

2020 Annual Groundwater Monitoring and Corrective Action Report

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

Prepared for:



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CERTIFICATION STATEMENT

This 2020 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 2020 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 annual report documents the activities completed during the second half of 2019 and the first half of 2020 in accordance with EPD Rule 391-3-4-.10(6)(c). Three monitoring events were conducted during this monitoring period: (1) an initial assessment monitoring constituent screening event was conducted in August 2019 as a result of statistical exceedances of Appendix III constituents during the first detection monitoring event in March 2019, and (2) the subsequent two semi-annual monitoring events were conducted in October 2019 and March 2020 for assessment monitoring.

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 and the first assessment monitoring event was in October 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 soils in the region consist of approximately 0 to 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

(**Figure 3: Potentiometric Surface – Upper Bedrock –August 2019, Figure 4: Potentiometric Surface – Upper Bedrock –October 2019**), and **Figure 5: Potentiometric Surface – Upper Bedrock – March 2020**).

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). 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-23A, PZ-25, and PZ-33 (**Table 1: Monitoring Network Well Summary**). Twenty-six piezometers are used for water level measurements only (**Table 2: Piezometer Well Network Summary**).

2.0 GROUNDWATER MONITORING ACTIVITIES

As required by § 257.90(e), the following describes monitoring-related activities performed during the October 2019 and March 2020 assessment compliance monitoring events during the second half of 2019 and the first half of the 2020 calendar years. 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. Table 3: Groundwater Sampling Events**, presents a summary of CCR groundwater sampling events completed during this monitoring period at Plant Mitchell’s Ash Ponds A, 1, and 2.

2.1 Monitoring Well Installation and Maintenance

Monitoring well-related activities conducted during this period included the following:

- Visual inspection of well conditions prior to sampling, recording the Site conditions, and performing exterior maintenance to conduct sampling under safe and clean conditions. The March 2020 inspection indicated the monitoring wells were in good condition and corrective actions are not needed at this time.
- 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 and Groundwater Monitoring Well and Piezometer Installation Report**.
- Installation of one new monitoring well (PZ-23A) and one new piezometer (PZ-24A) to replace the monitoring well and piezometer abandoned to accommodate construction and pond closure activities. The well installation is documented in *Groundwater Monitoring Well and Piezometer Installation Report (July 2020)*. The report is provided **Appendix A: Well Abandonment Report and Groundwater Monitoring Well and Piezometer Installation Report**.
- The elevations of the top of well casings (TOC) for the CCR network monitoring wells and piezometers were re-surveyed in June 2020 to confirm the elevations were surveyed to 0.01 feet accuracy. The new TOC elevations surveyed in June 2020 are included in **Appendix A**.

2.2 Detection Monitoring Program

In accordance with § 257.94(b), the detection groundwater monitoring program was implemented by collecting 8 background groundwater samples beginning in August 2016. 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 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 constituent screening 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 monitoring screening event. Following receipt of the initial Appendix IV screening results, the first and second semi-annual assessment monitoring events were conducted October 1 to 3, 2019 and March 24 to 26, 2020, respectively. 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 monitoring screening event in August 2019. Data reports for the August and October 2019, and March 2020 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 October 2019 semi-annual monitoring event, prior to being abandoned on September 11, 2019. New replacement well PZ-23A was sampled for the first time during the March 2020 event.

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 monitoring screening (August 2019) and the October 2019 and March 2020 semi-annual monitoring events are summarized in **Table 4: Summary of Groundwater Elevations**. Groundwater elevation data from the three monitoring events were used to develop potentiometric surface elevation contour maps (**Figure 3: Potentiometric Surface – Upper Bedrock – August 2019, Figure 4: Potentiometric Surface – Upper Bedrock – October 2019, and Figure 5: Potentiometric Surface – Upper Bedrock – March 2020**). The elevations of the top of well casings were re-surveyed in June 2020. The August and October 2019 groundwater elevations were calculated using the top of casing elevations from before the June 2020 resurvey. The March 2020 groundwater elevations were calculated using the June 2020 re-surveyed top of casing elevations. Groundwater flow in the carbonate upper bedrock (**Figures 3 through 5**) is to the west-southwest. The June 2020 re-surveyed elevations did not affect the direction of groundwater flow. An exception to this general flow regime in March 2020 is a groundwater mound in the bedrock aquifer on the southwest side of Ash Pond 2. The groundwater mound is attributed to a period of heavy rainfall causing water to pond in the southwest corner of Ash Pond 2 resulting in radial groundwater flow away from the southwest area of Ash Pond 2. The March 2020 potentiometric surface map (**Figure 5**) is very similar to the March 2019 potentiometric surface map where heavy rainfall in early 2019 contributed to the mounding seen on the March 2019 potentiometric surface map. The groundwater flow pattern observed during the August 2019, October 2019, and March 2020 assessment monitoring events, including the mounding, is 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 $\left(\frac{\text{feet}}{\text{day}}\right)$

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

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

$n_e =$ 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 5: Groundwater Flow Velocity Calculations** summarize the groundwater flow velocities. Results for groundwater flow velocities ranged from 0.01 to 0.06 feet/day (3.7 to 21.9 feet/year).

3.3 Groundwater Sampling

Groundwater samples were collected for the initial Appendix IV screening and the two semi-annual 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 \pm 0.1 Standard Units (S.U.).
- Specific conductance \pm 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 screening event were analyzed for all Appendix IV monitoring constituents only.

Groundwater samples collected in September-October 2019 and March 2020 semi-annual monitoring events were analyzed for all of the Appendix III constituents and all of the Appendix IV constituents detected in the initial assessment monitoring screening event (August 2019). Beryllium, cadmium, and mercury were not detected in the groundwater samples collected during the initial assessment screening monitoring event and were, therefore, not analyzed during the subsequent semi-annual event in accordance with § 257.95(d)(1). Analytical methods used for groundwater sample analysis are listed on the analytical laboratory reports included in Appendix B.

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 6: Analytical Data Summary Appendix III - September-October 2019 and March 2020, summarize the analytical data for the Appendix III constituents for the two semi-annual monitoring events. The complete laboratory and field data sheets are included in **Appendix B**.

Table 7: Analytical Data Summary Appendix IV – August, September-October 2019 and March 2020 summarize the analytical data for the Appendix IV assessment screening and the detected Appendix IV constituents for the October 2019 and March 2020 semi-annual monitoring events. The complete laboratory and field data sheets are included in **Appendix B**.

3.6 Quality Assurance & Quality Control

Quality assurance and quality control of the groundwater data was assessed by performing a data quality evaluation of the results reported. A data quality evaluation was conducted on the data using laboratory precision and accuracy, analytical method requirements and requirements in the field sampling plan. The constituent concentrations were generally within the historical range of concentrations. Those few concentrations higher than the historical range were identified as statistical exceedances. The data quality evaluations are included in **Appendix B**. The data quality evaluation showed the data is usable.

The analytical results provided in **Tables 6** and **7** provide concentrations from the August 2019, October 2019, and March 2020 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 (RL). The estimated value is positively identified but is below the lowest level that can be reliably achieved within specified limits of precision and accuracy under routine laboratory operating conditions. The relative percent difference for the data was less than 20% 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 established groundwater protection standards (GWPS) for the Appendix IV monitoring constituents and conducted statistical analysis of the Appendix IV groundwater monitoring data obtained during the October 2019 and March 2020 semi-annual assessment monitoring events to evaluate if concentrations statistically exceeded the established GWPS. The following subsections provide an overview of the statistical methods used to evaluate Appendix III and IV parameters and statistical analyses results.

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 and March 2020. The Interwell method was used for the analysis of the Appendix III constituents. Confidence intervals were calculated for each of the detected Appendix IV parameters in each downgradient well. 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 March 2020 and will be used for routine monitoring in the future. Specific methodology information is described in the following paragraphs.

Table 8: 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	<p>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.</p> <p>Nonparametric when data sets contain greater than 50% non-detects or when data are not normally or transformed-normally distributed.</p>
	Management of Non-Detects	<p>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.</p> <p>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.</p>
	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	<ul style="list-style-type: none"> ▪ 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.



4.1.1 Appendix III Statistical Method

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 and March 2020 monitoring events 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 the September-October 2019 and March 2020 detection monitoring events were compared to the statistical limits to evaluate whether concentrations exceed background statistical limits.

If data from a sampling event initially exceeds the prediction limit (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.

4.1.2 Appendix IV Statistical Method

The assessment monitoring program statistics for Appendix IV constituents at Plant Mitchell were conducted in two parts. The first part was the calculation of tolerance limits for site-specific background limits for Appendix IV constituents. The second part was the calculation of confidence limits for individual downgradient well/constituent pairs.

Interwell tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents. Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for barium and radium. When data contained greater than 50% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR § 257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a).

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

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, Federal CCR Rules specify levels for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule specified GWPS

On July 30, 2018, USEPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR § 257.95(h)(2). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix IV constituents for the October 2019 and March 2020 sample events.

Table 9: Summary of Groundwater Protection Standards summarizes the background limits established for each Appendix IV constituent for each event and the GWPS established under Georgia EPD Rules for each event.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well for each event. The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the Georgia EPD Rules 391-3-4-.10(6)(a). Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified.

4.2 Statistical Analyses Results – Appendix III

Analytical data for Appendix III constituents from the October 2019 and March 2020 semi-annual monitoring events were analyzed in accordance with the statistical analysis plan. The statistical analysis and comparison to prediction limits are included as **Appendix C: Statistical Analyses**. Tables summarizing the SSLs identified during the October 2019 and March 2020 semi-annual monitoring events are included in **Appendix C**.

4.3 Statistical Analyses Results- Appendix IV

Appendix C: Statistical Analyses shows the individual well/constituent pairs with their respective confidence intervals in comparison to the respective constituent GWPS. There are no confidence intervals of the individual well/constituent pairs above a GWPS, established according to Georgia EPD Rules 391-3-4-.10(6)(a). Therefore, no SSLs were identified for the October 2019 and March 2020 sampling events.

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 October 2019 and March 2020 semi-annual events. Pursuant to § 257.94(e)(1), GPC will continue assessment monitoring in accordance with § 257.95 and 391-3-4-.10(6).

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 and 391-3-4-.10(6). During the next semi-annual reporting period of 2020, GPC will update the groundwater protection standards for Appendix IV constituents and conduct statistical analysis according to the regulations. An Appendix IV screening event will be conducted in August 2020 in preparation for the third semi-annual assessment event. The next semi-annual sampling event is planned for September/October 2020.

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TABLES & FIGURES

**TABLE 1
MONITORING NETWORK WELL SUMMARY**

Well Name	Installation Date	Latitude ⁽¹⁾	Longitude ⁽¹⁾	Ground Surface Elevation (feet above MSL) (Prior to June 2020 Resurvey)	Ground Surface Elevation (feet above MSL) (June 2020 Resurvey)	Top of Casing Elevation (feet above MSL) (Prior to June 2020 Resurvey)	Top of Casing Elevation (feet above MSL) (June 2020 Resurvey)	Top of Screen Elevation (feet above MSL)	Bottom of Screen Elevation (feet above MSL)	Total Well Depth Measured March 2020 (feet below TOC)	Total Well Depth on Construction Log (feet below land surface)	Groundwater Zone Screened	Location
PZ-1D	6/11/2014	31.4472510	-84.1320950	192.7	193.4	196.21	196.44	125.1	115.1	81.2	78.0	Bedrock	Upgradient
PZ-2D	6/10/2014	31.4464580	-84.1295560	175.1	175.6	178.39	178.51	107.5	97.5	81.0	78.0	Bedrock	Upgradient
PZ-31	10/13/2016	31.4490140	-84.1337190	180.1	180.3	182.86	182.96	133.1	123.1	61.6	57.0	Bedrock	Upgradient
PZ-32	10/12/2016	31.4464859	-84.1309419	178.0	178.2	180.72	180.75	128.7	118.7	65.3	62.0	Bedrock	Upgradient
PZ-7D	6/3/2014	31.4337010	-84.1364880	170.0	170.3	173.13	173.08	123.6	113.6	60.4	57.0	Bedrock	Downgradient
PZ-14	7/25/2016	31.4338283	-84.1338940	180.4	180.9	183.62	183.46	140.4	130.4	53.2	50.0	Bedrock	Downgradient
PZ-15	7/23/2016	31.4341791	-84.1385315	166.9	167.4	170.10	170.37	96.9	86.9	83.2	80.0	Bedrock	Downgradient
PZ-16	7/25/2016	31.4356195	-84.1385225	170.7	171.2	173.71	173.92	130.7	120.7	53.2	50.0	Bedrock	Downgradient
PZ-17	7/22/2016	31.4368865	-84.1368364	169.5	170.1	172.66	172.91	119.5	109.5	62.7	60.0	Bedrock	Downgradient
PZ-18	7/23/2016	31.4384247	-84.1360169	166.6	167.3	169.78	170.11	116.6	106.6	63.2	60.0	Bedrock	Downgradient
PZ-19	7/13/2016	31.4396256	-84.1359816	169.1	169.4	171.96	172.05	120.1	110.1	62.6	59.0	Bedrock	Downgradient
PZ-23A	3/10/2020	31.4403100	-84.1308800	188.9	189.1	191.91	191.85	134.4	124.4	67.4	64.5	Bedrock	Downgradient
PZ-25	7/20/2016	31.4421293	-84.1359850	167.9	168.2	171.12	171.14	117.9	107.9	63.2	60.0	Bedrock	Downgradient
PZ-33	10/1/2016	31.4358587	-84.1325124	186.9	187.1	189.52	189.61	129.1	119.1	73.6	70.4	Bedrock	Downgradient

Notes:

1. Horizontal locations referenced to the North American Datum of 1983 (2011).
2. MSL indicates feet above mean sea level and referenced to North American Vertical Datum of 1988
3. TOC indicates top of casing.

**TABLE 2
PIEZOMETER WELL NETWORK SUMMARY**

Well Name	Installation Date	Latitude	Longitude	Ground Surface Elevation (feet above MSL) (Prior to June 2020 Resurvey)	Ground Surface Elevation (feet above MSL) (June 2020 Resurvey)	Top of Casing Elevation (feet above MSL) (Prior to June 2020 Resurvey)	Top of Casing Elevation (feet above MSL) (June 2020 Resurvey)	Top of Screen Elevation (feet above MSL)	Bottom of Screen Elevation (feet above MSL)	Total Well Depth Measured March 2020 (feet below TOC)	Total Well Depth on Construction Log (feet below land surface)	Lithology Screened
PZ-01R	2/10/2016	31.44186900	-84.13488969	188.0	not surveyed	191.87	not surveyed	132.0	122.0	NM	66.7	Overburden (Clay)/Bedrock
PZ-02R	2/3/2016	31.43719112	-84.13433471	188.5	not surveyed	191.66	not surveyed	131.6	121.6	NM	67.2	Overburden (Clay)/Bedrock
PZ-2S	6/10/2014	31.4464610	-84.1295300	175.0	175.6	178.60	178.61	131.0	121.0	57.8	54.4	Overburden (Clay)
PZ-03R	2/9/2016	31.43426595	-84.13546813	189.7	not surveyed	192.35	not surveyed	143.5	133.5	NM	56.4	Overburden (Clay)/Bedrock
PZ-3D	5/28/2014	31.4445480	-84.1303150	187.7	188.1	190.82	190.98	110.1	100.1	91.2	88.0	Bedrock
PZ-4D	5/29/2014	31.4413170	-84.1300250	187.7	188.3	190.84	191.10	142.1	132.1	58.4	56.0	Bedrock
PZ-6S	6/13/2014	31.4359750	-84.1326040	186.2	186.5	189.34	189.47	148.6	138.6	51.4	48.0	Overburden (Clay)
PZ-8D	6/5/2014	31.4337460	-84.1390140	166.7	167.2	170.27	170.35	100.1	90.1	80.9	77.0	Bedrock
PZ-9D	6/4/2014	31.4346460	-84.1392670	162.6	163.2	166.08	166.16	126.0	116.0	49.8	47.0	Bedrock
PZ-10S	6/3/2014	31.43655800	-84.13839400	172.3	172.6	175.51	175.63	136.7	126.7	48.3	46.0	Bedrock
PZ-11S	6/12/2014	31.43833700	-84.13797600	188.2	188.7	191.57	191.69	140.6	130.6	61.4	58.0	Bedrock
PZ-12S	6/4/2014	31.4402100	-84.1375100	169.8	170.9	173.19	173.92	132.2	122.2	51.6	48.0	Bedrock
PZ-20	7/14/2016	31.4408438	-84.1359833	170.4	170.6	173.43	173.44	120.9	110.9	63.0	60.0	Bedrock
PZ-21	7/29/2016	31.4425300	-84.1334808	176.7	177.1	179.83	179.84	116.7	106.7	72.6	70.0	Bedrock
PZ-22	7/28/2016	31.4424857	-84.1308619	184.5	184.8	187.68	187.69	134.5	124.5	62.9	60.0	Bedrock
PZ-24A	3/6/2020	31.4384420	-84.1318360	192.2	192.3	195.07	194.97	142.2	132.2	63.3	61.0	Bedrock
PZ-26	10/1/2016	31.4338003	-84.1395468	163.7	163.9	166.60	166.70	125.2	115.2	52.4	48.5	Bedrock
PZ-27	10/4/2016	31.4364880	-84.1389277	161.5	161.9	164.40	164.58	123.2	113.2	52.2	48.3	Bedrock
PZ-28	10/13/2016	31.4379002	-84.1385672	163.0	163.5	165.67	165.96	126.0	116.0	50.8	47.0	Bedrock
PZ-29	10/4/2016	31.4403815	-84.1377770	170.0	170.4	172.95	173.18	123.5	113.5	60.5	56.5	Bedrock
MW-102	2/22/1995	31.4421720	-84.1359780	168.0	168.1	170.75	170.93	131.9	122.7	49.4	45.9	Bedrock
MW-108	2/16/1995	31.4340710	-84.1336680	183.0	182.8	185.59	185.47	145.3	136.2	54.5	47.4	Bedrock
MW-111	2/21/1995	31.4342270	-84.1386880	165.3	165.3	168.00	168.06	127.8	118.8	48.1	47.1	Bedrock
MW-113	2/21/1995	31.4362570	-84.1378240	172.1	171.9	174.76	174.61	129.8	120.4	52.0	52.4	Bedrock
MW-115	2/21/1995	31.4375780	-84.1362130	166.2	166.2	168.97	169.05	88.6	79.5	90.2	87.3	Bedrock
MW-116	2/23/1995	31.4398160	-84.1362120	169.0	168.9	171.86	171.69	100.8	94.4	79.3	75.2	Bedrock

Notes:

1. Horizontal locations referenced to the North American Datum of 1983 (2011).
2. MSL indicates feet above mean sea level and referenced to North American Vertical Datum of 1988
3. TOC indicates top of casing.
4. Wells PZ-01R, PZ-02R, PZ-03R were not accessible due to construction activities and were not resurveyed
5. NM indicates not measured

**TABLE 3
GROUNDWATER SAMPLING EVENTS**

Well ID	Hydraulic Location	Summary of Sampling Events				Status of Monitoring Well
		March 25 - 28, 2019	August 20 - 22, 2019	September 10 and October 1 - 3, 2019	March 24 - 26, 2020	
Purpose of Sampling Event		Detection	Initial Assessment Screening	Assessment	Assessment	
ASH PONDS MONITORING WELL NETWORK						
PZ-1D	Upgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-2D	Upgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-7D	Downgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-14	Downgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-15	Downgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-16	Downgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-17	Downgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-18	Downgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-19	Downgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-23	Downgradient	D01	Initial	A01		Assessment Monitoring
PZ-23A	Downgradient				A02	Assessment Monitoring
PZ-25	Downgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-31	Upgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-32	Upgradient	D01	Initial	A01	A02	Assessment Monitoring
PZ-33	Downgradient	D01	Initial	A01	A02	Assessment Monitoring

Notes:

DXX - Detection Event Number

AXX - Assessment Event Number

Initial - Initial Assessment Screening Event for Appendix IV constituents

New well PZ-23A replaces PZ-23 after PZ-23 was abandoned due to construction activities in pond area

**TABLE 4
SUMMARY OF GROUNDWATER ELEVATIONS**

Well ID	Top of Casing Elevation (feet above MSL) (Elevations prior to June 2020 Resurvey)	Event #10 8/20/2019 Depth to Water (ft below TOC)	Event #10 8/20/2019 Groundwater Elevation * (feet above MSL)	Event #11 10/1/2019 Depth to Water (ft below TOC)	Event #11 10/1/2019 Groundwater Elevation * (feet above MSL)	Top of Casing Elevation (feet above MSL) (June 2020 Resurvey TOC Elevations)	Event #12 3/23/2020 Depth to Water (ft below TOC)	Event #12 3/23/2020 Groundwater Elevation ** (feet above MSL)	Differences in TOC Elevations
MW-102	170.75	32.65	138.10	34.38	136.37	170.93	22.37	148.56	0.18
MW-105	187.52	48.19	139.33	Abandoned		Abandoned			
MW-108	185.59	47.62	137.97	48.69	136.90	185.47	37.71	147.76	-0.12
MW-111	168.00	30.63	137.37	32.60	135.40	168.06	22.95	145.11	0.06
MW-113	174.76	37.42	137.34	38.33	136.43	174.61	22.65	151.96	-0.15
MW-115	168.97	31.15	137.82	33.11	135.86	169.05	22.70	146.35	0.08
MW-116	171.86	34.21	137.65	35.72	136.14	171.69	24.17	147.52	-0.17
PZ-1D	196.21	53.98	142.23	55.95	140.26	196.44	40.42	156.02	0.23
PZ-01R	191.87	53.39	138.48	55.54	136.33	NM			
PZ-2D	178.39	37.15	141.24	39.42	138.97	178.51	22.64	155.87	0.12
PZ-02R	191.66	53.34	138.32	54.78	136.88	NM			
PZ-2S	178.60	37.25	141.35	39.45	139.15	178.61	22.55	156.06	0.01
PZ-3D	190.82	50.27	140.55	52.24	138.58	190.98	37.44	153.54	0.16
PZ-03R	192.35	54.71	137.64	56.00	136.35	NM			
PZ-4D	190.84	51.16	139.68	52.49	138.35	191.10	39.61	151.49	0.26
PZ-5D	193.82	52.99	140.83	Abandoned		Abandoned			
PZ-6S	189.34	20.23	169.11	24.87	164.47	189.47	11.22	178.25	0.13
PZ-7D	173.13	35.34	137.79	37.15	135.98	173.08	27.04	146.04	-0.05
PZ-8D	170.27	32.95	137.32	34.89	135.38	170.35	25.03	145.32	0.08
PZ-9D	166.08	28.86	137.22	30.66	135.42	166.16	20.94	145.22	0.08
PZ-10S	175.51	38.42	137.09	39.61	135.90	175.63	27.48	148.15	0.12
PZ-11S	191.57	54.51	137.06	55.89	135.68	191.69	45.63	146.06	0.12
PZ-12S	173.19	36.26	136.93	38.13	135.06	173.92	27.16	146.76	0.73
PZ-14	183.62	45.58	138.04	46.72	136.90	183.46	36.02	147.44	-0.16
PZ-15	170.10	32.88	137.22	34.87	135.23	170.37	25.21	145.16	0.27
PZ-16	173.71	36.81	136.90	38.13	135.58	173.92	27.27	146.65	0.21
PZ-17	172.66	34.82	137.84	36.65	136.01	172.91	25.21	147.70	0.25
PZ-18	169.78	32.19	137.59	33.97	135.81	170.11	22.71	147.40	0.33
PZ-19	171.96	34.52	137.44	35.91	136.05	172.05	24.16	147.89	0.09
PZ-20	173.43	35.87	137.56	37.15	136.28	173.44	24.60	148.84	0.01
PZ-21	179.83	41.04	138.79	42.61	137.22	179.84	30.71	149.13	0.01
PZ-22	187.68	48.25	139.43	49.63	138.05	187.69	36.71	150.98	0.01
PZ-23	191.62	52.84	138.78	Abandoned		Abandoned			
PZ-23A	191.91	Not Installed		Not Installed		191.85	40.11	151.74	-0.06
PZ-24	194.91	56.26	138.65	Abandoned		Abandoned			
PZ-24A	195.07	Not Installed		Not Installed		194.97	45.26	149.71	-0.10
PZ-25	171.12	32.89	138.23	34.66	136.46	171.14	22.41	148.73	0.02
PZ-26	166.60	29.28	137.32	31.26	135.34	166.70	21.63	145.07	0.10
PZ-27	164.40	27.47	136.93	28.83	135.57	164.58	16.88	147.70	0.18
PZ-28	165.67	28.83	136.84	29.73	135.94	165.96	19.03	146.93	0.29
PZ-29	172.95	35.44	137.51	37.41	135.54	173.18	26.91	146.27	0.23
PZ-31	182.86	40.73	142.13	42.56	140.30	182.96	26.84	156.12	0.10
PZ-32	180.72	39.64	141.08	41.57	139.15	180.75	25.02	155.73	0.03
PZ-33	189.52	51.23	138.29	52.54	136.98	189.61	41.40	148.21	0.09

Notes:

NM - Not measured.

MSL - Mean Sea Level

TOC - Top of Casing

* Events #10 and #11 Groundwater elevations calculated using TOC elevations from prior to June 2020

** Event #12 Groundwater elevations calculated using TOC elevations re-surveyed in June 2020

Wells PZ-01R, PZ-02R, PZ-03R could not be measured during Event #12 as the wells were inaccessible due to construction activities near wells.

**TABLE 5
GROUNDWATER FLOW VELOCITY CALCULATIONS**

Potentiometric Map Date	Water-Bearing Zone	Location	Groundwater Elevations in Well Pairs (h ₁ , h ₂) (feet)		Change in Elevation (Δh) (feet)	Distance Measured (L) (feet)	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	142.23	138.79	3.44	1740	0.002	3.04	0.2	0.03	11.0
August 2019	Limestone	PZ-22 to PZ-19	139.43	137.44	1.99	1920	0.001	3.04	0.2	0.02	7.3
August 2019	Limestone	PZ-2R to PZ-16	138.32	136.90	1.42	1440	0.001	3.04	0.2	0.01	3.7
October 2019	Limestone	PZ-01D to PZ-1R	140.26	136.33	3.93	2130	0.002	3.04	0.2	0.03	11.0
October 2019	Limestone	PZ-04D to PZ-19	138.35	136.05	2.30	1950	0.001	3.04	0.2	0.02	7.3
October 2019	Limestone	PZ-33 to PZ-15	136.98	135.23	1.75	1980	0.001	3.04	0.2	0.01	3.7
March 2020	Limestone	PZ-32 to PZ-21	155.73	149.13	6.60	1620	0.004	3.04	0.2	0.06	21.9
March 2020	Limestone	PZ-23A to MW-115	151.74	146.35	5.39	1980	0.003	3.04	0.2	0.04	14.6
March 2020	Limestone	PZ-33 to PZ-07D	148.21	146.04	2.17	1470	0.001	3.04	0.2	0.02	7.3

TABLE 6
ANALYTICAL DATA SUMMARY
APPENDIX III
SEPTEMBER-OCTOBER 2019 AND MARCH 2020

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-1D	3/24/2020	0.013 (J)	48.0	2.8	< 0.050	7.8	3.0	228
PZ-2D	10/2/2019	0.011 (J)	21.0	2.7	0.11 (J)	9.0	4.1	95.0
PZ-2D	3/24/2020	0.015 (J)	26.5	2.2	0.051 (J)	8.6	3.1	123
PZ-7D	10/3/2019	0.24	127	5.9	0.041 (J)	6.9	59.6	405
PZ-7D	3/26/2020	0.24	122	4.8	< 0.050	7.1	57.1	332
PZ-14	10/2/2019	0.021 (J)	103	5.4	0.056 (J)	7.0	6.2	312
PZ-14	3/25/2020	0.027 (J)	105	4.2	< 0.050	7.0	11.9	330
PZ-15	10/2/2019	0.17	101	8.0	0.075 (J)	7.2	83.0	355
PZ-15	3/26/2020	0.21	103	7.0	0.056 (J)	7.1	83.6	330
PZ-16	10/2/2019	0.19	89.1	7.7	0.053 (J)	7.2	48.5	284
PZ-16	3/26/2020	0.19	89.8	7.0	< 0.050	7.1	43.5	286
PZ-17	10/2/2019	0.28	115	7.9	0.063 (J)	7.0	104	415
PZ-17	3/25/2020	0.33	121	6.1	< 0.050	6.9	92.4	408
PZ-18	10/3/2019	0.35	139	7.0	0.043 (J)	6.8	95.8	464
PZ-18	3/26/2020	0.36	138	5.7	< 0.050	7.0	91.0	415
PZ-19	10/3/2019	0.52	125	5.6	0.084 (J)	6.9	84.9	485
PZ-19	3/26/2020	0.60	158	5.4	0.077 (J)	6.7	84.9	440
PZ-23	9/10/2019	0.15	137	3.8	< 0.050	6.8	45.1	420
PZ-23A	3/25/2020	0.19	157	6.4	0.066 (J)	6.8	47.0	454
PZ-25	10/2/2019	0.21	92.3	2.6	0.16 (J)	7.2	43.0	312
PZ-25	3/25/2020	0.21	97.5	1.6	0.13 (J)	7.0	39.1	280
PZ-31	10/2/2019	0.0084 (J)	95.5	4.3	0.057 (J)	7.1	1.6	263
PZ-31	3/25/2020	0.011 (J)	95.8	3.0	< 0.050	7.2	1.5	278
PZ-32	10/1/2019	0.011 (J)	64.3	3.1	0.042 (J)	7.4	2.2	187
PZ-32	3/25/2020	0.016 (J)	66.6	2.2	< 0.050	7.2	1.9	178
PZ-33	10/3/2019	0.36	110	4.1	0.060 (J)	7.0	72.1	414
PZ-33	3/26/2020	0.38	122	2.9	< 0.050	7.0	66.6	336
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
Dup-01 (PZ-7D)	3/26/2020	0.25	125	4.8	<0.050	7.1	57.8	333
Dup-02 (PZ-19)	3/26/2020	0.61	155	5.3	0.075 (J)	6.7	83.9	512

Notes:

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

TABLE 7
ANALYTICAL DATA SUMMARY
APPENDIX IV
AUGUST, SEPTEMBER-OCTOBER 2019 AND MARCH 2020

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)	< 0.00035	0.017	<0.000074	< 0.00011	0.0028 (J)	< 0.00030	< 0.029	0.00021 (J)	< 0.00078	< 0.00014	< 0.00095	0.595 U	< 0.0013	< 0.000052
PZ-1D	10/1/2019	0.00076 (J)	< 0.00035	0.016	NA	NA	0.0022 (J)	< 0.00030	0.062 (J)	< 0.000046	< 0.00078	NA	0.0010 (J)	0.953 U	< 0.0013	< 0.000052
PZ-1D	3/24/2020	0.00055 (J)	< 0.00035	0.015	NA	NA	0.0036 (J)	< 0.00030	< 0.050	0.000062 (J)	< 0.00078	NA	0.0010 (J)	2.23	< 0.0013	< 0.000052
PZ-2D	8/21/2019	0.00030 (J)	0.0014 (J)	0.0042 (J)	<0.000074	< 0.00011	0.0057 (J)	< 0.00030	0.046 (J)	< 0.000046	0.0018 (J)	< 0.00014	< 0.00095	0.710 U	< 0.0013	< 0.000052
PZ-2D	10/2/2019	0.00042 (J)	0.0022 (J)	0.0046 (J)	NA	NA	0.0049 (J)	< 0.00030	0.11 (J)	0.000047 (J)	0.0016 (J)	NA	< 0.00095	0.712 U	< 0.0013	< 0.000052
PZ-2D	3/24/2020	0.00037 (J)	< 0.00035	0.0046 (J)	NA	NA	0.0047 (J)	< 0.00030	0.051 (J)	< 0.000046	0.0019 (J)	NA	< 0.00095	0.898 U	< 0.0013	< 0.000052
PZ-7D	8/22/2019	< 0.00027	< 0.00035	0.0067 (J)	<0.000074	< 0.00011	0.0013 (J)	< 0.00030	< 0.029	< 0.000046	0.0029 (J)	< 0.00014	< 0.00095	0.672 U	< 0.0013	0.000086 (J)
PZ-7D	10/3/2019	0.00029 (J)	< 0.00035	0.0070 (J)	NA	NA	0.00040 (J)	< 0.00030	0.041 (J)	< 0.000046	0.0032 (J)	NA	< 0.00095	1.37	0.0017 (J)	0.000078 (J)
PZ-7D	3/26/2020	0.00042 (J)	< 0.00035	0.0072 (J)	NA	NA	0.0016 (J)	< 0.00030	< 0.050	< 0.000046	0.0031 (J)	NA	< 0.00095	0.430 U	< 0.0013	0.000085 (J)
PZ-14	8/21/2019	0.00039 (J)	< 0.00035	0.017	<0.000074	< 0.00011	0.00073 (J)	< 0.00030	< 0.029	0.000064 (J)	< 0.00078	< 0.00014	< 0.00095	0.705 U	< 0.0013	< 0.000052
PZ-14	10/2/2019	< 0.00027	0.00083 (J)	0.017	NA	NA	< 0.00039	< 0.00030	0.056 (J)	< 0.000046	< 0.00078	NA	< 0.00095	0.915 U	0.0015 (J)	< 0.000052
PZ-14	3/25/2020	< 0.00027	< 0.00035	0.021	NA	NA	0.0013 (J)	< 0.00030	< 0.050	< 0.000046	< 0.00078	NA	< 0.00095	0.694 U	< 0.0013	< 0.000052
PZ-15	8/21/2019	< 0.00027	< 0.00035	0.050	<0.000074	< 0.00011	0.00048 (J)	< 0.00030	0.044 (J)	< 0.000046	0.0013 (J)	< 0.00014	< 0.00095	1.86	< 0.0013	0.00022 (J)
PZ-15	10/2/2019	< 0.00027	< 0.00035	0.049	NA	NA	< 0.00039	< 0.00030	0.075 (J)	< 0.000046	0.0013 (J)	NA	< 0.00095	1.00 U	< 0.0013	0.00016 (J)
PZ-15	3/26/2020	< 0.00027	< 0.00035	0.048	NA	NA	< 0.00039	< 0.00030	0.056 (J)	< 0.000046	0.0014 (J)	NA	< 0.00095	0.863 U	< 0.0013	0.00014 (J)
PZ-16	8/21/2019	< 0.00027	0.00036 (J)	0.034	<0.000074	< 0.00011	0.00095 (J)	< 0.00030	< 0.029	< 0.000046	< 0.00078	< 0.00014	< 0.00095	0.453 U	< 0.0013	0.000057 (J)
PZ-16	10/2/2019	< 0.00027	< 0.00035	0.038	NA	NA	0.00044 (J)	< 0.00030	0.053 (J)	0.000081 (J)	< 0.00078	NA	< 0.00095	0.650 U	< 0.0013	0.000053 (J)
PZ-16	3/26/2020	< 0.00027	< 0.00035	0.034	NA	NA	0.0013 (J)	< 0.00030	< 0.050	< 0.000046	< 0.00078	NA	< 0.00095	0.522 U	< 0.0013	< 0.000052
PZ-17	8/22/2019	< 0.00027	< 0.00035	0.078	<0.000074	< 0.00011	< 0.00039	< 0.00030	0.11 (J)	< 0.000046	0.0025 (J)	< 0.00014	< 0.00095	0.977 U	< 0.0013	0.00018 (J)
PZ-17	10/2/2019	< 0.00027	< 0.00035	0.074	NA	NA	< 0.00039	< 0.00030	0.063 (J)	< 0.000046	0.0024 (J)	NA	< 0.00095	1.34 U	< 0.0013	0.00016 (J)
PZ-17	3/25/2020	0.00094 (J)	< 0.00035	0.077	NA	NA	< 0.00039	0.00032 (J)	< 0.050	< 0.000046	0.0030 (J)	NA	< 0.00095	0.385 U	< 0.0013	0.00020 (J)
PZ-18	8/22/2019	0.00045 (J)	< 0.00035	0.022	<0.000074	< 0.00011	0.00081 (J)	< 0.00030	< 0.029	< 0.000046	0.0026 (J)	< 0.00014	< 0.00095	0.753 U	< 0.0013	0.000070 (J)
PZ-18	10/3/2019	< 0.00027	< 0.00035	0.025	NA	NA	< 0.00039	< 0.00030	0.043 (J)	< 0.000046	0.0027 (J)	NA	< 0.00095	2.07	< 0.0013	< 0.000052
PZ-18	3/26/2020	0.0018 (J)	< 0.00035	0.023	NA	NA	0.00056 (J)	< 0.00030	< 0.050	< 0.000046	0.0027 (J)	NA	< 0.00095	1.05	< 0.0013	0.000071 (J)
PZ-19	8/22/2019	< 0.00027	< 0.00035	0.047	<0.000074	< 0.00011	< 0.00039	< 0.00030	0.10 (J)	< 0.000046	0.012 (J)	< 0.00014	0.0021 (J)	1.37	< 0.0013	0.00055 (J)
PZ-19	10/3/2019	0.00044 (J)	< 0.00035	0.057	NA	NA	< 0.00039	< 0.00030	0.084 (J)	< 0.000046	0.016 (J)	NA	0.0024 (J)	1.90	0.0034 (J)	0.00071 (J)
PZ-19	3/26/2020	< 0.00027	< 0.00035	0.052	NA	NA	0.00073 (J)	< 0.00030	0.077 (J)	< 0.000046	0.013 (J)	NA	0.0021 (J)	1.66	0.0016 (J)	0.00068 (J)
PZ-23	8/21/2019	0.00055 (J)	< 0.00035	0.032	<0.000074	< 0.00011	0.0024 (J)	< 0.00030	< 0.029	< 0.000046	0.00090 (J)	< 0.00014	< 0.00095	2.31	0.0022 (J)	0.00016 (J)
PZ-23	9/10/2019	< 0.00027	0.00036 (J)	0.029	NA	NA	0.0044 (J)	< 0.00030	< 0.050	< 0.000046	< 0.00078	NA	< 0.00095	0.575 U	0.0018 (J)	< 0.000052
PZ-23A	3/25/2020	< 0.00027	< 0.00035	0.048	NA	NA	0.0012 (J)	0.00030 (J)	0.066 (J)	0.00015 (J)	0.0011 (J)	NA	0.0011 (J)	1.39	0.0030 (J)	0.00015 (J)
PZ-25	8/21/2019	0.0014 (J)	< 0.00035	0.10	<0.000074	< 0.00011	< 0.00039	0.0015 (J)	0.11 (J)	0.00041 (J)	0.0072 (J)	< 0.00014	0.0014 (J)	1.18 U	< 0.0013	0.00046 (J)
PZ-25	10/2/2019	< 0.00027	0.00063 (J)	0.11	NA	NA	< 0.00039	0.0017 (J)	0.16 (J)	< 0.000046	0.0074 (J)	NA	< 0.00095	1.48	< 0.0013	0.00024 (J)
PZ-25	3/25/2020	< 0.00027	< 0.00035	0.11	NA	NA	< 0.00039	0.0018 (J)	0.13 (J)	< 0.000046	0.0066 (J)	NA	< 0.00095	0.910 U	< 0.0013	0.00037 (J)
PZ-31	8/21/2019	0.00056 (J)	< 0.00035	0.0070 (J)	<0.000074	< 0.00011	0.0016 (J)	< 0.00030	< 0.029	0.00011 (J)	< 0.00078	< 0.00014	< 0.00095	1.20 U	< 0.0013	0.000061 (J)
PZ-31	10/2/2019	< 0.00027	< 0.00035	0.0067 (J)	NA	NA	0.00043 (J)	< 0.00030	0.057 (J)	0.000081 (J)	< 0.00078	NA	< 0.00095	0.0883 U	< 0.0013	< 0.000052
PZ-31	3/25/2020	< 0.00027	< 0.00035	0.0082 (J)	NA	NA	0.0013 (J)	< 0.00030	< 0.050	< 0.000046	< 0.00078	NA	< 0.00095	1.79	< 0.0013	< 0.000052
PZ-32	8/20/2019	< 0.00027	< 0.00035	0.016	<0.000074	< 0.00011	0.00044 (J)	< 0.00030	< 0.029	< 0.000046	< 0.00078	< 0.00014	< 0.00095	0.334 U	< 0.0013	< 0.000052
PZ-32	10/1/2019	< 0.00027	< 0.00035	0.015	NA	NA	< 0.00039	< 0.00030	0.042 (J)	< 0.000046	< 0.00078	NA	< 0.00095	1.01 U	< 0.0013	< 0.000052
PZ-32	3/25/2020	< 0.00027	< 0.00035	0.015	NA	NA	0.00086 (J)	< 0.00030	< 0.050	< 0.000046	< 0.00078	NA	< 0.00095	0.333 U	< 0.0013	< 0.000052
PZ-33	8/22/2019	< 0.00027	< 0.00035	0.064	<0.000074	< 0.00011	< 0.00039	< 0.00030	< 0.029	< 0.000046	< 0.00078	< 0.00014	< 0.00095	0.513 U	< 0.0013	0.00017 (J)
PZ-33	10/3/2019	< 0.00027	< 0.00035	0.057	NA	NA	< 0.00039	< 0.00030	0.060 (J)	0.000047 (J)	< 0.00078	NA	< 0.00095	1.62 U	< 0.0013	0.00018 (J)
PZ-33	3/26/2020	< 0.00027	< 0.00035	0.057	NA	NA	< 0.00039	< 0.00030	< 0.050	< 0.000046	< 0.00078	NA	< 0.00095	0.473 U	< 0.0013	0.00015 (J)

**TABLE 7
ANALYTICAL DATA SUMMARY
APPENDIX IV
AUGUST, SEPTEMBER-OCTOBER 2019 AND MARCH 2020**

Well Name	Sample Date	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Fluoride	Lead	Lithium	Mercury	Molybdenum	Radium	Selenium	Thallium
Dup-01 (PZ-19)	8/22/2019	< 0.00027	< 0.00035	0.049	<0.000074	< 0.00011	< 0.00039	< 0.00030	0.079 (J)	< 0.000046	0.012 (J)	< 0.00014	0.0022 (J)	1.55	< 0.0013	0.00058 (J)
Dup-02 (PZ-33)	8/22/2019	< 0.00027	< 0.00035	0.062	<0.000074	< 0.00011	< 0.00039	< 0.00030	< 0.029	< 0.000046	< 0.00078	< 0.00014	< 0.00095	0.907 U	< 0.0013	0.00017 (J)
Dup-01 (PZ-17)	10/2/2019	< 0.00027	< 0.00035	0.083	NA	NA	< 0.00039	< 0.00030	0.063 (J)	< 0.000046	0.0026 (J)	NA	< 0.00095	1.17 U	< 0.0013	0.00017 (J)
Dup-02(PZ-25)	10/2/2019	< 0.00027	0.00045 (J)	0.12	NA	NA	< 0.00039	0.0017 (J)	0.17 (J)	< 0.000046	0.0078 (J)	NA	< 0.00095	0.977 U	< 0.0013	0.00024 (J)
DUP-01(PZ-7D)	3/26/2020	0.00065 (J)	<0.00035	0.0075 (J)	NA	NA	0.0019 (J)	<0.00030	<0.050	<0.000046	0.0032 (J)	NA	<0.00095	0.594 U	<0.0013	0.000085 (J)
DUP-02 (PZ-19)	3/26/2020	<0.00027	<0.00035	0.052	NA	NA	<0.00039	<0.00030	0.075 (J)	<0.000046	0.013 (J)	NA	0.0020 (J)	1.63	0.0017 (J)	0.00068 (J)

Notes:

1. Results for metals are reported in milligrams per liter (mg/L). Results for radium are reported in pCi/L (picocuries per liter).
2. < indicates the analyte was not detected above the analytical method detection limit (MDL).
3. (J) indicates the constituent was detected between the analytical method detection limit and laboratory reporting limit. The value followed by (J) is qualified by the laboratory as estimated.
4. 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.
5. NA indicates constituent was not analyzed.
6. Beryllium, Cadmium, and Mercury were not detected in the initial assessment constituent screening and were not analyzed in the October 2019 and March 2020 events.

