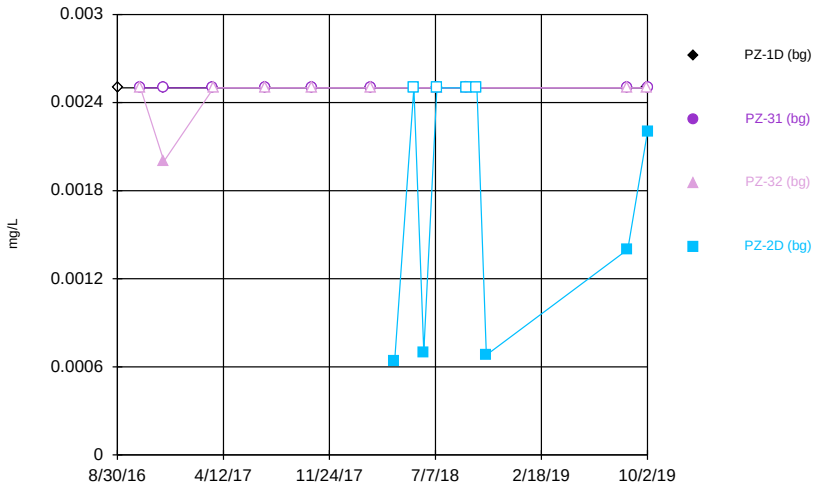
Hollow symbols indicate censored values.

Time Series



Constituent: Arsenic Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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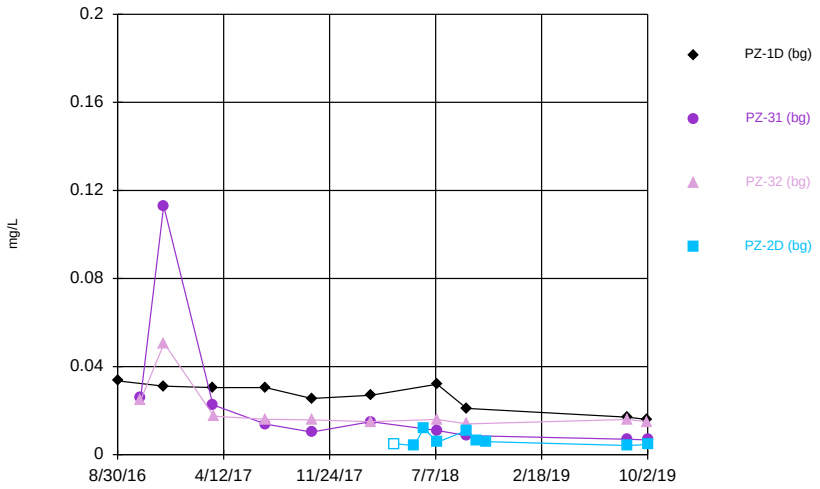
Hollow symbols indicate censored values.

Time Series



Constituent: Barium Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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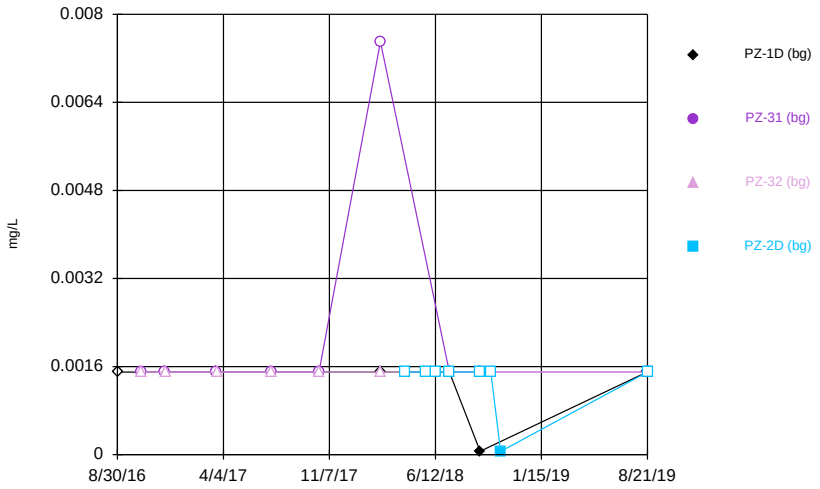
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.0009 (X)			
10/18/2016		0.0018 (X)	<0.003	
12/6/2016	<0.003	<0.003		
12/7/2016			<0.003	
3/21/2017	0.0028 (X)	<0.003		
3/23/2017			<0.003	
7/11/2017	0.0035	<0.003	<0.003	
10/17/2017	0.0025 (X)	<0.003	<0.003	
2/20/2018	0.00094 (X)	<0.003	<0.003	
4/12/2018				<0.003
5/23/2018				0.0017 (X)
6/13/2018				0.0018 (X)
7/11/2018	0.0019 (X)	<0.003	<0.003	0.0024 (X)
9/12/2018	0.0019 (X)	<0.003		<0.003
9/13/2018			<0.003	
10/4/2018				<0.003
10/24/2018				0.00087 (X)
8/20/2019	0.00074 (X)		<0.003	
8/21/2019		0.00056 (X)		0.0003 (X)
10/1/2019	0.00076 (X)		<0.003	
10/2/2019		<0.003		0.00042 (X)

Time Series

Constituent: Arsenic (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.005			
10/18/2016		<0.005	<0.005	
12/6/2016	<0.005	<0.005		
12/7/2016			0.002 (X)	
3/21/2017	<0.005	<0.005		
3/23/2017			<0.005	
7/11/2017	<0.005	<0.005	<0.005	
10/17/2017	<0.005	<0.005	<0.005	
2/20/2018	<0.005	<0.005	<0.005	
4/12/2018				0.00064 (X)
5/23/2018				<0.005
6/13/2018				0.0007 (X)
7/11/2018	<0.005	<0.005	<0.005	<0.005
9/12/2018	<0.005	<0.005		<0.005
9/13/2018			<0.005	
10/4/2018				<0.005
10/24/2018				0.00068 (X)
8/20/2019	<0.005		<0.005	
8/21/2019		<0.005		0.0014 (X)
10/1/2019	<0.005		<0.005	
10/2/2019		<0.005		0.0022 (X)

Time Series

Constituent: Barium (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.0335			
10/18/2016		0.0257	0.0248	
12/6/2016	0.0311	0.113		
12/7/2016			0.0506	
3/21/2017	0.0305	0.0226		
3/23/2017			0.0175	
7/11/2017	0.0305	0.0139	0.0161	
10/17/2017	0.0255	0.0103	0.0158	
2/20/2018	0.027	0.015	0.015	
4/12/2018				<0.01
5/23/2018				0.0042 (X)
6/13/2018				0.012
7/11/2018	0.032	0.011	0.016	0.0056 (X)
9/12/2018	0.021	0.0087 (X)		0.011
9/13/2018			0.014	
10/4/2018				0.0066 (X)
10/24/2018				0.0059 (X)
8/20/2019	0.017		0.016	
8/21/2019		0.007 (X)		0.0042 (X)
10/1/2019	0.016		0.015	
10/2/2019		0.0067 (X)		0.0046 (X)

Time Series

Constituent: Beryllium (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.003			
10/18/2016		<0.003	<0.003	
12/6/2016	<0.003	<0.003		
12/7/2016			<0.003	
3/21/2017	<0.003	<0.003		
3/23/2017			<0.003	
7/11/2017	<0.003	<0.003	<0.003	
10/17/2017	<0.003	<0.003	<0.003	
2/20/2018	<0.003	<0.015	<0.003	
4/12/2018				<0.003
5/23/2018				<0.003
6/13/2018				<0.003
7/11/2018	<0.003	<0.003	<0.003	<0.003
9/12/2018	6.1E-05 (X)	<0.003		<0.003
9/13/2018			<0.003	
10/4/2018				<0.003
10/24/2018				6E-05 (X)
8/20/2019	<0.003		<0.003	
8/21/2019		<0.003		<0.003

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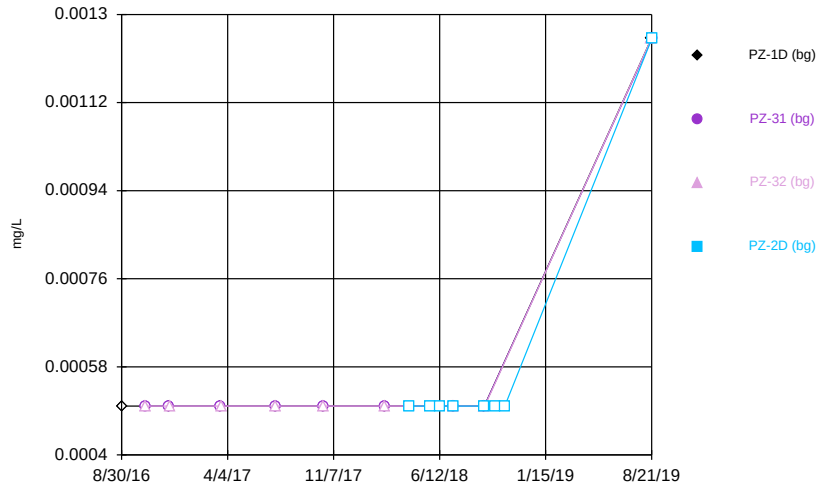
Time Series



Constituent: Cadmium Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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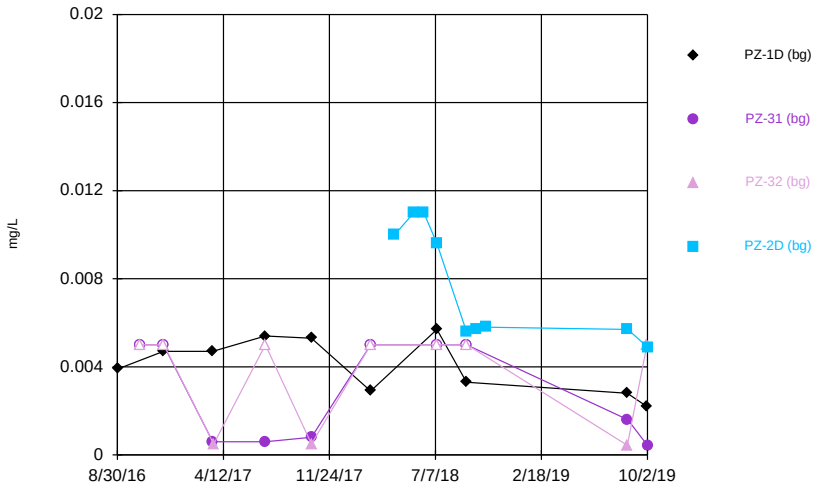
Time Series



Constituent: Chromium Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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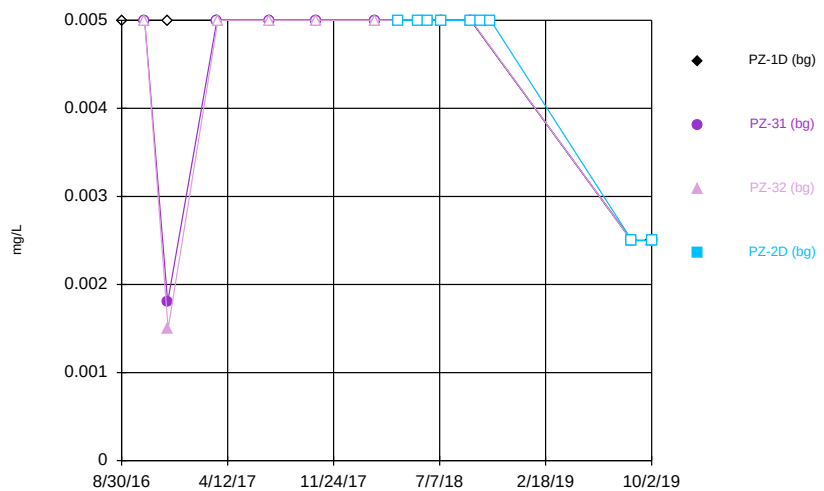
Hollow symbols indicate censored values.