**TABLE 9
SUMMARY OF GROUNDWATER PROTECTION STANDARDS**

Constituent	Units	MCL	Federal CCR Rule Specified Limit	Site-Specific Background October 2019	Site-Specific Background March 2020	State Derived Site GWPS ⁽²⁾ October 2019	State Derived Site GWPS ⁽²⁾ March 2020
Antimony	mg/L	0.006		0.0035	0.0035	0.006	0.006
Arsenic	mg/L	0.01		0.005	0.005	0.01	0.01
Barium	mg/L	2.0		0.066	0.067	2.0	2.0
Beryllium	mg/L	0.004		0.003	0.003	0.004	0.004
Cadmium	mg/L	0.005		0.001	0.001	0.005	0.005
Chromium	mg/L	0.1		0.011	0.011	0.1	0.1
Cobalt ⁽¹⁾	mg/L		0.006	0.005	0.005	0.005	0.005
Fluoride	mg/L	4.0		0.3	0.3	4.0	4.0
Lead ^{(1) (3)}	mg/L		0.015	0.005	0.005	0.005	0.005
Lithium ^{(1) (4)}	mg/L		0.04	0.03	0.03	0.03	0.03
Mercury	mg/L	0.002		0.0005	0.0005	0.002	0.002
Molybdenum ⁽¹⁾	mg/L		0.1	0.01	0.01	0.01	0.01
Combined Radium	piC/L	5.0		1.36	1.906	5.0	5.0
Selenium	mg/L	0.05		0.01	0.01	0.05	0.05
Thallium	mg/L	0.002		0.001	0.001	0.002	0.002

Notes:

mg/L - milligrams per liter

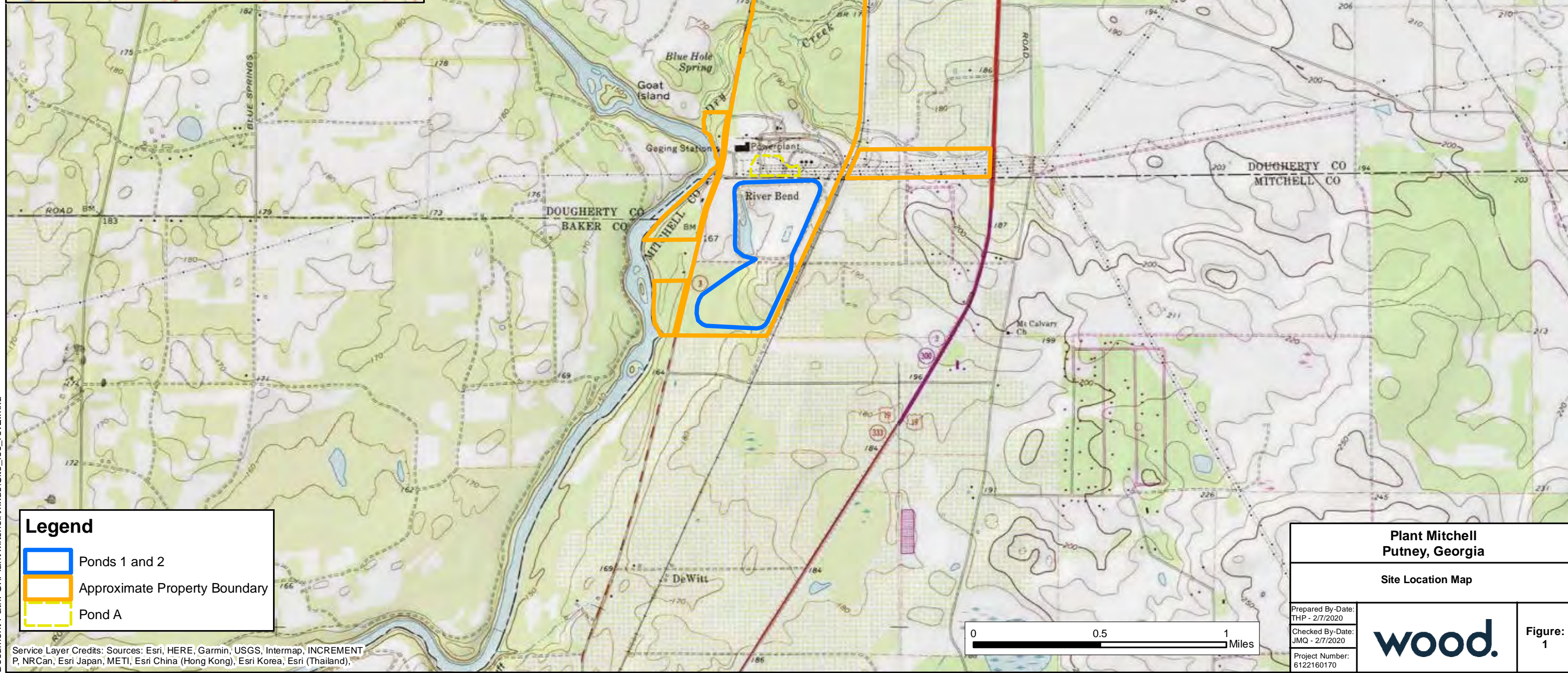
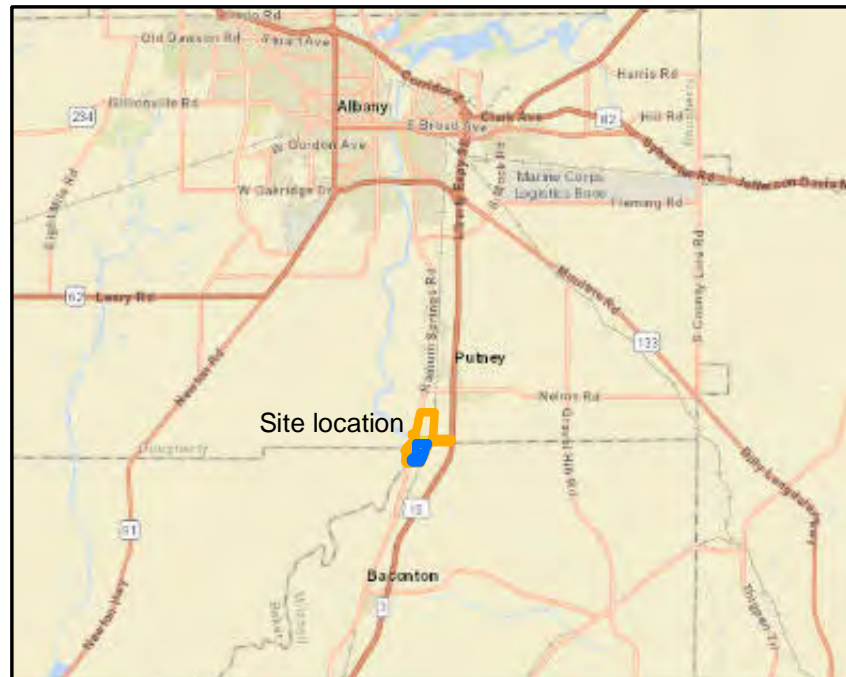
piC/L - picoCuries per liter

MCL - Maximum Contaminant Level

Federal CCR Rule 40 CFR § 257.95 (h) Amendment July 30, 2018 lists levels for cobalt, lead, lithium, and molybdenum.

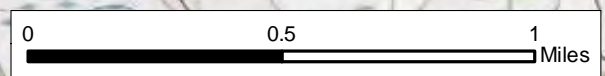
GWPS - Groundwater Protection Standard

- (1) Constituent without an established MCL. The background limits were used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia Environmental Protection Division (EPD) Rule 391-3-4-.10(6)(a).
- (2) Under the existing Georgia EPD Rules, the GWPS is: (i) the MCL, (ii) where the MCL is not established, the background concentration, or (iii) background concentrations for constituents where the background level is higher than the MCL.
- (3) Currently, there is no MCL established for lead. The value listed is the established USEPA Action Level for drinking water.
- (4) The background tolerance limit (TL) used to evaluate GWPS for lithium is equal to the most recent laboratory specified reporting limit (RL). Per the Statistical Analysis Plan, and in accordance with the Unified Guidance, a non-parametric limit approach was used since the data set contains greater than 50% non-detect results for this analyte. Under this approach, the TL equals the highest value reported, for which is the laboratory RL. However, the highest laboratory RL used was 0.05 mg/L. As a result, we have modified the GWPS to be equal to the most recently used RL (0.03 mg/L).



Legend

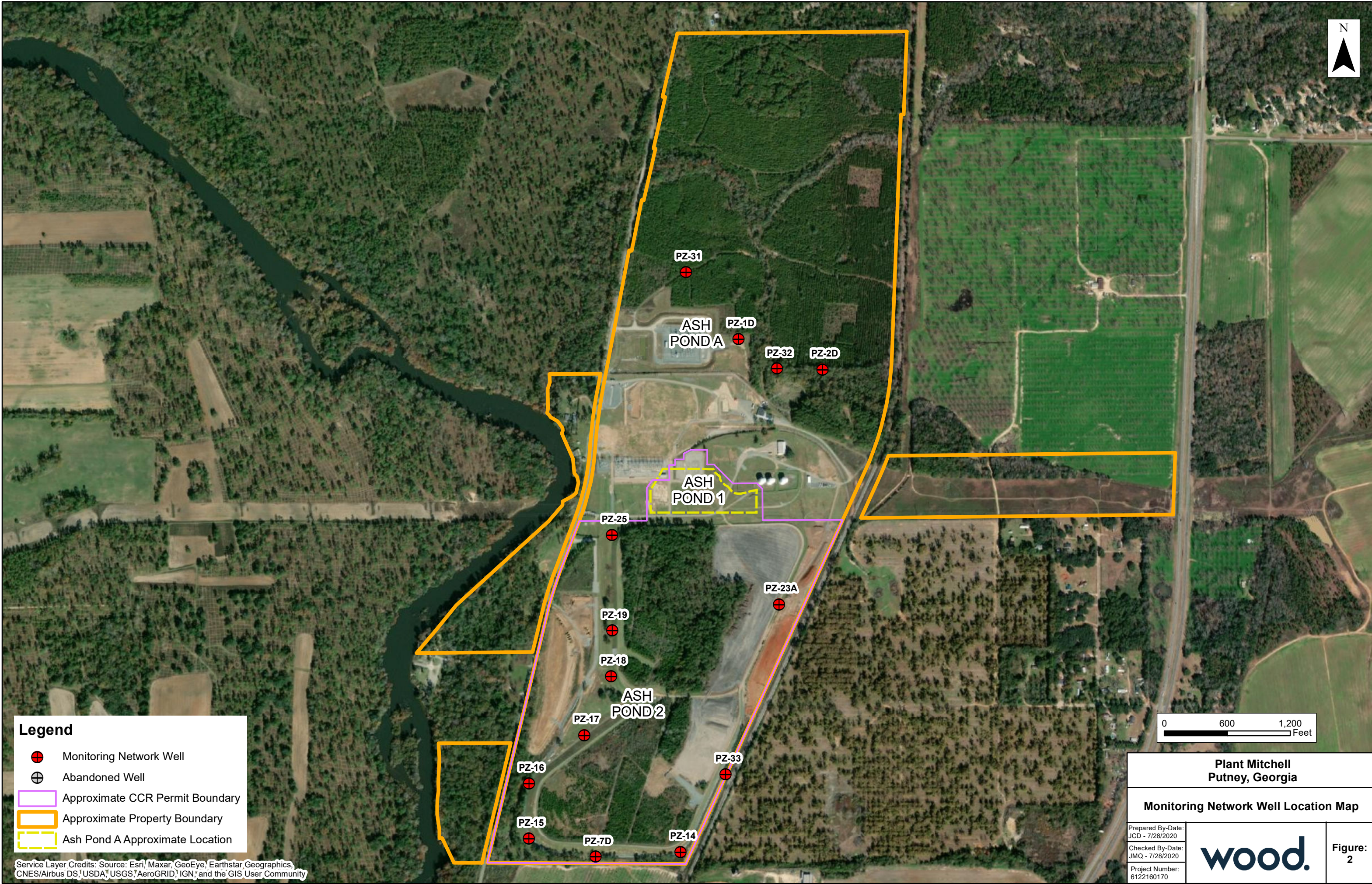
- Ponds 1 and 2
- Approximate Property Boundary
- Pond A








Plant Mitchell	
Putney, Georgia	
Site Location Map	
Prepared By-Date: THP - 2/7/2020	
Checked By-Date: JMQ - 2/7/2020	
Project Number: 6122160170	
Figure: 1	

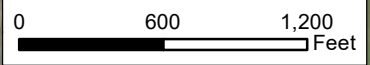
Document Path: G:\Plant Mitchell\mxd\Site_loc_rev2.mxd


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



Legend

-  Monitoring Network Well
-  Abandoned Well
-  Approximate CCR Permit Boundary
-  Approximate Property Boundary
-  Ash Pond A Approximate Location

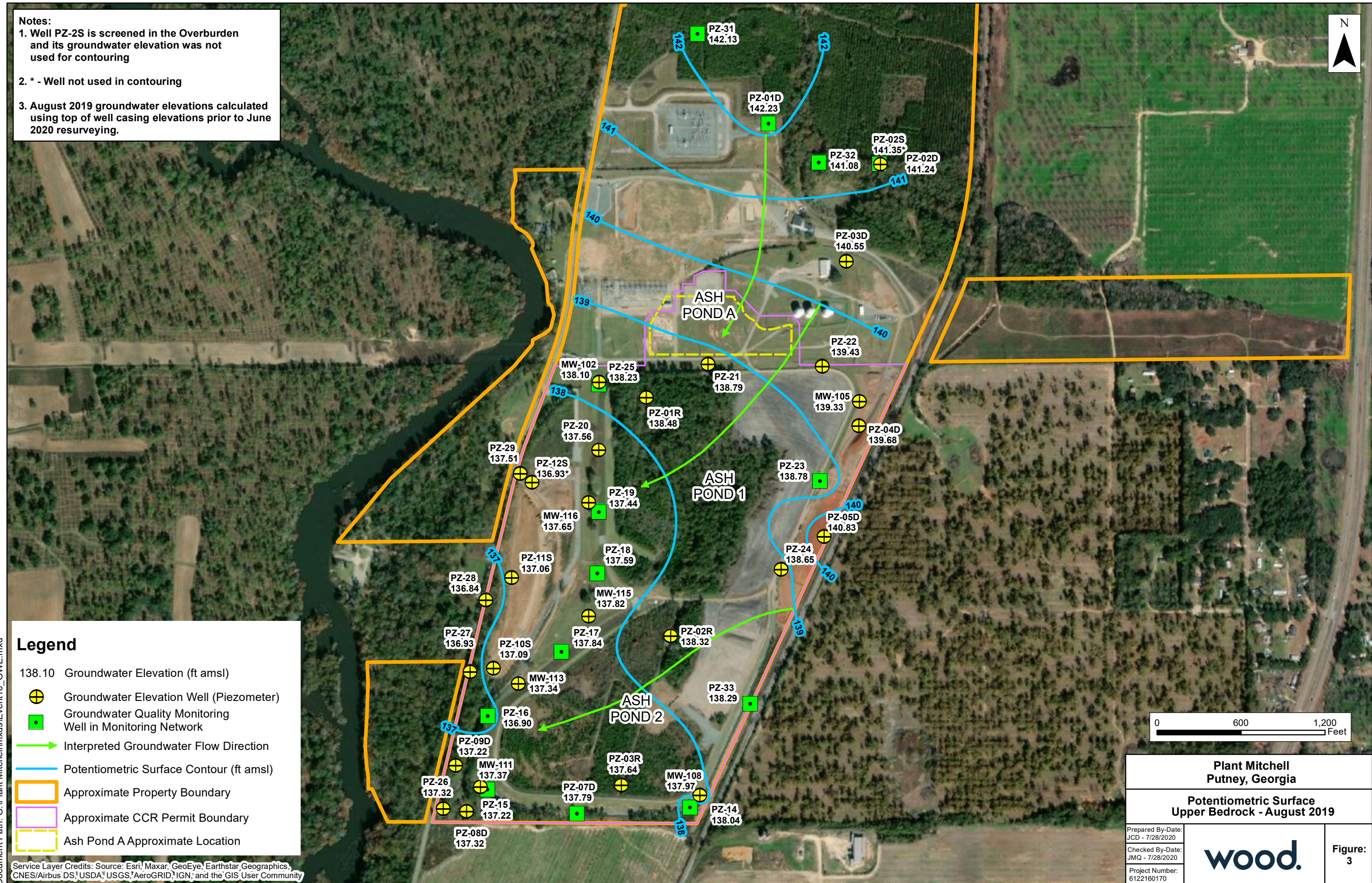


Plant Mitchell Putney, Georgia	
Monitoring Network Well Location Map	
Prepared By-Date: JCD - 7/28/2020	
Checked By-Date: JMQ - 7/28/2020	
Project Number: 6122160170	
Figure: 2	

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

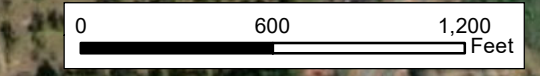
Notes:

1. Well PZ-2S is screened in the Overburden and its groundwater elevation was not used for contouring
2. * - Well not used in contouring
3. August 2019 groundwater elevations calculated using top of well casing elevations prior to June 2020 resurveying.



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



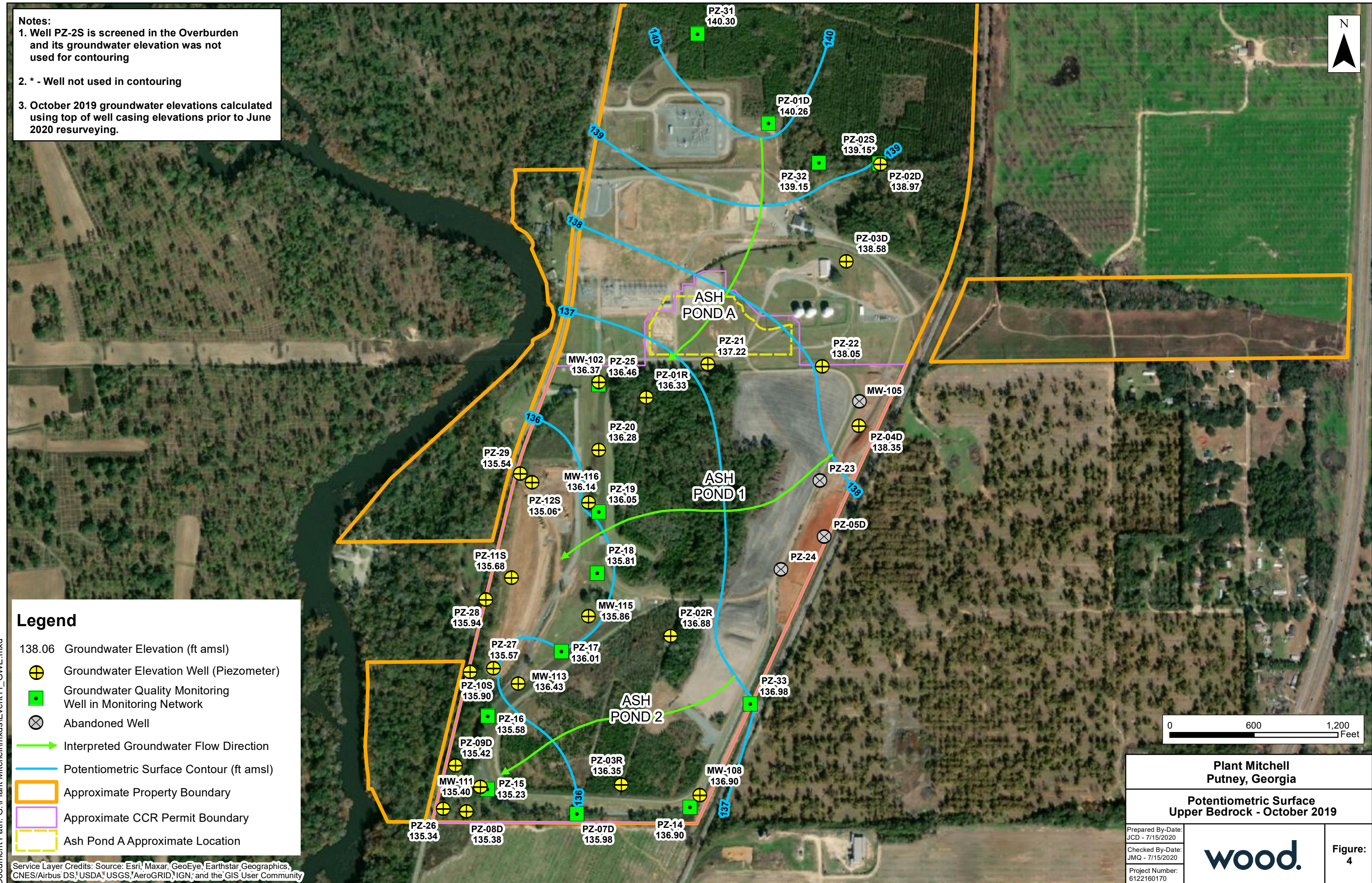
Plant Mitchell Putney, Georgia	
Potentiometric Surface Upper Bedrock - August 2019	
Prepared By-Date: JCD - 7/28/2020	
Checked By-Date: JMQ - 7/28/2020	
Project Number: 6122160170	
Figure: 3	

Document Path: G:\Plant Mitchell\mxd\Event10_GWE.mxd

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

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
3. October 2019 groundwater elevations calculated using top of well casing elevations prior to June 2020 resurveying.



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

**Plant Mitchell
Putney, Georgia**

**Potentiometric Surface
Upper Bedrock - October 2019**

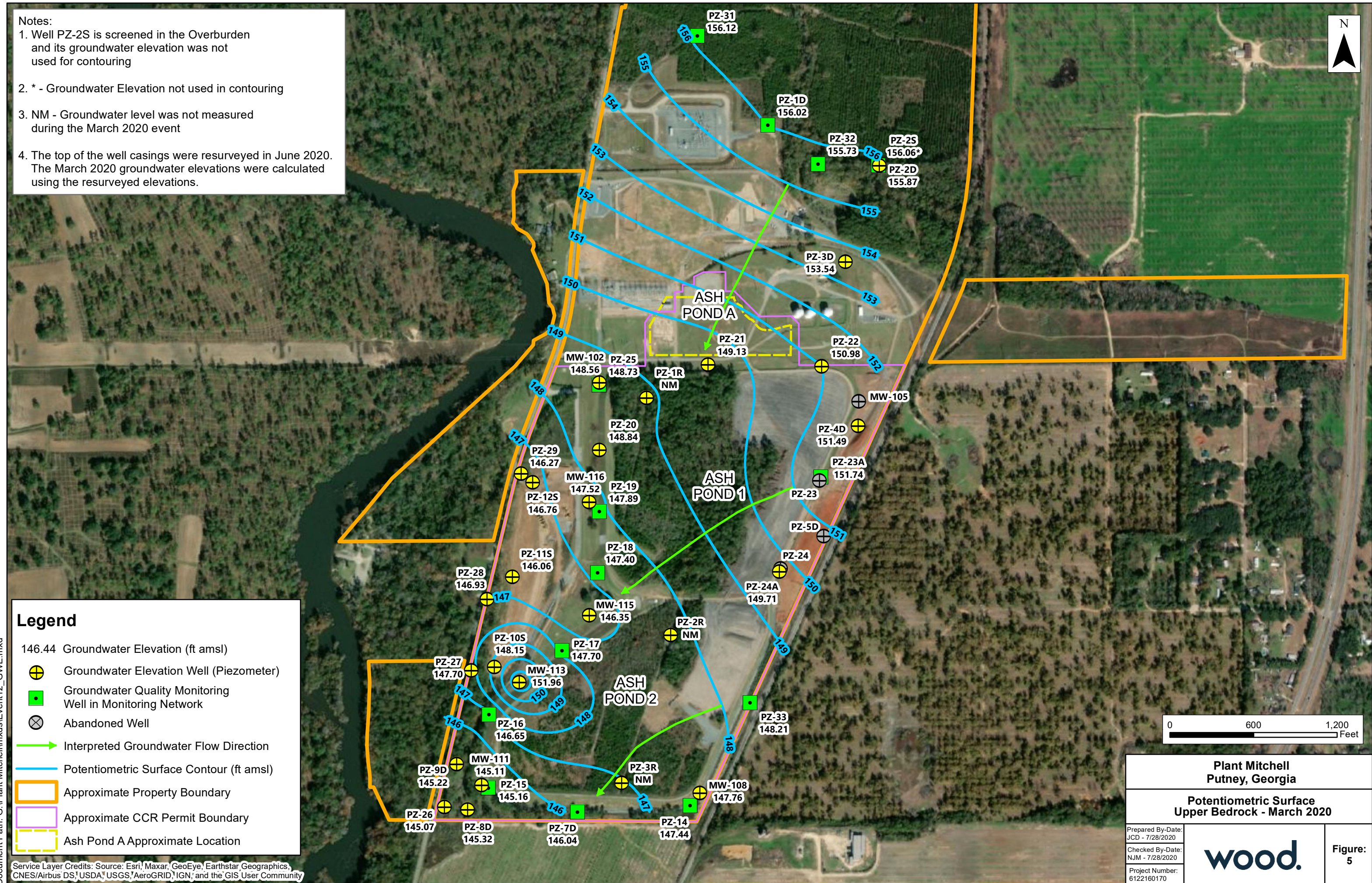
Prepared By-Date: JCD - 7/15/2020		Figure: 4
Checked By-Date: JMQ - 7/15/2020		
Project Number: 6122160170		

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

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

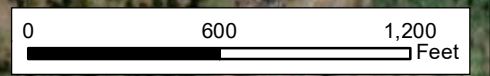
Notes:

1. Well PZ-2S is screened in the Overburden and its groundwater elevation was not used for contouring
2. * - Groundwater Elevation not used in contouring
3. NM - Groundwater level was not measured during the March 2020 event
4. The top of the well casings were resurveyed in June 2020. The March 2020 groundwater elevations were calculated using the resurveyed elevations.



Legend

- 146.44 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



**Plant Mitchell
Putney, Georgia**

**Potentiometric Surface
Upper Bedrock - March 2020**

Prepared By-Date:
JCD - 7/28/2020

Checked By-Date:
NJM - 7/28/2020

Project Number:
6122160170



Figure:
5

Document Path: G:\Plant Mitchell\mxd\Event12_GWE.mxd

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APPENDIX A

WELL ABANDONMENT REPORT AND GROUNDWATER MONITORING WELL AND PIEZOMETER INSTALLATION REPORT



November 15, 2019

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

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

T: +1 770-421-3400

www.woodplc.com

**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.

Mr. Ben Hodges
Well Abandonment at Plant Mitchell
Albany, Dougherty and Mitchell County, Georgia



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.

A handwritten signature in blue ink, reading 'Tanya Kinnard'.

Tanya Kinnard, CHMM
Senior Professional

A handwritten signature in blue ink, reading 'Gregory J. Wrenn'.

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 Decommissioned	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

Prepare by: A.S. 10/9/2019

Checked by: T.K. 10/22/2019

* 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

ATTACHMENT A
WELL ABANDONMENT RECORDS

MONITORING WELL ABANDONMENT RECORD



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



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



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



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 Micam

Additional Notes -

Wood Environment & Infrastructure Solutions Field Representative Ever Guillen

Date Well Abandonment Completed 9-10-19

MONITORING WELL ABANDONMENT RECORD



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



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 2⁰ 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 Milam

Additional Notes -

Wood Environment & Infrastructure Solutions Field Representative Ever Guillen

Date Well Abandonment Completed 9-11-19

MONITORING WELL ABANDONMENT RECORD



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 MILAM

Additional Notes -

Wood Environment & Infrastructure Solutions Field Representative Ever Guillen

Date Well Abandonment Completed 9-10-19

ATTACHMENT B

CCR WELL LOCATION MAP

GROUNDWATER MONITORING WELL AND PIEZOMETER INSTALLATION REPORT

PLANT MITCHELL – ASH PONDS A,1 & 2 DOUGHERTY AND MITCHELL COUNTIES, GEORGIA

FOR



**Georgia
Power**

July 2020

wood.

Wood Environment & Infrastructure Solutions, Inc.
1075 Big Shanty Road NW, Suite 100
Kennesaw, Georgia 30144

Groundwater Monitoring Well and Groundwater Piezometer Installation Report
Georgia Power Company
Plant Mitchell
Ash Ponds A, 1 & 2

Professional Groundwater Scientist Certification

I certify that I am a qualified ground-water scientist who has received a baccalaureate or post-graduate degree in the natural sciences or engineering, and have sufficient training and experience in groundwater hydrology and related fields, as demonstrated by state registration and completion of accredited university courses, that enable me to make sound professional judgments regarding groundwater monitoring and contaminant fate and transport. I further certify that this report was prepared by myself or by a subordinate working under my direction. We certify that the information included is to the best of our knowledge and belief, true, accurate and complete. In preparing this report, we have relied on information provided by Southern Company Services and Georgia Power.



Rhonda N. Quinn

Rhonda N. Quinn, P.G.
Senior Geologist
Georgia Registered
Professional Geologist No.
1031

Gregory J. Wrenn

Gregory J. Wrenn, P.E.
Associate Engineer
Georgia Registered
Professional Engineer No.
025565

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Appendix A Well Construction and Boring Logs

Appendix B Well Development Forms

Appendix C Well Survey Documents

1.0 INTRODUCTION

The Georgia Power Company (GPC) Plant Mitchell Ash Ponds are located on the boundary of Dougherty and Mitchell Counties off Radium Springs Road (Georgia Route 3), approximately 2 miles southwest of Putney and 10 miles south of Albany, and east of the Flint River.

Ash pond closure and construction activities at Plant Mitchell required the abandonment of two monitoring wells and five piezometers in September 2019. A well abandonment report was submitted to Georgia EPD in November 2019 (Wood, 2019a). The two monitoring wells, PZ-23 and PZ-24, that were abandoned during this time are included in the Groundwater Monitoring Plan, which was established in accordance with the United States Environmental Protection Agency (USEPA) Coal Combustion Rule (§257.90). As described in the Groundwater Monitoring Plan (Wood, 2019b), certain wells and piezometers (included in the groundwater monitoring network) located in areas that interfere with planned construction activities will be decommissioned and replaced as appropriate. The two wells that are part of the Groundwater Monitoring Plan were monitoring well PZ-23 and groundwater piezometer PZ-24 located along the outer eastern edge of the Ash Pond 1 dike system. The replacement wells, PZ-23A and PZ-24A, were installed as near as practical to the original locations of the two abandoned wells (**Figure 1: Monitoring Well and Groundwater Piezometer Location Map**) in order to maintain the coverage of the groundwater monitoring system. This report provides details for the drilling and well installation for replacement wells PZ-23A and PZ-24A at the Plant Mitchell site.

2.0 DRILLING AND WELL INSTALLATION

The following sections provide details and description of drilling and installation procedures for the replacement wells. Well installation details are also provided in **Table 1: Monitoring Well and Piezometer Details**.

2.1 Drilling Method

Wood observed and documented installation of the two replacement wells installed by Southern Company between March 3 and March 10, 2020. To clear any potential utilities at depth, the first 5 feet of PZ-23A was completed by hand auger and the first 10 feet of PZ-24A was completed by hydrovac. Following the clearing of utilities, 2 ¼ inch internal diameter hollow stem augers were used to drill to depths of 64.5 and 61.0 feet at PZ-23A and PZ-24A, respectively.

2.2 Screened Interval

The replacement wells are screened in the limestone bedrock as shown in the boring logs in Appendix A. The replacement wells are constructed with 10 foot slotted screens. These screened intervals are similar to the original groundwater monitoring network wells.

2.3 Well Casing and Screens

The replacement wells installed are constructed of 2-inch inside diameter ASTM Schedule 40 PVC casing affixed to a pre-packed slotted PVC screen. Well construction materials are designed to be sufficiently durable to resist chemical and physical degradation and not interfere with the quality of groundwater samples. Casing and screen sections are flush-threaded and do not require the use of solvent or glue to construct the wells; however, the above ground uppermost coupling of the PZ-23A casing was glued to provide an adequate well stick up.

2.4 Well Intake Design

Wells were designed and constructed to: (1) allow sufficient groundwater flow to the well for sampling; (2) minimize the passage of formation materials (turbidity) into the wells; and (3) ensure sufficient structural integrity to prevent collapse of the well. The replacement wells installed are screened using 0.010-inch slotted PVC pre-packed dual-wall well screens. Well screens are 10 feet nominal length. The pre-packed dual-wall well

screens combine a centralized inner well screen, a void for site-specific filter sand pack, and an outer conductor screen (mesh) in one integrated unit.

2.5 Filter Pack

The filter pack sand size used for the filter packs at the site is a 20/40 mesh and is a medium to coarse well-rounded quartz (silica) sand. Filter pack material was packed onsite and placed within the pre-packed dual-wall well screens and in the annular space between the outside of the pre-pack screen and borehole wall to ensure an adequate thickness of filter pack material between the well and the formation. Filter pack material placed in the annular space outside of the well screen extended approximately 2 feet above the top of screen. Potable water was used to prevent bridging occurring during filter pack placement.