Time Series



Constituent: Cobalt Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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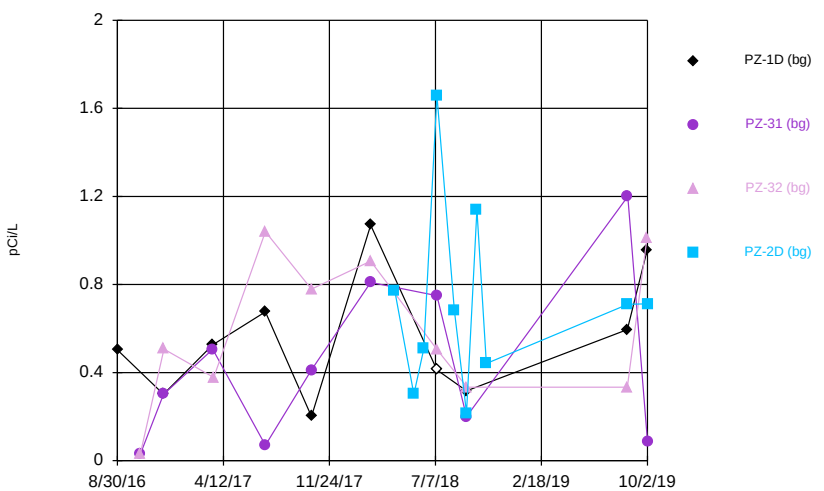
Hollow symbols indicate censored values.

Time Series



Constituent: Combined Radium 226 + Radium 228 Analysis Run 2/24/2020 4:16 PM View: App IV backgro
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series

Constituent: Cadmium (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.001			
10/18/2016		<0.001	<0.001	
12/6/2016	<0.001	<0.001		
12/7/2016			<0.001	
3/21/2017	<0.001	<0.001		
3/23/2017			<0.001	
7/11/2017	<0.001	<0.001	<0.001	
10/17/2017	<0.001	<0.001	<0.001	
2/20/2018	<0.001	<0.001	<0.001	
4/12/2018				<0.001
5/23/2018				<0.001
6/13/2018				<0.001
7/11/2018	<0.001	<0.001	<0.001	<0.001
9/12/2018	<0.001	<0.001		<0.001
9/13/2018			<0.001	
10/4/2018				<0.001
10/24/2018				<0.001
8/20/2019	<0.0025		<0.0025	
8/21/2019		<0.0025		<0.0025

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.0039 (X)			
10/18/2016		<0.01	<0.01	
12/6/2016	0.0047 (X)	<0.01		
12/7/2016			<0.01	
3/21/2017	0.0047 (X)	0.0006 (X)		
3/23/2017			0.0005 (X)	
7/11/2017	0.0054 (X)	0.0006 (X)	<0.01	
10/17/2017	0.0053 (X)	0.0008 (X)	0.0005 (X)	
2/20/2018	0.0029 (X)	<0.01	<0.01	
4/12/2018				0.01
5/23/2018				0.011
6/13/2018				0.011
7/11/2018	0.0057 (X)	<0.01	<0.01	0.0096 (X)
9/12/2018	0.0033 (X)	<0.01		0.0056 (X)
9/13/2018			<0.01	
10/4/2018				0.0057 (X)
10/24/2018				0.0058 (X)
8/20/2019	0.0028 (X)		0.00044 (X)	
8/21/2019		0.0016 (X)		0.0057 (X)
10/1/2019	0.0022 (X)		<0.01	
10/2/2019		0.00043 (X)		0.0049 (X)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.01			
10/18/2016		<0.01	<0.01	
12/6/2016	<0.01	0.0018 (X)		
12/7/2016			0.0015 (X)	
3/21/2017	<0.01	<0.01		
3/23/2017			<0.01	
7/11/2017	<0.01	<0.01	<0.01	
10/17/2017	<0.01	<0.01	<0.01	
2/20/2018	<0.01	<0.01	<0.01	
4/12/2018				<0.01
5/23/2018				<0.01
6/13/2018				<0.01
7/11/2018	<0.01	<0.01	<0.01	<0.01
9/12/2018	<0.01	<0.01		<0.01
9/13/2018			<0.01	
10/4/2018				<0.01
10/24/2018				<0.01
8/20/2019	<0.005		<0.005	
8/21/2019		<0.005		<0.005
10/1/2019	<0.005		<0.005	
10/2/2019		<0.005		<0.005

Time Series

Constituent: Combined Radium 226 + Radium 228 (pCi/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.503			
10/18/2016		0.0311	0.0333	
12/6/2016	0.302	0.301		
12/7/2016			0.507	
3/21/2017	0.526	0.506		
3/23/2017			0.378	
7/11/2017	0.676 (U)	0.0701 (U)	1.04	
10/17/2017	0.201 (U)	0.412 (U)	0.779 (U)	
2/20/2018	1.07	0.81	0.906	
4/12/2018				0.774
5/23/2018				0.301 (U)
6/13/2018				0.508 (U)
7/11/2018	<0.825 (U)	0.749 (U)	0.505 (U)	1.66
8/17/2018				0.683 (U)
9/12/2018	0.317 (U)	0.2 (U)		0.217 (U)
9/13/2018			0.334 (U)	
10/4/2018				1.14
10/24/2018				0.441 (U)
8/20/2019	0.595 (U)		0.334 (U)	
8/21/2019		1.2 (U)		0.71 (U)
10/1/2019	0.953 (U)		1.01 (U)	
10/2/2019		0.0883 (U)		0.712 (U)

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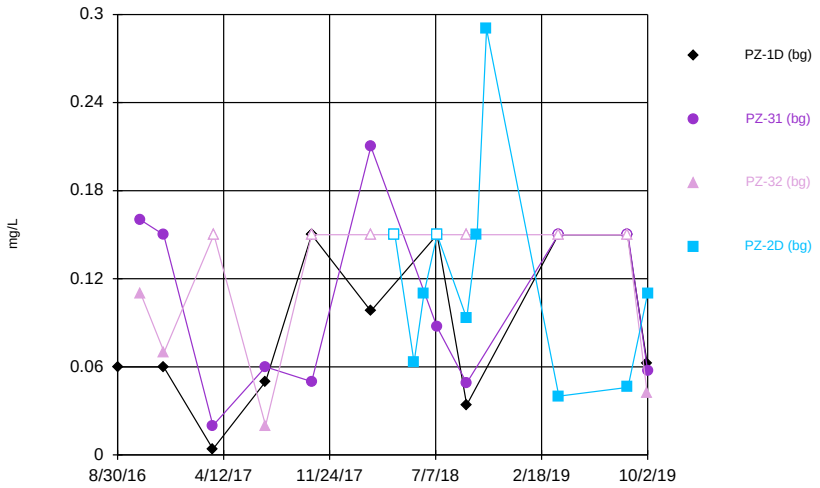
Time Series



Constituent: Fluoride Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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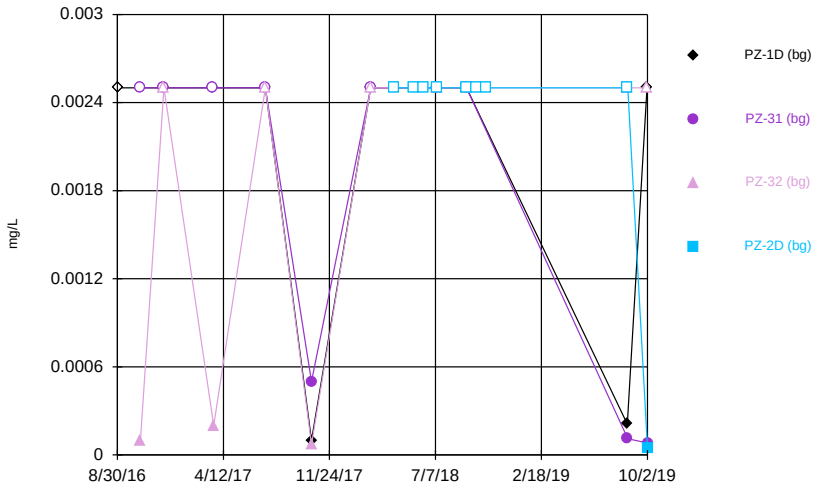
Time Series



Constituent: Lead Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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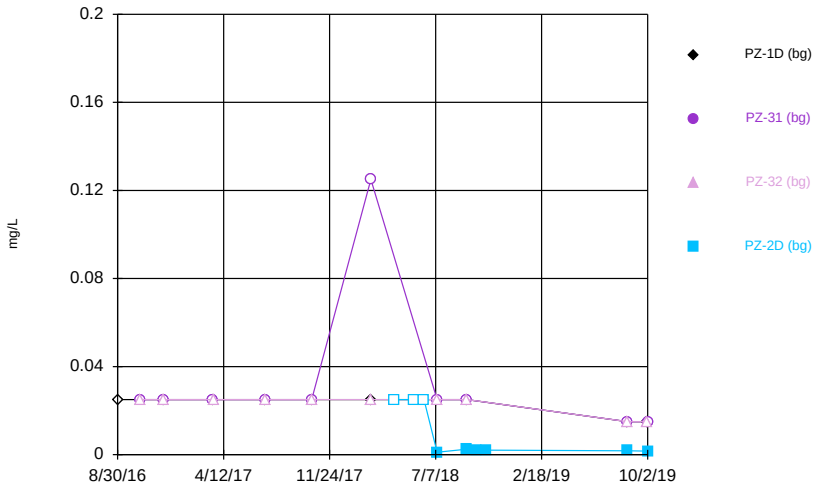
Hollow symbols indicate censored values.