After placing the filter pack, the wells were pumped to ensure settlement of the filter pack, prior to installing the annular seal. The depth of top of filter pack was measured and recorded in well construction logs provided in **Appendix A**.

2.6 Annular Seal

After installing the filter pack, approximately 5 feet of bentonite pellets were placed in the annular space above the filter pack to seal the annulus and prevent vertical flow of water along the well casing. Bentonite pellets were allowed to hydrate and settle in accordance with manufacturers recommendations prior to grouting the well. A cement-bentonite grout was used as the annular sealant above the bentonite seal. The cement-bentonite grout was tremied into place from the top of the bentonite seal to approximately land surface. The grout was injected at a low velocity to not disrupt the bentonite seal and the tremie pipe was raised as grout filled the annular space. A concrete seal extends from approximately 1.5 feet below land surface to land surface and was blended into a mounded cement apron extending outward from the edge of the borehole to direct rainwater run-off away from the well.

2.7 Cap and Protective Casing

The well was fitted with a cap and a locking 4-inch square steel stick-up protective casing was installed over the well to protect the PVC well pipe from damage and secure the well from tampering. The annular space between the well pipe and protective casing was filled

with pea-size gravel and a small weep-hole was drilled near the base of the protective cover to allow for drainage from inside the protective casing. Bollards were installed around the four corners of the concrete pad to protect the well. Wells are clearly marked with signs with the proper well identification and locked for safety. Construction details are documented in Well Construction Logs provided in **Appendix A**.

3.0 WELL DEVELOPMENT

Wells and piezometers were developed using a submersible pump to (1) restore the natural hydraulic conductivity of the formation, and (2) to remove fine-grained sediment to ensure low-turbidity groundwater samples. Wells were alternately surged and purged until visually clear of particulates. Turbidity, pH, dissolved oxygen (DO), oxidation-reduction potential (ORP), and conductivity measurements were made to ensure that each well was fully developed. During development of PZ-23A, technical issues with the multiparameter meter prevented the recording of these parameters electronically; therefore, manual turbidity measurements only were recorded. The goal was to cease well development activities when the water was visibly free of sediment and turbidity of 10 Nephelometric Turbidity Unit (NTUs) or less was documented. However, because of an equipment malfunction, the final reading for PZ-24A was 15.8 NTU, which did not reach the development goal of less than 10 NTU. The development forms are included in **Appendix B: Well Development Forms**. All equipment and tubing placed in the well was decontaminated or disposed of between wells.

4.0 SURVEY

Wells locations and top of casing (TOC) and ground surface elevations were surveyed by McKim & Creed, Inc. Northings and easting are in feet relative to the North America Datum of 1983 (2011) (NAD 83/2011) Georgia West Zone. TOC and ground surface elevations are in feet relative to NAVD 88. Survey data are tabulated in **Table 1**. Well survey documents are provided in **Appendix C: Well Survey Documents**.

5.0 GENERAL REFERENCES

Georgia Department of Natural Resources, Environmental Protection Division. 1991. Manual for Groundwater Monitoring (EPD, 1991).

USEPA, 2015. Science and Ecosystem Support Division Operating Procedures: SESDPROC-205-R3 Field Equipment and Decontamination, US Environmental Protection Agency, Region 4, Athens, Georgia, December 18, 2015.

USEPA, 2013. Science and Ecosystem Support Division Operating Procedures: SESDGUID-101-R1 Design and Installation of Monitoring Wells, US Environmental Protection Agency, Region 4, Athens, Georgia, January 29, 2013.

Wood, 2019a. Groundwater Monitoring Plan, Revision 1, Plant Mitchell – Ash Ponds A, 1 & 2, Dougherty and Mitchell Counties, Georgia, October, 2019.

Wood, 2019b. Phase I Well Abandonment Report at Plant Mitchell, Albany, Dougherty and Mitchell County, Georgia, October 24, 2019.

TABLE

Table 1
Monitoring Well and Piezometer Details

Well Name	Purpose	Installation Date	Latitude ⁽¹⁾	Longitude ⁽¹⁾	Ground Surface Elevation (ft msl) ⁽²⁾	Top of Casing Elevation (ft msl)	Top of Screen Elevation (ft msl)	Bottom of Screen Elevation (ft msl)	Total Well Depth on Construction Log (ft below land surface)	Groundwater Zone Screened	Location
PZ-23A	Monitoring Network Well	3/10/2020	31.440310	-84.130880	189.06	191.85	134.56	124.56	64.5	Bedrock	Downgradient
PZ-24A	Groundwater Piezometer	3/6/2020	31.438442	-84.131835	192.25	194.97	142.25	132.25	61.0	Bedrock	Downgradient

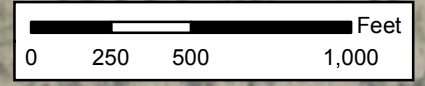
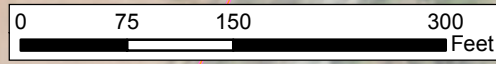
Notes:

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.

Prepared By: NJM 7/2/2020

Checked By: RNQ 7/8/2020

FIGURE



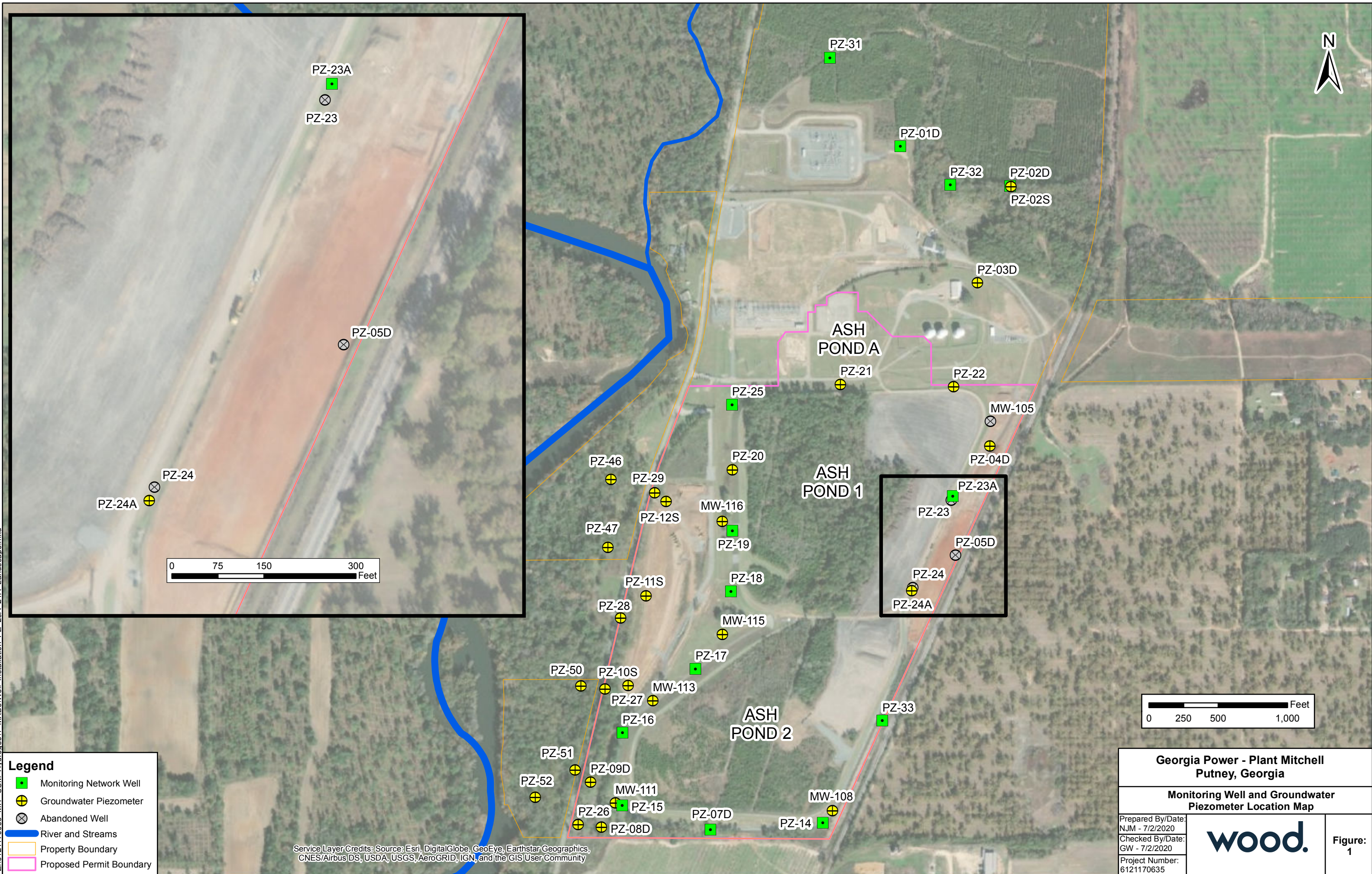
- Legend**
- Monitoring Network Well
 - ⊕ Groundwater Piezometer
 - ⊗ Abandoned Well
 - River and Streams
 - Property Boundary
 - Proposed Permit Boundary

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

Georgia Power - Plant Mitchell Putney, Georgia	
Monitoring Well and Groundwater Piezometer Location Map	
Prepared By/Date: NJM - 7/2/2020	
Checked By/Date: GW - 7/2/2020	
Project Number: 6121170635	

Figure:
1

Z:\6121170635_MIT_CSM_Hydrogeol1_MXD\DsWell_Installation_PZ_23A_24A_Landscape.mxd



APPENDIX A

WELL CONSTRUCTION AND BORING LOGS



LOG OF TEST BORING

BORING PZ-24A
PAGE 1 OF 2
61621170611

PROJECT Plant Mitchell - Geotech

LOCATION Albany, GA

DATE STARTED 3/3/2020 COMPLETED 3/6/2020 SURF. ELEV. 192.25 ft msl COORDINATES: N:31.438442 W:84.131835

CONTRACTOR SCS Field Services EQUIPMENT _____ METHOD Hollow Stem Auger

DRILLED BY SM LOGGED BY ML CHECKED BY NJM

BORING DEPTH 61 ft bgs GROUND WATER DEPTH: DURING _____ COMP. _____ DELAYED 45.26 after 18 days

NOTES Top of casing elevation: 194.97 ft msl.

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE GDT - 5/14/20 18:02 - C:\PROGRAM FILES (X86)\GINT\PROJECTS\PLANT MITCHELL PZ-23-PZ-24.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEV	HCL REACTION Weak Moderate Strong	GROUNDWATER OBSERVATIONS	WELL DATA	
							ELEV. (DEPTH)
5		-HYDROVAC, no description obtained					Annular Fill: Cement Grout
10			182.3				
15		-CLAY (CL), reddish brown, stiff, with silty sand, moist					
20							
25							
30							
35							
40							

(Continued Next Page)



LOG OF TEST BORING

BORING PZ-24A
 PAGE 2 OF 2
 61621170611

PROJECT Plant Mitchell - Geotech

LOCATION Albany, GA

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEV.	HCL REACTION Weak Moderate Strong	GROUNDWATER OBSERVATIONS	WELL DATA	
						(CONTINUED)	ELEV. (DEPTH)
45		(Cont.) -CLAY (CL), reddish brown, stiff, with silty sand, moist	148.3			Annular Fill: Cement Grout	150.3 (42.0)
50		-LIMESTONE, white, fine-medium grained, very weathered			▼	Annular Seal: Bentonite Pellets	145.3 (47.0)
55						Filter: Silica Filter Sand	142.3 (50.0)
60			131.3			Filter : Silica Filter Sand Stand Pipe: 2" OD PVC (SCH 40) Screen: 10 feet of 0.01-inch slotted 2" OD PVC (SCH 40)	
Bottom of borehole at 61.0 feet.							
65							
70							
75							
80							
85							



SIMPLE GEOLOGY WITH WELL - ESEE DATABASE GDT - 5/15/20 12:36 - C:\PROGRAM FILES (X86)\GINT\PROJECTS\PLANT MITCHELL PZ-23-PZ-24.GPJ



LOG OF TEST BORING

BORING PZ-23A
PAGE 1 OF 2
61621170611

PROJECT Plant Mitchell - Geotech

LOCATION Albany, GA

















DATE STARTED 3/9/2020 COMPLETED 3/10/2020 SURF. ELEV. 189.06 ft msl COORDINATES: N:31.440310 W:84.130880

CONTRACTOR SCS Field Services EQUIPMENT _____ METHOD Hollow Stem Auger

DRILLED BY SM LOGGED BY FM CHECKED BY NJM

BORING DEPTH 70 ft bgs GROUND WATER DEPTH: DURING _____ COMP. _____ DELAYED 40.11 ft after 14 days

NOTES Top of casing elevation: 191.85 ft msl.

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEV.	HCL REACTION Weak Moderate Strong	GROUNDWATER OBSERVATIONS	WELL DATA	
							ELEV. (DEPTH)
5		-SAND (SC), red, clayey, moist					Annular Fill: Cement Grout
10							
15		-CLAY (CL), mottled gray and red, stiff, moist	175.6				
20							
25							
30							
35							
40							

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE GDT - 5/15/20 13:03 - C:\PROGRAM FILES (X86)\GINT\PROJECTS\PLANT MITCHELL PZ-23-PZ-24.GPJ

(Continued Next Page)



LOG OF TEST BORING

BORING PZ-23A
 PAGE 2 OF 2
 61621170611

PROJECT Plant Mitchell - Geotech

LOCATION Albany, GA

SIMPLE GEOLOGY WITH WELL - ESEE DATABASE GDT - 5/15/20 12:36 - C:\PROGRAM FILES (X86)\GINT\PROJECTS\PLANT MITCHELL PZ-23-PZ-24.GPJ

DEPTH (ft)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEV	HCL REACTION Weak Moderate Strong	GROUNDWATER OBSERVATIONS	WELL DATA	
						(CONTINUED)	ELEV. (DEPTH)
45		(Cont.) -CLAY (CL), mottled gray and red, stiff, moist				Annular Fill: Cement Grout	143.6 (45.5)
50		-LIMESTONE, white, fine-medium grained, very weathered, moist	141.1			Annular Seal: Bentonite Pellets	138.4 (50.7)
55						Filter: Silica Filter Sand	134.6 (54.5)
60						Filter: Silica Filter Sand	
65						Stand Pipe: 2" OD PVC (SCH 40)	
70			119.1			Screen: 10 feet of 0.01-inch slotted 2" OD PVC (SCH 40)	
Bottom of borehole at 70.0 feet.							
75							
80							
85							



APPENDIX B

WELL DEVELOPMENT FORMS

WELL DEVELOPMENT LOG

wood.

WELL ID PZ-23A

DATE/TIME 3/11/2020 1430

Project No.
Sheet of

STATIC WL 26.7

FINAL WATER LEVEL

SAMPLERS: F. MAYILA

Well ID	Time	pH (s.u.)	Spec. cond. (ms/cm)	Turbidity (NTU)	Temp. (°C)	DO (mg/l)	ORP (mV)	Ferrous Iron (mg/l)	Observations	Vol Purged ()	Remarks
	1430								Start pumping w/out meter. Water is muddy - reddishbrown	15 gallons	
	1445	6.92	707.5	125.2	20.73	3.89	133.5		clear		
									* Battery power failure cannot launch iSitu smart Troll - call PM [Greg Wrenn]*		
	1600			32.1						~31.5	
	1605			28.4						~34.2	
	1610			15.7						~36.9	
	1615			10.9						~39.6	
	1620			9.84						~42.3	
	1625			8.60						~45.0	
	1630										

Remarks * Power failure of the handset (phone). PM agrees to record turbidity only.

(1) Purge Rate: 24/min. ≈ 0.53 gal/min. Removed a total of 9 buckets = 45 gallons.

(2)

(3)

(4)

Product Name: Low-Flow System

Date: 2020-03-11 14:05:04

Project Information:

Operator Name Ferdinand Mayila
Company Name Wood
Project Name Plant Mitchell
Site Name PZ-24A
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type Whale
Tubing Type Idpe
Tubing Diameter .375 in
Tubing Length 68 ft

Pump placement from TOC 60 ft

Well Information:

Well ID PZ-24A
mL/min Well diameter 2 in
Well Total Depth 63 ft
Screen Length 10 ft
Depth to Water 30.85 ft

Pumping Information:

Final Pumping Rate 2000
Total System Volume 1.816868 L
Calculated Sample Rate 5 min
Stabilization Drawdown 3 in
Total Volume Pumped 60 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5%	+/- 0.1%	+/- 3%	+/- 10%		+/- 0.3%	+/- 10%
Last 5	13:45:28	1000.02	21.11	7.08	553.07	114	37.45	3.72	115.03
Last 5	13:50:22	1300.03	21.10	7.08	552.09	102	37.45	3.75	114.38
Last 5	13:55:16	1600.02	21.11	7.08	548.12	70.1	37.46	3.73	114.53
Last 5	14:00:10	1900.03	21.11	7.08	557.00	25.8	37.45	3.73	114.10
Last 5	14:05:04	2100.12	21.10	7.08	555.67	15.8	37.43	3.75	113.90
Variance 0			0.00	-0.01	-3.97			-0.02	0.15
Variance 1			0.00	0.00	8.88			-0.00	-0.43
Variance 2			-0.01	0.00	-1.33			0.02	-0.19

Notes

Grab Samples

APPENDIX C

WELL SURVEY DOCUMENTS



ENGINEERS

SURVEYORS

PLANNERS

Date: June 15, 2020

To: Gregory Wrenn
Project Manager
Wood Environment & Infrastructure Solutions, Inc.
dreynolds@charah.com

From: Robert Patten
Geomatics Project Manager
McKim & Creed, Inc.
bpatten@mckimcreed.com

RE: Plant Mitchell Monitoring Well Locations

Horizontal grid coordinates were established with eGPS VRS/RTK system, using a Trimble R8 Model 3 GPS/GNSS receiver and a Trimble S6 robotic total station, to achieve +/-0.25' accuracy. Horizontal positions are referenced to the Georgia state plane west zone in US Survey Feet, NAD 83(2011).

Vertical coordinates were established with differential leveling, using a Trimble Dini Digital level. All vertical traverses achieved 0.01' or less closure. Vertical positions are referenced to NAVD88.

Georgia State Plane West Zone (NAD 83/2011), NAVD88

STRUCTURE	NORTH	EAST	ELEVATION	LOCATION
MW101	524508.4	2306160.1	168.14	CONC
MW101	524507.6	2306160.1	170.93	TOP
MW102	524508.6	2306153.7	168.10	CONC
MW102	524508.2	2306153.6	170.93	TOP
MW103	524613.2	2307329.2	184.92	CONC
MW103	524612.5	2307329.1	187.78	TOP
MW107	521570.7	2306881.0	182.89	CONC
MW107	521570.4	2306881.4	185.71	TOP
MW108	521562.1	2306874.9	182.75	CONC
MW108	521561.7	2306874.5	185.47	TOP
MW110	521613.4	2305313.3	165.19	CONC
MW110	521612.9	2305312.7	167.86	TOP
MW111	521618.5	2305309.6	165.28	CONC
MW111	521618.2	2305308.8	168.06	TOP
MW112	522352.7	2305571.6	171.76	CONC
MW112	522353.4	2305571.0	174.56	TOP
MW113	522356.8	2305578.8	171.88	CONC
MW113	522357.4	2305578.4	174.61	TOP
MW114	522835.9	2306072.8	166.30	CONC
MW114	522836.2	2306072.5	169.11	TOP

4536 Nelson Brogdon Boulevard
Suite E-2
Sugar Hill, GA 30518

770.962.4125
770.962.4126 (fax)

www.mckimcreed.com

MW115	522836.8	2306080.7	166.23	CONC
MW115	522837.4	2306080.2	169.05	TOP
MW116	523649.8	2306081.8	168.93	CONC
MW116	523649.9	2306082.5	171.69	TOP
MW117	523643.6	2306082.2	168.84	CONC
MW117	523643.7	2306082.7	171.66	TOP
MW118	525264.3	2307346.6	192.11	CONC
MW118	525264.1	2307346.3	194.82	TOP
MW119	525320.5	2307088.2	191.60	CONC
MW119	525320.7	2307088.8	194.49	TOP
MW120	525216.0	2307100.3	191.03	CONC
MW120	525216.0	2307100.9	193.79	TOP
MW121	524618.6	2307325.7	184.80	CONC
MW121	524618.0	2307325.5	187.96	TOP
MW122	524088.4	2306092.1	169.44	CONC
MW122	524088.5	2306092.8	172.09	TOP
MW123	524096.4	2306094.0	169.39	CONC
MW123	524096.4	2306094.7	172.01	TOP
PZ01D	526354.6	2307362.9	193.44	NAIL
PZ01D	526353.9	2307362.8	196.44	TOP
PZ01S	526357.7	2307356.9	193.43	CONC
PZ01S	526357.1	2307356.7	196.52	TOP
PZ02D	526068.1	2308155.8	175.64	NAIL
PZ02D	526067.3	2308155.4	178.51	TOP
PZ02S	526067.5	2308163.4	175.63	NAIL
PZ02S	526066.7	2308163.4	178.61	TOP
PZ03D	525373.1	2307919.2	188.08	NAIL
PZ03D	525373.2	2307918.1	190.98	TOP
PZ03S	525365.7	2307919.8	188.14	NAIL
PZ03S	525365.6	2307918.8	191.12	TOP
PZ04D	524197.9	2308010.3	188.25	NAIL
PZ04D	524198.2	2308009.5	191.10	TOP
PZ04S	524191.6	2308005.8	188.42	NAIL
PZ04S	524192.1	2308005.0	191.20	TOP
PZ06S	522253.8	2307208.2	186.52	NAIL
PZ06S	522254.0	2307207.5	189.47	TOP
PZ07D	521425.8	2305995.1	170.28	NAIL
PZ07D	521425.1	2305995.3	173.08	TOP
PZ07S	521425.1	2306002.6	170.10	NAIL

PZ07S	521424.4	2306002.8	173.10	TOP
PZ08D	521443.1	2305207.8	167.24	NAIL
PZ08D	521442.1	2305207.9	170.35	TOP
PZ08S	521440.6	2305217.1	167.67	NAIL
PZ08S	521440.2	2305217.4	170.78	TOP
PZ09D	521770.5	2305128.4	163.18	NAIL
PZ09D	521770.9	2305127.5	166.16	TOP
PZ09S	521763.5	2305126.8	163.06	NAIL
PZ09S	521763.7	2305125.7	166.02	TOP
PZ10S	522465.8	2305400.7	172.64	NAIL
PZ10S	522465.8	2305401.6	175.63	TOP
PZ11S	523113.1	2305530.7	188.71	NAIL
PZ11S	523112.9	2305532.1	191.69	TOP
PZ12S	523794.3	2305676.1	170.93	NAIL
PZ12S	523794.9	2305676.8	173.92	TOP
PZ13S	524467.4	2305809.3	170.23	NAIL
PZ13S	524467.0	2305810.0	173.22	TOP
PPZ14	521473.8	2306804.2	180.85	CONC
PZ14	521473.1	2306804.8	183.46	TOP
PZ15	521600.8	2305357.9	167.38	NAIL
PZ15	521600.2	2305357.3	170.37	TOP
PZ16	522124.7	2305360.7	171.21	NAIL
PZ16	522125.0	2305359.9	173.92	TOP
PZ17	522587.2	2305887.2	170.12	NAIL
PZ17	522587.9	2305886.7	172.91	TOP
PZ18	523145.3	2306141.8	167.34	NAIL
PZ18	523145.7	2306142.3	170.11	TOP
PZ19	523582.0	2306152.7	169.40	NAIL
PZ19	523582.1	2306153.6	172.05	TOP
PZ20	524025.1	2306152.0	170.62	NAIL
PZ20	524025.0	2306152.6	173.44	TOP
PZ21	524638.7	2306932.3	177.08	NAIL
PZ21	524639.5	2306932.0	179.84	TOP
PZ22	524622.8	2307749.0	184.76	NAIL
PZ22	524622.4	2307749.0	187.69	TOP
PZ23	523830.4	2307743.0	189.06	NAIL
PZ23	523831.5	2307743.4	191.85	TOP
PZ24	523152.3	2307444.7	192.25	NAIL
PZ24	523151.8	2307445.9	194.97	TOP

PZ25	524492.7	2306151.3	168.24	CONC
PZ25	524492.6	2306152.0	171.14	TOP
PZ26	521462.8	2305041.2	163.94	NAIL
PZ26	521463.1	2305040.7	166.70	TOP
PZ27	522440.6	2305234.0	161.88	NAIL
PZ27	522440.4	2305235.1	164.58	TOP
PZ28	522954.2	2305346.4	163.49	NAIL
PZ28	522953.9	2305347.3	165.96	TOP
PZ29	523856.9	2305592.7	170.42	NAIL
PZ29	523857.8	2305593.0	173.18	TOP
PZ31	526997.0	2306857.3	180.32	NAIL
PZ31	526996.3	2306857.6	182.96	TOP
PZ32	526077.8	2307723.5	178.19	NAIL
PZ32	526078.7	2307723.7	180.75	TOP
PZ33	522212.3	2307235.0	187.08	NAIL
PZ33	522212.6	2307233.9	189.61	TOP
PZ42	521458.8	2304662.3	142.61	NAIL
PZ42	521459.1	2304661.2	145.66	TOP
PZ46	523954.9	2305276.3	166.50	CONC
PZ46	523954.3	2305276.0	166.79	TOP
PZ47	523464.1	2305254.4	164.46	CONC
PZ47	523464.4	2305254.9	164.08	TOP
PZ50	522463.3	2305061.0	162.96	CONC
PZ50	522462.8	2305060.4	162.68	TOP
PZ51	521779.5	2304837.1	155.85	CONC
PZ51	521779.2	2304836.5	155.52	TOP



Robert H Patten, PLS
 Geomatics Project Manager
bpatten@mckimcreed.com



APPENDIX B

LABORATORY ANALYTICAL AND FIELD SAMPLING REPORTS

AUGUST 2019 LABORATORY DATA

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

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



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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		

REPORT OF LABORATORY ANALYSIS

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622267002 Result	Spike Conc.	Spike Conc.	Conc.								
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0026	101	102	75-125	1	20		

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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	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2622250005 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
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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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2622265

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153779		153780		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622250005 Result	MS Spike Conc.	MSD Spike Conc.									
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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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2622265

QC Batch: 34179 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Associated Lab Samples: 2622265004

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	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2622267002	Spike Conc.	Spike Conc.	MS Result							
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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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2622265

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153795		153796		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622267002 Result	MS Spike Conc.	MSD Spike Conc.									
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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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

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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.

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GAPower

Project # _____

WO#: **2622265**

PM: **BM** Due Date: **08/29/19**

CLIENT: **GAPower-CCR**

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 812193945440

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

Temp should be above freezing to 8°C

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

Comments:

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

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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

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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	0.00064J	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

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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		

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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

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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	154038		154039		% Rec Limits	RPD	Max RPD	Qual		
		2622267002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result					MSD Result	
Mercury	mg/L	ND	0.0025	0.0025	0.0025	0.0026	101	102	75-125	1	20

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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	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2622267002	Spike Conc.	Spike Conc.	MSD Result							
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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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2622267

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153795		153796		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622267002 Result	MS Spike Conc.	MSD Spike Conc.									
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

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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

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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.

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GIA Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 812193945370

WO#: **2622267**

PM: BM Due Date: 08/29/19

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

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 4.2

Biological Tissue is Frozen: Yes No

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

Temp should be above freezing to 6°C

Comments:

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

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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

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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

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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	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622267002 Result	Spike Conc.	Spike Conc.	Conc.								
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

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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	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622267002	Spike Conc.	Spike Conc.	Result								
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

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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2622269

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 153795		153796		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622267002 Result	MS Spike Conc.	MSD Spike Conc.									
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

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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		2622246002		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
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

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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.

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GIA Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 812193945430

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

WO#: **2622269**

PM: **BM** Due Date: **08/29/19**

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

Temp should be above freezing to 6°C

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

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

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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

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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

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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	

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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.

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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	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622337002 Result	Spike Conc.	Spike Conc.	MS Result								
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

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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2622335

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 154349		154350		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622337002 Result	MS Spike Conc.	MSD Spike Conc.									
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		

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REPORT OF LABORATORY ANALYSIS

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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	

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REPORT OF LABORATORY ANALYSIS

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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.

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GAPower

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 789315479591

WO#: **2622335**

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

PM: BM Due Date: **08/30/19**

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 4.8

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 8/29/19 MR

Temp should be above freezing to 6°C

Comments:

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

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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	

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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	

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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.

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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	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2622337002	Spike Conc.	Spike Conc.	MS Result								
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

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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2622337

Parameter	Units	2622337002		154349		154350		% Rec	% Rec	% Rec	Limits	RPD	Max RPD	Qual
		MS	MSD	MS	MSD	MS	MSD							
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			

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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		2622337002		2622337003		% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec				
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	

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REPORT OF LABORATORY ANALYSIS

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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.

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A
Required Client Information:
 Company: Georgia Power - Coal Combustion Residuals
 Address: 2480 Marner Road
 Atlanta, GA 30339
 Email: jabraham@southernco.com
 Phone: (404)505-7239
 Requested Due Date: standards

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: scsmvoices@southernco.com
 Address:
 Pace Quote:
 Pace Project Manager: betsy.mcdaniel@pacelabs.com
 Pace Profile #: 333.6.2
 State / Location: GA
 Regulatory Agency:
 Page: 1 Of 1

ITEM #	MATRIX Drinking Water Waste Water Product Soil/Sed Oil Wipe Air Other Tissue	CODE DW WT VW P SL OL WP AR OT TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED		DATE	TIME	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
					START	END								
1			W G			8/22/19	0925							
2			W G			↓	1110							
3			W G			↓	1350							
4														
5														
6														
7														
8														
9														
10														
11														
12														

WO#: 2622337

ADDITIONAL COMMENTS:
 Daniel Howard/Wood 8/22/19 1600 McAdams 8/29/19 910

RELINQUISHED BY / AFFILIATION:
 Daniel Howard/Wood 8/22/19 1600 McAdams 8/29/19 910

RECEIVED ON:
 Received on: 8/20/19
 Temp in C: 20.0
 Sealed: Y
 Cooled: Y
 Samples Intact: 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



Client Name: GIA Power

Project # _____

WO#: **2622337**

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____
Tracking #: 812193945407

PM: BM Due Date: **08/30/19**
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 2.0 Biological Tissue is Frozen: Yes No
Temp should be above freezing to 6°C

Date and Initials of person examining contents: 8/29/19 ME

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

September 20, 2019

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

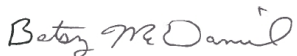
RE: Project: Plant Mitchell
Pace Project No.: 2622266

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

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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

REPORT OF LABORATORY ANALYSIS

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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

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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	

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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	

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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	

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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	

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REPORT OF LABORATORY ANALYSIS

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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	

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REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GIA Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 812193945440

WO#: **2622266**

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

PM: **BM** Due Date: **09/20/19**

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

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



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

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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

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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.

REPORT OF LABORATORY ANALYSIS

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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

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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

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A	Section B	Section C
Required Client Information: Company: Georgia Power - Coal Combustion Residuals Address: 2480 Maner Road Atlanta, GA 30339 Email: jbraham@southernco.com Phone: (404)505-7239 Requested Due Date: <i>Standard</i>	Required Project Information: Report To: Jibu Abraham Copy To: Wood E&I Purchase Order #: SCS10382775 Project Name: Plant Mitchell Project #: <i>6123160170</i>	Invoice Information: Attention: scsinvoices@southernco.com Company Name: Address: Pace Project Manager: betsy.mcdaniel@pacelabs.com Pace Profile #: 333.6.2 State / Location: GA Regulatory Agency:

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	SAMPLE TEMP AT COLLECTION		# OF CONTAINERS	PRESERVATIVES										Analyses Test Y/N	Requested Analytes Filtered (Y/N)	Residual Chlorine (Y/N)		
			START DATE	END DATE			H2SO4	HNO3		HCl	NaOH	Na2S2O3	Methanol	Other	Metals (Appendix IV) *	Fluoride	Radium 226/228							
1		PZ-31	8/21/19	0945	W	G		4	X									X	X					
2		PZ-14+QC	1/40		W	G		6	X									X	X					
3		PZ-23	1245		W	G		4	X									X	X					
4		PZ-15	1410		W	G		4	X									X	X					
5																								
6																								
7																								
8																								
9																								
10																								
11																								
12																								

WO#: 2622268

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
	Daniel Howard / Wood	8/19	1715	Daniel Howard	8/22/19	0910	Received on 4.2 7 7
SAMPLER NAME AND SIGNATURE							
PRINT Name of SAMPLER: Daniel Howard							
SIGNATURE of SAMPLER: <i>Daniel Howard</i>							
DATE Signed: 8/21/19							



Sample Condition Upon Receipt

Client Name: GIA Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 812190945370

WO#: **2622268**

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

PM: **BM** Due Date: **09/20/19**
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 4.2 Biological Tissue is Frozen: Yes No

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

Temp should be above freezing to 6°C Comments:

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

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

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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	

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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

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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.

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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

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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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

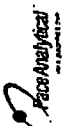
Project: Plant Mitchell

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		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Juju Abraham	Attention:	scsvoices@southernco.com
Address:	2480 Maner Road	Copy To:	Wood E&I	Company Name:	
	Atlanta, GA 30339	Purchase Order #:	SCS10382775	Address:	
Email:	jabraham@southernco.com	Project Name:	Plant Mitchell	Pace Quote:	
Phone:	(404)506-7239	Project #:	6122160170	Pace Project Manager:	betsy.mcdaniels@paceelabs.com
Requested Due Date:	3/20/19			Pace Profile #:	333.6.2
				State / Location:	GA
				Regulatory Agency:	

Page: 1 Of 1

ITEM #	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES		ANALYSES TEST	REQUESTED ANALYSIS FILTERED (Y/N)		RESIDUAL CHLORINE (Y/N)
			START DATE	END DATE			H2SO4	HNO3		HCl	NaOH	
1		WG	3/24/19 1503			4X	X			X	X	
2		WG	3/24/19 1610			4X	X			X	X	
3												
4												
5												
6												
7												
8												
9												
10												
11												
12												

NO#: 2622270

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, Mn, Se, Ti	Daniel Howard / Wood	3/24/19	1715	Daniel Howard	3/22/19	0910	Received on Temp in C 4.0 Sealed Custody Is (Y/N) Is (Y/N) Is (Y/N) Is (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



Client Name: GIA Power Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 8121 9394 5430

WO#: 2622270

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

September 23, 2019

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

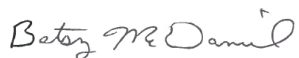
RE: Project: Plant Mitchell
Pace Project No.: 2622336

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



REPORT OF LABORATORY ANALYSIS

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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

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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

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

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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

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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

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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

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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

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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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

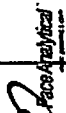
Project: Plant Mitchell

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		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals		Report To: Jibu Abraham		Attention: scsinvoices@southernco.com	
Address: 2480 Maner Road Atlanta, GA 30339		Copy To: Wood E&I		Company Name:	
Email: jibrahim@southernco.com		Purchase Order #: SCS10382775		Address:	
Phone: (404) 506-7239		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	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G-RAB C-COMP)	MATRIX CODE (see valid codes to left)	# OF CONTAINERS	PRESERVATIVES						ANALYSES (Y/N)	Metals (Appendix IV) *	Fluoride	Radium 226/228	Residual Chlorine (Y/N)
				START DATE	END TIME				H2SO4	HNO3	HCl	NaOH	Na2SO3	Methanol					
1	FB-01	Drinking Water	DW	8/23/19	0815	G	WT	4	X										
2	PZ-33	Waste Water	WW	1004		G	WG	4	X										
3	DUP-02	Waste Water	WW			G	WG	4	X										
4	PZ-19	Product	P	1232		G	WT	4	X										
5	DUP-01	Soils/Sed	SL			G	WT	4	X										

WO#: 2622336

2622336

RECEIVED BY / AFFILIATION	DATE	TIME	RECEIVED BY / AFFILIATION	DATE	TIME
Daniel Howard / Wood	8/23/19	1600	Malman	8/23/19	0910

TEMP in C	4.8
Received on	8/23/19
Ice (Y/N)	Y
Custody Sealed (Y/N)	Y
Cooler (Y/N)	Y
Samples Intact (Y/N)	Y

SAMPLER NAME AND SIGNATURE	DATE SIGNED
Daniel Howard	8/22/19

Sample Condition Upon Receipt



Client Name: GAPower

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

WO#: **2622336**

Tracking #: 789315479591

PM: BM Due Date: 09/23/19

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 4.8

Biological Tissue is Frozen: Yes No

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

Temp should be above freezing to 6°C

Comments:

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

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt



Client Name: GIA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 812193945407

WO#: 2622338

PM: **BM** Due Date: **09/23/19**

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

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 2.0

Biological Tissue is Frozen: Yes No

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

Temp should be above freezing to 6°C

Comments:

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

AUGUST 2019 FIELD SAMPLING DATA

Product Name: Low-Flow System

Date: 2019-08-20 16:07:25

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Mitchell CCR Phase II
Site Name PZ-1D
ft Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 81.7

Pump placement from TOC 76.7 ft

Well Information:

Well ID PZ-1D
Well diameter 2 in
Well Total Depth 81.71 ft
Screen Length 10 ft
Depth to Water 53.92 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6788166 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-2D
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 478733
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Mocro Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 81 ft

Pump placement from TOC 76 ft

Well Information:

Well ID PZ-2D
Well diameter 2 in
Well Total Depth 80.96 ft
Screen Length 10 ft
Depth to Water 37.15 ft

Pumping Information:

Final Pumping Rate 0 mL/min
Total System Volume 0.5515373 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-2D
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 478733
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micro Bladder
Tubing Type LDPE
Tubing Diameter .17 in
Tubing Length 81 ft

Pump placement from TOC 76 ft

Well Information:

Well ID PZ-2D
Well diameter 2 in
Well Total Depth 80.96 ft
Screen Length 10 ft
Depth to Water 37.15 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5515373 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.02 in
Total Volume Pumped 12 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ 7D
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 60.37 ft

Pump placement from TOC 55.37 ft

Well Information:

Well ID PZ 7D
Well diameter 2 in
Well Total Depth 60.37 ft
Screen Length 10 ft
Depth to Water 35.34 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.062735 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ 14
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 53.20 ft

Pump placement from TOC 48.20 ft

Well Information:

Well ID PZ 14
Well diameter 2 in
Well Total Depth 53.20 ft
Screen Length 10 ft
Depth to Water 45.58 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9935253 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ 15
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 83.22 ft

Pump placement from TOC 78.22 ft

Well Information:

Well ID PZ 15
Well diameter 2 in
Well Total Depth 83.22 ft
Screen Length 10 ft
Depth to Water 32.88 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.2833 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-16
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 478733
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micro Bladder
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 53.2 ft

Pump placement from TOC 48.2 ft

Well Information:

Well ID PZ-16
Well diameter 2 in
Well Total Depth 53.19 ft
Screen Length 10 ft
Depth to Water 36.81 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9935253 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.12 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ 17
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 62.70 ft

Pump placement from TOC 57.70 ft

Well Information:

Well ID PZ 17
Well diameter 2 in
Well Total Depth 62.70 ft
Screen Length 10 ft
Depth to Water 34.82 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.085226 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ 18
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 63.18 ft

Pump placement from TOC 58.18 ft

Well Information:

Well ID PZ 18
Well diameter 2 in
Well Total Depth 63.18 ft
Screen Length 10 ft
Depth to Water 32.19 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.08986 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-19
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 478733
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micro Bladder
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 62.6 ft

Pump placement from TOC 57.6 ft

Well Information:

Well ID PZ-19
Well diameter 2 in
Well Total Depth 62.63 ft
Screen Length 10 ft
Depth to Water 34.52 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.084261 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.09 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ 23
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 63.60 ft

Pump placement from TOC 58.60 ft

Well Information:

Well ID PZ 23
Well diameter 2 in
Well Total Depth 63.60 ft
Screen Length 10 ft
Depth to Water 52.84 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.093914 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-25
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 478733
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micro Bladder
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 63.2 ft

Pump placement from TOC 58.2 ft

Well Information:

Well ID PZ-25
Well diameter 2 in
Well Total Depth 63.19 ft
Screen Length 10 ft
Depth to Water 32.89 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.090053 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.48 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ 31
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 61.6 ft

Pump placement from TOC 56.6 ft

Well Information:

Well ID PZ 31
Well diameter 2 in
Well Total Depth 61.60 ft
Screen Length 10 ft
Depth to Water 40.73 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.074608 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-32
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 478733
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micro Bladder
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 65.3 ft

Pump placement from TOC 60.3 ft

Well Information:

Well ID PZ-32
Well diameter 2 in
Well Total Depth 65.3 ft
Screen Length 10 ft
Depth to Water 39.64 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.110323 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-33
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 478733
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micro Bladder
Tubing Type LDPE
Tubing Diameter .25 in
Tubing Length 73.6 ft

Pump placement from TOC 68.6 ft

Well Information:

Well ID PZ-33
Well diameter 2 in
Well Total Depth 73.6 ft
Screen Length 10 ft
Depth to Water 51.23 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.190441 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.02 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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

SEPTEMBER-OCTOBER 2019 LABORATORY DATA

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

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2623873013 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
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

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103		165104		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2623873013 Result	MS Spike Conc.	MSD Spike Conc.								
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

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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2623917

QC Batch: 36680	Analysis Method: SM 2540C
QC Batch 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: 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	

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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.