Time Series



Constituent: Lithium Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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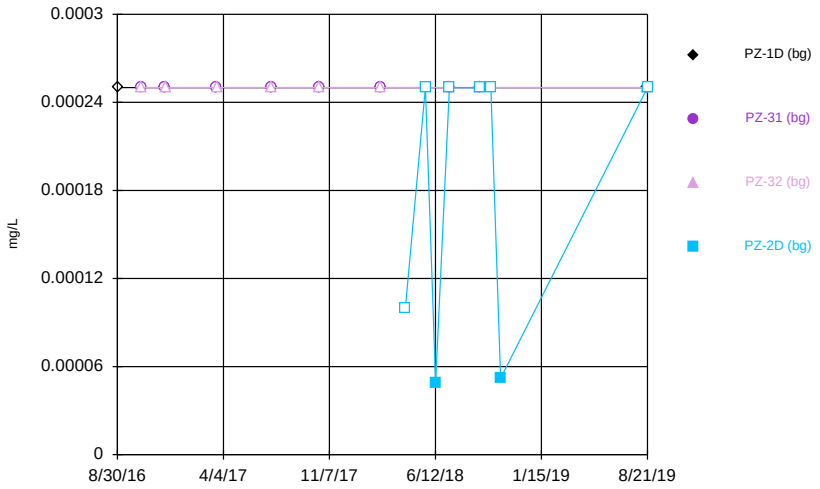
Hollow symbols indicate censored values.

Time Series



Constituent: Mercury Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.06 (X)			
10/18/2016		0.16 (X)	0.11 (X)	
12/6/2016	0.06 (X)	0.15 (X)		
12/7/2016			0.07 (X)	
3/21/2017	0.004 (X)	0.02 (X)		
3/23/2017			<0.3	
7/11/2017	0.05 (X)	0.06 (X)	0.02 (X)	
10/17/2017	<0.3	0.05 (X)	<0.3	
2/20/2018	0.098 (X)	0.21 (X)	<0.3	
4/12/2018				<0.3
5/23/2018				0.063 (X)
6/13/2018				0.11 (X)
7/11/2018	<0.3	0.087 (X)	<0.3	<0.3
9/12/2018	0.034 (X)	0.049 (X)		0.093 (X)
9/13/2018			<0.3	
10/4/2018				0.15 (X)
10/24/2018				0.29 (X)
3/26/2019	<0.3	<0.3		
3/27/2019			<0.3	0.04 (X)
8/20/2019	<0.3		<0.3	
8/21/2019		<0.3		0.046 (X)
10/1/2019	0.062 (X)		0.042 (X)	
10/2/2019		0.057 (X)		0.11 (X)

Time Series

Constituent: Lead (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.005			
10/18/2016		<0.005	0.0001 (X)	
12/6/2016	<0.005	<0.005		
12/7/2016			<0.005	
3/21/2017	<0.005	<0.005		
3/23/2017			0.0002 (X)	
7/11/2017	<0.005	<0.005	<0.005	
10/17/2017	0.0001 (X)	0.0005 (X)	7E-05 (X)	
2/20/2018	<0.005	<0.005	<0.005	
4/12/2018				<0.005
5/23/2018				<0.005
6/13/2018				<0.005
7/11/2018	<0.005	<0.005	<0.005	<0.005
9/12/2018	<0.005	<0.005		<0.005
9/13/2018			<0.005	
10/4/2018				<0.005
10/24/2018				<0.005
8/20/2019	0.00021 (X)		<0.005	
8/21/2019		0.00011 (X)		<0.005
10/1/2019	<0.005		<0.005	
10/2/2019		8.1E-05 (X)		4.7E-05 (X)

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.05			
10/18/2016		<0.05	<0.05	
12/6/2016	<0.05	<0.05		
12/7/2016			<0.05	
3/21/2017	<0.05	<0.05		
3/23/2017			<0.05	
7/11/2017	<0.05	<0.05	<0.05	
10/17/2017	<0.05	<0.05	<0.05	
2/20/2018	<0.05	<0.25	<0.05	
4/12/2018				<0.05
5/23/2018				<0.05
6/13/2018				<0.05
7/11/2018	<0.05	<0.05	<0.05	0.0011 (X)
9/12/2018	<0.05	<0.05		0.0025 (X)
9/13/2018			<0.05	
10/4/2018				0.0021 (X)
10/24/2018				0.0021 (X)
8/20/2019	<0.03		<0.03	
8/21/2019		<0.03		0.0018 (X)
10/1/2019	<0.03		<0.03	
10/2/2019		<0.03		0.0016 (X)

Time Series

Constituent: Mercury (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.0005			
10/18/2016		<0.0005	<0.0005	
12/6/2016	<0.0005	<0.0005		
12/7/2016			<0.0005	
3/21/2017	<0.0005	<0.0005		
3/23/2017			<0.0005	
7/11/2017	<0.0005	<0.0005	<0.0005	
10/17/2017	<0.0005	<0.0005	<0.0005	
2/20/2018	<0.0005	<0.0005	<0.0005	
4/12/2018				<0.0002
5/23/2018				<0.0005
6/13/2018				4.9E-05 (X)
7/11/2018	<0.0005	<0.0005	<0.0005	<0.0005
9/12/2018	<0.0005	<0.0005		<0.0005
9/13/2018			<0.0005	
10/4/2018				<0.0005
10/24/2018				5.2E-05 (X)
8/20/2019	<0.0005		<0.0005	
8/21/2019		<0.0005		<0.0005

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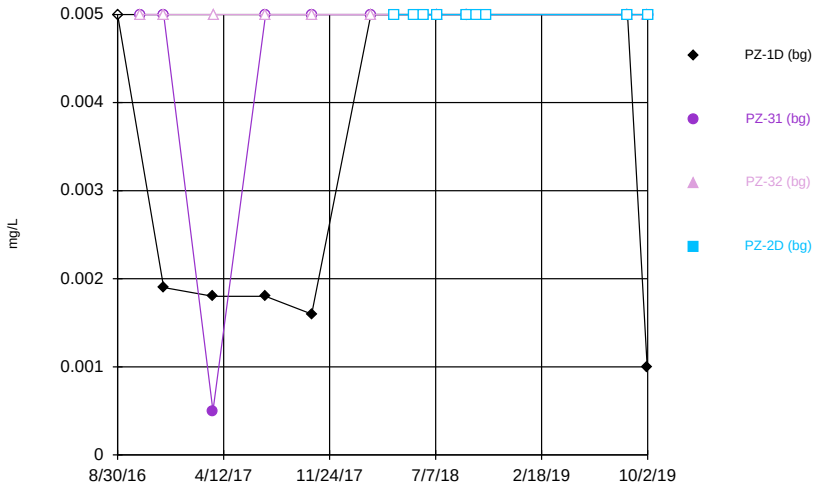
Time Series



Constituent: Molybdenum Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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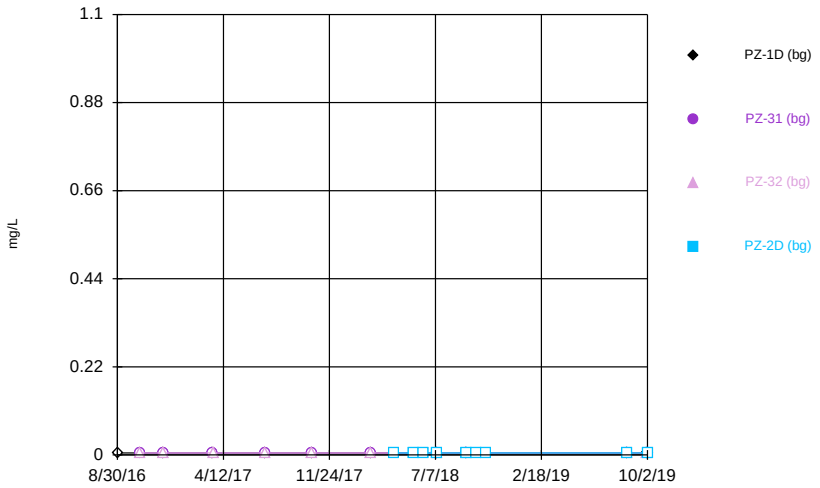
Hollow symbols indicate censored values.

Time Series



Constituent: Selenium Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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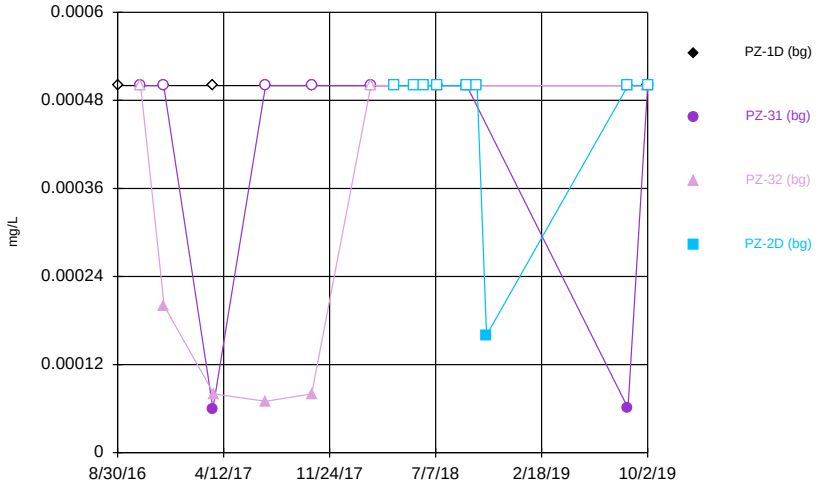
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.01			
10/18/2016		<0.01	<0.01	
12/6/2016	0.0019 (X)	<0.01		
12/7/2016			<0.01	
3/21/2017	0.0018 (X)	0.0005 (X)		
3/23/2017			<0.01	
7/11/2017	0.0018 (X)	<0.01	<0.01	
10/17/2017	0.0016 (X)	<0.01	<0.01	
2/20/2018	<0.01	<0.01	<0.01	
4/12/2018				<0.01
5/23/2018				<0.01
6/13/2018				<0.01
7/11/2018	<0.01	<0.01	<0.01	<0.01
9/12/2018	<0.01	<0.01		<0.01
9/13/2018			<0.01	
10/4/2018				<0.01
10/24/2018				<0.01
8/20/2019	<0.01		<0.01	
8/21/2019		<0.01		<0.01
10/1/2019	0.001 (X)		<0.01	
10/2/2019		<0.01		<0.01

Time Series

Constituent: Selenium (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.01			
10/18/2016		<0.01	<0.01	
12/6/2016	<0.01	<0.01		
12/7/2016			<0.01	
3/21/2017	<0.01	<0.01		
3/23/2017			<0.01	
7/11/2017	<0.01	<0.01	<0.01	
10/17/2017	<0.01	<0.01	<0.01	
2/20/2018	<0.01	<0.01	<0.01	
4/12/2018				<0.01
5/23/2018				<0.01
6/13/2018				<0.01
7/11/2018	<0.01	<0.01	<0.01	<0.01
9/12/2018	<0.01	<0.01		<0.01
9/13/2018			<0.01	
10/4/2018				<0.01
10/24/2018				<0.01
8/20/2019	<0.01		<0.01	
8/21/2019		<0.01		<0.01
10/1/2019	<0.01		<0.01	
10/2/2019		<0.01		<0.01

Time Series

Constituent: Thallium (mg/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.001			
10/18/2016		<0.001	<0.001	
12/6/2016	<0.001	<0.001		
12/7/2016			0.0002 (X)	
3/21/2017	<0.001	6E-05 (X)		
3/23/2017			8E-05 (X)	
7/11/2017	<0.001	<0.001	7E-05 (X)	
10/17/2017	<0.001	<0.001	8E-05 (X)	
2/20/2018	<0.001	<0.001	<0.001	
4/12/2018				<0.001
5/23/2018				<0.001
6/13/2018				<0.001
7/11/2018	<0.001	<0.001	<0.001	<0.001
9/12/2018	<0.001	<0.001		<0.001
9/13/2018			<0.001	
10/4/2018				<0.001
10/24/2018				0.00016 (X)
8/20/2019	<0.001		<0.001	
8/21/2019		6.1E-05 (X)		<0.001
10/1/2019	<0.001		<0.001	
10/2/2019		<0.001		<0.001

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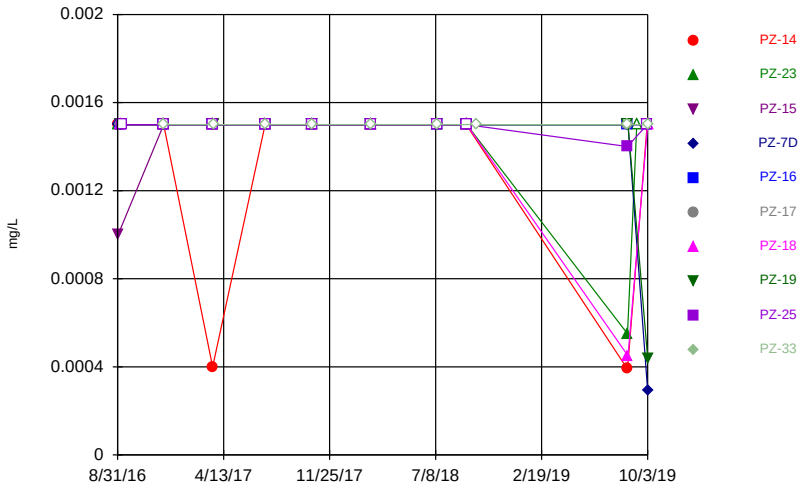
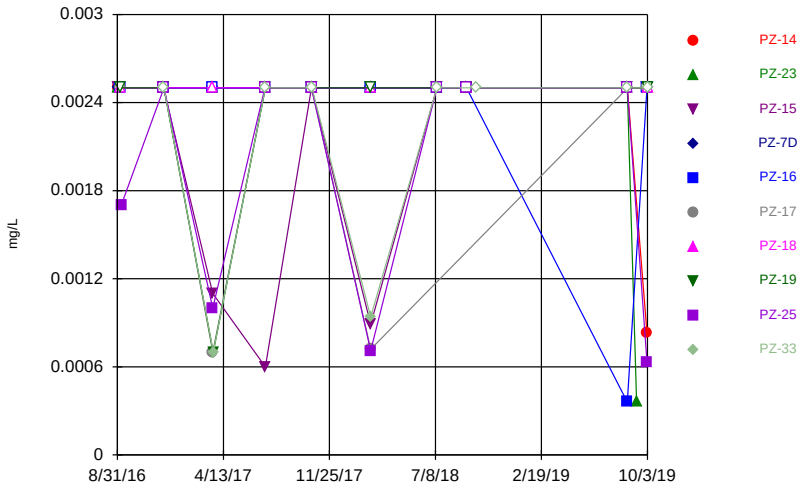
Time Series



Constituent: Antimony Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Arsenic Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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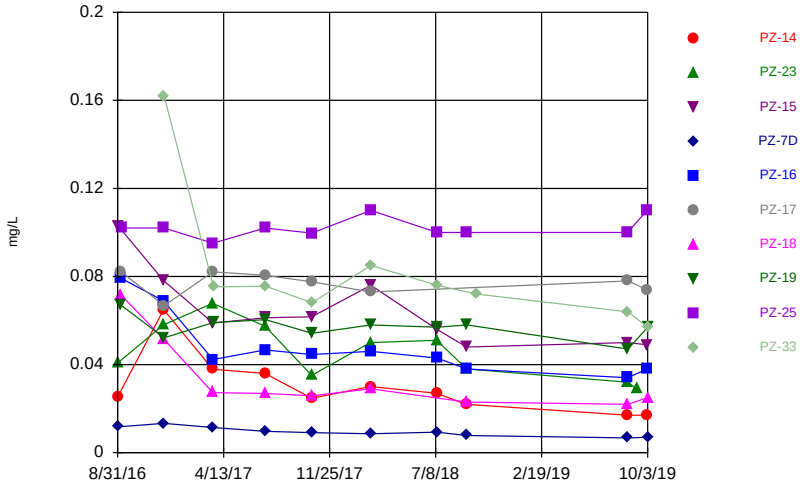
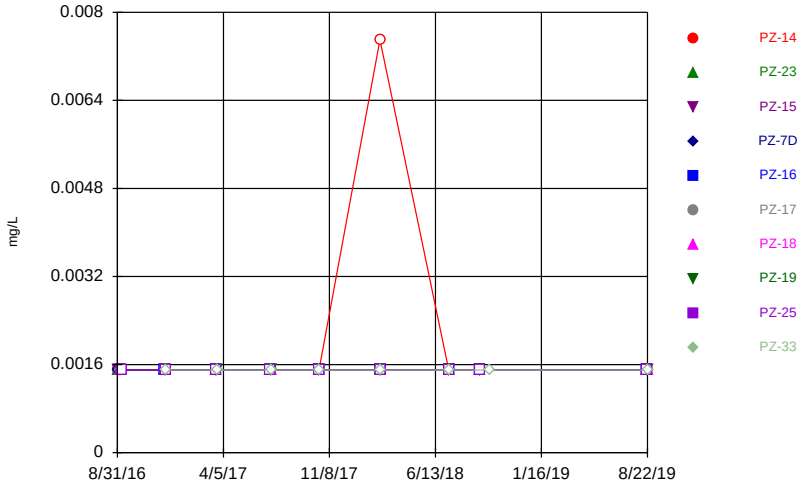
Time Series



Constituent: Barium Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.003	<0.003							
9/1/2016			0.001 (X)	<0.003					
9/6/2016					<0.003				
9/7/2016						<0.003	<0.003	<0.003	
9/8/2016									<0.003
12/7/2016	<0.003	<0.003	<0.003	<0.003	<0.003				
12/8/2016						<0.003	<0.003	<0.003	<0.003
3/21/2017	0.0004 (X)	<0.003							
3/22/2017			<0.003	<0.003	<0.003	<0.003	<0.003		<0.003
3/23/2017								<0.003	
7/11/2017	<0.003	<0.003			<0.003				<0.003
7/12/2017			<0.003	<0.003		<0.003	<0.003	<0.003	
10/18/2017	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003		<0.003
10/19/2017				<0.003				<0.003	
2/20/2018	<0.003	<0.003							
2/21/2018			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/11/2018	<0.003	<0.003							
7/12/2018			<0.003	<0.003	<0.003			<0.003	<0.003
9/12/2018	<0.003								
9/13/2018		<0.003	<0.003	<0.003	<0.003		<0.003		<0.003
9/14/2018								<0.003	
10/4/2018									
8/21/2019	0.00039 (X)	0.00055 (X)	<0.003		<0.003				0.0014 (X)
8/22/2019				<0.003		<0.003	0.00045 (X)	<0.003	
9/10/2019		<0.003							
10/2/2019	<0.003		<0.003		<0.003	<0.003			<0.003
10/3/2019				0.00029 (X)			<0.003	0.00044 (X)	

Time Series

Constituent: Antimony (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.003
3/21/2017	
3/22/2017	
3/23/2017	<0.003
7/11/2017	
7/12/2017	<0.003
10/18/2017	
10/19/2017	<0.003
2/20/2018	
2/21/2018	<0.003
7/11/2018	
7/12/2018	<0.003
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.003
8/21/2019	
8/22/2019	<0.003
9/10/2019	
10/2/2019	
10/3/2019	<0.003

Time Series

Constituent: Arsenic (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.005	<0.005							
9/1/2016			<0.005	<0.005					
9/6/2016					<0.005				
9/7/2016						<0.005	<0.005	<0.005	
9/8/2016									0.0017 (X)
12/7/2016	<0.005	<0.005	<0.005	<0.005	<0.005				
12/8/2016						<0.005	<0.005	<0.005	<0.005
3/21/2017	<0.005	<0.005							
3/22/2017			0.0011 (X)	<0.005	<0.005	0.0007 (X)	<0.005		0.001 (X)
3/23/2017								0.0007 (X)	
7/11/2017	<0.005	<0.005			<0.005				<0.005
7/12/2017			0.0006 (X)	<0.005		<0.005	<0.005	<0.005	
10/18/2017	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005		<0.005
10/19/2017				<0.005				<0.005	
2/20/2018	<0.005	<0.005							
2/21/2018			0.00089 (X)	<0.005	<0.005	0.00072 (X)	<0.005	<0.005	0.00071 (X)
7/11/2018	<0.005	<0.005							
7/12/2018			<0.005	<0.005	<0.005			<0.005	<0.005
9/12/2018	<0.005								
9/13/2018		<0.005	<0.005	<0.005	<0.005		<0.005		<0.005
9/14/2018								<0.005	
10/4/2018									
8/21/2019	<0.005	<0.005	<0.005		0.00036 (X)				<0.005
8/22/2019				<0.005		<0.005	<0.005	<0.005	
9/10/2019		0.00036 (X)							
10/2/2019	0.00083 (X)		<0.005		<0.005	<0.005			0.00063 (X)
10/3/2019				<0.005			<0.005	<0.005	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.005
3/21/2017	
3/22/2017	
3/23/2017	0.0007 (X)
7/11/2017	
7/12/2017	<0.005
10/18/2017	
10/19/2017	<0.005
2/20/2018	
2/21/2018	0.00094 (X)
7/11/2018	
7/12/2018	<0.005
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.005
8/21/2019	
8/22/2019	<0.005
9/10/2019	
10/2/2019	
10/3/2019	<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	0.0253	0.0407							
9/1/2016			0.103	0.0117					
9/6/2016					0.0794				
9/7/2016						0.0823	0.0717	0.067	
9/8/2016									0.102
12/7/2016	0.065	0.0581	0.0781	0.0133	0.0689				
12/8/2016						0.0668	0.0513	0.0522	0.102
3/21/2017	0.0379	0.0678							
3/22/2017			0.0589	0.0114	0.0423	0.0821	0.0273		0.0951
3/23/2017								0.0591	
7/11/2017	0.036	0.0574			0.0467				0.102
7/12/2017			0.0613	0.0097 (X)		0.0805	0.0269	0.0604	
10/18/2017	0.0247	0.0351	0.0617		0.0446	0.0776	0.0258		0.0997
10/19/2017				0.0091 (X)				0.0542	
2/20/2018	0.03	0.05							
2/21/2018			0.076	0.0086 (X)	0.046	0.073	0.029	0.058	0.11
7/11/2018	0.027	0.051							
7/12/2018			0.056	0.0093 (X)	0.043			0.057	0.1
9/12/2018	0.022								
9/13/2018		0.038	0.048	0.0078 (X)	0.038		0.023		0.1
9/14/2018								0.058	
10/4/2018									
8/21/2019	0.017	0.032	0.05		0.034				0.1
8/22/2019				0.0067 (X)		0.078	0.022	0.047	
9/10/2019		0.029							
10/2/2019	0.017		0.049		0.038	0.074			0.11
10/3/2019				0.007 (X)			0.025	0.057	