REPORT OF LABORATORY ANALYSIS

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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		

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Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

WO#: **2623917**

PM: **BM** Due Date: **10/10/19**

CLIENT: **GAPower-CCR**

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 8121 93945429

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

Cooler Temperature 0.5 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Samples on ice, cooling process has begun

Date and Initials of person examining contents: 10/03/19

Comments:

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

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



REPORT OF LABORATORY ANALYSIS

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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

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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

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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	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2622907001 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
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	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Plant Mitchell Ash Ponds

Pace Project No.: 2622942

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 158384		158385		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2622907001 Result	MS Spike Conc.	MSD Spike Conc.									
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

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QUALITY CONTROL DATA

Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622942

QC Batch: 497758 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch 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

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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.

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
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

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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

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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	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2623873013 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
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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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2623919

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103		165104		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2623873013 Result	MS Spike Conc.	MSD Spike Conc.								
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.: 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	

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REPORT OF LABORATORY ANALYSIS

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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.

REPORT OF LABORATORY ANALYSIS

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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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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals	Report To: Jopi Abraham	Report To: Jopi Abraham	Company Name: SCS Invoices@southernco.com	Attention: SCS Invoices@southernco.com	Company Name: SCS Invoices@southernco.com
Address: 2480 Mamer Road	Copy To: Wood PLC	Copy To: Wood PLC	Address: Atlanta, GA 30339	Address: Atlanta, GA 30339	Address: Atlanta, GA 30339
Email: jabraham@southernco.com	Purchase Order #: SCS 0582775	Purchase Order #: SCS 0582775	Pace Quote: Plant Mitchell CCR	Pace Quote: Plant Mitchell CCR	Pace Quote: Plant Mitchell CCR
Phone: (404) 506-7239	Project Name: 61232160170	Project Name: 61232160170	Pace Project Manager: betsy.mcdaniel@pacelabs.com	Pace Project Manager: betsy.mcdaniel@pacelabs.com	Pace Project Manager: betsy.mcdaniel@pacelabs.com
Requested Due Date: Standard			Pace Profile #: 333.1.2	Pace Profile #: 333.1.2	Pace Profile #: 333.1.2
			State / Location: GA	State / Location: GA	State / Location: GA
			Regulatory Agency:	Regulatory Agency:	Regulatory Agency:

Page: 1 of 1

ITEM	MATRIX CODE (see valid codes to left)	MATRIX TYPE (G-GRAB C-COMP)	COLLECTED		DATE	TIME	SAMPLER NAME AND SIGNATURE	DATE SIGNED	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP IN C	Received on	Ice (Y/N)	Sealed (Y/N)	Custody Cooler (Y/N)	Samples Intact (Y/N)
			START	END																
1	PZ-ID	WG	10/1/19	1630	10/1/19	1630	Daniel Howard	10/2/19	Daniel Howard	10/3/19	1800	Daniel Howard	10/3/19	1800	0.2	Y	Y	Y	Y	Y
2	PZ-32	WG	10/1/19	1610	10/1/19	1610	Daniel Howard	10/2/19	Daniel Howard	10/3/19	1800	Daniel Howard	10/3/19	1800	0.2	Y	Y	Y	Y	Y
3	EB-01	WTG	10/1/19	1015	10/1/19	1015	Daniel Howard	10/2/19	Daniel Howard	10/3/19	1800	Daniel Howard	10/3/19	1800	0.2	Y	Y	Y	Y	Y
4	PZ-2D	WTG	10/1/19	1038	10/1/19	1038	Daniel Howard	10/2/19	Daniel Howard	10/3/19	1800	Daniel Howard	10/3/19	1800	0.2	Y	Y	Y	Y	Y
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

WO#: 2623919

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	TEMP IN C	Received on	Ice (Y/N)	Sealed (Y/N)	Custody Cooler (Y/N)	Samples Intact (Y/N)
App III metals: B, Ca	Daniel Howard / Wood	10/2/19	1800	Daniel Howard	10/3/19	1800	0.2	Y	Y	Y	Y	Y
App IV metals: Sb, As, Ba, Cr, Co, Pb, Ni, Mo, Se, Tl	Daniel Howard / Wood	10/2/19	1800	Daniel Howard	10/3/19	1800	0.2	Y	Y	Y	Y	Y

Sample Condition Upon Receipt



Client Name: GIA POWER

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 81219394 5418

WO# : 2623919

PM: BM Due Date: 10/10/19

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

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623953

QC Batch: 36528 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A 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	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2623873013 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
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.

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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2623953

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103		165104		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2623873013 Result	MS Spike Conc.	MSD Spike Conc.								
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

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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2623953

QC Batch: 36798

Analysis Method: SM 2540C

QC Batch 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

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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

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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.

REPORT OF LABORATORY ANALYSIS

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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		

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A
Required Client Information:
 Company: 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: John 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.medlarial@pacelabs.com
 Pace Profile #: 333.1.2
 State / Location: GA

Page: 1 of 1

ITEM #	MATRIX CODE Drinking Water: DW Waste Water: WW Waste Water Product: P Softened: SL Oil: OL Wipe: WP Air: AR Other: OT Tissue: TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G-GRAB C-COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Y/N	Analyses Test	Radium 226/228	App. III & App. IV Metals	TDS, Cl, F, SO4	Residual Chroma (Y/N)
				START DATE	START TIME			END DATE	END TIME	H2SO4	HNO3	HCl	NaOH	Na2S2O3						
1		MG	G	10/31/19	0940		2	X								X	X	X		
2	PZ-18 + QC	MG	G	10/31/19	1110		4	X								X	X	X		
3	PZ-7D																			
4																				
5																				
6																				
7																				
8																				
9																				
10																				
11																				
12																				

NO#: 2623953

ADDITIONAL COMMENTS:
 App III metals: R, Ca
 App IV metals: Sb, As, Be, Cr, Co, Pb, Mo, Se, Ti

RELINQUISHED BY / AFFILIATION: Daniel L. Howard / Wood
DATE: 10/31/19
TIME: 1630

ACCEPTED BY / AFFILIATION: Mela Lanson
DATE: 10/04/19
TIME: 0905

TEMP in C: 1.0
Received on: F F F
Sealed: F F F
Cooler: F F F
Samples Intact (Y/N): F F F

SAMPLER NAME AND SIGNATURE: Daniel Howard
PRINT Name of SAMPLER: Daniel Howard
SIGNATURE of SAMPLER: Daniel Howard
DATE Signed: 10/31/19



Sample Condition Upon Receipt

Client Name: GIA 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 23 Type of Ice: Wet Blue None

Cooler Temperature 1.0 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Samples on ice, cooling process has begun

Date and Initials of person examining contents: 10/04/19

Comments:

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

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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	

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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	

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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		

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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

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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	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2623873013 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
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

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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2623921

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103		165104		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2623873013 Result	MS Spike Conc.	MSD Spike Conc.	MS Result								
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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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	

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REPORT OF LABORATORY ANALYSIS

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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.

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GAP Power

Project # _____

WO#: **2623921**

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 812193946079

PM: **BM** Due Date: **10/10/19**

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 0.5 Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

Date and Initials of person examining contents: 10/05/19 MK

Comments:

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

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

REPORT OF LABORATORY ANALYSIS

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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	

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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			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
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	

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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			Prepared	Analyzed	CAS No.	Qual
			Limit	MDL	DF				
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

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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			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
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

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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623955

QC Batch: 36528 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A 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	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2623873013 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
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

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QUALITY CONTROL DATA

Project: Plant Mitchell

Pace Project No.: 2623955

Parameter	Units	MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165103		165104		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	RPD	Qual
		2623873013 Result	MS Spike Conc.	MSD Spike Conc.									
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.: 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	MS		MSD		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		2623955003	Spike Conc.	Spike Conc.	165919								
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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QUALITY CONTROL DATA

Project: Plant Mitchell
Pace Project No.: 2623955

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 165918												165919	
Parameter	Units	2623955003 Result	MS	MSD	MS	MSD	MS	MSD	% Rec	Limits	RPD	Max RPD	Qual
			Spike Conc.	Spike Conc.	Result	Result	% Rec	% Rec					
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	Dup	RPD	Max RPD	Qualifiers
		Result	Result			
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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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	

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REPORT OF LABORATORY ANALYSIS

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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.

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Pace Analytical

Client Name: GIA 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

Cooler Temperature 1.0

Biological Tissue is Frozen: Yes No

Samples on ice, cooling process has begun

Date and Initials of person examining contents: 10/04/19

Temp should be above freezing to 6°C

Comments:

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

October 09, 2019

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

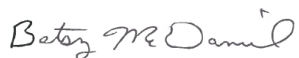
RE: Project: Plant Mitchell Ash Ponds
Pace Project No.: 2622943

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

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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.

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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

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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

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GIA 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

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

November 04, 2019

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

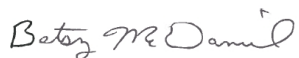
RE: Project: Plant Mitchell
Pace Project No.: 2623918

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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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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

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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	

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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

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A Client Information:		Section B Required Project Information:		Section C Invoice Information:	
Company:	Georgia Power - Coal Combustion Residuals	Report To:	Juju Abraham	Attention:	SCSInvoices@southemco.com
Address:	2480 Manner Road Atlanta, GA 30339	Copy To:	Wood PLC	Company Name:	
Email:	abraham@southemco.com	Purchase Order #:	SCS10382775	Address:	
Phone:	(404)506-7239	Project Name:	Plant Mitchell CCR	Pace Quote:	
Requested Due Date:	Standard	Project #:	6122160170	Pace Project Manager:	betsy.mcdaniel@pacelabs.com.
				Pace Profile #:	333.1.2
				State / Location:	GA
				Regulatory Agency:	

Page: Of

ITEM #	MATRIX	MATRIX CODE	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES							ANALYSES TEST Y/N	REQUESTED ANALYSIS FILTERED (Y/N)	RESIDUAL CHLORINE (Y/N)
				START DATE	END DATE			UNPRESERVED	H2SO4	HNO3	HCl	NaOH	Na2S2O3	Methanol			
1	PZ-14+QC	WG	G	10/20/19	1230		6	X									
2	PZ-25	WG	G	10/20/19	1315		4	X									
3	DUP-02	WG	G	10/20/19	1523		4	X									
4	PZ-15	WG	G	10/20/19	1523		4	X									
5																	
6																	
7																	
8																	
9																	
10																	
11																	
12																	

WO#: 2623918



App III metals: B, Co	10/20/19	1800	M. Abraham	10/20/19 09:30
App IV metals: Sb, As, Ba, Cr, Co, Pb, Hg, Se, Tl				
TEMP in C				0.5
Received on				
Sealed Cooler (Y/N)				
Custody (Y/N)				
Samples Intact (Y/N)				

SAMPLER NAME AND SIGNATURE: Daniel Howard
 PRINT Name of SAMPLER: Daniel Howard
 SIGNATURE of SAMPLER: *Daniel Howard*
 DATE Signed: 10/2/19



Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 812193945429

WO#: **2623918**

PM: BM Due Date: 10/31/19

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 0.5

Biological Tissue is Frozen: Yes No

Date and Initials of person examining contents: 10/03/19

Temp should be above freezing to 6°C

Comments:

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

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



REPORT OF LABORATORY ANALYSIS

This report shall not be reproduced, except in full,
without the written consent of Pace Analytical Services, LLC.

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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

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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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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

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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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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

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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

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GIA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 81219394 5418

WO#: **2623920**

PM: BM Due Date: 10/31/19

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

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

November 04, 2019

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

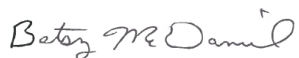
RE: Project: Plant Mitchell
Pace Project No.: 2623922

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

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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

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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

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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

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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

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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

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Client Name: GCA Power

Project # _____

WO#: 2623922

Courier: Fed Ex UPS USPS Client Commercial Pace Other

Tracking #: 812193946079

PM: BM Due Date: 10/31/19

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

November 04, 2019

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

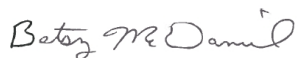
RE: Project: Plant Mitchell
Pace Project No.: 2623954

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

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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

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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

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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

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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Sample Condition Upon Receipt

Pace Analytical

Client Name: GIA Power

Project # _____

WO# : 2623954

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

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



REPORT OF LABORATORY ANALYSIS

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

REPORT OF LABORATORY ANALYSIS

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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

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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

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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	

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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

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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

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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

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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

REPORT OF LABORATORY ANALYSIS

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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		

REPORT OF LABORATORY ANALYSIS

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CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company: Georgia Power - Coal Combustion Residuals	Report To: Joju Abraham	Company Name: Wood PLC	Attention: SCSInvoices@souththermo.com	Company Name: SCSInvoices@souththermo.com	Regulatory Agency:
Address: 2480 Maner Road	Copy To: Wood PLC	Purchase Order #: SCS10382775	Address: Wood PLC	Address: Wood PLC	State / Location: GA
Email: jbraham@souththermo.com	Project Name: Plant Mitchell CCR	Project #: 6122160170	Pace Project Manager: bday.medaniel@paceab.com	State / Location: GA	Regulatory Agency:
Phone: (404)506-7239	Requested Due Date: Standard	Pace Profile #: 333.1.2			

Page: | Of |

ITEM #	MATRIX CODE (see valid codes to left)	MATRIX TYPE (G-RAB C-COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	PRESERVATIVES				ANALYSES TEST	Y/N	Requested Analysis Filtered (Y/N)	
			START DATE	END DATE			H2SO4	HNO3	HCl	NaOH				Methanol
1	FB-01	WG	10/31/08	10/10/08	4	4	X	X				X	X	
2	EB-02	WG	10/31/08	10/10/08	4	4	X	X				X	X	
3	PZ-33	WG	10/31/08	10/10/08	4	4	X	X				X	X	
4	PZ-19	WG	10/31/08	10/10/08	4	4	X	X				X	X	
5														
6														
7														
8														
9														
10														
11														
12														

WO#: 2623956

ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACQUIRED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
App III metals: B, Cr	Daniel Howard / Wood	10/3/19	1630	M. Dalman	10/14/19	0900	Received on ice (Y/N)
App IV metals: Sb, As, Ba, Cr, Co, Pb, Ni, Mo, Se, Tl							Clarity (Y/N)
							Sealed (Y/N)
							Color (Y/N)
							Samples Int'd (Y/N)
							TEMP in C
							1.0 F

SAMPLER NAME AND SIGNATURE: Daniel Howard
 PRINT Name of SAMPLER: Daniel Howard
 SIGNATURE of SAMPLER: Daniel Howard
 DATE Signed: 10/3/19

Sample Condition Upon Receipt

Pace Analytical

Client Name: GIA Power

Project # _____

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: _____

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

Cooler Temperature 1.0

Biological Tissue is Frozen: Yes No

Temp should be above freezing to 6°C

WO#: 2623956

PM: BM Due Date: 11/01/19

CLIENT: GAPower-CCR

Samples on ice, cooling process has begun

Date and Initials of person examining contents: 10/04/19

Comments: _____

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

SEPTEMBER-OCTOBER 2019 FIELD SAMPLING DATA

Product Name: Low-Flow System

Date: 2019-10-01 16:29:08

Project Information:

Operator Name Ever Guillem
Company Name Wood
Project Name Plant Mitchell
Site Name PZ-1D
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model N/A

Pump Information:

Pump Model/Type QED
Tubing Type PE
Tubing Diameter .17 in
Tubing Length 55.86 ft

Pump placement from TOC 55.86 ft

Well Information:

Well ID PZ-1D
Well diameter 2 in
Well Total Depth 81.71 ft
Screen Length 10 ft
Depth to Water 55.86 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7293268 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-2D
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type HDPE
Tubing Diameter 0.17 in
Tubing Length 81 ft

Pump placement from TOC 76 ft

Well Information:

Well ID PZ-2D
Well diameter 2 in
Well Total Depth 81.01 ft
Screen Length 10 ft
Depth to Water 39.42 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8415373 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.16 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-7D
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 50.37 ft

Pump placement from TOC 55.37 ft

Well Information:

Well ID PZ-7D
Well diameter 2 in
Well Total Depth 60.37 ft
Screen Length 10 ft
Depth to Water 37.15 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.966208 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 5 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-14
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 43.20 ft

Pump placement from TOC 38.20 ft

Well Information:

Well ID PZ-14
Well diameter 2 in
Well Total Depth 53.20 ft
Screen Length 10 ft
Depth to Water 46.72 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.896998 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 13 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-15
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 83.2 ft

Pump placement from TOC 78.22 ft

Well Information:

Well ID PZ-15
Well diameter 2 in
Well Total Depth 83.22 ft
Screen Length 10 ft
Depth to Water 34.87 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.283107 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.21 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-16
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 43.19 ft

Pump placement from TOC 48.19 ft

Well Information:

Well ID PZ-16
Well diameter 2 in
Well Total Depth 53.19 ft
Screen Length 10 ft
Depth to Water 38.13 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8969014 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-17
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 52.70 ft

Pump placement from TOC 57.70 ft

Well Information:

Well ID PZ-17
Well diameter 2 in
Well Total Depth 62.70 ft
Screen Length 10 ft
Depth to Water 36.65 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.988699 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-18
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 53.18 ft

Pump placement from TOC 58.18 ft

Well Information:

Well ID PZ-18
Well diameter 2 in
Well Total Depth 63.18 ft
Screen Length 10 ft
Depth to Water 33.97 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9933323 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-19
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 62.6 ft

Pump placement from TOC 57.63 ft

Well Information:

Well ID PZ-19
Well diameter 2 in
Well Total Depth 62.63 ft
Screen Length 10 ft
Depth to Water 35.91 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.084261 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.09 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-23
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Micropurge
Tubing Type HDPE
Tubing Diameter .17 in
Tubing Length 63.6 ft

Pump placement from TOC 58.6 ft

Well Information:

Well ID PZ-23
Well diameter 2 in
Well Total Depth 63.6 ft
Screen Length 10 ft
Depth to Water 52.54 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7638736 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.04 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-25
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 53.2 ft

Pump placement from TOC 48.19 ft

Well Information:

Well ID PZ-25
Well diameter 2 in
Well Total Depth 53.19 ft
Screen Length 10 ft
Depth to Water 34.66 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9935253 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.13 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Ever Guillen
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-31
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 601534
Turbidity Make/Model HACH 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 51.60 ft

Pump placement from TOC 66.60 ft

Well Information:

Well ID PZ-31
Well diameter 2 in
Well Total Depth 61.60 ft
Screen Length 10 ft
Depth to Water 42.56 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.9780809 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-32
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 65.3 ft

Pump placement from TOC 60.3 ft

Well Information:

Well ID PZ-32
Well diameter 2 in
Well Total Depth 65.30 ft
Screen Length 10 ft
Depth to Water 41.57 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.110323 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.04 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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:

Operator Name Daniel Howard
Company Name Wood E&I S
Project Name Plant Mitchell CCR Phase II
Site Name PZ-33
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369555
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED Bladder Pump
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 73.6 ft

Pump placement from TOC 68.6 ft

Well Information:

Well ID PZ-33
Well diameter 2 in
Well Total Depth 73.6 ft
Screen Length 10 ft
Depth to Water 52.54 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 1.190441 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0.25 in
Total Volume Pumped 7 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/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

MARCH 2020 LABORATORY DATA

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	3/24/2020	8.0	2401	40.84	0	23.5	7.8	246.3	1.4	3.5	86.4
PZ-2D	3/24/2020	11.0	3300	22.64	0	19.9	8.6	157.1	1.6	3.1	76.7
PZ-7D	3/26/2020	9.0	3000	26.97	0	20.3	7.1	597.0	0.6	0.4	61.2
PZ-14	3/25/2020	8.0	2400	36.18	0	22.3	7.0	503.6	0.3	4.1	100.0
PZ-15	3/26/2020	6.0	1801	25.21	0	23.4	7.1	539.1	2.7	0.2	-9.2
PZ-16	3/26/2020	6.0	1800	27.27	0	21.2	7.1	467.8	0.5	1.2	198.1
PZ-17	3/25/2020	6.0	1800	25.21	0	22.3	6.9	657.9	0.7	0.2	-10.0
PZ-18	3/26/2020	10.0	3017	23.30	0	22.2	7.0	683.6	0.9	0.2	21.6
PZ-19	3/26/2020	6.0	2112	24.16	0	22.4	6.7	815.2	0.6	0.2	106.0
PZ-23A	3/25/2020	9.0	2700	40.11	0	22.4	6.8	719.9	3.7	3.3	94.8
PZ-25	3/25/2020	6.0	1840	22.41	0	22.4	7.0	477.8	0.5	0.1	-35.7
PZ-31	3/25/2020	6.0	1801	27.63	0	20.2	7.1	461.7	0.8	4.6	97.2
PZ-32	3/25/2020	6.0	1800	25.02	0	19.1	7.2	318.7	0.6	0.5	87.4
PZ-33	3/26/2020	10.0	3000	41.83	0	21.9	7.0	614.7	0.2	0.2	63.0

May 11, 2020

Michelle Barker
Wood E&I Solutions, Inc.
1075 Big Shanty Road
Suite 100
Kennesaw, GA 30144

RE: Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Dear Michelle Barker:

Enclosed are the analytical results for sample(s) received by the laboratory between March 26, 2020 and March 27, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Asheville
- Pace Analytical Services - Atlanta, GA
- Pace Analytical Services - Greensburg

Revision 1 - This report replaces the April 21, 2020 report. This project was revised on May 11, 2020 to reflect the re-analyzed results for sample 2630449003/EB-01 as per client request. (Greensburg, PA)

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

Sincerely,



Kevin Herring
kevin.herring@pacelabs.com
(704)875-9092
HORIZON Database Administrator

Enclosures

cc: Joju Abraham, Georgia Power - Coal Combustion Residuals
Kristen Jurinko
Lauren Petty, Southern Company Services, Inc.
Rhonda Quinn, Wood E&I Solutions, Inc. - Kennesaw

Greg Wrenn, Wood PLC



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

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 Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Guam Certification
Florida: Cert E871149 SEKS WET
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 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

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SAMPLE SUMMARY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2630449001	PZ-1D	Water	03/24/20 15:30	03/26/20 09:30
2630449002	PZ-2D	Water	03/24/20 16:22	03/26/20 09:30
2630449003	EB-01	Water	03/24/20 12:55	03/26/20 09:30
2630449004	FB-01	Water	03/25/20 09:20	03/26/20 09:30
2630449005	PZ-31	Water	03/25/20 10:20	03/26/20 09:30
2630449006	PZ-14	Water	03/25/20 13:40	03/26/20 09:30
2630449007	PZ-23A	Water	03/25/20 16:05	03/26/20 09:30
2630449008	PZ-17	Water	03/25/20 15:11	03/26/20 09:30
2630449009	PZ-25	Water	03/25/20 13:33	03/26/20 09:30
2630449010	PZ-32	Water	03/25/20 11:05	03/26/20 09:30
2630449011	PZ-7D	Water	03/26/20 09:55	03/27/20 08:55
2630449012	PZ-18	Water	03/26/20 12:10	03/27/20 08:55
2630449013	PZ-33	Water	03/26/20 14:55	03/27/20 08:55
2630449014	DUP-01	Water	03/26/20 00:00	03/27/20 08:55
2630449015	PZ-15	Water	03/26/20 11:12	03/27/20 08:55
2630449016	PZ-16	Water	03/26/20 09:38	03/27/20 08:55
2630449017	PZ-19	Water	03/26/20 14:00	03/27/20 08:55
2630449018	DUP-02	Water	03/26/20 00:00	03/27/20 08:55

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630449001	PZ-1D	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630449002	PZ-2D	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630449003	EB-01	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630449004	FB-01	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	ALW	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630449005	PZ-31	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	VHB	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
2630449006	PZ-14	EPA 6010D	KLH	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory		
2630449007	PZ-23A	EPA 9315	LAL	1	PASI-PA		
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
		SM 2540C	VHB	1	PASI-GA		
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A		
		EPA 6010D	DRB	1	PASI-GA		
		EPA 6020B	CSW	11	PASI-GA		
		EPA 9315	LAL	1	PASI-PA		
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
2630449008	PZ-17	SM 2540C	VHB	1	PASI-GA		
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A		
		EPA 6010D	DRB	1	PASI-GA		
		EPA 6020B	CSW	11	PASI-GA		
		EPA 9315	LAL	1	PASI-PA		
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
		SM 2540C	VHB	1	PASI-GA		
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A		
		2630449009	PZ-25	EPA 6010D	DRB	1	PASI-GA
EPA 6020B	CSW			11	PASI-GA		
EPA 9315	LAL			1	PASI-PA		
EPA 9320	VAL			1	PASI-PA		
Total Radium Calculation	CMC			1	PASI-PA		
SM 2540C	VHB			1	PASI-GA		
EPA 300.0 Rev 2.1 1993	CDC			3	PASI-A		
2630449010	PZ-32			EPA 6010D	DRB	1	PASI-GA
				EPA 6020B	CSW	11	PASI-GA
				EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA		
		Total Radium Calculation	CMC	1	PASI-PA		
		SM 2540C	VHB	1	PASI-GA		
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A		
		2630449011	PZ-7D	EPA 6010D	DRB	1	PASI-GA
				EPA 6020B	CSW	11	PASI-GA
				EPA 9315	LAL	1	PASI-PA
EPA 9320	VAL			1	PASI-PA		

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630449012	PZ-18	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2630449013	PZ-33	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2630449014	DUP-01	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2630449015	PZ-15	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
2630449016	PZ-16	Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TC1	1	PASI-GA

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SAMPLE ANALYTE COUNT

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630449017	PZ-19	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TC1	1	PASI-GA
2630449018	DUP-02	EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A
		EPA 6010D	DRB	1	PASI-GA
		EPA 6020B	CSW	11	PASI-GA
		EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
		SM 2540C	TC1	1	PASI-GA
		EPA 300.0 Rev 2.1 1993	CDC	3	PASI-A

PASI-A = Pace Analytical Services - Asheville
PASI-GA = Pace Analytical Services - Atlanta, GA
PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT MITCHELL ASH PONDS A 1&2
 Pace Project No.: 2630449

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630449001	PZ-1D					
EPA 6010D	Field pH	7.79	Std. Units		03/30/20 09:46	
EPA 6020B	Calcium	48.0	mg/L	0.50	03/31/20 20:38	
EPA 6020B	Antimony	0.00055J	mg/L	0.0030	04/02/20 19:30	
EPA 6020B	Barium	0.015	mg/L	0.010	04/02/20 19:30	
EPA 6020B	Boron	0.013J	mg/L	0.040	04/02/20 19:30	
EPA 6020B	Chromium	0.0036J	mg/L	0.010	04/02/20 19:30	
EPA 6020B	Lead	0.000062J	mg/L	0.0050	04/02/20 19:30	
EPA 6020B	Molybdenum	0.0010J	mg/L	0.010	04/02/20 19:30	
EPA 9315	Radium-226	0.219 ± 0.178 (0.321) C:87% T:NA	pCi/L		04/06/20 20:26	
EPA 9320	Radium-228	2.01 ± 0.737 (1.08) C:67% T:85%	pCi/L		04/15/20 16:06	
Total Radium Calculation	Total Radium	2.23 ± 0.915 (1.40)	pCi/L		04/16/20 14:14	
SM 2540C	Total Dissolved Solids	228	mg/L	10.0	03/30/20 12:54	
EPA 300.0 Rev 2.1 1993	Chloride	2.8	mg/L	1.0	04/03/20 01:29	
EPA 300.0 Rev 2.1 1993	Sulfate	3.0	mg/L	1.0	04/03/20 01:29	
2630449002	PZ-2D					
EPA 6010D	Field pH	8.57	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	26.5	mg/L	0.50	03/31/20 20:41	
EPA 6020B	Antimony	0.00037J	mg/L	0.0030	04/02/20 19:47	
EPA 6020B	Barium	0.0046J	mg/L	0.010	04/02/20 19:47	
EPA 6020B	Boron	0.015J	mg/L	0.040	04/02/20 19:47	
EPA 6020B	Chromium	0.0047J	mg/L	0.010	04/02/20 19:47	
EPA 6020B	Lithium	0.0019J	mg/L	0.030	04/02/20 19:47	
EPA 9315	Radium-226	0.192 ± 0.128 (0.211) C:84% T:NA	pCi/L		04/06/20 20:26	
EPA 9320	Radium-228	0.706 ± 0.471 (0.902) C:68% T:87%	pCi/L		04/15/20 16:06	
Total Radium Calculation	Total Radium	0.898 ± 0.599 (1.11)	pCi/L		04/16/20 14:14	
SM 2540C	Total Dissolved Solids	123	mg/L	10.0	03/30/20 12:55	
EPA 300.0 Rev 2.1 1993	Chloride	2.2	mg/L	1.0	04/03/20 01:44	
EPA 300.0 Rev 2.1 1993	Fluoride	0.051J	mg/L	0.30	04/03/20 01:44	
EPA 300.0 Rev 2.1 1993	Sulfate	3.1	mg/L	1.0	04/03/20 01:44	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT MITCHELL ASH PONDS A 1&2
 Pace Project No.: 2630449

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630449003	EB-01					
EPA 9315	Radium-226	0.0382 ± 0.176 (0.452) C:71% T:NA	pCi/L		04/07/20 08:07	
EPA 9320	Radium-228	0.519 ± 0.408 (0.810) C:79% T:80%	pCi/L		05/08/20 11:33	
Total Radium Calculation	Total Radium	0.557 ± 0.584 (1.26)	pCi/L		05/08/20 15:14	
SM 2540C	Total Dissolved Solids	213	mg/L	10.0	03/30/20 12:55	
2630449004	FB-01					
EPA 9315	Radium-226	0.197 ± 0.233 (0.480) C:73% T:NA	pCi/L		04/07/20 08:03	
EPA 9320	Radium-228	0.665 ± 0.520 (1.04) C:68% T:83%	pCi/L		04/15/20 16:06	
Total Radium Calculation	Total Radium	0.862 ± 0.753 (1.52)	pCi/L		04/16/20 14:14	
SM 2540C	Total Dissolved Solids	163	mg/L	10.0	03/30/20 12:59	
2630449005	PZ-31					
EPA 6010D	Field pH	7.15	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	95.8	mg/L	0.50	03/31/20 18:56	
EPA 6020B	Barium	0.0082J	mg/L	0.010	04/02/20 20:04	
EPA 6020B	Boron	0.011J	mg/L	0.040	04/02/20 20:04	
EPA 6020B	Chromium	0.0013J	mg/L	0.010	04/02/20 20:04	
EPA 9315	Radium-226	0.380 ± 0.243 (0.370) C:83% T:NA	pCi/L		04/07/20 08:03	
EPA 9320	Radium-228	1.41 ± 0.557 (0.868) C:71% T:86%	pCi/L		04/15/20 16:07	
Total Radium Calculation	Total Radium	1.79 ± 0.800 (1.24)	pCi/L		04/16/20 14:14	
SM 2540C	Total Dissolved Solids	278	mg/L	10.0	04/01/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	3.0	mg/L	1.0	04/03/20 02:27	
EPA 300.0 Rev 2.1 1993	Sulfate	1.5	mg/L	1.0	04/03/20 02:27	
2630449006	PZ-14					
EPA 6010D	Field pH	7.02	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	105	mg/L	0.50	03/31/20 19:00	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630449006	PZ-14					
EPA 6020B	Barium	0.021	mg/L	0.010	04/02/20 20:10	
EPA 6020B	Boron	0.027J	mg/L	0.040	04/02/20 20:10	
EPA 6020B	Chromium	0.0013J	mg/L	0.010	04/02/20 20:10	
EPA 9315	Radium-226	0.115 ± 0.155 (0.319)	pCi/L		04/07/20 08:03	
EPA 9320	Radium-228	C:83% T:NA 0.579 ± 0.415 (0.812)	pCi/L		04/16/20 15:54	
Total Radium Calculation	Total Radium	C:78% T:84% 0.694 ± 0.570 (1.13)	pCi/L		04/17/20 10:48	
SM 2540C	Total Dissolved Solids	330	mg/L	10.0	04/01/20 15:01	
EPA 300.0 Rev 2.1 1993	Chloride	4.2	mg/L	1.0	04/03/20 02:42	
EPA 300.0 Rev 2.1 1993	Sulfate	11.9	mg/L	1.0	04/03/20 02:42	
2630449007	PZ-23A					
EPA 6010D	Field pH	6.84	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	157	mg/L	0.50	04/02/20 13:12	M1
EPA 6020B	Barium	0.048	mg/L	0.010	04/02/20 20:16	
EPA 6020B	Boron	0.19	mg/L	0.040	04/02/20 20:16	
EPA 6020B	Chromium	0.0012J	mg/L	0.010	04/02/20 20:16	
EPA 6020B	Cobalt	0.00030J	mg/L	0.0050	04/02/20 20:16	
EPA 6020B	Lead	0.00015J	mg/L	0.0050	04/02/20 20:16	
EPA 6020B	Lithium	0.0011J	mg/L	0.030	04/02/20 20:16	
EPA 6020B	Molybdenum	0.0011J	mg/L	0.010	04/02/20 20:16	
EPA 6020B	Selenium	0.0030J	mg/L	0.010	04/02/20 20:16	
EPA 6020B	Thallium	0.00015J	mg/L	0.0010	04/02/20 20:16	
EPA 9315	Radium-226	0.436 ± 0.268 (0.404)	pCi/L		04/07/20 08:04	
EPA 9320	Radium-228	C:78% T:NA 0.953 ± 0.461 (0.799)	pCi/L		04/16/20 15:54	
Total Radium Calculation	Total Radium	C:78% T:82% 1.39 ± 0.729 (1.20)	pCi/L		04/17/20 10:48	
SM 2540C	Total Dissolved Solids	454	mg/L	10.0	04/01/20 15:02	
EPA 300.0 Rev 2.1 1993	Chloride	6.4	mg/L	1.0	04/03/20 02:56	
EPA 300.0 Rev 2.1 1993	Fluoride	0.066J	mg/L	0.30	04/03/20 02:56	
EPA 300.0 Rev 2.1 1993	Sulfate	47.0	mg/L	1.0	04/03/20 02:56	
2630449008	PZ-17					
EPA 6010D	Field pH	6.93	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	121	mg/L	0.50	04/02/20 13:27	
EPA 6020B	Antimony	0.00094J	mg/L	0.0030	04/02/20 20:22	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630449008	PZ-17					
EPA 6020B	Barium	0.077	mg/L	0.010	04/02/20 20:22	
EPA 6020B	Boron	0.33	mg/L	0.040	04/02/20 20:22	
EPA 6020B	Cobalt	0.00032J	mg/L	0.0050	04/02/20 20:22	
EPA 6020B	Lithium	0.0030J	mg/L	0.030	04/02/20 20:22	
EPA 6020B	Thallium	0.00020J	mg/L	0.0010	04/02/20 20:22	
EPA 9315	Radium-226	0.343 ± 0.239 (0.388)	pCi/L		04/07/20 08:04	
EPA 9320	Radium-228	C:78% T:NA 0.0423 ± 0.318 (0.731)	pCi/L		04/16/20 15:54	
		C:79% T:86%				
Total Radium Calculation	Total Radium	0.385 ± 0.557 (1.12)	pCi/L		04/17/20 10:48	
SM 2540C	Total Dissolved Solids	408	mg/L	10.0	04/01/20 15:02	
EPA 300.0 Rev 2.1 1993	Chloride	6.1	mg/L	1.0	04/03/20 03:11	
EPA 300.0 Rev 2.1 1993	Sulfate	92.4	mg/L	1.0	04/03/20 03:11	
2630449009	PZ-25					
	Field pH	7.01	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	97.5	mg/L	0.50	04/02/20 13:51	
EPA 6020B	Barium	0.11	mg/L	0.010	04/02/20 20:27	
EPA 6020B	Boron	0.21	mg/L	0.040	04/02/20 20:27	
EPA 6020B	Cobalt	0.0018J	mg/L	0.0050	04/02/20 20:27	
EPA 6020B	Lithium	0.0066J	mg/L	0.030	04/02/20 20:27	
EPA 6020B	Thallium	0.00037J	mg/L	0.0010	04/02/20 20:27	
EPA 9315	Radium-226	0.559 ± 0.349 (0.574)	pCi/L		04/07/20 08:04	
EPA 9320	Radium-228	C:65% T:NA 0.351 ± 0.385 (0.806)	pCi/L		04/16/20 15:54	
		C:78% T:85%				
Total Radium Calculation	Total Radium	0.910 ± 0.734 (1.38)	pCi/L		04/17/20 10:48	
SM 2540C	Total Dissolved Solids	280	mg/L	10.0	04/01/20 15:03	
EPA 300.0 Rev 2.1 1993	Chloride	1.6	mg/L	1.0	04/03/20 03:54	
EPA 300.0 Rev 2.1 1993	Fluoride	0.13J	mg/L	0.30	04/03/20 03:54	
EPA 300.0 Rev 2.1 1993	Sulfate	39.1	mg/L	1.0	04/03/20 03:54	
2630449010	PZ-32					
	Field pH	7.23	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	66.6	mg/L	0.50	04/02/20 13:54	
EPA 6020B	Barium	0.015	mg/L	0.010	04/02/20 20:33	
EPA 6020B	Boron	0.016J	mg/L	0.040	04/02/20 20:33	
EPA 6020B	Chromium	0.00086J	mg/L	0.010	04/02/20 20:33	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT MITCHELL ASH PONDS A 1&2
 Pace Project No.: 2630449