Time Series

Constituent: Barium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	0.162
3/21/2017	
3/22/2017	
3/23/2017	0.0753
7/11/2017	
7/12/2017	0.0756
10/18/2017	
10/19/2017	0.0681
2/20/2018	
2/21/2018	0.085
7/11/2018	
7/12/2018	0.076
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	0.072
8/21/2019	
8/22/2019	0.064
9/10/2019	
10/2/2019	
10/3/2019	0.057

Time Series

Constituent: Beryllium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.003	<0.003							
9/1/2016			<0.003	<0.003					
9/6/2016					<0.003				
9/7/2016						<0.003	<0.003	<0.003	
9/8/2016									<0.003
12/7/2016	<0.003	<0.003	<0.003	<0.003	<0.003				
12/8/2016						<0.003	<0.003	<0.003	<0.003
3/21/2017	<0.003	<0.003							
3/22/2017			<0.003	<0.003	<0.003	<0.003	<0.003		<0.003
3/23/2017								<0.003	
7/11/2017	<0.003	<0.003			<0.003				<0.003
7/12/2017			<0.003	<0.003		<0.003	<0.003	<0.003	
10/18/2017	<0.003	<0.003	<0.003		<0.003	<0.003	<0.003		<0.003
10/19/2017				<0.003				<0.003	
2/20/2018	<0.015	<0.003							
2/21/2018			<0.003	<0.003	<0.003	<0.003	<0.003	<0.003	<0.003
7/11/2018	<0.003	<0.003							
7/12/2018			<0.003	<0.003	<0.003			<0.003	<0.003
9/12/2018	<0.003								
9/13/2018		<0.003	<0.003	<0.003	<0.003		<0.003		<0.003
9/14/2018								<0.003	
10/4/2018									
8/21/2019	<0.003	<0.003	<0.003		<0.003				<0.003
8/22/2019				<0.003		<0.003	<0.003	<0.003	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.003
3/21/2017	
3/22/2017	
3/23/2017	<0.003
7/11/2017	
7/12/2017	<0.003
10/18/2017	
10/19/2017	<0.003
2/20/2018	
2/21/2018	<0.003
7/11/2018	
7/12/2018	<0.003
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.003
8/21/2019	
8/22/2019	<0.003

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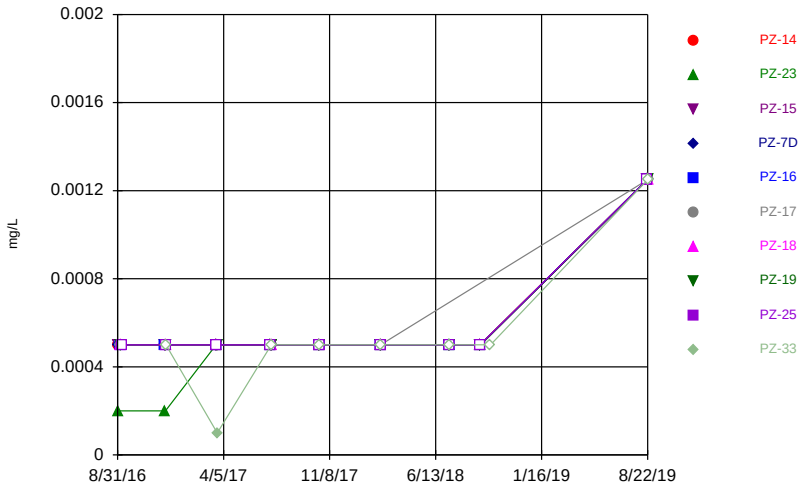
Hollow symbols indicate censored values.

Time Series



Constituent: Cadmium Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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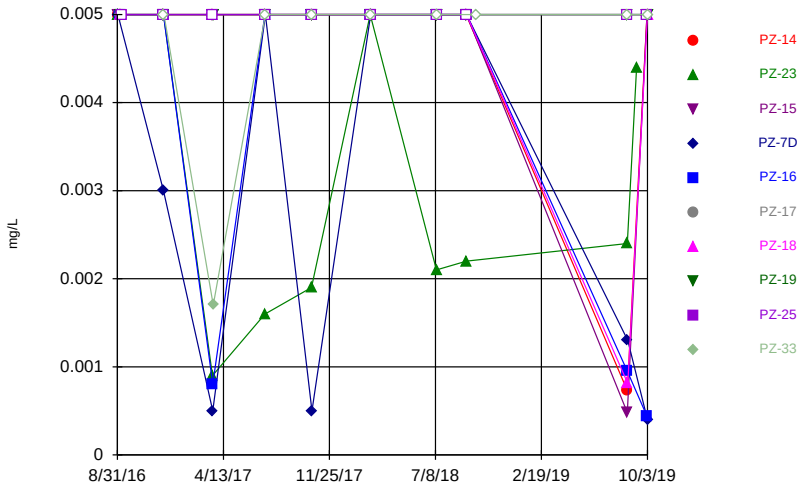
Hollow symbols indicate censored values.

Time Series



Constituent: Chromium Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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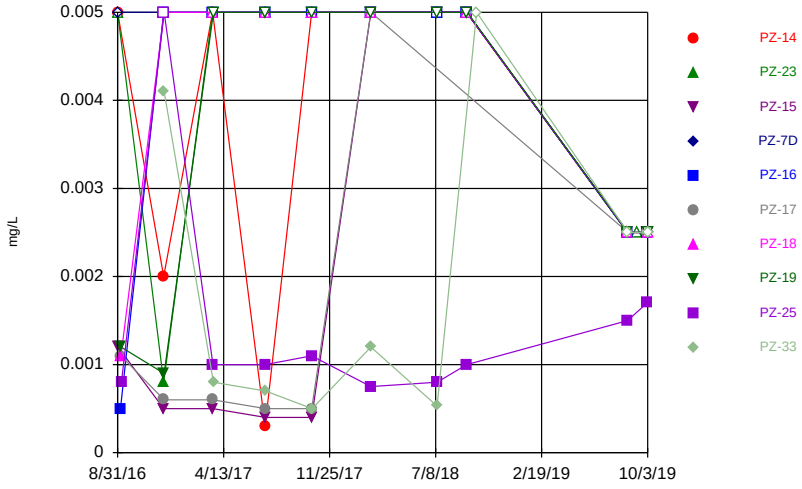
Hollow symbols indicate censored values.

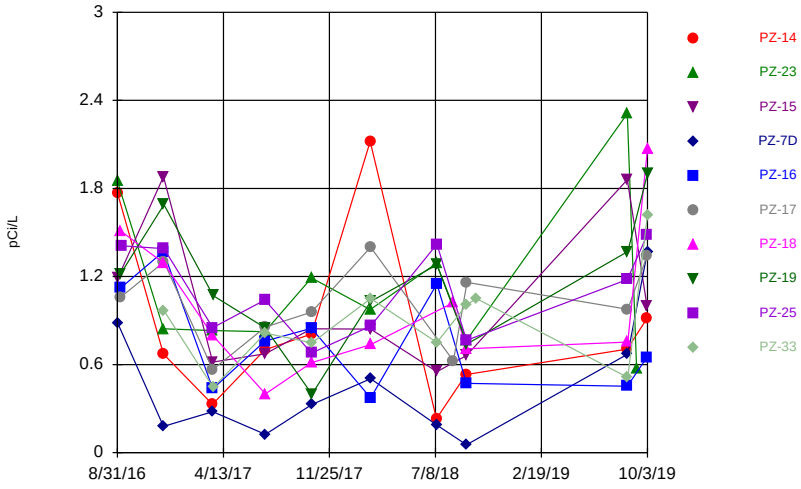
Time Series



Constituent: Cobalt Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG

Time Series



Constituent: Combined Radium 226 + Radium 228 Analysis Run 2/24/2020 3:10 PM View: App IV downgr
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series

Constituent: Cadmium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.001	0.0002 (X)							
9/1/2016			<0.001	<0.001					
9/6/2016					<0.001				
9/7/2016						<0.001	<0.001	<0.001	
9/8/2016									<0.001
12/7/2016	<0.001	0.0002 (X)	<0.001	<0.001	<0.001				
12/8/2016						<0.001	<0.001	<0.001	<0.001
3/21/2017	<0.001	<0.001							
3/22/2017			<0.001	<0.001	<0.001	<0.001	<0.001		<0.001
3/23/2017								<0.001	
7/11/2017	<0.001	<0.001			<0.001				<0.001
7/12/2017			<0.001	<0.001		<0.001	<0.001	<0.001	
10/18/2017	<0.001	<0.001	<0.001		<0.001	<0.001	<0.001		<0.001
10/19/2017				<0.001				<0.001	
2/20/2018	<0.001	<0.001							
2/21/2018			<0.001	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
7/11/2018	<0.001	<0.001							
7/12/2018			<0.001	<0.001	<0.001			<0.001	<0.001
9/12/2018	<0.001								
9/13/2018		<0.001	<0.001	<0.001	<0.001		<0.001		<0.001
9/14/2018								<0.001	
10/4/2018									
8/21/2019	<0.0025	<0.0025	<0.0025		<0.0025				<0.0025
8/22/2019				<0.0025		<0.0025	<0.0025	<0.0025	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.001
3/21/2017	
3/22/2017	
3/23/2017	0.0001 (X)
7/11/2017	
7/12/2017	<0.001
10/18/2017	
10/19/2017	<0.001
2/20/2018	
2/21/2018	<0.001
7/11/2018	
7/12/2018	<0.001
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.001
8/21/2019	
8/22/2019	<0.0025

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.01	<0.01							
9/1/2016			<0.01	<0.01					
9/6/2016					<0.01				
9/7/2016						<0.01	<0.01	<0.01	
9/8/2016									<0.01
12/7/2016	<0.01	<0.01	<0.01	0.003 (X)	<0.01				
12/8/2016						<0.01	<0.01	<0.01	<0.01
3/21/2017	<0.01	0.0009 (X)							
3/22/2017			<0.01	0.0005 (X)	0.0008 (X)	<0.01	<0.01		<0.01
3/23/2017								<0.01	
7/11/2017	<0.01	0.0016 (X)			<0.01				<0.01
7/12/2017			<0.01	<0.01		<0.01	<0.01	<0.01	
10/18/2017	<0.01	0.0019 (X)	<0.01		<0.01	<0.01	<0.01		<0.01
10/19/2017				0.0005 (X)				<0.01	
2/20/2018	<0.01	<0.01							
2/21/2018			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/11/2018	<0.01	0.0021 (X)							
7/12/2018			<0.01	<0.01	<0.01			<0.01	<0.01
9/12/2018	<0.01								
9/13/2018		0.0022 (X)	<0.01	<0.01	<0.01		<0.01		<0.01
9/14/2018								<0.01	
10/4/2018									
8/21/2019	0.00073 (X)	0.0024 (X)	0.00048 (X)		0.00095 (X)				<0.01
8/22/2019				0.0013 (X)		<0.01	0.00081 (X)	<0.01	
9/10/2019		0.0044 (X)							
10/2/2019	<0.01		<0.01		0.00044 (X)	<0.01			<0.01
10/3/2019				0.0004 (X)			<0.01	<0.01	

Time Series

Constituent: Chromium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.01
3/21/2017	
3/22/2017	
3/23/2017	0.0017 (X)
7/11/2017	
7/12/2017	<0.01
10/18/2017	
10/19/2017	<0.01
2/20/2018	
2/21/2018	<0.01
7/11/2018	
7/12/2018	<0.01
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.01
8/21/2019	
8/22/2019	<0.01
9/10/2019	
10/2/2019	
10/3/2019	<0.01

Time Series

Constituent: Cobalt (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.01	<0.01							
9/1/2016			0.0012 (X)	<0.01					
9/6/2016					0.0005 (X)				
9/7/2016						0.0011 (X)	0.0011 (X)	0.0012 (X)	
9/8/2016									0.0008 (X)
12/7/2016	0.002 (X)	0.0008 (X)	0.0005 (X)	<0.01	<0.01				
12/8/2016						0.0006 (X)	<0.01	0.0009 (X)	<0.01
3/21/2017	<0.01	<0.01							
3/22/2017			0.0005 (X)	<0.01	<0.01	0.0006 (X)	<0.01		0.001 (X)
3/23/2017								<0.01	
7/11/2017	0.0003 (X)	<0.01			<0.01				0.001 (X)
7/12/2017			0.0004 (X)	<0.01		0.0005 (X)	<0.01	<0.01	
10/18/2017	<0.01	<0.01	0.0004 (X)		<0.01	0.0005 (X)	<0.01		0.0011 (X)
10/19/2017				<0.01				<0.01	
2/20/2018	<0.01	<0.01							
2/21/2018			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	0.00075 (X)
7/11/2018	<0.01	<0.01							
7/12/2018			<0.01	<0.01	<0.01			<0.01	0.0008 (X)
9/12/2018	<0.01								
9/13/2018		<0.01	<0.01	<0.01	<0.01		<0.01		0.001 (X)
9/14/2018								<0.01	
10/4/2018									
8/21/2019	<0.005	<0.005	<0.005		<0.005				0.0015 (X)
8/22/2019				<0.005		<0.005	<0.005	<0.005	
9/10/2019		<0.005							
10/2/2019	<0.005		<0.005		<0.005	<0.005			0.0017 (X)
10/3/2019				<0.005			<0.005	<0.005	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	0.0041 (X)
3/21/2017	
3/22/2017	
3/23/2017	0.0008 (X)
7/11/2017	
7/12/2017	0.0007 (X)
10/18/2017	
10/19/2017	0.0005 (X)
2/20/2018	
2/21/2018	0.0012 (X)
7/11/2018	
7/12/2018	0.00053 (X)
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.01
8/21/2019	
8/22/2019	<0.005
9/10/2019	
10/2/2019	
10/3/2019	<0.005

Time Series

Constituent: Combined Radium 226 + Radium 228 (pCi/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	1.77	1.85							
9/1/2016			1.19	0.88					
9/6/2016					1.12				
9/7/2016						1.06	1.51	1.22	
9/8/2016									1.41
12/7/2016	0.672	0.844	1.88	0.179	1.37				
12/8/2016						1.3	1.29	1.69	1.39
3/21/2017	0.33	0.832							
3/22/2017			0.617	0.279	0.435	0.566	0.799		0.852
3/23/2017								1.07	
7/11/2017	0.701 (U)	0.824 (U)			0.76 (U)				1.04
7/12/2017			0.674 (U)	0.125 (U)		0.856 (U)	0.4 (U)	0.849 (U)	
10/18/2017	0.808 (U)	1.19	0.844 (U)		0.847 (U)	0.957	0.613 (U)		0.678 (U)
10/19/2017				0.329 (U)				0.398 (U)	
2/20/2018	2.12	0.975							
2/21/2018			0.842	0.504	0.373	1.4	0.736	1.03	0.863
7/11/2018	0.232 (U)	1.29							
7/12/2018			0.552 (U)	0.188 (U)	1.15 (U)			1.28 (U)	1.42
8/15/2018							1.02 (U)		
8/16/2018						0.625 (U)			
9/12/2018	0.532 (U)								
9/13/2018		0.765 (U)	0.662 (U)	0.0542 (U)	0.472 (U)		0.708 (U)		0.766 (U)
9/14/2018						1.16		0.74 (U)	
10/4/2018									
8/21/2019	0.705 (U)	2.31	1.86		0.453 (U)				1.18 (U)
8/22/2019				0.672 (U)		0.977 (U)	0.753 (U)	1.37	
9/10/2019		0.575 (U)							
10/2/2019	0.915 (U)		1 (U)		0.65 (U)	1.34 (U)			1.48
10/3/2019				1.37			2.07	1.9	

Time Series

Constituent: Combined Radium 226 + Radium 228 (pCi/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	0.968
3/21/2017	
3/22/2017	
3/23/2017	0.444
7/11/2017	
7/12/2017	0.814 (U)
10/18/2017	
10/19/2017	0.748 (U)
2/20/2018	
2/21/2018	1.05
7/11/2018	
7/12/2018	0.751 (U)
8/15/2018	
8/16/2018	
9/12/2018	
9/13/2018	
9/14/2018	1.01 (U)
10/4/2018	1.05
8/21/2019	
8/22/2019	0.513 (U)
9/10/2019	
10/2/2019	
10/3/2019	1.62 (U)

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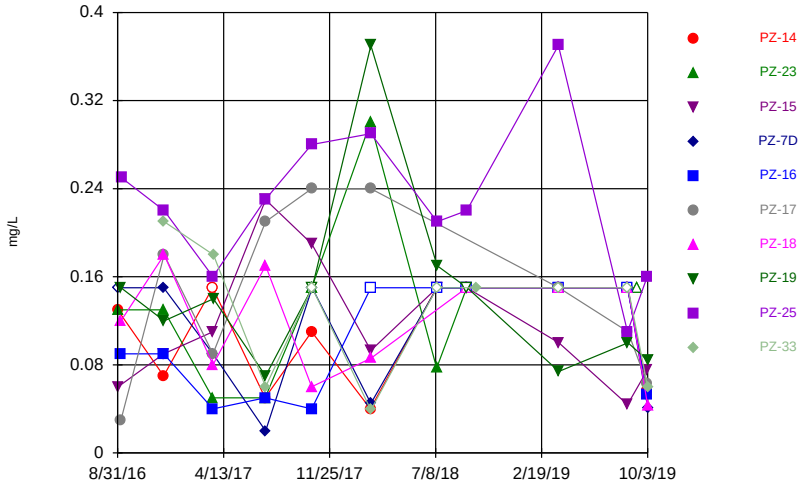
Hollow symbols indicate censored values.

Time Series



Constituent: Fluoride Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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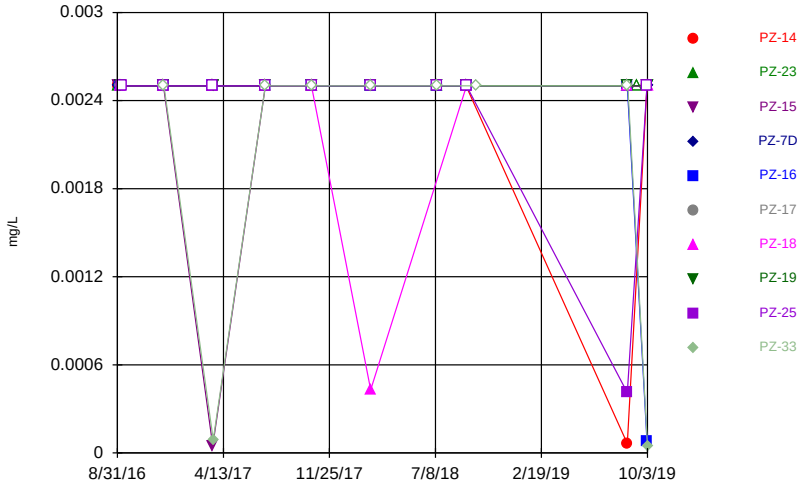
Hollow symbols indicate censored values.

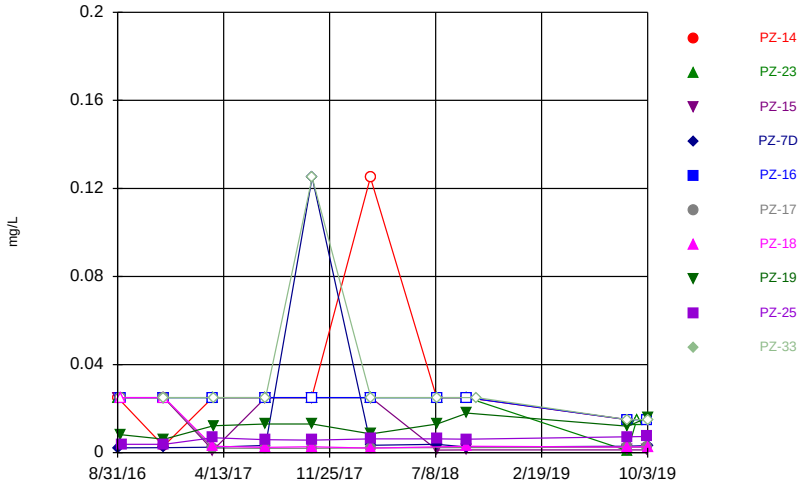
Time Series



Constituent: Lead Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG
Hollow symbols indicate censored values.