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630449010	PZ-32					
EPA 9315	Radium-226	0.0513 ± 0.134 (0.327) C:86% T:NA	pCi/L		04/07/20 08:04	
EPA 9320	Radium-228	0.282 ± 0.347 (0.736) C:81% T:90%	pCi/L		04/16/20 15:54	
Total Radium Calculation	Total Radium	0.333 ± 0.481 (1.06)	pCi/L		04/17/20 10:48	
SM 2540C	Total Dissolved Solids	178	mg/L	10.0	04/01/20 15:04	
EPA 300.0 Rev 2.1 1993	Chloride	2.2	mg/L	1.0	04/03/20 04:38	
EPA 300.0 Rev 2.1 1993	Sulfate	1.9	mg/L	1.0	04/03/20 04:38	
2630449011	PZ-7D					
	Field pH	7.12	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	122	mg/L	0.50	04/02/20 16:50	
EPA 6020B	Antimony	0.00042J	mg/L	0.0030	04/02/20 20:58	
EPA 6020B	Barium	0.0072J	mg/L	0.010	04/02/20 20:58	
EPA 6020B	Boron	0.24	mg/L	0.040	04/02/20 20:58	
EPA 6020B	Chromium	0.0016J	mg/L	0.010	04/02/20 20:58	
EPA 6020B	Lithium	0.0031J	mg/L	0.030	04/02/20 20:58	
EPA 6020B	Thallium	0.000085J	mg/L	0.0010	04/02/20 20:58	
EPA 9315	Radium-226	0.0945 ± 0.177 (0.404) C:90% T:NA	pCi/L		04/08/20 07:57	
EPA 9320	Radium-228	0.335 ± 0.354 (0.739) C:80% T:85%	pCi/L		04/20/20 15:23	
Total Radium Calculation	Total Radium	0.430 ± 0.531 (1.14)	pCi/L		04/21/20 08:48	
SM 2540C	Total Dissolved Solids	332	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	4.8	mg/L	1.0	04/03/20 05:21	
EPA 300.0 Rev 2.1 1993	Sulfate	57.1	mg/L	1.0	04/03/20 05:21	
2630449012	PZ-18					
	Field pH	7.01	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	138	mg/L	0.50	04/02/20 16:53	
EPA 6020B	Antimony	0.0018J	mg/L	0.0030	04/02/20 21:21	
EPA 6020B	Barium	0.023	mg/L	0.010	04/02/20 21:21	
EPA 6020B	Boron	0.36	mg/L	0.040	04/02/20 21:21	
EPA 6020B	Chromium	0.00056J	mg/L	0.010	04/02/20 21:21	
EPA 6020B	Lithium	0.0027J	mg/L	0.030	04/02/20 21:21	
EPA 6020B	Thallium	0.000071J	mg/L	0.0010	04/02/20 21:21	

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SUMMARY OF DETECTION

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630449012	PZ-18					
EPA 9315	Radium-226	0.306 ± 0.131 (0.183) C:85% T:NA	pCi/L		04/07/20 18:21	
EPA 9320	Radium-228	0.743 ± 0.452 (0.848) C:76% T:76%	pCi/L		04/20/20 15:23	
Total Radium Calculation	Total Radium	1.05 ± 0.583 (1.03)	pCi/L		04/21/20 08:48	
SM 2540C	Total Dissolved Solids	415	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	5.7	mg/L	1.0	04/03/20 05:36	
EPA 300.0 Rev 2.1 1993	Sulfate	91.0	mg/L	1.0	04/03/20 05:36	
2630449013	PZ-33					
	Field pH	7.00	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	122	mg/L	0.50	04/02/20 16:57	
EPA 6020B	Barium	0.057	mg/L	0.010	04/02/20 21:38	
EPA 6020B	Boron	0.38	mg/L	0.040	04/02/20 21:38	
EPA 6020B	Thallium	0.00015J	mg/L	0.0010	04/02/20 21:38	
EPA 9315	Radium-226	0.428 ± 0.153 (0.192) C:81% T:NA	pCi/L		04/07/20 18:22	
EPA 9320	Radium-228	0.0451 ± 0.399 (0.918) C:71% T:74%	pCi/L		04/20/20 15:23	
Total Radium Calculation	Total Radium	0.473 ± 0.552 (1.11)	pCi/L		04/21/20 08:48	
SM 2540C	Total Dissolved Solids	336	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	2.9	mg/L	1.0	04/03/20 05:50	
EPA 300.0 Rev 2.1 1993	Sulfate	66.6	mg/L	1.0	04/03/20 05:50	
2630449014	DUP-01					
EPA 6010D	Calcium	125	mg/L	0.50	04/02/20 17:00	
EPA 6020B	Antimony	0.00065J	mg/L	0.0030	04/02/20 21:44	
EPA 6020B	Barium	0.0075J	mg/L	0.010	04/02/20 21:44	
EPA 6020B	Boron	0.25	mg/L	0.040	04/02/20 21:44	
EPA 6020B	Chromium	0.0019J	mg/L	0.010	04/02/20 21:44	
EPA 6020B	Lithium	0.0032J	mg/L	0.030	04/02/20 21:44	
EPA 6020B	Thallium	0.000085J	mg/L	0.0010	04/02/20 21:44	
EPA 9315	Radium-226	0.159 ± 0.0936 (0.142) C:85% T:NA	pCi/L		04/07/20 18:24	

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SUMMARY OF DETECTION

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630449014	DUP-01					
EPA 9320	Radium-228	0.435 ± 0.359 (0.725) C:75% T:96%	pCi/L		04/20/20 15:23	
Total Radium Calculation	Total Radium	0.594 ± 0.453 (0.867)	pCi/L		04/21/20 08:48	
SM 2540C	Total Dissolved Solids	333	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	4.8	mg/L	1.0	04/03/20 06:05	
EPA 300.0 Rev 2.1 1993	Sulfate	57.8	mg/L	1.0	04/03/20 06:05	
2630449015	PZ-15					
	Field pH	7.08	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	103	mg/L	0.50	04/02/20 17:04	
EPA 6020B	Barium	0.048	mg/L	0.010	04/02/20 21:50	
EPA 6020B	Boron	0.21	mg/L	0.040	04/02/20 21:50	
EPA 6020B	Lithium	0.0014J	mg/L	0.030	04/02/20 21:50	
EPA 6020B	Thallium	0.00014J	mg/L	0.0010	04/02/20 21:50	
EPA 9315	Radium-226	0.438 ± 0.295 (0.477) C:89% T:NA	pCi/L		04/08/20 07:57	
EPA 9320	Radium-228	0.425 ± 0.409 (0.843) C:75% T:79%	pCi/L		04/20/20 15:23	
Total Radium Calculation	Total Radium	0.863 ± 0.704 (1.32)	pCi/L		04/21/20 08:48	
SM 2540C	Total Dissolved Solids	330	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	7.0	mg/L	1.0	04/03/20 06:20	
EPA 300.0 Rev 2.1 1993	Fluoride	0.056J	mg/L	0.30	04/03/20 06:20	
EPA 300.0 Rev 2.1 1993	Sulfate	83.6	mg/L	1.0	04/03/20 06:20	
2630449016	PZ-16					
	Field pH	7.12	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	89.8	mg/L	0.50	04/02/20 17:07	
EPA 6020B	Barium	0.034	mg/L	0.010	04/02/20 21:55	
EPA 6020B	Boron	0.19	mg/L	0.040	04/02/20 21:55	
EPA 6020B	Chromium	0.0013J	mg/L	0.010	04/02/20 21:55	
EPA 9315	Radium-226	0.0910 ± 0.163 (0.365) C:91% T:NA	pCi/L		04/08/20 07:56	
EPA 9320	Radium-228	0.431 ± 0.421 (0.867) C:76% T:75%	pCi/L		04/20/20 15:23	

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SUMMARY OF DETECTION

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Lab Sample ID	Client Sample ID	Result	Units	Report Limit	Analyzed	Qualifiers
Method	Parameters					
2630449016	PZ-16					
Total Radium Calculation	Total Radium	0.522 ± 0.584 (1.23)	pCi/L		04/21/20 08:48	
SM 2540C	Total Dissolved Solids	286	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	7.0	mg/L	1.0	04/03/20 06:35	
EPA 300.0 Rev 2.1 1993	Sulfate	43.5	mg/L	1.0	04/03/20 06:35	
2630449017	PZ-19					
	Field pH	6.70	Std. Units		03/30/20 09:46	
EPA 6010D	Calcium	158	mg/L	0.50	04/02/20 17:18	
EPA 6020B	Barium	0.052	mg/L	0.010	04/02/20 22:01	
EPA 6020B	Boron	0.60	mg/L	0.040	04/02/20 22:01	
EPA 6020B	Chromium	0.00073J	mg/L	0.010	04/02/20 22:01	
EPA 6020B	Lithium	0.013J	mg/L	0.030	04/02/20 22:01	
EPA 6020B	Molybdenum	0.0021J	mg/L	0.010	04/02/20 22:01	
EPA 6020B	Selenium	0.0016J	mg/L	0.010	04/02/20 22:01	
EPA 6020B	Thallium	0.00068J	mg/L	0.0010	04/02/20 22:01	
EPA 9315	Radium-226	0.765 ± 0.424 (0.675) C:85% T:NA	pCi/L		04/08/20 07:56	
EPA 9320	Radium-228	0.891 ± 0.478 (0.862) C:72% T:79%	pCi/L		04/20/20 15:23	
Total Radium Calculation	Total Radium	1.66 ± 0.902 (1.54)	pCi/L		04/21/20 08:48	
SM 2540C	Total Dissolved Solids	440	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	5.4	mg/L	1.0	04/03/20 06:49	
EPA 300.0 Rev 2.1 1993	Fluoride	0.077J	mg/L	0.30	04/03/20 06:49	
EPA 300.0 Rev 2.1 1993	Sulfate	84.9	mg/L	1.0	04/03/20 06:49	
2630449018	DUP-02					
EPA 6010D	Calcium	155	mg/L	0.50	04/02/20 17:21	
EPA 6020B	Barium	0.052	mg/L	0.010	04/02/20 22:07	
EPA 6020B	Boron	0.61	mg/L	0.040	04/02/20 22:07	
EPA 6020B	Lithium	0.013J	mg/L	0.030	04/02/20 22:07	
EPA 6020B	Molybdenum	0.0020J	mg/L	0.010	04/02/20 22:07	
EPA 6020B	Selenium	0.0017J	mg/L	0.010	04/02/20 22:07	
EPA 6020B	Thallium	0.00068J	mg/L	0.0010	04/02/20 22:07	
EPA 9315	Radium-226	0.883 ± 0.387 (0.385) C:85% T:NA	pCi/L		04/08/20 07:56	
EPA 9320	Radium-228	0.743 ± 0.428 (0.794) C:72% T:93%	pCi/L		04/20/20 15:23	

REPORT OF LABORATORY ANALYSIS

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SUMMARY OF DETECTION

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Lab Sample ID Method	Client Sample ID Parameters	Result	Units	Report Limit	Analyzed	Qualifiers
2630449018	DUP-02					
Total Radium Calculation	Total Radium	1.63 ± 0.815 (1.18)	pCi/L		04/21/20 08:48	
SM 2540C	Total Dissolved Solids	512	mg/L	10.0	04/02/20 15:00	
EPA 300.0 Rev 2.1 1993	Chloride	5.3	mg/L	1.0	04/03/20 07:04	
EPA 300.0 Rev 2.1 1993	Fluoride	0.075J	mg/L	0.30	04/03/20 07:04	
EPA 300.0 Rev 2.1 1993	Sulfate	83.9	mg/L	1.0	04/03/20 07:04	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: PZ-1D **Lab ID: 2630449001** Collected: 03/24/20 15:30 Received: 03/26/20 09:30 Matrix: Water

Comments: • One container received empty. Client notified. Client advised to analyze at low volume.

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	7.79	Std. Units			1		03/30/20 09:46		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	48.0	mg/L	0.50	0.14	1	03/30/20 21:21	03/31/20 20:38	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.00055J	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 19:30	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 19:30	7440-38-2	
Barium	0.015	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 19:30	7440-39-3	
Boron	0.013J	mg/L	0.040	0.0049	1	03/31/20 21:03	04/02/20 19:30	7440-42-8	
Chromium	0.0036J	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 19:30	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 19:30	7440-48-4	
Lead	0.000062J	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 19:30	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 19:30	7439-93-2	
Molybdenum	0.0010J	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 19:30	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 19:30	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 19:30	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	228	mg/L	10.0	10.0	1		03/30/20 12:54		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	2.8	mg/L	1.0	0.60	1		04/03/20 01:29	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 01:29	16984-48-8	
Sulfate	3.0	mg/L	1.0	0.50	1		04/03/20 01:29	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-2D		Lab ID: 2630449002		Collected: 03/24/20 16:22		Received: 03/26/20 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data	Analytical Method: Pace Analytical Services - Atlanta, GA								
Field pH	8.57	Std. Units			1		03/30/20 09:46		
6010D MET ICP	Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	26.5	mg/L	0.50	0.14	1	03/30/20 21:21	03/31/20 20:41	7440-70-2	
6020B MET ICPMS	Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.00037J	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 19:47	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 19:47	7440-38-2	
Barium	0.0046J	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 19:47	7440-39-3	
Boron	0.015J	mg/L	0.040	0.0049	1	03/31/20 21:03	04/02/20 19:47	7440-42-8	
Chromium	0.0047J	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 19:47	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 19:47	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 19:47	7439-92-1	
Lithium	0.0019J	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 19:47	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 19:47	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 19:47	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 19:47	7440-28-0	
2540C Total Dissolved Solids	Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	123	mg/L	10.0	10.0	1		03/30/20 12:55		
300.0 IC Anions 28 Days	Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	2.2	mg/L	1.0	0.60	1		04/03/20 01:44	16887-00-6	
Fluoride	0.051J	mg/L	0.30	0.050	1		04/03/20 01:44	16984-48-8	
Sulfate	3.1	mg/L	1.0	0.50	1		04/03/20 01:44	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: EB-01		Lab ID: 2630449003		Collected: 03/24/20 12:55		Received: 03/26/20 09:30		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	ND	mg/L	0.50	0.14	1	03/30/20 21:21	03/31/20 20:55	7440-70-2		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 19:53	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 19:53	7440-38-2		
Barium	ND	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 19:53	7440-39-3		
Boron	ND	mg/L	0.040	0.0049	1	03/31/20 21:03	04/02/20 19:53	7440-42-8		
Chromium	ND	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 19:53	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 19:53	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 19:53	7439-92-1		
Lithium	ND	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 19:53	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 19:53	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 19:53	7782-49-2		
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 19:53	7440-28-0		
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	213	mg/L	10.0	10.0	1		03/30/20 12:55			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	ND	mg/L	1.0	0.60	1		04/03/20 01:58	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 01:58	16984-48-8		
Sulfate	ND	mg/L	1.0	0.50	1		04/03/20 01:58	14808-79-8		

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: FB-01		Lab ID: 2630449004		Collected: 03/25/20 09:20		Received: 03/26/20 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA							
Calcium	ND	mg/L	0.50	0.14	1	03/30/20 21:31	03/31/20 18:53	7440-70-2	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA							
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 19:59	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 19:59	7440-38-2	
Barium	ND	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 19:59	7440-39-3	
Boron	ND	mg/L	0.040	0.0049	1	03/31/20 21:03	04/02/20 19:59	7440-42-8	
Chromium	ND	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 19:59	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 19:59	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 19:59	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 19:59	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 19:59	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 19:59	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 19:59	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA							
Total Dissolved Solids	163	mg/L	10.0	10.0	1		03/30/20 12:59		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	ND	mg/L	1.0	0.60	1		04/03/20 02:13	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 02:13	16984-48-8	
Sulfate	ND	mg/L	1.0	0.50	1		04/03/20 02:13	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: PZ-31		Lab ID: 2630449005		Collected: 03/25/20 10:20		Received: 03/26/20 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	7.15	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	95.8	mg/L	0.50	0.14	1	03/30/20 21:31	03/31/20 18:56	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 20:04	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 20:04	7440-38-2	
Barium	0.0082J	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 20:04	7440-39-3	
Boron	0.011J	mg/L	0.040	0.0049	1	03/31/20 21:03	04/02/20 20:04	7440-42-8	
Chromium	0.0013J	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 20:04	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 20:04	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 20:04	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 20:04	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 20:04	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 20:04	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 20:04	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	278	mg/L	10.0	10.0	1		04/01/20 15:00		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	3.0	mg/L	1.0	0.60	1		04/03/20 02:27	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 02:27	16984-48-8	
Sulfate	1.5	mg/L	1.0	0.50	1		04/03/20 02:27	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: PZ-14		Lab ID: 2630449006		Collected: 03/25/20 13:40		Received: 03/26/20 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	7.02	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	105	mg/L	0.50	0.14	1	03/30/20 21:31	03/31/20 19:00	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 20:10	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 20:10	7440-38-2	
Barium	0.021	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 20:10	7440-39-3	
Boron	0.027J	mg/L	0.040	0.0049	1	03/31/20 21:03	04/02/20 20:10	7440-42-8	
Chromium	0.0013J	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 20:10	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 20:10	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 20:10	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 20:10	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 20:10	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 20:10	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 20:10	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	330	mg/L	10.0	10.0	1		04/01/20 15:01		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.2	mg/L	1.0	0.60	1		04/03/20 02:42	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 02:42	16984-48-8	
Sulfate	11.9	mg/L	1.0	0.50	1		04/03/20 02:42	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: PZ-23A		Lab ID: 2630449007		Collected: 03/25/20 16:05		Received: 03/26/20 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	6.84	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	157	mg/L	0.50	0.14	1	03/31/20 20:57	04/02/20 13:12	7440-70-2	M1
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 20:16	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 20:16	7440-38-2	
Barium	0.048	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 20:16	7440-39-3	
Boron	0.19	mg/L	0.040	0.0049	1	03/31/20 21:03	04/02/20 20:16	7440-42-8	
Chromium	0.0012J	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 20:16	7440-47-3	
Cobalt	0.00030J	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 20:16	7440-48-4	
Lead	0.00015J	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 20:16	7439-92-1	
Lithium	0.0011J	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 20:16	7439-93-2	
Molybdenum	0.0011J	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 20:16	7439-98-7	
Selenium	0.0030J	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 20:16	7782-49-2	
Thallium	0.00015J	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 20:16	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	454	mg/L	10.0	10.0	1		04/01/20 15:02		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	6.4	mg/L	1.0	0.60	1		04/03/20 02:56	16887-00-6	
Fluoride	0.066J	mg/L	0.30	0.050	1		04/03/20 02:56	16984-48-8	
Sulfate	47.0	mg/L	1.0	0.50	1		04/03/20 02:56	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-17		Lab ID: 2630449008		Collected: 03/25/20 15:11		Received: 03/26/20 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	6.93	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	121	mg/L	0.50	0.14	1	03/31/20 20:57	04/02/20 13:27	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	0.00094J	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 20:22	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 20:22	7440-38-2	
Barium	0.077	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 20:22	7440-39-3	
Boron	0.33	mg/L	0.040	0.0049	1	03/31/20 21:03	04/02/20 20:22	7440-42-8	
Chromium	ND	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 20:22	7440-47-3	
Cobalt	0.00032J	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 20:22	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 20:22	7439-92-1	
Lithium	0.0030J	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 20:22	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 20:22	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 20:22	7782-49-2	
Thallium	0.00020J	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 20:22	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	408	mg/L	10.0	10.0	1		04/01/20 15:02		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	6.1	mg/L	1.0	0.60	1		04/03/20 03:11	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 03:11	16984-48-8	
Sulfate	92.4	mg/L	1.0	0.50	1		04/03/20 03:11	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: PZ-25		Lab ID: 2630449009		Collected: 03/25/20 13:33		Received: 03/26/20 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	7.01	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	97.5	mg/L	0.50	0.14	1	03/31/20 20:57	04/02/20 13:51	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 20:27	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 20:27	7440-38-2	
Barium	0.11	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 20:27	7440-39-3	
Boron	0.21	mg/L	0.040	0.0049	1	03/31/20 21:03	04/02/20 20:27	7440-42-8	
Chromium	ND	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 20:27	7440-47-3	
Cobalt	0.0018J	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 20:27	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 20:27	7439-92-1	
Lithium	0.0066J	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 20:27	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 20:27	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 20:27	7782-49-2	
Thallium	0.00037J	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 20:27	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	280	mg/L	10.0	10.0	1		04/01/20 15:03		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	1.6	mg/L	1.0	0.60	1		04/03/20 03:54	16887-00-6	
Fluoride	0.13J	mg/L	0.30	0.050	1		04/03/20 03:54	16984-48-8	
Sulfate	39.1	mg/L	1.0	0.50	1		04/03/20 03:54	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: PZ-32		Lab ID: 2630449010		Collected: 03/25/20 11:05		Received: 03/26/20 09:30		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	7.23	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	66.6	mg/L	0.50	0.14	1	03/31/20 20:57	04/02/20 13:54	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	03/31/20 21:03	04/02/20 20:33	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	03/31/20 21:03	04/02/20 20:33	7440-38-2	
Barium	0.015	mg/L	0.010	0.00049	1	03/31/20 21:03	04/02/20 20:33	7440-39-3	
Boron	0.016J	mg/L	0.040	0.0049	1	03/31/20 21:03	04/02/20 20:33	7440-42-8	
Chromium	0.00086J	mg/L	0.010	0.00039	1	03/31/20 21:03	04/02/20 20:33	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	03/31/20 21:03	04/02/20 20:33	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	03/31/20 21:03	04/02/20 20:33	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	03/31/20 21:03	04/02/20 20:33	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	03/31/20 21:03	04/02/20 20:33	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	03/31/20 21:03	04/02/20 20:33	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	03/31/20 21:03	04/02/20 20:33	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	178	mg/L	10.0	10.0	1		04/01/20 15:04		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	2.2	mg/L	1.0	0.60	1		04/03/20 04:38	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 04:38	16984-48-8	
Sulfate	1.9	mg/L	1.0	0.50	1		04/03/20 04:38	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: PZ-7D		Lab ID: 2630449011		Collected: 03/26/20 09:55		Received: 03/27/20 08:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	7.12	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	122	mg/L	0.50	0.14	1	04/01/20 15:36	04/02/20 16:50	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.00042J	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 20:58	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 20:58	7440-38-2	
Barium	0.0072J	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 20:58	7440-39-3	
Boron	0.24	mg/L	0.040	0.0049	1	04/01/20 15:40	04/02/20 20:58	7440-42-8	
Chromium	0.0016J	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 20:58	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 20:58	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 20:58	7439-92-1	
Lithium	0.0031J	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 20:58	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 20:58	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 20:58	7782-49-2	
Thallium	0.000085J	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 20:58	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	332	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	4.8	mg/L	1.0	0.60	1		04/03/20 05:21	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 05:21	16984-48-8	
Sulfate	57.1	mg/L	1.0	0.50	1		04/03/20 05:21	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: PZ-18		Lab ID: 2630449012		Collected: 03/26/20 12:10		Received: 03/27/20 08:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	7.01	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	138	mg/L	0.50	0.14	1	04/01/20 15:36	04/02/20 16:53	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	0.0018J	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 21:21	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 21:21	7440-38-2	
Barium	0.023	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 21:21	7440-39-3	
Boron	0.36	mg/L	0.040	0.0049	1	04/01/20 15:40	04/02/20 21:21	7440-42-8	
Chromium	0.00056J	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 21:21	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 21:21	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 21:21	7439-92-1	
Lithium	0.0027J	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 21:21	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 21:21	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 21:21	7782-49-2	
Thallium	0.000071J	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 21:21	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	415	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.7	mg/L	1.0	0.60	1		04/03/20 05:36	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 05:36	16984-48-8	
Sulfate	91.0	mg/L	1.0	0.50	1		04/03/20 05:36	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-33		Lab ID: 2630449013		Collected: 03/26/20 14:55		Received: 03/27/20 08:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	7.00	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	122	mg/L	0.50	0.14	1	04/01/20 15:36	04/02/20 16:57	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 21:38	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 21:38	7440-38-2	
Barium	0.057	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 21:38	7440-39-3	
Boron	0.38	mg/L	0.040	0.0049	1	04/01/20 15:40	04/02/20 21:38	7440-42-8	
Chromium	ND	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 21:38	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 21:38	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 21:38	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 21:38	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 21:38	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 21:38	7782-49-2	
Thallium	0.00015J	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 21:38	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	336	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	2.9	mg/L	1.0	0.60	1		04/03/20 05:50	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 05:50	16984-48-8	
Sulfate	66.6	mg/L	1.0	0.50	1		04/03/20 05:50	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: DUP-01		Lab ID: 2630449014		Collected: 03/26/20 00:00		Received: 03/27/20 08:55		Matrix: Water		
Parameters	Results	Units	Report			Prepared	Analyzed	CAS No.	Qual	
			Limit	MDL	DF					
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA								
Calcium	125	mg/L	0.50	0.14	1	04/01/20 15:36	04/02/20 17:00	7440-70-2		
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA								
Antimony	0.00065J	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 21:44	7440-36-0		
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 21:44	7440-38-2		
Barium	0.0075J	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 21:44	7440-39-3		
Boron	0.25	mg/L	0.040	0.0049	1	04/01/20 15:40	04/02/20 21:44	7440-42-8		
Chromium	0.0019J	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 21:44	7440-47-3		
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 21:44	7440-48-4		
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 21:44	7439-92-1		
Lithium	0.0032J	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 21:44	7439-93-2		
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 21:44	7439-98-7		
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 21:44	7782-49-2		
Thallium	0.000085J	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 21:44	7440-28-0		
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA								
Total Dissolved Solids	333	mg/L	10.0	10.0	1		04/02/20 15:00			
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville								
Chloride	4.8	mg/L	1.0	0.60	1		04/03/20 06:05	16887-00-6		
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 06:05	16984-48-8		
Sulfate	57.8	mg/L	1.0	0.50	1		04/03/20 06:05	14808-79-8		

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-15 **Lab ID: 2630449015** Collected: 03/26/20 11:12 Received: 03/27/20 08:55 Matrix: Water

Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	7.08	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	103	mg/L	0.50	0.14	1	04/01/20 15:36	04/02/20 17:04	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 21:50	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 21:50	7440-38-2	
Barium	0.048	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 21:50	7440-39-3	
Boron	0.21	mg/L	0.040	0.0049	1	04/01/20 15:40	04/02/20 21:50	7440-42-8	
Chromium	ND	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 21:50	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 21:50	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 21:50	7439-92-1	
Lithium	0.0014J	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 21:50	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 21:50	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 21:50	7782-49-2	
Thallium	0.00014J	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 21:50	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	330	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	7.0	mg/L	1.0	0.60	1		04/03/20 06:20	16887-00-6	
Fluoride	0.056J	mg/L	0.30	0.050	1		04/03/20 06:20	16984-48-8	
Sulfate	83.6	mg/L	1.0	0.50	1		04/03/20 06:20	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-16		Lab ID: 2630449016		Collected: 03/26/20 09:38		Received: 03/27/20 08:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	7.12	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A									
Pace Analytical Services - Atlanta, GA									
Calcium	89.8	mg/L	0.50	0.14	1	04/01/20 15:36	04/02/20 17:07	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A									
Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 21:55	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 21:55	7440-38-2	
Barium	0.034	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 21:55	7440-39-3	
Boron	0.19	mg/L	0.040	0.0049	1	04/01/20 15:40	04/02/20 21:55	7440-42-8	
Chromium	0.0013J	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 21:55	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 21:55	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 21:55	7439-92-1	
Lithium	ND	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 21:55	7439-93-2	
Molybdenum	ND	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 21:55	7439-98-7	
Selenium	ND	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 21:55	7782-49-2	
Thallium	ND	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 21:55	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C									
Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	286	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993									
Pace Analytical Services - Asheville									
Chloride	7.0	mg/L	1.0	0.60	1		04/03/20 06:35	16887-00-6	
Fluoride	ND	mg/L	0.30	0.050	1		04/03/20 06:35	16984-48-8	
Sulfate	43.5	mg/L	1.0	0.50	1		04/03/20 06:35	14808-79-8	

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: PZ-19		Lab ID: 2630449017		Collected: 03/26/20 14:00		Received: 03/27/20 08:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
Field Data									
Analytical Method: Pace Analytical Services - Atlanta, GA									
Field pH	6.70	Std. Units			1		03/30/20 09:46		
6010D MET ICP									
Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA									
Calcium	158	mg/L	0.50	0.14	1	04/01/20 15:36	04/02/20 17:18	7440-70-2	
6020B MET ICPMS									
Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA									
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 22:01	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 22:01	7440-38-2	
Barium	0.052	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 22:01	7440-39-3	
Boron	0.60	mg/L	0.040	0.0049	1	04/01/20 15:40	04/02/20 22:01	7440-42-8	
Chromium	0.00073J	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 22:01	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 22:01	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 22:01	7439-92-1	
Lithium	0.013J	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 22:01	7439-93-2	
Molybdenum	0.0021J	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 22:01	7439-98-7	
Selenium	0.0016J	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 22:01	7782-49-2	
Thallium	0.00068J	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 22:01	7440-28-0	
2540C Total Dissolved Solids									
Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA									
Total Dissolved Solids	440	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days									
Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville									
Chloride	5.4	mg/L	1.0	0.60	1		04/03/20 06:49	16887-00-6	
Fluoride	0.077J	mg/L	0.30	0.050	1		04/03/20 06:49	16984-48-8	
Sulfate	84.9	mg/L	1.0	0.50	1		04/03/20 06:49	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Sample: DUP-02		Lab ID: 2630449018		Collected: 03/26/20 00:00		Received: 03/27/20 08:55		Matrix: Water	
Parameters	Results	Units	Report Limit	MDL	DF	Prepared	Analyzed	CAS No.	Qual
6010D MET ICP		Analytical Method: EPA 6010D Preparation Method: EPA 3010A Pace Analytical Services - Atlanta, GA							
Calcium	155	mg/L	0.50	0.14	1	04/01/20 15:36	04/02/20 17:21	7440-70-2	
6020B MET ICPMS		Analytical Method: EPA 6020B Preparation Method: EPA 3005A Pace Analytical Services - Atlanta, GA							
Antimony	ND	mg/L	0.0030	0.00027	1	04/01/20 15:40	04/02/20 22:07	7440-36-0	
Arsenic	ND	mg/L	0.0050	0.00035	1	04/01/20 15:40	04/02/20 22:07	7440-38-2	
Barium	0.052	mg/L	0.010	0.00049	1	04/01/20 15:40	04/02/20 22:07	7440-39-3	
Boron	0.61	mg/L	0.040	0.0049	1	04/01/20 15:40	04/02/20 22:07	7440-42-8	
Chromium	ND	mg/L	0.010	0.00039	1	04/01/20 15:40	04/02/20 22:07	7440-47-3	
Cobalt	ND	mg/L	0.0050	0.00030	1	04/01/20 15:40	04/02/20 22:07	7440-48-4	
Lead	ND	mg/L	0.0050	0.000046	1	04/01/20 15:40	04/02/20 22:07	7439-92-1	
Lithium	0.013J	mg/L	0.030	0.00078	1	04/01/20 15:40	04/02/20 22:07	7439-93-2	
Molybdenum	0.0020J	mg/L	0.010	0.00095	1	04/01/20 15:40	04/02/20 22:07	7439-98-7	
Selenium	0.0017J	mg/L	0.010	0.0013	1	04/01/20 15:40	04/02/20 22:07	7782-49-2	
Thallium	0.00068J	mg/L	0.0010	0.000052	1	04/01/20 15:40	04/02/20 22:07	7440-28-0	
2540C Total Dissolved Solids		Analytical Method: SM 2540C Pace Analytical Services - Atlanta, GA							
Total Dissolved Solids	512	mg/L	10.0	10.0	1		04/02/20 15:00		
300.0 IC Anions 28 Days		Analytical Method: EPA 300.0 Rev 2.1 1993 Pace Analytical Services - Asheville							
Chloride	5.3	mg/L	1.0	0.60	1		04/03/20 07:04	16887-00-6	
Fluoride	0.075J	mg/L	0.30	0.050	1		04/03/20 07:04	16984-48-8	
Sulfate	83.9	mg/L	1.0	0.50	1		04/03/20 07:04	14808-79-8	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

QC Batch: 45066

Analysis Method: EPA 6010D

QC Batch Method: EPA 3010A

Analysis Description: 6010D MET

Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630449004, 2630449005, 2630449006

METHOD BLANK: 207564

Matrix: Water

Associated Lab Samples: 2630449004, 2630449005, 2630449006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.50	0.14	03/31/20 16:27	

LABORATORY CONTROL SAMPLE: 207565

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	106	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207566 207567

Parameter	Units	2630414002 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	68.0	1	1	69.5	67.6	149	-41	75-125	3	20	M1

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

QC Batch: 45067	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D MET
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630449001, 2630449002, 2630449003

METHOD BLANK: 207568 Matrix: Water

Associated Lab Samples: 2630449001, 2630449002, 2630449003

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.50	0.14	04/03/20 16:58	

LABORATORY CONTROL SAMPLE: 207569

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	104	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207570 207571

Parameter	Units	207570		207571		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	81.2	1	81.9	81.9	68	67	75-125	0	20	M1

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

QC Batch: 45121	Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A	Analysis Description: 6010D MET
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630449007, 2630449008, 2630449009, 2630449010

METHOD BLANK: 207982 Matrix: Water
Associated Lab Samples: 2630449007, 2630449008, 2630449009, 2630449010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.50	0.14	04/02/20 13:05	

LABORATORY CONTROL SAMPLE: 207983

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.1	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207984 207985

Parameter	Units	2630449007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Calcium	mg/L	157	1	1	158	157	93	15	75-125	0	20	M1

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

QC Batch: 45172 Analysis Method: EPA 6010D
QC Batch Method: EPA 3010A Analysis Description: 6010D MET
Laboratory: Pace Analytical Services - Atlanta, GA
Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

METHOD BLANK: 208108 Matrix: Water
Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Calcium	mg/L	ND	0.50	0.14	04/02/20 16:01	

LABORATORY CONTROL SAMPLE: 208109

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Calcium	mg/L	1	1.0	101	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208110 208111

Parameter	Units	208110		208111		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result						
Calcium	mg/L	107	1	1	110	108	372	91	75-125	3	20 M1

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

QC Batch:	45112	Analysis Method:	EPA 6020B
QC Batch Method:	EPA 3005A	Analysis Description:	6020B MET
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004, 2630449005, 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

METHOD BLANK: 207955 Matrix: Water
Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004, 2630449005, 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/02/20 18:39	
Arsenic	mg/L	ND	0.0050	0.00035	04/02/20 18:39	
Barium	mg/L	ND	0.010	0.00049	04/02/20 18:39	
Boron	mg/L	ND	0.040	0.0049	04/02/20 18:39	
Chromium	mg/L	ND	0.010	0.00039	04/02/20 18:39	
Cobalt	mg/L	ND	0.0050	0.00030	04/02/20 18:39	
Lead	mg/L	ND	0.0050	0.000046	04/02/20 18:39	
Lithium	mg/L	ND	0.030	0.00078	04/02/20 18:39	
Molybdenum	mg/L	ND	0.010	0.00095	04/02/20 18:39	
Selenium	mg/L	ND	0.010	0.0013	04/02/20 18:39	
Thallium	mg/L	ND	0.0010	0.000052	04/02/20 18:39	

LABORATORY CONTROL SAMPLE: 207956

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	103	80-120	
Arsenic	mg/L	0.1	0.10	100	80-120	
Barium	mg/L	0.1	0.098	98	80-120	
Boron	mg/L	1	1.1	105	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.098	98	80-120	
Lead	mg/L	0.1	0.098	98	80-120	
Lithium	mg/L	0.1	0.10	104	80-120	
Molybdenum	mg/L	0.1	0.098	98	80-120	
Selenium	mg/L	0.1	0.099	99	80-120	
Thallium	mg/L	0.1	0.096	96	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 207957 207958

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2630435012 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	0.00031J	0.1	0.1	0.11	0.11	106	105	75-125	1	20	
Arsenic	mg/L	0.00070J	0.1	0.1	0.10	0.10	99	101	75-125	1	20	
Barium	mg/L	0.033	0.1	0.1	0.14	0.13	102	99	75-125	2	20	
Boron	mg/L	2.4	1	1	3.4	3.4	97	102	75-125	2	20	
Chromium	mg/L	ND	0.1	0.1	0.11	0.10	107	102	75-125	4	20	