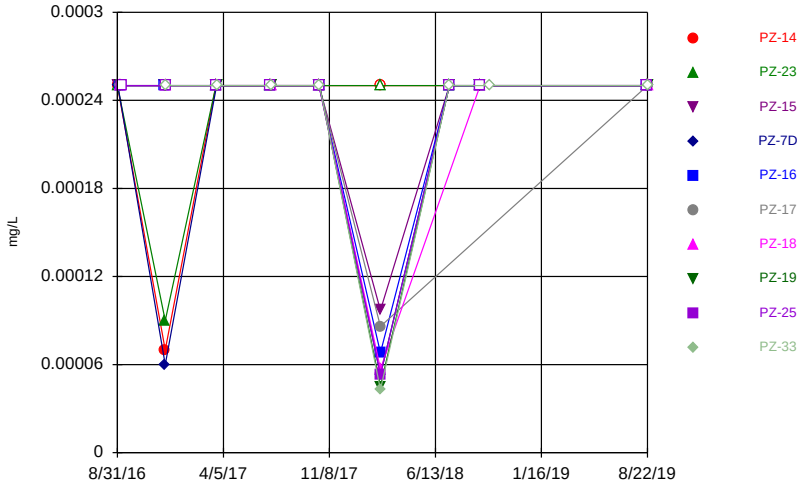
Time Series



Constituent: Lithium Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Mercury Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	0.13 (X)	0.13 (X)							
9/1/2016			0.06 (X)	<0.3					
9/6/2016					0.09 (X)				
9/7/2016						0.03 (X)	0.12 (X)	0.15 (X)	
9/8/2016									0.25 (X)
12/7/2016	0.07 (X)	0.13 (X)	0.09 (X)	0.15 (X)	0.09 (X)				
12/8/2016						0.18 (X)	0.18 (X)	0.12 (X)	0.22 (X)
3/21/2017	<0.3	0.05 (X)							
3/22/2017			0.11 (X)	0.09 (X)	0.04 (X)	0.09 (X)	0.08 (X)		0.16 (X)
3/23/2017								0.14 (X)	
7/11/2017	0.05 (X)	0.05 (X)			0.05 (X)				0.23 (X)
7/12/2017			0.23 (X)	0.02 (X)		0.21 (X)	0.17 (X)	0.07 (X)	
10/18/2017	0.11 (X)	<0.3	0.19 (X)		0.04 (X)	0.24 (X)	0.06 (X)		0.28 (X)
10/19/2017				<0.3				<0.3	
2/20/2018	0.04 (X)	0.3 (X)							
2/21/2018			0.093 (X)	0.045 (X)	<0.3	0.24 (X)	0.086 (X)	0.37	0.29 (X)
7/11/2018	<0.3	0.077 (X)							
7/12/2018			<0.3	<0.3	<0.3			0.17 (X)	0.21 (X)
9/12/2018	<0.3								
9/13/2018		<0.3	0.15 (X)	<0.3	<0.3		<0.3		0.22 (X)
9/14/2018								<0.3	
10/4/2018									
3/27/2019	<0.3	<0.3			<0.3		<0.3		0.37
3/28/2019			0.1 (X)	<0.3		0.15 (X)		0.074 (X)	
8/21/2019	<0.3	<0.3	0.044 (X)		<0.3				0.11 (X)
8/22/2019				<0.3		0.11 (X)	<0.3	0.1 (X)	
9/10/2019		<0.3							
10/2/2019	0.056 (X)		0.075 (X)		0.053 (X)	0.063 (X)			0.16 (X)
10/3/2019				0.041 (X)			0.043 (X)	0.084 (X)	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	0.21 (X)
3/21/2017	
3/22/2017	
3/23/2017	0.18 (X)
7/11/2017	
7/12/2017	0.06 (X)
10/18/2017	
10/19/2017	<0.3
2/20/2018	
2/21/2018	0.039 (X)
7/11/2018	
7/12/2018	<0.3
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	0.15 (X)
3/27/2019	
3/28/2019	<0.3
8/21/2019	
8/22/2019	<0.3
9/10/2019	
10/2/2019	
10/3/2019	0.06 (X)

Time Series

Constituent: Lead (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.005	<0.005							
9/1/2016			<0.005	<0.005					
9/6/2016					<0.005				
9/7/2016						<0.005	<0.005	<0.005	
9/8/2016									<0.005
12/7/2016	<0.005	<0.005	<0.005	<0.005	<0.005				
12/8/2016						<0.005	<0.005	<0.005	<0.005
3/21/2017	<0.005	<0.005							
3/22/2017			5E-05 (X)	<0.005	<0.005	<0.005	<0.005		<0.005
3/23/2017								<0.005	
7/11/2017	<0.005	<0.005			<0.005				<0.005
7/12/2017			<0.005	<0.005		<0.005	<0.005	<0.005	
10/18/2017	<0.005	<0.005	<0.005		<0.005	<0.005	<0.005		<0.005
10/19/2017				<0.005				<0.005	
2/20/2018	<0.005	<0.005							
2/21/2018			<0.005	<0.005	<0.005	<0.005	0.00043 (X)	<0.005	<0.005
7/11/2018	<0.005	<0.005							
7/12/2018			<0.005	<0.005	<0.005			<0.005	<0.005
9/12/2018	<0.005								
9/13/2018		<0.005	<0.005	<0.005	<0.005		<0.005		<0.005
9/14/2018								<0.005	
10/4/2018									
8/21/2019	6.4E-05 (X)	<0.005	<0.005		<0.005				0.00041 (X)
8/22/2019				<0.005		<0.005	<0.005	<0.005	
9/10/2019		<0.005							
10/2/2019	<0.005		<0.005		8.1E-05 (X)	<0.005			<0.005
10/3/2019				<0.005			<0.005	<0.005	

Time Series

Constituent: Lead (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.005
3/21/2017	
3/22/2017	
3/23/2017	9E-05 (X)
7/11/2017	
7/12/2017	<0.005
10/18/2017	
10/19/2017	<0.005
2/20/2018	
2/21/2018	<0.005
7/11/2018	
7/12/2018	<0.005
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.005
8/21/2019	
8/22/2019	<0.005
9/10/2019	
10/2/2019	
10/3/2019	4.7E-05 (X)

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.05	<0.05							
9/1/2016			<0.05	0.0022 (X)					
9/6/2016					<0.05				
9/7/2016						<0.05	<0.05	0.0082 (X)	
9/8/2016									0.0038 (X)
12/7/2016	0.003 (X)	<0.05	<0.05	0.0023 (X)	<0.05				
12/8/2016						<0.05	<0.05	0.0061 (X)	0.0038 (X)
3/21/2017	<0.05	<0.05							
3/22/2017			0.0011 (X)	0.0025 (X)	<0.05	0.0021 (X)	0.0029 (X)		0.0068 (X)
3/23/2017								0.0122 (X)	
7/11/2017	<0.05	<0.05			<0.05				0.0059 (X)
7/12/2017			<0.05	0.0033 (X)		0.002 (X)	0.0024 (X)	0.013 (X)	
10/18/2017	<0.05	<0.05	<0.05		<0.05	0.002 (X)	0.0027 (X)		0.0057 (X)
10/19/2017				<0.25				0.013 (X)	
2/20/2018	<0.25	<0.05							
2/21/2018			<0.05	0.0034 (X)	<0.05	0.0022 (X)	0.0021 (X)	0.0085 (X)	0.0063 (X)
7/11/2018	<0.05	<0.05							
7/12/2018			0.0012 (X)	0.0038 (X)	<0.05			0.013 (X)	0.0063 (X)
9/12/2018	<0.05								
9/13/2018		<0.05	0.0013 (X)	0.0026 (X)	<0.05		0.0029 (X)		0.0061 (X)
9/14/2018								0.018 (X)	
10/4/2018									
8/21/2019	<0.03	0.0009 (X)	0.0013 (X)		<0.03				0.0072 (X)
8/22/2019				0.0029 (X)		0.0025 (X)	0.0026 (X)	0.012 (X)	
9/10/2019		<0.03							
10/2/2019	<0.03		0.0013 (X)		<0.03	0.0024 (X)			0.0074 (X)
10/3/2019				0.0032 (X)			0.0027 (X)	0.016 (X)	

Time Series

Constituent: Lithium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.05
3/21/2017	
3/22/2017	
3/23/2017	<0.05
7/11/2017	
7/12/2017	<0.05
10/18/2017	
10/19/2017	<0.25
2/20/2018	
2/21/2018	<0.05
7/11/2018	
7/12/2018	<0.05
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.05
8/21/2019	
8/22/2019	<0.03
9/10/2019	
10/2/2019	
10/3/2019	<0.03

Time Series

Constituent: Mercury (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.0005	<0.0005							
9/1/2016			<0.0005	<0.0005					
9/6/2016					<0.0005				
9/7/2016						<0.0005	<0.0005	<0.0005	
9/8/2016									<0.0005
12/7/2016	7E-05 (X)	9E-05 (X)	<0.0005	6E-05 (X)	<0.0005				
12/8/2016						<0.0005	<0.0005	<0.0005	<0.0005
3/21/2017	<0.0005	<0.0005							
3/22/2017			<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		<0.0005
3/23/2017								<0.0005	
7/11/2017	<0.0005	<0.0005			<0.0005				<0.0005
7/12/2017			<0.0005	<0.0005		<0.0005	<0.0005	<0.0005	
10/18/2017	<0.0005	<0.0005	<0.0005		<0.0005	<0.0005	<0.0005		<0.0005
10/19/2017				<0.0005				<0.0005	
2/20/2018	<0.0005	<0.0005							
2/21/2018			9.7E-05 (X)	5.3E-05 (X)	6.8E-05 (X)	8.6E-05 (X)	5.7E-05 (X)	4.5E-05 (X)	5.3E-05 (X)
7/11/2018	<0.0005	<0.0005							
7/12/2018			<0.0005	<0.0005	<0.0005			<0.0005	<0.0005
9/12/2018	<0.0005								
9/13/2018		<0.0005	<0.0005	<0.0005	<0.0005		<0.0005		<0.0005
9/14/2018								<0.0005	
10/4/2018									
8/21/2019	<0.0005	<0.0005	<0.0005		<0.0005				<0.0005
8/22/2019				<0.0005		<0.0005	<0.0005	<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.0005
3/21/2017	
3/22/2017	
3/23/2017	<0.0005
7/11/2017	
7/12/2017	<0.0005
10/18/2017	
10/19/2017	<0.0005
2/20/2018	
2/21/2018	4.3E-05 (X)
7/11/2018	
7/12/2018	<0.0005
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.0005
8/21/2019	
8/22/2019	<0.0005

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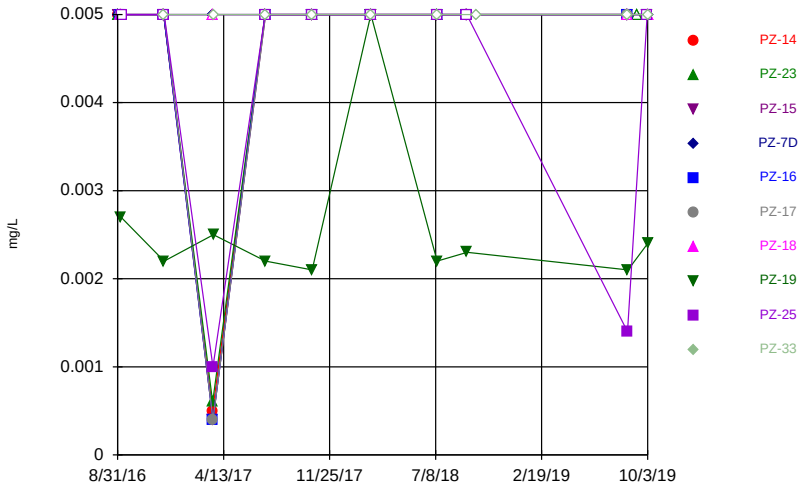
Hollow symbols indicate censored values.