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Parameter	Units	207957		207958		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result								
Cobalt	mg/L	0.0016J	0.1	0.1	0.10	0.10	102	101	75-125	1	20		
Lead	mg/L	0.000075J	0.1	0.1	0.10	0.10	100	101	75-125	1	20		
Lithium	mg/L	0.016J	0.1	0.1	0.12	0.12	101	103	75-125	2	20		
Molybdenum	mg/L	0.0015J	0.1	0.1	0.11	0.11	105	104	75-125	1	20		
Selenium	mg/L	ND	0.1	0.1	0.10	0.10	99	100	75-125	1	20		
Thallium	mg/L	ND	0.1	0.1	0.099	0.10	99	100	75-125	0	20		

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

QC Batch: 45171 Analysis Method: EPA 6020B
QC Batch Method: EPA 3005A Analysis Description: 6020B MET
Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

METHOD BLANK: 208104 Matrix: Water
Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Antimony	mg/L	ND	0.0030	0.00027	04/02/20 20:29	
Arsenic	mg/L	ND	0.0050	0.00035	04/02/20 20:29	
Barium	mg/L	ND	0.010	0.00049	04/02/20 20:29	
Boron	mg/L	ND	0.040	0.0049	04/02/20 20:29	
Chromium	mg/L	ND	0.010	0.00039	04/02/20 20:29	
Cobalt	mg/L	ND	0.0050	0.00030	04/02/20 20:29	
Lead	mg/L	ND	0.0050	0.000046	04/02/20 20:29	
Lithium	mg/L	ND	0.030	0.00078	04/02/20 20:29	
Molybdenum	mg/L	ND	0.010	0.00095	04/02/20 20:29	
Selenium	mg/L	ND	0.010	0.0013	04/02/20 20:29	
Thallium	mg/L	ND	0.0010	0.000052	04/02/20 20:29	

LABORATORY CONTROL SAMPLE: 208105

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Antimony	mg/L	0.1	0.10	104	80-120	
Arsenic	mg/L	0.1	0.096	96	80-120	
Barium	mg/L	0.1	0.099	99	80-120	
Boron	mg/L	1	1.0	101	80-120	
Chromium	mg/L	0.1	0.099	99	80-120	
Cobalt	mg/L	0.1	0.099	99	80-120	
Lead	mg/L	0.1	0.096	96	80-120	
Lithium	mg/L	0.1	0.10	103	80-120	
Molybdenum	mg/L	0.1	0.099	99	80-120	
Selenium	mg/L	0.1	0.093	93	80-120	
Thallium	mg/L	0.1	0.094	94	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 208106 208107

Parameter	Units	MS		MSD		MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual	
		2630449011 Result	Spike Conc.	Spike Conc.	MS Result							MSD Result
Antimony	mg/L	0.00042J	0.1	0.1	0.10	0.10	104	104	75-125	0	20	
Arsenic	mg/L	ND	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Barium	mg/L	0.0072J	0.1	0.1	0.11	0.11	101	101	75-125	0	20	
Boron	mg/L	0.24	1	1	1.2	1.2	94	97	75-125	3	20	
Chromium	mg/L	0.0016J	0.1	0.1	0.10	0.10	101	102	75-125	1	20	
Cobalt	mg/L	ND	0.1	0.1	0.099	0.10	99	101	75-125	2	20	

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Parameter	Units	208106		208107		MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	Max RPD	Qual
		2630449011 Result	MS Spike Conc.	MSD Spike Conc.	MS Result							
Lead	mg/L	ND	0.1	0.1	0.094	0.094	94	93	75-125	0	20	
Lithium	mg/L	0.0031J	0.1	0.1	0.10	0.10	98	97	75-125	0	20	
Molybdenum	mg/L	ND	0.1	0.1	0.098	0.099	98	99	75-125	1	20	
Selenium	mg/L	ND	0.1	0.1	0.096	0.097	95	96	75-125	2	20	
Thallium	mg/L	0.000085J	0.1	0.1	0.094	0.095	94	95	75-125	1	20	

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

QC Batch: 45027	Analysis Method: SM 2540C
QC Batch Method: SM 2540C	Analysis Description: 2540C Total Dissolved Solids
	Laboratory: Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004

LABORATORY CONTROL SAMPLE: 207416

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	414	104	84-108	

SAMPLE DUPLICATE: 207417

Parameter	Units	2630435008 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	113	82.0	32	10	D6

SAMPLE DUPLICATE: 207427

Parameter	Units	2630435009 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	839	851	1	10	

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

QC Batch:	45207	Analysis Method:	SM 2540C
QC Batch Method:	SM 2540C	Analysis Description:	2540C Total Dissolved Solids
		Laboratory:	Pace Analytical Services - Atlanta, GA

Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

LABORATORY CONTROL SAMPLE: 208287

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Total Dissolved Solids	mg/L	400	341	85	84-108	

SAMPLE DUPLICATE: 208288

Parameter	Units	2630482003 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	79.0	57.0	32	10	D6

SAMPLE DUPLICATE: 208289

Parameter	Units	2630472006 Result	Dup Result	RPD	Max RPD	Qualifiers
Total Dissolved Solids	mg/L	69.0	80.0	15	10	D6

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

QC Batch:	533972	Analysis Method:	EPA 300.0 Rev 2.1 1993
QC Batch Method:	EPA 300.0 Rev 2.1 1993	Analysis Description:	300.0 IC Anions
		Laboratory:	Pace Analytical Services - Asheville

Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004, 2630449005, 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

METHOD BLANK: 2849817 Matrix: Water
Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004, 2630449005, 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/02/20 23:19	
Fluoride	mg/L	ND	0.10	0.050	04/02/20 23:19	
Sulfate	mg/L	ND	1.0	0.50	04/02/20 23:19	

LABORATORY CONTROL SAMPLE: 2849818

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	47.7	95	90-110	
Fluoride	mg/L	2.5	2.4	97	90-110	
Sulfate	mg/L	50	47.8	96	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849819 2849820

Parameter	Units	2630435024 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	5.4	50	50	56.3	57.7	102	105	90-110	2	10	
Fluoride	mg/L	ND	2.5	2.5	2.7	2.7	106	108	90-110	2	10	
Sulfate	mg/L	ND	50	50	51.2	52.1	102	104	90-110	2	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849821 2849822

Parameter	Units	2630449009 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	1.6	50	50	54.0	53.9	105	105	90-110	0	10	
Fluoride	mg/L	0.13J	2.5	2.5	2.8	2.8	107	107	90-110	0	10	
Sulfate	mg/L	39.1	50	50	89.7	89.4	101	101	90-110	0	10	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

QC Batch: 533985 Analysis Method: EPA 300.0 Rev 2.1 1993
QC Batch Method: EPA 300.0 Rev 2.1 1993 Analysis Description: 300.0 IC Anions
Laboratory: Pace Analytical Services - Asheville
Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

METHOD BLANK: 2849882 Matrix: Water
Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Chloride	mg/L	ND	1.0	0.60	04/02/20 23:48	
Fluoride	mg/L	ND	0.10	0.050	04/02/20 23:48	
Sulfate	mg/L	ND	1.0	0.50	04/02/20 23:48	

LABORATORY CONTROL SAMPLE: 2849883

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Chloride	mg/L	50	49.8	100	90-110	
Fluoride	mg/L	2.5	2.5	102	90-110	
Sulfate	mg/L	50	49.7	99	90-110	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849884 2849885

Parameter	Units	2630472001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	20.4	50	50	75.6	76.0	110	111	90-110	1	10	M1
Fluoride	mg/L	0.098J	2.5	2.5	2.7	2.8	104	106	90-110	2	10	
Sulfate	mg/L	85.9	50	50	138	138	103	104	90-110	0	10	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2849886 2849887

Parameter	Units	2630471007 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Chloride	mg/L	0.73J	50	50	58.0	58.4	114	115	90-110	1	10	M1
Fluoride	mg/L	0.082J	2.5	2.5	2.8	2.8	109	109	90-110	0	10	
Sulfate	mg/L	176	50	50	227	231	102	109	90-110	2	10	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-1D **Lab ID: 2630449001** Collected: 03/24/20 15:30 Received: 03/26/20 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • One container received empty. Client notified. Client advised to analyze at low volume.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.219 ± 0.178 (0.321) C:87% T:NA	pCi/L	04/06/20 20:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	2.01 ± 0.737 (1.08) C:67% T:85%	pCi/L	04/15/20 16:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	2.23 ± 0.915 (1.40)	pCi/L	04/16/20 14:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-2D **Lab ID: 2630449002** Collected: 03/24/20 16:22 Received: 03/26/20 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.192 ± 0.128 (0.211) C:84% T:NA	pCi/L	04/06/20 20:26	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.706 ± 0.471 (0.902) C:68% T:87%	pCi/L	04/15/20 16:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.898 ± 0.599 (1.11)	pCi/L	04/16/20 14:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: EB-01 **Lab ID: 2630449003** Collected: 03/24/20 12:55 Received: 03/26/20 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0382 ± 0.176 (0.452) C:71% T:NA	pCi/L	04/07/20 08:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.519 ± 0.408 (0.810) C:79% T:80%	pCi/L	05/08/20 11:33	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.557 ± 0.584 (1.26)	pCi/L	05/08/20 15:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: FB-01 **Lab ID: 2630449004** Collected: 03/25/20 09:20 Received: 03/26/20 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.197 ± 0.233 (0.480) C:73% T:NA	pCi/L	04/07/20 08:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.665 ± 0.520 (1.04) C:68% T:83%	pCi/L	04/15/20 16:06	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.862 ± 0.753 (1.52)	pCi/L	04/16/20 14:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-31 **Lab ID: 2630449005** Collected: 03/25/20 10:20 Received: 03/26/20 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.380 ± 0.243 (0.370) C:83% T:NA	pCi/L	04/07/20 08:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	1.41 ± 0.557 (0.868) C:71% T:86%	pCi/L	04/15/20 16:07	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.79 ± 0.800 (1.24)	pCi/L	04/16/20 14:14	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-14 **Lab ID: 2630449006** Collected: 03/25/20 13:40 Received: 03/26/20 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.115 ± 0.155 (0.319) C:83% T:NA	pCi/L	04/07/20 08:03	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.579 ± 0.415 (0.812) C:78% T:84%	pCi/L	04/16/20 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.694 ± 0.570 (1.13)	pCi/L	04/17/20 10:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-23A **Lab ID: 2630449007** Collected: 03/25/20 16:05 Received: 03/26/20 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.436 ± 0.268 (0.404) C:78% T:NA	pCi/L	04/07/20 08:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.953 ± 0.461 (0.799) C:78% T:82%	pCi/L	04/16/20 15:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.39 ± 0.729 (1.20)	pCi/L	04/17/20 10:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-17 **Lab ID: 2630449008** Collected: 03/25/20 15:11 Received: 03/26/20 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.343 ± 0.239 (0.388) C:78% T:NA	pCi/L	04/07/20 08:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.0423 ± 0.318 (0.731) C:79% T:86%	pCi/L	04/16/20 15:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.385 ± 0.557 (1.12)	pCi/L	04/17/20 10:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-25 **Lab ID: 2630449009** Collected: 03/25/20 13:33 Received: 03/26/20 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.559 ± 0.349 (0.574) C:65% T:NA	pCi/L	04/07/20 08:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.351 ± 0.385 (0.806) C:78% T:85%	pCi/L	04/16/20 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.910 ± 0.734 (1.38)	pCi/L	04/17/20 10:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-32 **Lab ID: 2630449010** Collected: 03/25/20 11:05 Received: 03/26/20 09:30 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0513 ± 0.134 (0.327) C:86% T:NA	pCi/L	04/07/20 08:04	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.282 ± 0.347 (0.736) C:81% T:90%	pCi/L	04/16/20 15:54	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.333 ± 0.481 (1.06)	pCi/L	04/17/20 10:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-7D **Lab ID: 2630449011** Collected: 03/26/20 09:55 Received: 03/27/20 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0945 ± 0.177 (0.404) C:90% T:NA	pCi/L	04/08/20 07:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.335 ± 0.354 (0.739) C:80% T:85%	pCi/L	04/20/20 15:23	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.430 ± 0.531 (1.14)	pCi/L	04/21/20 08:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-18 **Lab ID: 2630449012** Collected: 03/26/20 12:10 Received: 03/27/20 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.306 ± 0.131 (0.183) C:85% T:NA	pCi/L	04/07/20 18:21	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.743 ± 0.452 (0.848) C:76% T:76%	pCi/L	04/20/20 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.05 ± 0.583 (1.03)	pCi/L	04/21/20 08:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-33 **Lab ID: 2630449013** Collected: 03/26/20 14:55 Received: 03/27/20 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.428 ± 0.153 (0.192) C:81% T:NA	pCi/L	04/07/20 18:22	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.0451 ± 0.399 (0.918) C:71% T:74%	pCi/L	04/20/20 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.473 ± 0.552 (1.11)	pCi/L	04/21/20 08:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: DUP-01 **Lab ID: 2630449014** Collected: 03/26/20 00:00 Received: 03/27/20 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.159 ± 0.0936 (0.142) C:85% T:NA	pCi/L	04/07/20 18:24	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.435 ± 0.359 (0.725) C:75% T:96%	pCi/L	04/20/20 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.594 ± 0.453 (0.867)	pCi/L	04/21/20 08:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-15 **Lab ID: 2630449015** Collected: 03/26/20 11:12 Received: 03/27/20 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.438 ± 0.295 (0.477) C:89% T:NA	pCi/L	04/08/20 07:57	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.425 ± 0.409 (0.843) C:75% T:79%	pCi/L	04/20/20 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.863 ± 0.704 (1.32)	pCi/L	04/21/20 08:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-16 **Lab ID: 2630449016** Collected: 03/26/20 09:38 Received: 03/27/20 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.0910 ± 0.163 (0.365) C:91% T:NA	pCi/L	04/08/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.431 ± 0.421 (0.867) C:76% T:75%	pCi/L	04/20/20 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	0.522 ± 0.584 (1.23)	pCi/L	04/21/20 08:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: PZ-19 **Lab ID: 2630449017** Collected: 03/26/20 14:00 Received: 03/27/20 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.765 ± 0.424 (0.675) C:85% T:NA	pCi/L	04/08/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.891 ± 0.478 (0.862) C:72% T:79%	pCi/L	04/20/20 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.66 ± 0.902 (1.54)	pCi/L	04/21/20 08:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Sample: DUP-02 **Lab ID: 2630449018** Collected: 03/26/20 00:00 Received: 03/27/20 08:55 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
	Pace Analytical Services - Greensburg					
Radium-226	EPA 9315	0.883 ± 0.387 (0.385) C:85% T:NA	pCi/L	04/08/20 07:56	13982-63-3	
	Pace Analytical Services - Greensburg					
Radium-228	EPA 9320	0.743 ± 0.428 (0.794) C:72% T:93%	pCi/L	04/20/20 15:23	15262-20-1	
	Pace Analytical Services - Greensburg					
Total Radium	Total Radium Calculation	1.63 ± 0.815 (1.18)	pCi/L	04/21/20 08:48	7440-14-4	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

QC Batch:	390590	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004, 2630449005

METHOD BLANK: 1891462 Matrix: Water

Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004, 2630449005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0954 ± 0.125 (0.246) C:85% T:NA	pCi/L	04/07/20 09:13	

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QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

QC Batch: 391016

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

METHOD BLANK: 1893276

Matrix: Water

Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.311 ± 0.302 (0.622) C:72% T:102%	pCi/L	04/20/20 12:19	

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 ASH PONDS A 1&2

Pace Project No.: 2630449

QC Batch: 391014

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

METHOD BLANK: 1893273

Matrix: Water

Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0879 ± 0.146 (0.316) C:93% T:NA	pCi/L	04/07/20 19:50	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

QC Batch: 390594

Analysis Method: EPA 9320

QC Batch Method: EPA 9320

Analysis Description: 9320 Radium 228

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

METHOD BLANK: 1891466

Matrix: Water

Associated Lab Samples: 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.184 ± 0.318 (0.783) C:80% T:81%	pCi/L	04/16/20 15:55	

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

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QUALITY CONTROL - RADIOCHEMISTRY

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

QC Batch: 390591

Analysis Method: EPA 9315

QC Batch Method: EPA 9315

Analysis Description: 9315 Total Radium

Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

METHOD BLANK: 1891463

Matrix: Water

Associated Lab Samples: 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0696 ± 0.172 (0.412) C:90% T:NA	pCi/L	04/07/20 08:03	

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 ASH PONDS A 1&2

Pace Project No.: 2630449

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.

ANALYTE QUALIFIERS

D6 The precision between the sample and sample duplicate exceeded laboratory control limits.

M1 Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630449001	PZ-1D				
2630449002	PZ-2D				
2630449005	PZ-31				
2630449006	PZ-14				
2630449007	PZ-23A				
2630449008	PZ-17				
2630449009	PZ-25				
2630449010	PZ-32				
2630449011	PZ-7D				
2630449012	PZ-18				
2630449013	PZ-33				
2630449015	PZ-15				
2630449016	PZ-16				
2630449017	PZ-19				
2630449001	PZ-1D	EPA 3010A	45067	EPA 6010D	45072
2630449002	PZ-2D	EPA 3010A	45067	EPA 6010D	45072
2630449003	EB-01	EPA 3010A	45067	EPA 6010D	45072
2630449004	FB-01	EPA 3010A	45066	EPA 6010D	45071
2630449005	PZ-31	EPA 3010A	45066	EPA 6010D	45071
2630449006	PZ-14	EPA 3010A	45066	EPA 6010D	45071
2630449007	PZ-23A	EPA 3010A	45121	EPA 6010D	45135
2630449008	PZ-17	EPA 3010A	45121	EPA 6010D	45135
2630449009	PZ-25	EPA 3010A	45121	EPA 6010D	45135
2630449010	PZ-32	EPA 3010A	45121	EPA 6010D	45135
2630449011	PZ-7D	EPA 3010A	45172	EPA 6010D	45193
2630449012	PZ-18	EPA 3010A	45172	EPA 6010D	45193
2630449013	PZ-33	EPA 3010A	45172	EPA 6010D	45193
2630449014	DUP-01	EPA 3010A	45172	EPA 6010D	45193
2630449015	PZ-15	EPA 3010A	45172	EPA 6010D	45193
2630449016	PZ-16	EPA 3010A	45172	EPA 6010D	45193
2630449017	PZ-19	EPA 3010A	45172	EPA 6010D	45193
2630449018	DUP-02	EPA 3010A	45172	EPA 6010D	45193
2630449001	PZ-1D	EPA 3005A	45112	EPA 6020B	45137
2630449002	PZ-2D	EPA 3005A	45112	EPA 6020B	45137
2630449003	EB-01	EPA 3005A	45112	EPA 6020B	45137
2630449004	FB-01	EPA 3005A	45112	EPA 6020B	45137
2630449005	PZ-31	EPA 3005A	45112	EPA 6020B	45137
2630449006	PZ-14	EPA 3005A	45112	EPA 6020B	45137
2630449007	PZ-23A	EPA 3005A	45112	EPA 6020B	45137
2630449008	PZ-17	EPA 3005A	45112	EPA 6020B	45137
2630449009	PZ-25	EPA 3005A	45112	EPA 6020B	45137
2630449010	PZ-32	EPA 3005A	45112	EPA 6020B	45137
2630449011	PZ-7D	EPA 3005A	45171	EPA 6020B	45192
2630449012	PZ-18	EPA 3005A	45171	EPA 6020B	45192
2630449013	PZ-33	EPA 3005A	45171	EPA 6020B	45192
2630449014	DUP-01	EPA 3005A	45171	EPA 6020B	45192

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630449015	PZ-15	EPA 3005A	45171	EPA 6020B	45192
2630449016	PZ-16	EPA 3005A	45171	EPA 6020B	45192
2630449017	PZ-19	EPA 3005A	45171	EPA 6020B	45192
2630449018	DUP-02	EPA 3005A	45171	EPA 6020B	45192
2630449001	PZ-1D	EPA 9315	390590		
2630449002	PZ-2D	EPA 9315	390590		
2630449003	EB-01	EPA 9315	390590		
2630449004	FB-01	EPA 9315	390590		
2630449005	PZ-31	EPA 9315	390590		
2630449006	PZ-14	EPA 9315	390591		
2630449007	PZ-23A	EPA 9315	390591		
2630449008	PZ-17	EPA 9315	390591		
2630449009	PZ-25	EPA 9315	390591		
2630449010	PZ-32	EPA 9315	390591		
2630449011	PZ-7D	EPA 9315	391014		
2630449012	PZ-18	EPA 9315	391014		
2630449013	PZ-33	EPA 9315	391014		
2630449014	DUP-01	EPA 9315	391014		
2630449015	PZ-15	EPA 9315	391014		
2630449016	PZ-16	EPA 9315	391014		
2630449017	PZ-19	EPA 9315	391014		
2630449018	DUP-02	EPA 9315	391014		
2630449001	PZ-1D	EPA 9320	390593		
2630449002	PZ-2D	EPA 9320	390593		
2630449003	EB-01	EPA 9320	390593		
2630449004	FB-01	EPA 9320	390593		
2630449005	PZ-31	EPA 9320	390593		
2630449006	PZ-14	EPA 9320	390594		
2630449007	PZ-23A	EPA 9320	390594		
2630449008	PZ-17	EPA 9320	390594		
2630449009	PZ-25	EPA 9320	390594		
2630449010	PZ-32	EPA 9320	390594		
2630449011	PZ-7D	EPA 9320	391016		
2630449012	PZ-18	EPA 9320	391016		
2630449013	PZ-33	EPA 9320	391016		
2630449014	DUP-01	EPA 9320	391016		
2630449015	PZ-15	EPA 9320	391016		
2630449016	PZ-16	EPA 9320	391016		
2630449017	PZ-19	EPA 9320	391016		
2630449018	DUP-02	EPA 9320	391016		
2630449001	PZ-1D	Total Radium Calculation	392582		
2630449002	PZ-2D	Total Radium Calculation	392582		
2630449003	EB-01	Total Radium Calculation	395575		
2630449004	FB-01	Total Radium Calculation	392582		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MITCHELL ASH PONDS A 1&2
Pace Project No.: 2630449

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630449005	PZ-31	Total Radium Calculation	392582		
2630449006	PZ-14	Total Radium Calculation	392702		
2630449007	PZ-23A	Total Radium Calculation	392702		
2630449008	PZ-17	Total Radium Calculation	392702		
2630449009	PZ-25	Total Radium Calculation	392702		
2630449010	PZ-32	Total Radium Calculation	392702		
2630449011	PZ-7D	Total Radium Calculation	393019		
2630449012	PZ-18	Total Radium Calculation	393019		
2630449013	PZ-33	Total Radium Calculation	393019		
2630449014	DUP-01	Total Radium Calculation	393019		
2630449015	PZ-15	Total Radium Calculation	393019		
2630449016	PZ-16	Total Radium Calculation	393019		
2630449017	PZ-19	Total Radium Calculation	393019		
2630449018	DUP-02	Total Radium Calculation	393019		
2630449001	PZ-1D	SM 2540C	45027		
2630449002	PZ-2D	SM 2540C	45027		
2630449003	EB-01	SM 2540C	45027		
2630449004	FB-01	SM 2540C	45027		
2630449005	PZ-31	SM 2540C	45160		
2630449006	PZ-14	SM 2540C	45160		
2630449007	PZ-23A	SM 2540C	45160		
2630449008	PZ-17	SM 2540C	45160		
2630449009	PZ-25	SM 2540C	45160		
2630449010	PZ-32	SM 2540C	45160		
2630449011	PZ-7D	SM 2540C	45207		
2630449012	PZ-18	SM 2540C	45207		
2630449013	PZ-33	SM 2540C	45207		
2630449014	DUP-01	SM 2540C	45207		
2630449015	PZ-15	SM 2540C	45207		
2630449016	PZ-16	SM 2540C	45207		
2630449017	PZ-19	SM 2540C	45207		
2630449018	DUP-02	SM 2540C	45207		
2630449001	PZ-1D	EPA 300.0 Rev 2.1 1993	533972		
2630449002	PZ-2D	EPA 300.0 Rev 2.1 1993	533972		
2630449003	EB-01	EPA 300.0 Rev 2.1 1993	533972		
2630449004	FB-01	EPA 300.0 Rev 2.1 1993	533972		
2630449005	PZ-31	EPA 300.0 Rev 2.1 1993	533972		
2630449006	PZ-14	EPA 300.0 Rev 2.1 1993	533972		
2630449007	PZ-23A	EPA 300.0 Rev 2.1 1993	533972		
2630449008	PZ-17	EPA 300.0 Rev 2.1 1993	533972		
2630449009	PZ-25	EPA 300.0 Rev 2.1 1993	533972		
2630449010	PZ-32	EPA 300.0 Rev 2.1 1993	533972		
2630449011	PZ-7D	EPA 300.0 Rev 2.1 1993	533985		
2630449012	PZ-18	EPA 300.0 Rev 2.1 1993	533985		
2630449013	PZ-33	EPA 300.0 Rev 2.1 1993	533985		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: PLANT MITCHELL ASH PONDS A 1&2

Pace Project No.: 2630449

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
2630449014	DUP-01	EPA 300.0 Rev 2.1 1993	533985		
2630449015	PZ-15	EPA 300.0 Rev 2.1 1993	533985		
2630449016	PZ-16	EPA 300.0 Rev 2.1 1993	533985		
2630449017	PZ-19	EPA 300.0 Rev 2.1 1993	533985		
2630449018	DUP-02	EPA 300.0 Rev 2.1 1993	533985		

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CHAIN-OF-CUSTODY / Analytical Request Document
The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

Section A Required Client Information: Company: GA Power Address: Atlanta, GA

Section B Required Project Information: Report For: SCS Contacts Copy To: Wood Contacts

Section C Invoice Information: Attention: Southern Co. Company Name: Address: Reference: Face Project Manager: Kevin Herring

Requested Due Date/TAT: 10 Day Project Number: 612216 0170

Face Order No.: Plant Mitchell Ash Ponds A 1&2

Face Order #: 2904-1

REGULATORY AGENCY: NPDES GROUND WATER DRINKING WATER UST RCRA OTHER COC

Site Location: STATE: GA

Page: 1 of 2

ITEM #	Section D Required Client Information SAMPLE ID (A-Z, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE DRINKING WATER DW WASTE WATER WW WASTEWATER WWT SURFACIAL WATER SW SLURRY SLS WASTE WWT AIR AR OTHER OT TISSUE TS	MATRIX CODE (see valid codes to left)	SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		DATE	TIME	SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives	Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	Temp in °C	Received on Ice (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
					COMPOSITE SAMPLE	COMPOSITE ENDPOINT												
1	PZ-18									2								
2	PZ-28									2								
3	PZ-31									2								
4	PZ-70									2								
5	PZ-14									2								
6	PZ-15									2								
7	PZ-16									2								
8	PZ-17									2								
9	PZ-18									2								
10	PZ-19									2								
11	PZ-29A									2								
12	PZ-25									2								
<p>RELEASING BY / AFFILIATION: Daniel Howard Wood 3/25/20 1800</p> <p>ACCEPTED BY / AFFILIATION: Charles Fuchs 3/25/20 1800</p> <p>ADDITIONAL COMMENTS: pH = 7.01</p> <p>pH = 6.93</p> <p>Relinquished by / Affiliation: Daniel Howard Wood 3/25/20 1800</p> <p>Accepted by / Affiliation: Charles Fuchs 3/25/20 1800</p>																		

SAMPLER NAME AND SIGNATURE

PRINT Name of SAMPLER: Daniel Howard

SIGNATURE of SAMPLER: Daniel Howard

DATE Signed (MANDATORY): 3/25/20

Temp in °C

Received on Ice (Y/N)

Custody Sealed Cooler (Y/N)

Samples Intact (Y/N)

Important Note: By signing this form you are accepting Face's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days

F-ALL-Q-020rev.07, 15-Feb-2007

CHAIN-OF-CUSTODY / Analytical Request Document
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Page: 1 of 1

Section A Required Client Information: Company: GA Power Address: Atlanta, GA		Section B Required Project Information: Report for: SCS Contacts Copy To: Wood Contacts		Section C Invoice Information: Attention: Southern Co. Company Name:	
Email To: SCS Contacts Phone: _____ Requested Due Date/TAT: 10 Day		Purchase Order No.: _____ Project Name: Plant Mitchell Ash Ponds A 1&2 Project Number: 6122160170		Address: _____ Pace Quote Reference: _____ Pace Project Manager: _____ Pace Profile #: 2904-1	
REGULATORY AGENCY <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER CCR Site Location: _____ STATE: GA			Requested Analysis Filtered (Y/N) Residual Chlorine (Y/N) pH = 7.85 Pace Project No./ Lab ID: 2630449		

ITEM #	Section D Requested Client Information SAMPLE ID (A-2, 0-9 / -) Sample IDs MUST BE UNIQUE	Valid Matrix Codes MATRIX CODE (see valid codes to left)	Sample Type (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test	Requested Analysis Filtered (Y/N)	Residual Chlorine (Y/N)	pH = 7.85 Pace Project No./ Lab ID: 2630449
				DATE	TIME			DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH				
1	PZ-1B		WT G 3/25/20 1020				3	2	1									
2	PZ-2B						3	2	1									
3	PZ-31		WT G 3/25/20 1020				3	2	1									
4	PZ-7B						3	2	1									
5	PZ-14		WT G 3/25/20 1340				3	2	1									
6	PZ-46						3	2	1									
7	PZ-76						3	2	1									
8	PZ-17						3	2	1									
9	PZ-18						3	2	1									
10	PZ-19						3	2	1									
11	PZ-23A		WT G 3/25/20 1605				3	2	1									
12	PZ-26						3	2	1									

ADDITIONAL COMMENTS
 Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.
 Appendix IV for March 2020 Event: SD AS BR CR CO PD U NO SE
 Add pH to COC for field sheet

REINQUISHED BY / AFFILIATION
 Daniel Howard / Wood 3/25/20 1800 Charles Ford 3/25/20 0930

ACCEPTED BY / AFFILIATION
 DATE TIME

SAMPLER NAME AND SIGNATURE
 PRINT Name of SAMPLER: Daniel Howard
 SIGNATURE of SAMPLER: *Daniel Howard*
 DATE Signed (MM/DD/YY): 3/25/20

SAMPLE CONDITIONS
 Temp in °C _____
 Received on Ice (Y/N) _____
 Custody Sealed Cooler (Y/N) _____
 Samples Intact (Y/N) _____

Important Note: By signing this form you are accepting Pace's NET 30 day payment terms and agreeing to the charges of 1.5% per month for any invoices not paid within 30 days
 F-ALL-Q-020/REV.07, 15-Feb-2007



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: GA Power Address: Atlanta, GA		Section B Required Project Information: Report To: SCS Contacts Copy To: Wood Contacts		Section C Invoice Information: Attention: Southern Co. Company Name: Address: Purchase Order No.: Project Name: Plant Mitchell Ash Ponds A 182 Requested Due Date/TAT: 10 Day Project Number: 6122 160170	
Email To: SCS Contacts Phone: Requested Due Date/TAT: 10 Day		Purchase Order No.: Project Name: Plant Mitchell Ash Ponds A 182 Project Number: 6122 160170		Address: Plant Name: Requested Due Date/TAT: 10 Day	
REGULATORY AGENCY <input type="checkbox"/> NPDES <input type="checkbox"/> GROUND WATER <input type="checkbox"/> DRINKING WATER <input type="checkbox"/> UST <input type="checkbox"/> RCRA <input type="checkbox"/> OTHER CCR		Requested Analysis: Filtered (Y/N)		Site Location STATE: GA	

ITEM #	Section D Required Client Information Valid Matrix Codes MATRIX CODE (see valid codes to left) SAMPLE TYPE (G=GRAB C=COMP)	COLLECTED		SAMPLE TEMP AT COLLECTION	# OF CONTAINERS	Preservatives							Analysis Test ↓	Requested Analysis: Filtered (Y/N)	Residual Chlorine (Y/N)	Face Project No./ Lab I.D.
		DATE	TIME			DATE	TIME	Unpreserved	H ₂ SO ₄	HNO ₃	HCl	NaOH				
1	WT				3											
2	WT				3											
3	WT G 3/24/20 1855				16											
4	WT G 3/25/20 0920				2											
5					3											
6					3											
7					3											
8					3											
9					3											
10					3											
11					3											
12					3											

ADDITIONAL COMMENTS: Please note dry wells, strike through any wells not sampled, and note when the last sample for the event has been taken.

Appendix IV for March 2020 Event: Sb As Ba Cr Co Pb U Mo Se

Add pH to COC for field sheet

REQUISITIONED BY / AFFILIATION: Daniel & Brown / Wood 3/25/20 1808
ACCEPTED BY / AFFILIATION: Charles Spivey 3/25/20 0930 20 Y

SAMPLER NAME AND SIGNATURE:
 PRINT Name of SAMPLER: Daniel Howard
 SIGNATURE of SAMPLER: Daniel Howard
 DATE Signed (MM/DD/YY): 3/25/20

Temp in °C
 Received on Ice (Y/N)
 Custody Sealed Cooler (Y/N)
 Samples Intact (Y/N)

Important Note: By signing this form you are accepting Face's NET 30 day payment terms and agreeing to late charges of 1.5% per month for any invoices not paid within 30 days.

F-ALL-Q-020rev.07, 15-Feb-2007

May 11, 2020

Mr. Joju Abraham
Georgia Power
2480 Maner Road
Atlanta, GA 30339

RE: Project: 2630449
Pace Project No.: 30356720

Dear Mr. Abraham:

Enclosed are the analytical results for sample(s) received by the laboratory between March 27, 2020 and March 31, 2020. The results relate only to the samples included in this report. Results reported herein conform to the applicable TNI/NELAC Standards and the laboratory's Quality Manual, where applicable, unless otherwise noted in the body of the report.

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

- Pace Analytical Services - Greensburg

Revision 1 - This report replaces the April 21, 2020 report. This project was revised on May 11, 2020 to reflect the re-analyzed results for sample 2630449003/EB-01 as per client request. (Greensburg, PA)

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

Sincerely,



Jacquelyn Collins
jacquelyn.collins@pacelabs.com
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Project Manager

Enclosures



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: 2630449
Pace Project No.: 30356720

Pace Analytical Services Pennsylvania

1638 Roseytown Rd Suites 2,3&4, Greensburg, PA 15601
ANAB DOD-ELAP Rad Accreditation #: L2417
Alabama Certification #: 41590
Arizona Certification #: AZ0734
Arkansas Certification
California Certification #: 04222CA
Colorado Certification #: PA01547
Connecticut Certification #: PH-0694
Delaware Certification
EPA Region 4 DW Rad
Florida/TNI Certification #: E87683
Georgia Certification #: C040
Florida: Cert E871149 SEKS WET
Guam Certification
Hawaii Certification
Idaho Certification
Illinois Certification
Indiana Certification
Iowa Certification #: 391
Kansas/TNI Certification #: E-10358
Kentucky Certification #: KY90133
KY WW Permit #: KY0098221
KY WW Permit #: KY0000221
Louisiana DHH/TNI Certification #: LA180012
Louisiana DEQ/TNI Certification #: 4086
Maine Certification #: 2017020
Maryland Certification #: 308
Massachusetts Certification #: M-PA1457
Michigan/PADEP Certification #: 9991

Missouri Certification #: 235
Montana Certification #: Cert0082
Nebraska Certification #: NE-OS-29-14
Nevada Certification #: PA014572018-1
New Hampshire/TNI Certification #: 297617
New Jersey/TNI Certification #: PA051
New Mexico Certification #: PA01457
New York/TNI Certification #: 10888
North Carolina Certification #: 42706
North Dakota Certification #: R-190
Ohio EPA Rad Approval: #41249
Oregon/TNI Certification #: PA200002-010
Pennsylvania/TNI Certification #: 65-00282
Puerto Rico Certification #: PA01457
Rhode Island Certification #: 65-00282
South Dakota Certification
Tennessee Certification #: 02867
Texas/TNI Certification #: T104704188-17-3
Utah/TNI Certification #: PA014572017-9
USDA Soil Permit #: P330-17-00091
Vermont Dept. of Health: ID# VT-0282
Virgin Island/PADEP Certification
Virginia/VELAP Certification #: 9526
Washington Certification #: C868
West Virginia DEP Certification #: 143
West Virginia DHHR Certification #: 9964C
Wisconsin Approve List for Rad
Wyoming Certification #: 8TMS-L

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: 2630449
Pace Project No.: 30356720

Lab ID	Sample ID	Matrix	Date Collected	Date Received
2630449001	PZ-1D	Water	03/24/20 15:30	03/27/20 09:15
2630449002	PZ-2D	Water	03/24/20 16:22	03/27/20 09:15
2630449003	EB-01	Water	03/24/20 12:55	03/27/20 09:15
2630449004	FB-01	Water	03/25/20 09:20	03/27/20 09:15
2630449005	PZ-31	Water	03/25/20 10:20	03/27/20 09:15
2630449006	PZ-14	Water	03/25/20 13:40	03/27/20 09:15
2630449007	PZ-23A	Water	03/25/20 16:05	03/27/20 09:15
2630449008	PZ-17	Water	03/25/20 15:11	03/27/20 09:15
2630449009	PZ-25	Water	03/25/20 13:33	03/27/20 09:15
2630449010	PZ-32	Water	03/25/20 11:05	03/27/20 09:15
2630449011	PZ-7D	Water	03/26/20 09:55	03/31/20 09:00
2630449012	PZ-18	Water	03/26/20 12:10	03/31/20 09:00
2630449013	PZ-33	Water	03/26/20 14:55	03/31/20 09:00
2630449014	DUP-01	Water	03/26/20 00:00	03/31/20 09:00
2630449015	PZ-15	Water	03/26/20 11:12	03/31/20 09:00
2630449016	PZ-16	Water	03/26/20 09:38	03/31/20 09:00
2630449017	PZ-19	Water	03/26/20 14:00	03/31/20 09:00
2630449018	DUP-02	Water	03/26/20 00:00	03/31/20 09:00

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: 2630449
Pace Project No.: 30356720

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630449001	PZ-1D	EPA 9315	LAL	1	PASI-PA
2630449002	PZ-2D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449003	EB-01	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449004	FB-01	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449005	PZ-31	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449006	PZ-14	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449007	PZ-23A	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449008	PZ-17	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449009	PZ-25	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449010	PZ-32	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449011	PZ-7D	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449012	PZ-18	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449013	PZ-33	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

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SAMPLE ANALYTE COUNT

Project: 2630449
Pace Project No.: 30356720

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
2630449014	DUP-01	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449015	PZ-15	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449016	PZ-16	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449017	PZ-19	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA
2630449018	DUP-02	EPA 9315	LAL	1	PASI-PA
		EPA 9320	VAL	1	PASI-PA
		Total Radium Calculation	CMC	1	PASI-PA

PASI-PA = Pace Analytical Services - Greensburg

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630449
Pace Project No.: 30356720

Sample: PZ-1D **Lab ID: 2630449001** Collected: 03/24/20 15:30 Received: 03/27/20 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Comments: • One container received empty. Client notified. Client advised to analyze at low volume.

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.219 ± 0.178 (0.321) C:87% T:NA	pCi/L	04/06/20 20:26	13982-63-3	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	2.23 ± 0.915 (1.40)	pCi/L	04/16/20 14:14	7440-14-4	
Radium-228	EPA 9320	2.01 ± 0.737 (1.08) C:67% T:85%	pCi/L	04/15/20 16:06	15262-20-1	

Sample: PZ-2D **Lab ID: 2630449002** Collected: 03/24/20 16:22 Received: 03/27/20 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.192 ± 0.128 (0.211) C:84% T:NA	pCi/L	04/06/20 20:26	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.706 ± 0.471 (0.902) C:68% T:87%	pCi/L	04/15/20 16:06	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.898 ± 0.599 (1.11)	pCi/L	04/16/20 14:14	7440-14-4	

Sample: EB-01 **Lab ID: 2630449003** Collected: 03/24/20 12:55 Received: 03/27/20 09:15 Matrix: Water
PWS: Site ID: Sample Type:

Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0382 ± 0.176 (0.452) C:71% T:NA	pCi/L	04/07/20 08:07	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.519 ± 0.408 (0.810) C:79% T:80%	pCi/L	05/08/20 11:33	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.557 ± 0.584 (1.26)	pCi/L	05/08/20 15:14	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630449
Pace Project No.: 30356720

Sample: FB-01		Lab ID: 2630449004	Collected: 03/25/20 09:20	Received: 03/27/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.197 ± 0.233 (0.480)		pCi/L	04/07/20 08:03	13982-63-3	
		C:73% T:NA					
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.665 ± 0.520 (1.04)		pCi/L	04/15/20 16:06	15262-20-1	
		C:68% T:83%					
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.862 ± 0.753 (1.52)		pCi/L	04/16/20 14:14	7440-14-4	

Sample: PZ-31		Lab ID: 2630449005	Collected: 03/25/20 10:20	Received: 03/27/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.380 ± 0.243 (0.370)		pCi/L	04/07/20 08:03	13982-63-3	
		C:83% T:NA					
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	1.41 ± 0.557 (0.868)		pCi/L	04/15/20 16:07	15262-20-1	
		C:71% T:86%					
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	1.79 ± 0.800 (1.24)		pCi/L	04/16/20 14:14	7440-14-4	

Sample: PZ-14		Lab ID: 2630449006	Collected: 03/25/20 13:40	Received: 03/27/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.115 ± 0.155 (0.319)		pCi/L	04/07/20 08:03	13982-63-3	
		C:83% T:NA					
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.579 ± 0.415 (0.812)		pCi/L	04/16/20 15:54	15262-20-1	
		C:78% T:84%					
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.694 ± 0.570 (1.13)		pCi/L	04/17/20 10:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630449
Pace Project No.: 30356720

Sample: PZ-23A		Lab ID: 2630449007	Collected: 03/25/20 16:05	Received: 03/27/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.436 ± 0.268 (0.404)		pCi/L	04/07/20 08:04	13982-63-3	
		C:78% T:NA					
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.953 ± 0.461 (0.799)		pCi/L	04/16/20 15:54	15262-20-1	
		C:78% T:82%					
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	1.39 ± 0.729 (1.20)		pCi/L	04/17/20 10:48	7440-14-4	

Sample: PZ-17		Lab ID: 2630449008	Collected: 03/25/20 15:11	Received: 03/27/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.343 ± 0.239 (0.388)		pCi/L	04/07/20 08:04	13982-63-3	
		C:78% T:NA					
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.0423 ± 0.318 (0.731)		pCi/L	04/16/20 15:54	15262-20-1	
		C:79% T:86%					
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.385 ± 0.557 (1.12)		pCi/L	04/17/20 10:48	7440-14-4	

Sample: PZ-25		Lab ID: 2630449009	Collected: 03/25/20 13:33	Received: 03/27/20 09:15	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC)	Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.559 ± 0.349 (0.574)		pCi/L	04/07/20 08:04	13982-63-3	
		C:65% T:NA					
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.351 ± 0.385 (0.806)		pCi/L	04/16/20 15:54	15262-20-1	
		C:78% T:85%					
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.910 ± 0.734 (1.38)		pCi/L	04/17/20 10:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630449
Pace Project No.: 30356720

Sample: PZ-32		Lab ID: 2630449010	Collected: 03/25/20 11:05	Received: 03/27/20 09:15	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0513 ± 0.134 (0.327) C:86% T:NA	pCi/L	04/07/20 08:04	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.282 ± 0.347 (0.736) C:81% T:90%	pCi/L	04/16/20 15:54	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.333 ± 0.481 (1.06)	pCi/L	04/17/20 10:48	7440-14-4	

Sample: PZ-7D		Lab ID: 2630449011	Collected: 03/26/20 09:55	Received: 03/31/20 09:00	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.0945 ± 0.177 (0.404) C:90% T:NA	pCi/L	04/08/20 07:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.335 ± 0.354 (0.739) C:80% T:85%	pCi/L	04/20/20 15:23	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.430 ± 0.531 (1.14)	pCi/L	04/21/20 08:48	7440-14-4	

Sample: PZ-18		Lab ID: 2630449012	Collected: 03/26/20 12:10	Received: 03/31/20 09:00	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.306 ± 0.131 (0.183) C:85% T:NA	pCi/L	04/07/20 18:21	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.743 ± 0.452 (0.848) C:76% T:76%	pCi/L	04/20/20 15:23	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	1.05 ± 0.583 (1.03)	pCi/L	04/21/20 08:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630449
Pace Project No.: 30356720

Sample: PZ-33		Lab ID: 2630449013	Collected: 03/26/20 14:55	Received: 03/31/20 09:00	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.428 ± 0.153 (0.192) C:81% T:NA	pCi/L	04/07/20 18:22	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.0451 ± 0.399 (0.918) C:71% T:74%	pCi/L	04/20/20 15:23	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.473 ± 0.552 (1.11)	pCi/L	04/21/20 08:48	7440-14-4	

Sample: DUP-01		Lab ID: 2630449014	Collected: 03/26/20 00:00	Received: 03/31/20 09:00	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.159 ± 0.0936 (0.142) C:85% T:NA	pCi/L	04/07/20 18:24	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.435 ± 0.359 (0.725) C:75% T:96%	pCi/L	04/20/20 15:23	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.594 ± 0.453 (0.867)	pCi/L	04/21/20 08:48	7440-14-4	

Sample: PZ-15		Lab ID: 2630449015	Collected: 03/26/20 11:12	Received: 03/31/20 09:00	Matrix: Water	
PWS:		Site ID:	Sample Type:			
Parameters	Method	Act ± Unc (MDC) Carr Trac	Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg						
Radium-226	EPA 9315	0.438 ± 0.295 (0.477) C:89% T:NA	pCi/L	04/08/20 07:57	13982-63-3	
Pace Analytical Services - Greensburg						
Radium-228	EPA 9320	0.425 ± 0.409 (0.843) C:75% T:79%	pCi/L	04/20/20 15:23	15262-20-1	
Pace Analytical Services - Greensburg						
Total Radium	Total Radium Calculation	0.863 ± 0.704 (1.32)	pCi/L	04/21/20 08:48	7440-14-4	

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ANALYTICAL RESULTS - RADIOCHEMISTRY

Project: 2630449
Pace Project No.: 30356720

Sample: PZ-16		Lab ID: 2630449016	Collected: 03/26/20 09:38	Received: 03/31/20 09:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.0910 ± 0.163 (0.365) C:91% T:NA		pCi/L	04/08/20 07:56	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.431 ± 0.421 (0.867) C:76% T:75%		pCi/L	04/20/20 15:23	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	0.522 ± 0.584 (1.23)		pCi/L	04/21/20 08:48	7440-14-4	

Sample: PZ-19		Lab ID: 2630449017	Collected: 03/26/20 14:00	Received: 03/31/20 09:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.765 ± 0.424 (0.675) C:85% T:NA		pCi/L	04/08/20 07:56	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.891 ± 0.478 (0.862) C:72% T:79%		pCi/L	04/20/20 15:23	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	1.66 ± 0.902 (1.54)		pCi/L	04/21/20 08:48	7440-14-4	

Sample: DUP-02		Lab ID: 2630449018	Collected: 03/26/20 00:00	Received: 03/31/20 09:00	Matrix: Water		
PWS:		Site ID:	Sample Type:				
Parameters	Method	Act ± Unc (MDC) Carr Trac		Units	Analyzed	CAS No.	Qual
Pace Analytical Services - Greensburg							
Radium-226	EPA 9315	0.883 ± 0.387 (0.385) C:85% T:NA		pCi/L	04/08/20 07:56	13982-63-3	
Pace Analytical Services - Greensburg							
Radium-228	EPA 9320	0.743 ± 0.428 (0.794) C:72% T:93%		pCi/L	04/20/20 15:23	15262-20-1	
Pace Analytical Services - Greensburg							
Total Radium	Total Radium Calculation	1.63 ± 0.815 (1.18)		pCi/L	04/21/20 08:48	7440-14-4	

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630449
Pace Project No.: 30356720

QC Batch: 390590	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004, 2630449005

METHOD BLANK: 1891462 Matrix: Water

Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004, 2630449005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0954 ± 0.125 (0.246) C:85% T:NA	pCi/L	04/07/20 09:13	

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: 2630449
Pace Project No.: 30356720

QC Batch: 390593	Analysis Method: EPA 9320
QC Batch Method: EPA 9320	Analysis Description: 9320 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004, 2630449005

METHOD BLANK: 1891465 Matrix: Water

Associated Lab Samples: 2630449001, 2630449002, 2630449003, 2630449004, 2630449005

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.112 ± 0.287 (0.643) C:74% T:91%	pCi/L	04/15/20 13:00	

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

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL - RADIOCHEMISTRY

Project: 2630449
Pace Project No.: 30356720

QC Batch: 391016	Analysis Method: EPA 9320
QC Batch Method: EPA 9320	Analysis Description: 9320 Radium 228
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

METHOD BLANK: 1893276 Matrix: Water

Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	0.311 ± 0.302 (0.622) C:72% T:102%	pCi/L	04/20/20 12:19	

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: 2630449
Pace Project No.: 30356720

QC Batch: 391014	Analysis Method: EPA 9315
QC Batch Method: EPA 9315	Analysis Description: 9315 Total Radium
	Laboratory: Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

METHOD BLANK: 1893273 Matrix: Water

Associated Lab Samples: 2630449011, 2630449012, 2630449013, 2630449014, 2630449015, 2630449016, 2630449017, 2630449018

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0879 ± 0.146 (0.316) C:93% T:NA	pCi/L	04/07/20 19:50	

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: 2630449
Pace Project No.: 30356720

QC Batch:	390591	Analysis Method:	EPA 9315
QC Batch Method:	EPA 9315	Analysis Description:	9315 Total Radium
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

METHOD BLANK: 1891463 Matrix: Water

Associated Lab Samples: 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-226	0.0696 ± 0.172 (0.412) C:90% T:NA	pCi/L	04/07/20 08:03	

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: 2630449
Pace Project No.: 30356720

QC Batch:	390594	Analysis Method:	EPA 9320
QC Batch Method:	EPA 9320	Analysis Description:	9320 Radium 228
		Laboratory:	Pace Analytical Services - Greensburg

Associated Lab Samples: 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

METHOD BLANK: 1891466 Matrix: Water

Associated Lab Samples: 2630449006, 2630449007, 2630449008, 2630449009, 2630449010

Parameter	Act ± Unc (MDC) Carr Trac	Units	Analyzed	Qualifiers
Radium-228	-0.184 ± 0.318 (0.783) C:80% T:81%	pCi/L	04/16/20 15:55	

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: 2630449
Pace Project No.: 30356720

DEFINITIONS

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

ND - Not Detected at or above adjusted reporting limit.

TNTC - Too Numerous To Count

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

MDL - Adjusted Method Detection Limit.

PQL - Practical Quantitation Limit.

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

S - Surrogate

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

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

LCS(D) - Laboratory Control Sample (Duplicate)

MS(D) - Matrix Spike (Duplicate)

DUP - Sample Duplicate

RPD - Relative Percent Difference

NC - Not Calculable.

SG - Silica Gel - Clean-Up

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

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

Act - Activity

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

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

(MDC) - Minimum Detectable Concentration

Trac - Tracer Recovery (%)

Carr - Carrier Recovery (%)

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

TNI - The NELAC Institute.

REPORT OF LABORATORY ANALYSIS

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Chain of Custody

Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA

Cert. Needed: Yes No

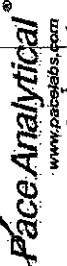
Workorder: 2630449 Workorder Name: PLANT MITCHELL ASH PONDS A 1&2

Owner Received Date: 3/26/2020 Results Requested By: 4/9/2020

Report To: **Subcontracting Laboratory**

Kevin Herring
Pace Analytical Charlotte
9800 Kincey Ave.
Suite 100
Huntersville, NC 28078
Phone (704)875-9092

Pace Analytical Pittsburgh
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601
Phone (724)850-5600



21 DMS
4/9/2020

WO#: 303556720



RAD 9315
RAD 9320

Preserved Containers

Item	Sample ID	Sample Type	Collect Date/Time	Lab ID	Matrix	INH3	Received By	Date/Time	Received on Ice	Custody Seal	Y or N	Y or N	Y or N	LAB USE ONLY
1	PZ-1D	PS	3/24/2020 15:30	2630449001	Water	✓			X					CC1
2	PZ-2D	PS	3/24/2020 16:22	2630449002	Water	✓			X					CC2
3	EB-01	PS	3/24/2020 12:55	2630449003	Water	✓			X					CC3
4	FB-01	PS	3/25/2020 09:20	2630449004	Water	✓			X					CC4
5	PZ-31	PS	3/25/2020 10:20	2630449005	Water	✓			X					CC5
6	PZ-14	PS	3/25/2020 13:40	2630449006	Water	✓			X					CC6
7	PZ-23A	PS	3/25/2020 16:05	2630449007	Water	✓			X					CC7
8	PZ-17	PS	3/25/2020 15:11	2630449008	Water	✓			X					CC8
9	PZ-25	PS	3/25/2020 13:33	2630449009	Water	✓			X					CC9
10	PZ-32	PS	3/25/2020 11:05	2630449010	Water	✓			X					CC10

Comments

Transfers	Released By	Date/Time	Received By	Date/Time
1	<i>[Signature]</i>	3/26/2020	<i>[Signature]</i>	3-27-20 9:15
2				
3				

Cooler Temperature on Receipt *MM°C* Custody Seal Y or N Received on Ice Y or N Samples Intact Y or N

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document.

This chain of custody is considered complete as is since this information is available in the owner laboratory.

Chain of Custody

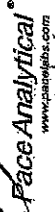
Samples were sent directly to the Subcontracting Laboratory.

State Of Origin: GA
 Cert. Needed: Yes No

Workorder: 2630449 Workorder Name: PLANT MITCHELLASH PONDSA 1&2 Owner Received Date: 3/26/2020 Results Requested By: 21005

Kevin Heming
 Pace Analytical Charlotte
 9800 Kincaid Ave.
 Suite 100
 Huntersville, NC 28078
 Phone (704)875-9092

Pace Analytical Pittsburgh
 1638 Roseytown Road
 Suites 2,3, & 4
 Greensburg, PA 15601
 Phone (724)850-5600



Results Requested By: 21005

WO#: 30356720

PM: JAC Due Date: 04/17/20
 CLIENT: PACE_26_ATGA

RAD 9315
 RAD 9320

Lab #	Sample ID	Sample Type	Collection Date/Time	Lab ID	Matrix	Volume	Notes	LAB USE ONLY
1	PZ-1	PS	3/24/2020 15:30	2630449001	Water	1		
2	PZ-2D	PS	3/24/2020 16:22	2630449002	Water	1		
3	EB-01	PS	3/24/2020 12:55	2630449003	Water	1		
4	FB-01	PS	3/25/2020 09:20	2630449004	Water	1		
5	PZ-31	PS	3/25/2020 10:20	2630449005	Water	1		
6	PZ-14	PS	3/25/2020 13:40	2630449006	Water	1		
7	PZ-23A	PS	3/25/2020 16:05	2630449007	Water	1		
8	PZ-17	PS	3/25/2020 15:11	2630449008	Water	1		
9	PZ-25	PS	3/25/2020 13:33	2630449009	Water	1		
10	PZ-18	PS	3/25/2020 11:05	2630449010	Water	1		
11	PZ-7D	PS	3/26/2020 09:55	2630449011	Water	1		
12	PZ-18	PS	3/26/2020 12:10	2630449012	Water	1		
13	PZ-33	PS	3/26/2020 14:55	2630449013	Water	1		
14	DUP-01	PS	3/26/2020 00:00	2630449014	Water	1		
15	PZ-15	PS	3/26/2020 11:12	2630449015	Water	1		
16	PZ-16	PS	3/26/2020 09:38	2630449016	Water	1		
17	PZ-19	PS	3/26/2020 14:00	2630449017	Water	1		
18	DUP-02	PS	3/26/2020 00:00	2630449018	Water	1		

Transfers	Released By	Date/Time	Received By	Date/Time	Received on Ice	Y or N	Samples Intact	Y or N
1			<i>[Signature]</i>					
2								
3								

Cooler Temperature on Receipt *N/A* °C Received on Ice *Y* or *N* Samples Intact *Y* or *N*

Added on project

***In order to maintain client confidentiality, location/name of the sampling site, sampler's name and signature may not be provided on this COC document. This chain of custody is considered complete as is since this information is available in the owner laboratory.

WO# : 30356720
 PM: JAC Due Date: 04/17/20
 CLIENT: PACE_26_ATGA

Pittsburgh Lab Sample Condition Upon Receipt



Client Name: Pace GA

Project # 30356720

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____
 Tracking #: 1657 9507 1540

Label	<u>DIC</u>
LIMS Login	<u>DIC</u>

Custody Seal on Cooler/Box Present: yes no Seals intact: yes no
 Thermometer Used N/A Type of Ice: Wet Blue None

Cooler Temperature Observed Temp _____ °C Correction Factor: _____ °C Final Temp: _____ °C
 Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents:
				<u>10D2191</u>	<u>DIC 3-27-20</u>
Chain of Custody Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.	
Chain of Custody Filled Out:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	
Chain of Custody Relinquished:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.	
Sampler Name & Signature on COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.	
Sample Labels match COC:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.	
-Includes date/time/ID Matrix: <u>WT</u>					
Samples Arrived within Hold Time:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	6.	
Short Hold Time Analysis (<72hr remaining):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	7.	
Rush Turn Around Time Requested:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	8.	
Sufficient Volume:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	9.	<u>Low volume for OOL and OAZ</u>
Correct Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	10.	
-Pace Containers Used:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Containers Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	11.	<u>4 bottles for OOL received completely spoiled, 2 bottles for OAZ received with 400 uL</u>
Orthophosphate field filtered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	12.	
Hex Cr Aqueous sample field filtered	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	13.	
Organic Samples checked for dechlorination:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	14.	
Filtered volume received for Dissolved tests	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	15.	
All containers have been checked for preservation.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	16.	
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix					<u>PTC2</u>
All containers meet method preservation requirements.	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed	Date/time of preservation
				<u>DIC</u>	
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	17.	
Trip Blank Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.	
Trip Blank Custody Seals Present	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		
Rad Samples Screened < 0.5 mrem/hr	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Initial when completed	Date: <u>3-30-20</u>
				<u>DIC</u>	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)
 *PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

WO#: 30356720

Pittsburgh Lab Sample Condition Upon Receipt

PM: JAC

Due Date: 04/17/20

CLIENT: PACE_26_ATGA



Client Name: Pace GA

Courier: Fed Ex UPS USPS Client Commercial Pace Other _____

Tracking #: 1657 9507 2112

Label	<u>DL</u>
LIMS Login	<u>DL</u>

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

Thermometer Used N/A Type of Ice: Wet Blue None

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

Temp should be above freezing to 6°C

Comments:	Yes	No	N/A	pH paper Lot#	Date and Initials of person examining contents:
				<u>10D2141</u>	<u>DL 3-31-20</u>
Chain of Custody Present:	/				
Chain of Custody Filled Out:	/				
Chain of Custody Relinquished:					
Sampler Name & Signature on COC:					
Sample Labels match COC:					
-Includes date/time/ID Matrix: <u>WT</u>					
Samples Arrived within Hold Time:	/				
Short Hold Time Analysis (<72hr remaining):	/				
Rush Turn Around Time Requested:	/				
Sufficient Volume:	/				
Correct Containers Used:	/				
-Pace Containers Used:	/				
Containers Intact:	/				
Orthophosphate field filtered			/		
Hex Cr Aqueous sample field filtered			/		
Organic Samples checked for dechlorination:			/		
Filtered volume received for Dissolved tests			/		
All containers have been checked for preservation.	/				
exceptions: VOA, coliform, TOC, O&G, Phenolics, Radon, Non-aqueous matrix					
All containers meet method preservation requirements.	/			Initial when completed <u>DL</u>	Date/time of preservation
				Lot # of added preservative	
Headspace in VOA Vials (>6mm):			/		
Trip Blank Present:			/		
Trip Blank Custody Seals Present			/		
Rad Samples Screened < 0.5 mrem/hr	/			Initial when completed: <u>DL</u>	Date: <u>3-31-20</u>

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____ Contacted By: _____

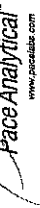
Comments/ Resolution: _____

A check in this box indicates that additional information has been stored in ereports.

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)

*PM review is documented electronically in LIMS. When the Project Manager closes the SRF Review schedule in LIMS. The review is in the Status section of the Workorder Edit Screen.

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: LAL
Date: 4/5/2020
Worklist: 53221
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1891462
MB concentration:	0.095
M/B Counting Uncertainty:	0.124
MB MDC:	0.246
MB Numerical Performance Indicator:	1.51
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCS# (Y or N)?	Y
LCS53221	4/7/2020
LCS53221	4/7/2020
Count Date:	4/7/2020
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/mL):	24.049
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.513
Target Conc. (pCi/L, g, F):	4.685
Uncertainty (Calculated):	0.056
Result (pCi/L, g, F):	4.614
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.725
Numerical Performance Indicator:	-0.19
Percent Recovery:	98.48%
Status vs Numerical Indicator:	N/A
Upper % Recovery Limits:	Pass
Lower % Recovery Limits:	125%
	75%

Duplicate Sample Assessment	
Sample I.D.:	LCS53221
Duplicate Sample I.D.:	LCS53221
Sample Result (pCi/L, g, F):	4.614
Sample Duplicate Result (pCi/L, g, F):	0.725
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	4.549
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.128
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	0.17%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Sample Matrix Spike Control Assessment		MS/MSD 1	MS/MSD 2
Sample Collection Date:	Sample I.D.:		
Sample MS I.D.:	Sample MS I.D.:		
Sample MSD I.D.:	Sample MSD I.D.:		
Spike I.D.:	Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	Spike Volume Used in MS (mL):		
Spike Volume Used in MSD (mL):	MS Aliquot (L, g, F):		
MS Target Conc. (pCi/L, g, F):	MSD Aliquot (L, g, F):		
MSD Target Conc. (pCi/L, g, F):	MS Spike Uncertainty (calculated):		
MS Spike Uncertainty (calculated):	MSD Spike Uncertainty (calculated):		
MSD Spike Uncertainty (calculated):	Sample Result:		
Sample Result Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Result:		
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Duplicate Result:		
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	MS Numerical Performance Indicator:		
MS Numerical Performance Indicator:	MSD Numerical Performance Indicator:		
MS Percent Recovery:	MSD Percent Recovery:		
MS Status vs Numerical Indicator:	MS Status vs Numerical Indicator:		
MSD Status vs Numerical Indicator:	MS Status vs Recovery:		
MS/MSD Upper % Recovery Limits:	MSD Status vs Recovery:		
MS/MSD Lower % Recovery Limits:	MS/MSD Duplicate Status vs RPD:		
	% RPD Limit:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample MS I.D.:
Sample MS I.D.:	Sample MSD I.D.:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result:
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	Duplicate Numerical Performance Indicator:
Duplicate Numerical Performance Indicator:	(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs RPD:
MS/MSD Duplicate Status vs RPD:	% RPD Limit:

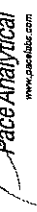
Evaluation of duplicate precision is not applicable if either the sample or duplicate results are below the MDC.

Comments:

LAM 4/17/20

Cue 4/17/20

Quality Control Sample Performance Assessment



Test: Ra-228
Analyst: LAL
Date: 4/5/2020
Worklist: 53221
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1891462
MB Concentration:	0.095
M/B Counting Uncertainty:	0.124
MB MDC:	0.246
MB Numerical Performance Indicator:	1.51
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	n
LCSS53221	LCSD563221
Count Date:	4/7/2020
Spike I.D.:	19-093
Decay Corrected Spike Concentration (pCi/mL):	24.049
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.513
Target Conc. (pCi/L, g, F):	4.685
Uncertainty (Calculated):	0.056
Result (pCi/L, g, F):	4.614
LCSD/LCSD Counting Uncertainty (pCi/L, g, F):	0.725
Numerical Performance Indicator:	-0.19
Percent Recovery:	98.48%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment	
Sample I.D.:	2630435007
Duplicate Sample I.D.:	2630435007DUP
Sample Result (pCi/L, g, F):	0.161
Sample Result Counting Uncertainty (pCi/L, g, F):	0.152
Sample Duplicate Result (pCi/L, g, F):	0.099
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.158
Are sample and/or duplicate results below RL?	See Below #
Duplicate Numerical Performance Indicator:	0.550
Duplicate RPD:	47.42%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***
% RPD Limit:	25%

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

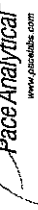
Comments: ~~Batch must be re-prepared due to unacceptable precision.~~ N/A RAM 4/7/20

Sample Matrix Spike Control Assessment	
Sample Collection Date:	Sample I.D.
Sample MS I.D.	Sample MS I.D.
Sample MSD I.D.	Sample MSD I.D.
Spike I.D.:	MS/MSD 1
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	MS/MSD 2
Spike Volume Used in MS (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
MS Spike Uncertainty (calculated):	
MSD Spike Uncertainty (calculated):	
Sample Result:	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	
MS/MSD Upper % Recovery Limits:	
MS/MSD Lower % Recovery Limits:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample I.D.
Sample MS I.D.:	Sample MS I.D.
Sample MSD I.D.:	Sample MSD I.D.
Sample Matrix Spike Result:	Sample Matrix Spike Result
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:	Duplicate Numerical Performance Indicator
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs Numerical Indicator
MS/MSD Duplicate Status vs RPD:	MS/MSD Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit

RAM 4/7/20

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: LAL
Date: 4/5/2020
Worklist: 53222
Matrix: DW

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Method Blank Assessment	
MB Sample ID	1891463
MB concentration:	0.070
M/B Counting Uncertainty:	0.172
MB MDC:	0.412
MB Numerical Performance Indicator:	0.79
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS (Y or N)?	Y
Count Date:	4/7/2020	LCS53222	4/7/2020
Spike I.D.:	19-033		19-033
Decay Corrected Spike Concentration (pCi/mL):	24.049		24.049
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.514		0.501
Target Conc. (pCi/L, g, F):	4.675		4.798
Uncertainty (Calculated):	0.056		0.058
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	4.859		4.698
Numerical Performance Indicator:	0.707		0.719
Percent Recovery:	0.51		-0.27
Status vs Numerical Indicator:	103.94%		97.92%
Upper % Recovery Limits:	N/A		N/A
Lower % Recovery Limits:	Pass		Pass
	125%		125%
	75%		75%

Duplicate Sample Assessment	
Sample I.D.:	LCS53222
Duplicate Sample I.D.:	LCS53222
Sample Result (pCi/L, g, F):	4.859
Sample Duplicate Result (pCi/L, g, F):	0.707
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	4.698
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.719
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.313
(Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	5.96%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

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

Comments:

LAB 4-7-2020
LAL 4/7/20

Quality Control Sample Performance Assessment



Test: Ra-226
Analyst: LAL
Date: 4/5/2020
Worklist: 53222
Matrix: DW

Method Blank Assessment	MB Sample ID	1891483
MB concentration:		0.070
M/B Counting Uncertainty:		0.172
MB MDC:		0.412
MB Numerical Performance Indicator:		0.79
MB Status vs Numerical Indicator:		N/A
MB Status vs. MDC:		Pass

Laboratory Control Sample Assessment	LCS#	(Y or N)?	N
Count Date:	4772020		LCS053222
Spike I.D.:	19-033		
Decay Corrected Spike Concentration (pCi/mL):	24.049		
Volume Used (mL):	0.10		
Aliquot Volume (L, g, F):	0.514		
Target Conc. (pCi/L, g, F):	4.675		
Uncertainty (Calculated):	0.066		
Result (pCi/L, g, F):	4.859		
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.707		
Numerical Performance Indicator:	0.51		
Percent Recovery:	103.94%		
Status vs Numerical Indicator:	N/A		
Status vs Recovery:	Pass		
Upper % Recovery Limits:	125%		
Lower % Recovery Limits:	75%		

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MSD Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.: Duplicate Sample I.D.: Sample Result (pCi/L, g, F): Sample Result Counting Uncertainty (pCi/L, g, F): Sample Duplicate Result (pCi/L, g, F): Sample Duplicate Result Counting Uncertainty (pCi/L, g, F): Are sample and/or duplicate results below RL? Duplicate Numerical Performance Indicator: Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: % RPD Limit:	2630449010 2630449010DUP 0.051 0.134 0.127 0.138 See Below # -0.770 84.72% N/A Fail*** 25%

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate RPD: Duplicate Status vs Numerical Indicator: Duplicate Status vs RPD: % RPD Limit:

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

Comments:

***Batch must be re-prepped due to unacceptable precision. N/A
www 4/17/20

KLS
4-7-2020

www 4/17/20

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 4/7/2020
Worklist: 53273
Matrix: DW

Method Blank Assessment	
MB Sample ID	1893273
MB concentration:	0.088
MB Counting Uncertainty:	0.145
MB MDC:	0.316
MB Numerical Performance Indicator:	1.19
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
LCSD (Y or N)?	Y
LCSS53273	LCSD53273
Count Date:	4/8/2020
Spike I.D.:	19-033
Decay Corrected Spike Concentration (pCi/L):	24.049
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.504
Target Conc. (pCi/L, g, F):	4.776
Uncertainty (Calculated):	0.057
Result (pCi/L, g, F):	4.815
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.784
Numerical Performance Indicator:	0.10
Percent Recovery:	100.82%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	125%
Lower % Recovery Limits:	75%

Duplicate Sample Assessment	
Sample I.D.:	LCSS53273
Duplicate Sample I.D.:	LCSD53273
Sample Result (pCi/L, g, F):	4.915
Sample Duplicate Result (pCi/L, g, F):	0.784
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	5.065
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.785
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	-0.441
Duplicate Percent Recoveries Duplicate RPD:	5.95%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Pass
% RPD Limit:	25%

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

Comments:

Sample Matrix Spike Control Assessment	
Sample Collection Date:	Sample I.D.:
Sample MS I.D.:	Sample MS I.D.:
Sample MSD I.D.:	Sample MSD I.D.:
Spike I.D.:	MS/MSD 1
MS/MSD Decay Corrected Spike Concentration (pCi/mL):	MS/MSD 2
Spike Volume Used in MS (mL):	
Spike Volume Used in MSD (mL):	
MS Aliquot (L, g, F):	
MS Target Conc. (pCi/L, g, F):	
MSD Aliquot (L, g, F):	
MSD Target Conc. (pCi/L, g, F):	
MS Spike Uncertainty (calculated):	
MSD Spike Uncertainty (calculated):	
Sample Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Result:	
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	
Sample Matrix Spike Duplicate Result:	
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	
MS Numerical Performance Indicator:	
MSD Numerical Performance Indicator:	
MS Percent Recovery:	
MSD Percent Recovery:	
MS Status vs Numerical Indicator:	
MSD Status vs Numerical Indicator:	
MS Status vs Recovery:	
MSD Status vs Recovery:	
MS/MSD Upper % Recovery Limits:	
MS/MSD Lower % Recovery Limits:	

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample I.D.:
Sample MS I.D.:	Sample MS I.D.:
Sample MSD I.D.:	Sample MSD I.D.:
Sample Matrix Spike Result:	Sample Matrix Spike Result:
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:	Duplicate Numerical Performance Indicator:
Duplicate Percent Recoveries MS/MSD Duplicate RPD:	Duplicate Percent Recoveries MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:	MS/MSD Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit:

UAM 4/8/20

CW 4/8/20

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-226
Analyst: LAL
Date: 4/7/2020
Worklist: 53273
Matrix: DW

Method Blank Assessment	
MB Sample ID	1893273
MB concentration:	0.088
M/B Counting Uncertainty:	0.145
MB MDC:	0.316
MB Numerical Performance Indicator:	1.19
MB Status vs Numerical Indicator:	N/A
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD53273	LCSD53273
Count Date:	4/8/2020	
Spike I.D.:	19-033	
Decay Corrected Spike Concentration (pCi/mL):	24.049	
Volume Used (mL):	0.10	
Aliquot Volume (L, g, F):	0.504	
Target Conc. (pCi/L, g, F):	4.776	
Uncertainty (Calculated):	0.057	
Result (pCi/L, g, F):	4.815	
LCS/LCSD Counting Uncertainty (pCi/L, g, F):	0.10	
Numerical Performance Indicator:	100.82%	
Status vs Numerical Indicator:	N/A	
Status vs Recovery:	Pass	
Upper % Recovery Limits:	125%	
Lower % Recovery Limits:	75%	

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D.: Sample MS I.D.: Sample MSD I.D.: Spike I.D.:		
MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result: Sample Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result Counting Uncertainty (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F): Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F): MS Numerical Performance Indicator: MS Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	2630325039
Duplicate Sample I.D.:	2630325039DUP
Sample Result (pCi/L, g, F):	0.637
Sample Duplicate Result (pCi/L, g, F):	0.246
Sample Duplicate Counting Uncertainty (pCi/L, g, F):	0.140
Sample Duplicate Result Counting Uncertainty (pCi/L, g, F):	0.251
Are sample and/or duplicate results below RL?	See Below ##
Duplicate Numerical Performance Indicator:	2.768
Duplicate RPD:	127.71%
Duplicate Status vs Numerical Indicator:	N/A
Duplicate Status vs RPD:	Fail***
% RPD Limit:	25%

Matrix Spike/Matrix Spike Duplicate Sample Assessment	
Sample I.D.:	Sample I.D.:
Sample MS I.D.:	Sample MS I.D.:
Sample MSD I.D.:	Sample MSD I.D.:
Matrix Spike Result Counting Uncertainty (pCi/L, g, F):	Matrix Spike Result Counting Uncertainty (pCi/L, g, F):
Sample Matrix Spike Duplicate Result:	Sample Matrix Spike Duplicate Result:
Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):	Sample Matrix Spike Duplicate Counting Uncertainty (pCi/L, g, F):
Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):	Matrix Spike Duplicate Result Counting Uncertainty (pCi/L, g, F):
Duplicate Numerical Performance Indicator:	Duplicate Numerical Performance Indicator:
(Based on the Percent Recoveries) MS/MSD Duplicate RPD:	(Based on the Percent Recoveries) MS/MSD Duplicate RPD:
MS/MSD Duplicate Status vs Numerical Indicator:	MS/MSD Duplicate Status vs Numerical Indicator:
MS/MSD Duplicate Status vs RPD:	MS/MSD Duplicate Status vs RPD:
% RPD Limit:	% RPD Limit:

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

***Batch must be re-prepped due to unacceptable precision. N/A CAM 4/8/20

Quality Control Sample Performance Assessment

Analyst **Must Manually Enter All Fields Highlighted in Yellow.**



Test: Ra-228
Analyst: VAL
Date: 4/7/2020
Worklist: 53224
Matrix: WT

Method Blank Assessment	
MB Sample ID	1891465
MB concentration:	0.112
MB 2 Sigma CSU:	0.287
MB MDC:	0.643
MB Numerical Performance Indicator:	0.76
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment		LCS (Y or N)?	Y
Count Date:	4/15/2020	LCS53224	4/15/2020
Spike I.D.:	19-057		19-057
Decay Corrected Spike Concentration (pCi/mL):	34.481		34.481
Volume Used (mL):	0.10		0.10
Aliquot Volume (L, g, F):	0.813		0.813
Target Conc. (pCi/L, g, F):	4.234		4.240
Uncertainty (Calculated):	0.305		0.305
Result (pCi/L, g, F):	4.852		4.733
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.102		1.081
Numerical Performance Indicator:	1.06		0.86
Percent Recovery:	114.60%		111.63%
Status vs Numerical Indicator:	N/A		N/A
Status vs Recovery:	Pass		Pass
Upper % Recovery Limits:	135%		135%
Lower % Recovery Limits:	60%		60%

Duplicate Sample Assessment	
Sample I.D.:	LCS53224
Duplicate Sample I.D.:	LCS53224
Sample Result (pCi/L, g, F):	4.852
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.102
Sample Duplicate Result (pCi/L, g, F):	4.733
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.081
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.151
Duplicate (Percent Recoveries) Duplicate RPD:	2.63%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

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

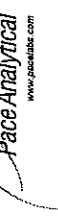
Comments:

5/16/20

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
<p>Sample Collection Date:</p> <p>Sample I.D.</p> <p>Sample MS I.D.</p> <p>Sample MSD I.D.</p> <p>Spike I.D.:</p> <p>MS/MSD Decay Corrected Spike Concentration (pCi/mL):</p> <p>Spike Volume Used in MS (mL):</p> <p>Spike Volume Used in MSD (mL):</p> <p>MS Aliquot (L, g, F):</p> <p>MS Target Conc. (pCi/L, g, F):</p> <p>MSD Aliquot (L, g, F):</p> <p>MSD Target Conc. (pCi/L, g, F):</p> <p>MSD Spike Uncertainty (calculated):</p> <p>MSD Spike Uncertainty (calculated):</p> <p>Sample Result 2 Sigma CSU (pCi/L, g, F):</p> <p>Sample Matrix Spike Result:</p> <p>Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):</p> <p>MS Numerical Performance Indicator:</p> <p>MSD Numerical Performance Indicator:</p> <p>MS Percent Recovery:</p> <p>MSD Percent Recovery:</p> <p>MS Status vs Numerical Indicator:</p> <p>MSD Status vs Numerical Indicator:</p> <p>MS Status vs Recovery:</p> <p>MSD Status vs Recovery:</p> <p>MS/MSD Upper % Recovery Limits:</p> <p>MS/MSD Lower % Recovery Limits:</p>		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
<p>Sample I.D.</p> <p>Sample MS I.D.</p> <p>Sample MSD I.D.</p> <p>Sample Matrix Spike Result:</p> <p>Matrix Spike Result 2 Sigma CSU (pCi/L, g, F):</p> <p>Sample Matrix Spike Duplicate Result:</p> <p>Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F):</p> <p>Duplicate Numerical Performance Indicator:</p> <p>(Based on the Percent Recoveries) MS/MSD Duplicate RPD:</p> <p>MS/MSD Duplicate Status vs Numerical Indicator:</p> <p>MS/MSD Duplicate Status vs RPD:</p> <p>% RPD Limit:</p>

Quality Control Sample Performance Assessment



Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 4/7/2020
Worklist: 53225
Matrix: WT

Method Blank Assessment	
MB Sample ID	1891466
MB concentration:	-0.184
M/B 2 Sigma CSU:	0.318
MB MDC:	0.783
MB Numerical Performance Indicator:	-1.13
MB Status vs Numerical Indicator:	Pass
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	LCSD (Y or N)?	
	LCSD53225	LCSD53225
Count Date:	4/16/2020	4/16/2020
Spike I.D.:	19-057	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.469	34.469
Volume Used (mL):	0.10	0.10
Aliquot Volume (L, g, F):	0.808	0.807
Target Conc. (pCi/L, g, F):	4.266	4.269
Uncertainty (Calculated):	0.307	0.307
Result (pCi/L, g, F):	4.487	4.458
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.030	1.019
Numerical Performance Indicator:	0.40	0.35
Percent Recovery:	105.19%	104.44%
Status vs Numerical Indicator:	N/A	N/A
Status vs Recovery:	Pass	Pass
Upper % Recovery Limits:	135%	135%
Lower % Recovery Limits:	60%	60%

Duplicate Sample Assessment	Enter Duplicate sample IDs if other than LCS/LCSD in the space below.
Sample I.D.:	LCSD53225
Duplicate Sample I.D.:	LCSD53225
Sample Result (pCi/L, g, F):	4.487
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.030
Sample Duplicate Result (pCi/L, g, F):	4.458
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	1.019
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.039
Duplicate Percent Recoveries:	0.72%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.:		
M/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated):		
Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

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

Comments:

537-30
Ra-228 NIELAC DWZ
Printed: 4/17/2020 8:25 AM
4/17/20

Quality Control Sample Performance Assessment

Analyst Must Manually Enter All Fields Highlighted in Yellow.