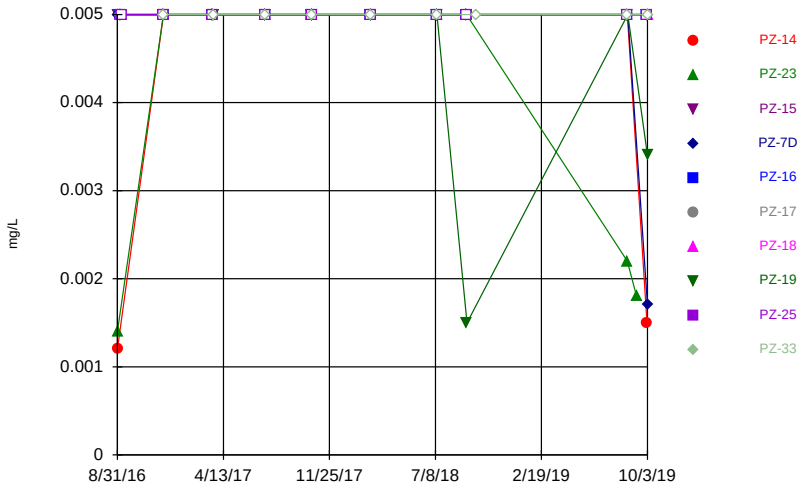
Time Series



Constituent: Molybdenum Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG
Hollow symbols indicate censored values.

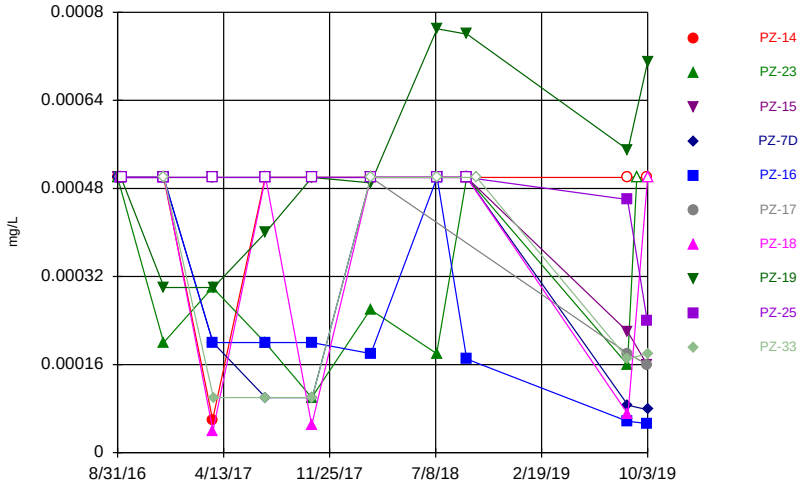
Time Series



Constituent: Selenium Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sanitas™ v.9.6.25 Sanitas software licensed to AMEC. UG
Hollow symbols indicate censored values.

Time Series



Constituent: Thallium Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.01	<0.01							
9/1/2016			<0.01	<0.01					
9/6/2016					<0.01				
9/7/2016						<0.01	<0.01	0.0027 (X)	
9/8/2016									<0.01
12/7/2016	<0.01	<0.01	<0.01	<0.01	<0.01				
12/8/2016						<0.01	<0.01	0.0022 (X)	<0.01
3/21/2017	0.0005 (X)	0.0006 (X)							
3/22/2017			0.0004 (X)	<0.01	0.0004 (X)	0.0004 (X)	<0.01		0.001 (X)
3/23/2017								0.0025 (X)	
7/11/2017	<0.01	<0.01			<0.01				<0.01
7/12/2017			<0.01	<0.01		<0.01	<0.01	0.0022 (X)	
10/18/2017	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01		<0.01
10/19/2017				<0.01				0.0021 (X)	
2/20/2018	<0.01	<0.01							
2/21/2018			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/11/2018	<0.01	<0.01							
7/12/2018			<0.01	<0.01	<0.01			0.0022 (X)	<0.01
9/12/2018	<0.01								
9/13/2018		<0.01	<0.01	<0.01	<0.01		<0.01		<0.01
9/14/2018								0.0023 (X)	
10/4/2018									
8/21/2019	<0.01	<0.01	<0.01		<0.01				0.0014 (X)
8/22/2019				<0.01		<0.01	<0.01	0.0021 (X)	
9/10/2019		<0.01							
10/2/2019	<0.01		<0.01		<0.01	<0.01			<0.01
10/3/2019				<0.01			<0.01	0.0024 (X)	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.01
3/21/2017	
3/22/2017	
3/23/2017	<0.01
7/11/2017	
7/12/2017	<0.01
10/18/2017	
10/19/2017	<0.01
2/20/2018	
2/21/2018	<0.01
7/11/2018	
7/12/2018	<0.01
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.01
8/21/2019	
8/22/2019	<0.01
9/10/2019	
10/2/2019	
10/3/2019	<0.01

Time Series

Constituent: Selenium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	0.0012 (X)	0.0014 (X)							
9/1/2016			<0.01	<0.01					
9/6/2016					<0.01				
9/7/2016						<0.01	<0.01	<0.01	
9/8/2016									<0.01
12/7/2016	<0.01	<0.01	<0.01	<0.01	<0.01				
12/8/2016						<0.01	<0.01	<0.01	<0.01
3/21/2017	<0.01	<0.01							
3/22/2017			<0.01	<0.01	<0.01	<0.01	<0.01		<0.01
3/23/2017								<0.01	
7/11/2017	<0.01	<0.01			<0.01				<0.01
7/12/2017			<0.01	<0.01		<0.01	<0.01	<0.01	
10/18/2017	<0.01	<0.01	<0.01		<0.01	<0.01	<0.01		<0.01
10/19/2017				<0.01				<0.01	
2/20/2018	<0.01	<0.01							
2/21/2018			<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01
7/11/2018	<0.01	<0.01							
7/12/2018			<0.01	<0.01	<0.01			<0.01	<0.01
9/12/2018	<0.01								
9/13/2018		<0.01	<0.01	<0.01	<0.01		<0.01		<0.01
9/14/2018								0.0015 (X)	
10/4/2018									
8/21/2019	<0.01	0.0022 (X)	<0.01		<0.01				<0.01
8/22/2019				<0.01		<0.01	<0.01	<0.01	
9/10/2019		0.0018 (X)							
10/2/2019	0.0015 (X)		<0.01		<0.01	<0.01			<0.01
10/3/2019				0.0017 (X)			<0.01	0.0034 (X)	

Time Series

Constituent: Selenium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.01
3/21/2017	
3/22/2017	
3/23/2017	<0.01
7/11/2017	
7/12/2017	<0.01
10/18/2017	
10/19/2017	<0.01
2/20/2018	
2/21/2018	<0.01
7/11/2018	
7/12/2018	<0.01
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.01
8/21/2019	
8/22/2019	<0.01
9/10/2019	
10/2/2019	
10/3/2019	<0.01

Time Series

Constituent: Thallium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.001	<0.001							
9/1/2016			<0.001	<0.001					
9/6/2016					<0.001				
9/7/2016						<0.001	<0.001	<0.001	
9/8/2016									<0.001
12/7/2016	<0.001	0.0002 (X)	<0.001	<0.001	<0.001				
12/8/2016						<0.001	<0.001	0.0003 (X)	<0.001
3/21/2017	6E-05 (X)	0.0003 (X)							
3/22/2017			<0.001	0.0002 (X)	0.0002 (X)	<0.001	4E-05 (X)		<0.001
3/23/2017								0.0003 (X)	
7/11/2017	<0.001	0.0002 (X)			0.0002 (X)				<0.001
7/12/2017			<0.001	0.0001 (X)		<0.001	<0.001	0.0004 (X)	
10/18/2017	<0.001	0.0001 (X)	<0.001		0.0002 (X)	<0.001	5E-05 (X)		<0.001
10/19/2017				0.0001 (X)				0.0005 (X)	
2/20/2018	<0.001	0.00026 (X)							
2/21/2018			<0.001	<0.001	0.00018 (X)	<0.001	<0.001	0.00049 (X)	<0.001
7/11/2018	<0.001	0.00018 (X)							
7/12/2018			<0.001	<0.001	<0.001			0.00077 (X)	<0.001
9/12/2018	<0.001								
9/13/2018		<0.001	<0.001	<0.001	0.00017 (X)		<0.001		<0.001
9/14/2018								0.00076 (X)	
10/4/2018									
8/21/2019	<0.001	0.00016 (X)	0.00022 (X)		5.7E-05 (X)				0.00046 (X)
8/22/2019				8.6E-05 (X)		0.00018 (X)	7E-05 (X)	0.00055 (X)	
9/10/2019		<0.001							
10/2/2019	<0.001		0.00016 (X)		5.3E-05 (X)	0.00016 (X)			0.00024 (X)
10/3/2019				7.8E-05 (X)			<0.001	0.00071 (X)	

Time Series

Constituent: Thallium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.001
3/21/2017	
3/22/2017	
3/23/2017	0.0001 (X)
7/11/2017	
7/12/2017	0.0001 (X)
10/18/2017	
10/19/2017	0.0001 (X)
2/20/2018	
2/21/2018	<0.001
7/11/2018	
7/12/2018	<0.001
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.001
8/21/2019	
8/22/2019	0.00017 (X)
9/10/2019	
10/2/2019	
10/3/2019	0.00018 (X)