Test: Ra-228
Analyst: VAL
Date: 4/8/2020
Worklist: 53274
Matrix: WT



Method Blank Assessment	
MB Sample ID	1893276
MB concentration:	0.311
MB 2 Sigma CSU:	0.302
MB MDC:	0.622
MB Numerical Performance Indicator:	2.01
MB Status vs Numerical Indicator:	Warning
MB Status vs. MDC:	Pass

Laboratory Control Sample Assessment	
Count Date:	4/20/2020
Spike I.D.:	19-057
Decay Corrected Spike Concentration (pCi/mL):	34.425
Volume Used (mL):	0.10
Aliquot Volume (L, g, F):	0.813
Target Conc. (pCi/L, g, F):	4.235
Uncertainty (Calculated):	0.306
Result (pCi/L, g, F):	4.402
LCS/LCSD 2 Sigma CSU (pCi/L, g, F):	1.007
Numerical Performance Indicator:	0.31
Percent Recovery:	103.95%
Status vs Numerical Indicator:	N/A
Status vs Recovery:	Pass
Upper % Recovery Limits:	135%
Lower % Recovery Limits:	60%

Duplicate Sample Assessment	
Sample I.D.:	LCS53274
Duplicate Sample I.D.:	LCS53274
Sample Result (pCi/L, g, F):	4.402
Sample Result 2 Sigma CSU (pCi/L, g, F):	1.007
Sample Duplicate Result (pCi/L, g, F):	3.984
Sample Duplicate Result 2 Sigma CSU (pCi/L, g, F):	0.924
Are sample and/or duplicate results below RL?	NO
Duplicate Numerical Performance Indicator:	0.600
Duplicate (Based on the LCS/LCSD Percent Recoveries) Duplicate RPD:	10.32%
Duplicate Status vs Numerical Indicator:	Pass
Duplicate Status vs RPD:	Pass
% RPD Limit:	36%

Sample Matrix Spike Control Assessment	MS/MSD 1	MS/MSD 2
Sample Collection Date: Sample I.D. Sample MS I.D. Sample MSD I.D. Spike I.D.: MS/MSD Decay Corrected Spike Concentration (pCi/mL): Spike Volume Used in MS (mL): Spike Volume Used in MSD (mL): MS Aliquot (L, g, F): MS Target Conc. (pCi/L, g, F): MSD Aliquot (L, g, F): MSD Target Conc. (pCi/L, g, F): MS Spike Uncertainty (calculated): MSD Spike Uncertainty (calculated): Sample Result: Sample Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): MS Numerical Performance Indicator: MSD Numerical Performance Indicator: MS Percent Recovery: MSD Percent Recovery: MS Status vs Numerical Indicator: MSD Status vs Numerical Indicator: MS Status vs Recovery: MSD Status vs Recovery: MS/MSD Upper % Recovery Limits: MS/MSD Lower % Recovery Limits:		

Matrix Spike/Matrix Spike Duplicate Sample Assessment
Sample I.D. Sample MS I.D. Sample MSD I.D. Sample Matrix Spike Result: Matrix Spike Result 2 Sigma CSU (pCi/L, g, F): Sample Matrix Spike Duplicate Result: Matrix Spike Duplicate Result 2 Sigma CSU (pCi/L, g, F): Duplicate Numerical Performance Indicator: Duplicate (Based on the Percent Recoveries) MS/MSD Duplicate RPD: MS/MSD Duplicate Status vs Numerical Indicator: MS/MSD Duplicate Status vs RPD: % RPD Limit:

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

Comments:

Handwritten notes:
 53274
 4/20/20
 4/20/20

DATA QUALITY EVALUATION

Data Evaluation Narrative

Project: Plant Mitchell CCR Groundwater Assessment Monitoring Event #3

Wood Project Number: 6122160170.2003.****

Site: Ash Ponds 1&2 - Plant Mitchell, Georgia

Matrix: Groundwater

Pace SDG Nos: 2630449 and 30356720

Introduction

A data quality evaluation (DQE) was performed on the laboratory data reported for the Assessment Monitoring Event #3 (March 2020) conducted at Ash Ponds 1 and 2 at Plant Mitchell, located in Albany, Georgia for Southern Company Services (SCS). The samples were collected and analyzed per the protocols presented in the *Draft Plant Mitchell Field Sampling Plan (FSP)* (SCS, 2016). The following sections provide summary discussions of the required data qualifications for the analytical methods for samples collected. A Level II DQE validation was performed on the samples analyzed by the fixed-based laboratory within these sample delivery groups (SDGs). A Level II DQE consists of review of the following criteria: sample integrity, holding times, method blanks, laboratory control samples (LCSs), matrix spikes/matrix spike duplicate (MS/MSD) recoveries and relative percent differences (RPDs), post digestion spikes (PDS), where applicable, laboratory and field duplicate RPDs, field and/or equipment blanks, and reporting limits. Additionally, the data summary tables generated from the electronic data deliverable (EDD) were compared to the laboratory hardcopy data report to verify that the EDD and laboratory data report agree.

The data were reviewed using the laboratory’s precision and accuracy limits, the method requirements, and any requirements listed in the FSP. It should be noted that at the time of this review, a finalized QAPP was not provided. DQE data qualifications were applied, if necessary, using the procedures in USEPA National Functional Guidelines for Inorganic Data Review (USEPA, 2014), as guidance, and professional judgment using the following qualifiers:

<u>Qualifier</u>	<u>Usable Data</u>
J	The analyte was positively identified but the result is an estimated quantity. The associated numerical value is the approximate concentration of the analyte in the sample. <i>SCS Definition: Value J indicates the substance was detected at such low levels that the precision of the laboratory instruments could not produce as reliable of a value. Therefore, the value displayed (value J) is qualified by the laboratory as estimated.</i>
UJ	The analyte was analyzed for, but was not detected above the level of the reported sample reporting/method detection limit. The reported method detection limit is approximate and may be inaccurate or imprecise.
U	Analyte was analyzed for but was not detected above the level of the reported sample reporting/method detection limit. <i>Note: SCS does not use the “U” flag except when reporting results for radium that are detected below the Minimum Detection Concentration (MDC).</i>
U*	This analyte should be considered “not-detected” because it was detected in an associated blank at a similar level.

<u>Qualifier</u>	<u>Unusable Data</u>
R	The sample results are rejected due to deficiencies in the ability to analyze the sample and meet QC criteria. The presence or absence of the analyte cannot be confirmed and the data are unusable.
UR	The analyte was analyzed for, but was not detected above the level of the reported sample reporting or method detection; however the data are unusable. The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The analyte may or may not be present in the sample.

The analytical results for the samples reported in this sample delivery group (SDG) are usable with the qualifications discussed in this narrative. A summary of the data with associated qualifiers is presented in **Table 1**.

Deliverables

The data package as submitted to Wood Environment & Infrastructure Solutions, Inc. (Wood, formerly, Amec Foster Wheeler) is complete to perform a Level II DQE for United States Environmental Protection Agency (USEPA) Methods SW6010D/SW6020B, EPA 300.0, SM2540C, SW9315, and SW9320.

Sample Integrity

The groundwater samples were submitted to Pace Analytical Services, Inc. (Pace) in Peachtree Corners, Georgia and analyzed for CCR Appendix III and Appendix IV metals (boron, calcium, antimony, arsenic, barium, chromium, cobalt, lead, lithium, molybdenum, selenium, and thallium) by Method SW6010D (calcium only) and SW6020B, anions (chloride, fluoride, and sulfate) by Method 300.0, and total dissolved solids (TDS) by Method SM2540C. Samples were also sent from Pace’s Georgia facility to their laboratory in Greenburg, Pennsylvania and analyzed for radium-226, radium-228, and total radium by Methods SW9315 and SW9320.

Based on the information provided on the Chain-of-Custody (COC) forms, the field samples arrived at the laboratory intact and within the temperature range and preservation requirements. Completed COC documents are included in the data package. It was noted by the laboratory that the COC indicated the samples were filtered, however it was confirmed that no field filtration was performed, therefore the results in this SDG represent total metals. No dissolved metals samples were collected and reported in this SDG.

Sample Identification

This SDG contains the following groundwater and quality control (QC) samples:

Sample ID	Sample Date	DQE Level	Sample ID	Sample Date	DQE Level
PZ-1D	03/24/20	II	PZ-15	03/26/20	II
PZ-2D	03/24/20	II	PZ-16	03/26/20	II
PZ-31	03/25/20	II	PZ-19	03/26/20	II
PZ-14	03/25/20	II			
PZ-23A	03/25/20	II	<u>QC Samples</u>		
PZ-17	03/25/20	II	FB-01	03/25/20	II
PZ-25	03/25/20	II	EB-01	03/24/20	II
PZ-32	03/25/20	II			
PZ-7D	03/26/20	II			
PZ-18	03/26/20	II			
PZ-33	03/26/20	II			

These samples were collected from Ash Ponds 1 and 2 between March 24 and 26, 2020. The associated field QC blanks include samples FB-01 and EB-01. Sample FB-01 is a field blank sample, and sample EB-01 is an equipment blank.

The analytical results for the metals, anions, TDS, and radium data are usable with the qualifications discussed in this narrative. A summary of the data quality is presented below.

Metals (SW6010D and SW6020B)

The samples were submitted to Pace for CCR Appendix III and Appendix IV metals by Methods SW6010D and SW6020B. The CCR Appendix III metals for this event are: boron (B) and calcium (Ca). The Appendix IV metals for this event are antimony (Sb), arsenic (As), barium (Ba), chromium (Cr), cobalt (Co), lead (Pb), lithium (Li), molybdenum (Mo), selenium (Se), and thallium (Tl). Each of the Level II components were within laboratory QC limits for metals except for MS/MSD recoveries.

Holding Times

The sample analyses were performed within the 6-month analysis holding time.

Method Blanks

The method blanks associated with the samples analyzed within this SDG did not contain analytes of interest.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCSs.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

An MS/MSD analysis for Ca by Method 6010D was performed on sample PZ-23A, and the MSD recovery was outside of the laboratory limits. However, no qualification is required if the sample was analyzed at a dilution, or if the sample result is greater than 4 times the spiked concentration.

Action: No qualification was required because the sample concentration was greater than 4x the spike amount potentially masking the spike.

An MS/MSD was also performed for the other 11 metals by Method 6020B on sample PZ-7D, and the recoveries and RPDs were within QC limits.

Post Digestion Spike (PDS)

PDS analyses results were not reported within this Level 2 data package.

Field Duplicate Precision

Two blind field duplicate samples were collected and submitted to the laboratory for this sampling event. Dup-01 is associated with monitoring well PZ-7D, and Dup-02 is associated with monitoring well PZ-19. Acceptable duplicate precision was achieved, and no qualification of the associated samples was required.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Equipment rinsate blanks are collected to monitor the decontamination process and field blanks are collected to assess the water used to decontaminate the equipment and the containers into which samples are placed. FB-01 is a field blank and is associated with the samples reported in this SDG. FB-01 reported no contamination for metals. EB-01 is an equipment blank associated with sample PZ-2D and no metals were detected.

Reporting Limits

The laboratory RLs were below the screening values for samples submitted for the analysis of metals by USEPA Method SW6010D/SW6020B. Since the laboratory analyzed calcium by SW6010D, no dilutions were required for any of the samples submitted in this SDG (all analyzed 1x).

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Anions (EPA 300)

The samples were submitted to Pace for anions (chloride, fluoride, and sulfate) by Method 300. Each of the Level II components were within laboratory QC limits.

Holding Times

The sample analyses were performed within the 28-day analysis holding time.

Method Blanks

The method blanks associated with the samples analyzed within this SDG contained no reportable detections of anions.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCSs.

Matrix Spike/Matrix Spike Duplicate (MS/MSD)

An MS/MSD analysis was performed on sample PZ-25, and the percent recoveries and RPDs were within QC limits.

Field Duplicate Precision

Two blind field duplicate samples were collected and submitted to the laboratory for this sampling event. Dup-01 is associated with monitoring well PZ-7D, and Dup-02 is associated with monitoring well PZ-19. Acceptable duplicate precision was achieved, and no qualification of the associated samples was required.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. EB-01 is an equipment blank and is associated with sample PZ-2D. EB-01 reported no contamination for anions. FB-01 is a field blank and is associated with the samples reported in this SDG. FB-01 reported no contamination for anions.

Reporting Limits

The laboratory RLs were below the screening values for samples submitted for the analysis of anions by USEPA Method 300. The laboratory RL was elevated where dilutions were required to place the constituent within the calibration range. No samples required dilution.

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

TDS (SM2540C)

The samples were submitted to Pace for TDS by Method SM2540C. Each of the Level II components were within QC limits except for equipment and field blank contamination; however, no qualification was required per guidance from SCS.

Holding Times

The sample analyses were performed within the 7-day analysis holding times.

Method Blanks

Method SM2540C does not require method blank analyses.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCSs.

Laboratory Duplicate Precision

Batch precision for TDS was measured through the analysis of laboratory duplicates. The laboratory analyzed sample PZ-31 in duplicate, and the RPD was within QC limits indicating good analytical precision.

Field Duplicate Precision

Two blind field duplicate samples were collected and submitted to the laboratory for this sampling event. Dup-01 is associated with monitoring well PZ-7D and Dup-02 is associated with monitoring well PZ-19. Acceptable duplicate precision was achieved, and no qualification of the associated samples was required.

Sampling Accuracy (Equipment Rinsate Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. Sample EB-01 is an equipment blank associated with sample PZ-2D and reported contamination for TDS at a concentration of 213 mg/L. Sample FB-01 is a field blank associated with all samples collected with this sampling event. FB-01 reported detections of TDS at a concentration of 163 mg/L. No qualification was applied per SCS guidance.

Reporting Limits

The laboratory RL was below the screening value of 500 mg/L for samples submitted for the analysis of TDS by Method SM2540C and no samples required dilutions; therefore, RLs were met for this project.

Additionally, data are evaluated down to the MDL and results reported between the MDL and RL are considered quantitative estimates. Results reported between the MDL and RL were qualified as estimated and flagged "J" by the laboratory. The "J" qualifier is maintained by the data validator.

Radium (SW9315/SW9320)

The samples were submitted to Pace for radium-226 (Ra-226), radium-228 (Ra-228), and total radium by Methods SW9315 and SW9320. Total radium was measured by calculation. Each of the Level II components were within QC limits.

Holding Times

The sample analyses were performed within the 6-month analysis holding time.

Method Blanks

The laboratory method blanks did not contain reportable concentrations of Ra-226 or Ra-228 above the MDC indicating the analytical system was free of contamination.

Laboratory Control Sample (LCS)

Percent recoveries for target analytes were within quality control limits in the LCSs.

Laboratory Duplicate Precision

Laboratory duplicate analysis was performed for Ra-226 in sample PZ-32, and the RPD was above the QC limit.

Action: No qualification was necessary because the Ra-226 result for PZ-32 was less than the MDC.

Field Duplicate Precision

Two blind field duplicate samples were collected and submitted to the laboratory for this sampling event. Dup-01 is associated with monitoring well PZ-7D, and Dup-02 is associated with monitoring well PZ-19. Acceptable duplicate precision was achieved, and no qualification of the associated samples was required.

Sampling Accuracy (Equipment Blanks, Field Blanks)

Field accuracy was measured through the collection of equipment/rinsate blanks and field blanks. The field blank sample (FB-01) contained both Ra-226 and Ra-228 but activity counts were below the MDC indicating that Ra-226 and Ra-228 did not contribute to the results.

The equipment blank sample (EB-01, associated with sample PZ-2D) was re-analyzed on 5/08/20 for Ra-228 due to a high initial result. The laboratory confirmed that radon daughter interference in the original sample count was not noted before the initial results were finalized (Pace, 2020). The reanalyzed results were reported, and EB-01 contained both Ra-226 and Ra-226 but activities were below the MDCs indicating that Ra-226 and Ra-228 did not contribute to the results.

Carrier and Tracer Yield Recoveries

The carrier and tracer yield recoveries for the samples and QC were within the QC limit of 30% to 110%.

Reporting Limits/Minimum Detectable Concentrations

The RLs (MDCs) were below the screening level of 5 pCi/L for samples submitted for the analysis of radium-226 and radium-228 by Methods SW9315 and SW9320.

Sample results in which the values were reported at concentrations below the MDC were flagged "U" and considered not detected.

Overall Site Evaluation and Professional Judgment Flagging Changes

The chemical data included in this SDG was validated in general accordance with the guidelines contained in the project work plan. DQE flags were not applied or edited based on professional judgment.

References

Pace, 2020. Email communication from Kevin Herring (Pace) to Rhonda Quinn (Wood), May 12, 2020.

SCS, 2016. *Draft Field Sampling Plan – Plant Mitchell*, Georgia Power Company, Earth Science and Environmental Engineering Technical Services, Southern Company Services, Inc. (SCS), August 17, 2016.

USEPA, 2014. *EPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review*, Final, EPA-540-R-013-001, August 2014.

Prepared by/Date: JTP 04/18/2020

Prepared by/Date: JPM 04/30/2020

Checked by/Date: DWK 05/01/2020

Revised by/Date: DWK 05/12/2020

TABLE 1
SUMMARY OF DATA QUALIFIERS

TABLE 1
SUMMARY OF DATA QUALIFIERS
SAMPLE DELIVERY GROUPS 2630449 and 30356720
SAMPLING DATES: March 24-26, 2020
Plant Mitchell Ash Ponds 1 and 2

No additional flags were required based on data quality evaluation. The laboratory "J" flags will remain in place where the reported constituent concentration is between the MDL and the RL.

Notes:

No qualification was required for the data reported in this sample delivery group.

Prepared by/Date: JTP 04/20/2020

Prepared by/Date: JPM 04/30/2020

Checked by/Date: DWK 05/01/2020

DQE CHECKLISTS

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Mitchell CCR Assessment Monitoring Event 3

Project No: 6122160170.2003.****

Method: Metals by SW6020B/6010D (Ca only)

Laboratory and Lot: Pace SDG: 2630449

Reviewer/Date: T. Parker 04/20/20 **Senior Reviewer/Date:** D. Knaub 04/21/2020

<u>YES</u>	<u>NO</u>	<u>NA</u>	<u>COMMENTS</u>
<input checked="" type="checkbox"/>			<p>Case Narrative and COC Completeness Review</p> <p>No Case Narrative is included with Level II data package from Pace Analytical. An error was noted by reviewer on the COC: In the upper portion of the COC where there is a question (Requested Analysis Filtered Y/N?), the field manager thought that space was for indicating preservative and recorded "Y" for metals and radium analytes. He indicated no field filtration was performed, so results are for total metals and total radium.</p>
<input checked="" type="checkbox"/>			<p>Sample Preservation and cooler temperature met (HNO₃ to pH<2; 6°C±2°C)</p> <p>1 cooler sent 3/25 = 4.5°C and 2 coolers sent 3/26 = 3.9°C and 1.5°C. OK</p>
<input checked="" type="checkbox"/>			<p>Holding times met (180 days/Hg = 28 days)</p> <p>OK</p>
		<input checked="" type="checkbox"/>	<p>QC Blanks Review – any MB results above RL?</p> <p><u>Method Blanks:</u> p. 29-32 for 4 x 6010D MB 207564 Ca = ND MB 207568 Ca = ND MB 207982 Ca = ND MB 208108 Ca = ND p. 33-35 for 2 x 6020B MB 207955 = All ND MB 208104 = All ND</p> <p><u>Field/Equipment Blanks:</u> EB-01 = ND (<i>associated with PZ-2B</i>) FB-01 = ND (<i>associated with all samples</i>)</p>
<input checked="" type="checkbox"/>			<p>Laboratory Control Sample (LCS) recovery within limits (Metals 70-130%, Hg = 80-120%)</p> <p>p. 29-32 for 4 x 6010D LCS LCS 207565 Ca only = 106% LCS 207569 Ca only = 104% LCS 207983 Ca only = 108% LCS 208109 Ca only = 101% p. 33-35 for 2 x 6020B LCS LCS 207956 6020 Metals = All OK LCS 208105 6020 Metals = All Ok</p>



Lab Duplicate - Field Duplicate precision goals met (lab limits - 20%)

PZ-7D = Dup-01

<u>Constituent</u>	<u>Parent Conc (mg/L)</u>	<u>Dup (mg/L)</u>	<u>RPD/Diff</u>
calcium	122	125	2.4
antimony	0.00042J	0.00065J	0.00023
barium	0.0072J	0.0075J	0.0003
boron	0.24	0.25	4.1
chromium	0.0016J	0.0019J	0.0003
lithium	0.0031J	0.0032J	0.0001
thallium	0.000085J	0.000085J	0.0

PZ-19 = Dup-02

<u>Constituent</u>	<u>Parent Conc (mg/L)</u>	<u>Dup Conc (mg/L)</u>	<u>RPD/Diff</u>
calcium	158	155	1.9
barium	0.052	0.052	0.0
boron	0.60	0.61	0.01
chromium	0.00073J	ND	NC
lithium	0.013J	0.013J	0.0
molybdenum	0.0021J	0.0020J	0.0001
selenium	0.0016J	0.0017J	0.0001
thallium	0.00068 J	0.00068J	0.0

In cases where results are less than the RL (lab "J" values), all differences between the parent sample and the duplicate were less than the RL per GP guidance and no flag is necessary other than to indicate the result is less than the RL (J).



Matrix Spike recoveries and RPDs within limits (if applicable: 75-125%, RPD 20)

Only 2 MS/MSDs analyzed by laboratory on project sample matrix:

PZ-23A MS/MSD Ca = 93, 15% RPD = 0 Sample result is >4 times spike amount (1.0 mg/L). No flag necessary.

PZ-7D MS/MSD (remaining 11 metals) pass recovery and RPD limits



Post Digestion Spike recoveries within limits (if applicable: 80-120%)

Not reported for L2 data package



Total metals vs dissolved metals (RPD < 20% or diff. < RL)

No dissolved results in this SDG



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

Checked Dup-02 and PZ-7D. All Correct. (18 samples total in SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Mitchell CCR Assessment Monitoring Event 3

Project No: 6122160170.2003.****

Method: Anions (chloride, fluoride, sulfate) by EPA 300

Laboratory and Lot: Pace SDG: 2630449

Reviewer/Date: T. Parker 04/20/20 **Senior Reviewer/Date:** D. Knaub 04/21/2020

<u>YES</u>	<u>NO</u>	<u>NA</u>	<u>COMMENTS</u>																																
<input checked="" type="checkbox"/>			<p>Case Narrative and COC Completeness Review No Case Narrative is included with Level II data package from Pace Analytical.</p>																																
<input checked="" type="checkbox"/>			<p>Sample Preservation and cooler temperature met (Cool to 6°C) 1 cooler sent 3/25 = 4.5°C and 2 coolers sent 3/26 = 3.9°C and 1.5°C. OK</p>																																
<input checked="" type="checkbox"/>			<p>Holding times met (Cl, SO₄, F –28 days) OK</p>																																
	<input checked="" type="checkbox"/>		<p>QC Blanks Review – Any detections above RL? <u>Method Blanks:</u> p. 40 MB 2849817 = ND p. 41 MB 2849882 = ND <u>Field/Equipment Blanks:</u> EB-01 = ND (associated with PZ-2B) FB-01 = ND (associated with all samples)</p>																																
<input checked="" type="checkbox"/>			<p>Laboratory Control Sample (LCS) recovery within lab limits (90-110%) p. 40 LCS 2849818: All % Rec OK p. 41 LCS 2849883: All % Rec OK</p>																																
<input checked="" type="checkbox"/>			<p>Lab Duplicate - Field Duplicate precision goals met (20%) PZ-7D = Dup-01</p> <table border="1"> <thead> <tr> <th><u>Constituent</u></th> <th><u>Parent Sample Conc (mg/L)</u></th> <th><u>Dup Conc (mg/L)</u></th> <th><u>RPD/Diff</u></th> </tr> </thead> <tbody> <tr> <td>chloride</td> <td>4.8</td> <td>4.8</td> <td>0.0</td> </tr> <tr> <td>fluoride</td> <td>ND</td> <td>ND</td> <td>NC</td> </tr> <tr> <td>sulfate</td> <td>57.1</td> <td>57.8</td> <td>1.2</td> </tr> </tbody> </table> <p>PZ-19 = Dup-02</p> <table border="1"> <thead> <tr> <th><u>Constituent</u></th> <th><u>Parent Sample Conc (mg/L)</u></th> <th><u>Dup Conc (mg/L)</u></th> <th><u>RPD/Diff</u></th> </tr> </thead> <tbody> <tr> <td>chloride</td> <td>5.4</td> <td>5.3</td> <td>1.9</td> </tr> <tr> <td>fluoride</td> <td>0.077J</td> <td>0.075J</td> <td>0.002</td> </tr> <tr> <td>sulfate</td> <td>84.9</td> <td>83.9</td> <td>1.2</td> </tr> </tbody> </table>	<u>Constituent</u>	<u>Parent Sample Conc (mg/L)</u>	<u>Dup Conc (mg/L)</u>	<u>RPD/Diff</u>	chloride	4.8	4.8	0.0	fluoride	ND	ND	NC	sulfate	57.1	57.8	1.2	<u>Constituent</u>	<u>Parent Sample Conc (mg/L)</u>	<u>Dup Conc (mg/L)</u>	<u>RPD/Diff</u>	chloride	5.4	5.3	1.9	fluoride	0.077J	0.075J	0.002	sulfate	84.9	83.9	1.2
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<input checked="" type="checkbox"/>			<p>EDD Data Verification vs. Hardcopy (10% samples for each SDG) Checked Dup-02 and PZ-7D. All Correct. (18 samples total in SDG)</p>																																

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Mitchell CCR Assessment Monitoring Event 3

Project No: 6122160170.2003.****

Method: TDS by SM 2540C

Laboratory and Lot: Pace SDG: 2630449

Reviewer/Date: T. Parker 4/20/20 **Senior Reviewer/Date:** D. Knaub 04/21/2020

<u>YES</u>	<u>NO</u>	<u>NA</u>	<u>COMMENTS</u>																								
<input checked="" type="checkbox"/>			<p>Case Narrative and COC Completeness Review</p> <p>No Case Narrative is included with Level II data package from Pace Analytical.</p>																								
<input checked="" type="checkbox"/>			<p>Sample Preservation and cooler temperature met (Cool to 6°C)</p> <p>1 cooler sent 3/25 = 4.5°C and 2 coolers sent 3/26 = 3.9°C and 1.5°C. OK</p>																								
<input checked="" type="checkbox"/>			<p>Holding times met (7 days)</p> <p>OK</p>																								
	<input checked="" type="checkbox"/>		<p>QC Blanks Review – Any detections above RL?</p> <p><u>Method Blanks:</u> Method SM2540C does not require a method blank.</p> <p><u>Field/Equipment Blanks:</u> EB-01 (associated with PZ-2B) <i>TDS = 213 mg/L</i> FB-01 (associated with all samples) <i>TDS = 163 mg/L</i> No flags applied due to new ES rule</p>																								
	<input checked="" type="checkbox"/>		<p>Laboratory Control Sample (LCS) recovery within lab limits</p> <p>p. 37 207416 TDS = 104% (Samples 001-004) p. 38 208030 TDS = 93% (Samples 005-010) p. 39 208288 TDS=85% (Samples 011-018)</p>																								
	<input checked="" type="checkbox"/>		<p>Lab Duplicate - Field Duplicate precision goals met (20%)</p> <p>PZ-7D = Dup-01</p> <table border="1"> <thead> <tr> <th><u>Constituent</u></th> <th><u>Parent Conc (mg/L)</u></th> <th><u>Dup Conc (mg/L)</u></th> <th><u>RPD/Diff</u></th> </tr> </thead> <tbody> <tr> <td>TDS</td> <td>332</td> <td>333</td> <td>0.3</td> </tr> </tbody> </table> <p>PZ-19 = Dup-02</p> <table border="1"> <thead> <tr> <th><u>Constituent</u></th> <th><u>Parent Conc (mg/L)</u></th> <th><u>Dup Conc (mg/L)</u></th> <th><u>RPD/Diff</u></th> </tr> </thead> <tbody> <tr> <td>TDS</td> <td>440</td> <td>512</td> <td>15</td> </tr> </tbody> </table> <p>Lab duplicate: p. 38 PZ-31</p> <p>PZ-31 & PZ-31 lab dup</p> <table border="1"> <thead> <tr> <th><u>Constituent</u></th> <th><u>Parent Conc (mg/L)</u></th> <th><u>Dup Conc (mg/L)</u></th> <th><u>RPD/Diff</u></th> </tr> </thead> <tbody> <tr> <td>TDS</td> <td>278</td> <td>278</td> <td>0.0</td> </tr> </tbody> </table>	<u>Constituent</u>	<u>Parent Conc (mg/L)</u>	<u>Dup Conc (mg/L)</u>	<u>RPD/Diff</u>	TDS	332	333	0.3	<u>Constituent</u>	<u>Parent Conc (mg/L)</u>	<u>Dup Conc (mg/L)</u>	<u>RPD/Diff</u>	TDS	440	512	15	<u>Constituent</u>	<u>Parent Conc (mg/L)</u>	<u>Dup Conc (mg/L)</u>	<u>RPD/Diff</u>	TDS	278	278	0.0
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TDS	278	278	0.0																								



Matrix Spike recoveries and RPDs within limits (if applicable)

None for TDS



EDD Data Verification vs. Hardcopy (10% samples for each SDG)

Checked Dup-02 and PZ-7D. All Correct. (18 samples total in SDG)

LEVEL II DATA QUALITY VALIDATION RECORD

Project: Plant Mitchell CCR Assessment Monitoring Event 3

Project No: 6122160170.03.****

Method: Radium-226, Radium-228, Total Radium by EPA 9315 and EPA 9320

Laboratory and Lot: Pace SDG: 30244272

Reviewer/Date: J. McIntyre 04/30/2020 **Senior Reviewer/Date:** D. Knaub 04/30/2020

Revised/Date: D. Knaub 05/12/2020

YES NO NA

COMMENTS

Case Narrative and COC Completeness Review

- Low volume received for 2 samples:
PZ-1D (1 of 2 bottles empty) and PZ-2D (1 bottle contained only 400 ml)
Lab analyzed using a reduced volume, *no qualification was necessary*
- Sample EB-01 re-anal. on **05/08/20** for Ra-228 due to high initial result.
Per email from the lab, *the cause of the initial elevated result was radon daughter interference in the original sample count that wasn't noted before the results were finalized. Reanalyzed results were reported.*

Sample Preservation and cooler temperature met (HNO₃ to pH<2)

OK

Holding times met (180 days)

OK

QC Blanks Review (net blank value <MDC)

p. 12-13 radium-228 (1891465) and radium-226 (1891462) = present but <MDC
p. 14-15 radium-228 (1893276) and radium-226 (1893273) = present but <MDC
p. 16-17 radium-228 (1891466) and radium-226 (1891463) = present but <MDC

Field/Equipment Blanks:

p. 6 EB-01 (assoc. w/ PZ-2B)
 radium-226 present but <MDC (ND)
 radium-228 present but <MDC (ND) (*re-analyzed 05/08*)
p. 7 FB-01– present but <MDC

Laboratory Control Sample (LCS) recovery within lab limits (80-120%; RPD = RER (2σ <3)

p. 24 LCS/LCSD 53221 Ra-226 = 98.48, 98.31% RPD = 0.17
p. 26 LCS/LCSD 53222 Ra-226 = 103.94, 97.92% RPD = 5.96
p. 28 LCS/LCSD 53273 Ra-226 = 100.82, 107.00% RPD = 5.95
p. 30 LCS/LCSD 53224 Ra-228 = 114.60, 111.63% RPD = 2.63
p. 31 LCS/LCSD 53225 Ra-228 = 105.19, 104.44% RPD = 0.72
p. 32 LCS/LCSD 53274 Ra-228 = 103.95, 93.74% RPD = 10.32

Lab Duplicate - Field Duplicate precision goals met (lab limits); lab dup every 10 samples (RPD = RER (2σ) <3)

PZ-7D = Dup-01

<u>Constituent</u>	<u>Parent Conc (pCi/L)</u>	<u>Dup Conc (pCi/L)</u>	<u>RPD</u>
Ra-226	<MDC	0.159	NC
Ra-228	<MDC	< MDC	NC
tot. radium	<MCC	< MDC	NC

YES NO NA

Lab Duplicate - Field Duplicate (cont.)

PZ-19 = Dup-02

<u>Constituent</u>	<u>Parent Conc (pCi/L)</u>	<u>Dup Conc (pCi/L)</u>	<u>RPD</u>
Ra-226	0765	0.883	14.3
Ra-228	0.891	<MDC	NC
tot. radium	1.66	1.63	1.8

p. 27 Lab dup – PZ-32 Ra-226 RPD = **84.72%** *No flag, result < MDC*
No lab dup for Ra-228 on samples from this SDG

Matrix Spike recoveries and RPDs within limits (if applicable)

NA - Pace only performs MS/MSD on drinking water samples

**Carrier/Tracer Yield Recovery Ra-226 (Carrier: Ba);
Ra-228 (Carrier Ba, Tracer: Y) (30-110%)**

All ok

EDD Data Verification vs. Hardcopy (10% samples for each SDG)

Lab reports required reissue due to LIMS problem and for re-analysis.

RPD Calculations

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 the attached table (**RPD Calculations**) for detected concentrations above the laboratory reporting limits for wells and corresponding duplicates for the August 2019, October 2019, and March 2020 assessment events. Other constituents were below the laboratory reporting limits. For an RPD to be representative of the process, the concentrations have to be five times the laboratory reporting limit in accordance with US EPA guidance on inorganic data review, (US EPA August 2014). The RPD values of concentrations five times the laboratory reporting limit were within the allowable 20% RPD indicating good sampling precision for the August 2019, October 2019, and March 2020 assessment events.

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%
Parameter	Concentration 1	Concentration 2	
3/26/2020	Dup-01	PZ-7D	RPD
Calcium	125	122	2%
Boron	0.25	0.24	4%
Chloride	4.8	4.8	0%
Sulfate	57.8	57.1	1%
Total Dissolved Solids	333	332	0%
Radium-226	0.159	<MDC	NC
Parameter	Concentration 1	Concentration 2	
3/26/2020	Dup-02	PZ-19	RPD
Calcium	155	158	2%
Barium	0.052	0.052	0%
Boron	0.61	0.60	0%
Chloride	5.3	5.4	2%
Sulfate	83.9	84.9	1%
Total Dissolved Solids	512	440	15%
Radium-226	0.883	0.765	14%
Total Combined Radium	1.63	1.66	2%

Notes:

Concentrations are reported in milligrams per liter (mg/L)

Radium concentrations are reported in pci/L (picocuries per liter)

RPD is relative percent difference

MDC is minimum detected concentration

NC is not calculated

MARCH 2020 FIELD SAMPLING DATA

Product Name: Low-Flow System

Date: 2020-03-24 15:28:00

Project Information:

Operator Name Ever Guillen
Company Name Woob
Project Name Plant Mitchell CCT Phase 2
Site Name PZ-1D
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369807
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .17 in
Tubing Length 61.21 ft

Pump placement from TOC 56.21 ft

Well Information:

Well ID PZ-1D
Well diameter 2 in
Well Total Depth 61.21 ft
Screen Length 10 ft
Depth to Water 40.84 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7532061 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:05:07	1200.02	23.91	7.65	244.16	1.42	41.77	3.58	84.33
Last 5	15:10:07	1500.02	23.74	7.69	244.39	1.52	41.77	3.55	85.22
Last 5	15:15:07	1800.08	23.42	7.73	243.29	1.65	41.77	3.50	85.72
Last 5	15:20:08	2101.06	24.18	7.74	246.86	1.86	41.77	3.50	85.64
Last 5	15:25:08	2401.02	23.47	7.78	246.29	1.41	41.77	3.49	86.37
Variance 0			-0.32	0.05	-1.10			-0.06	0.50
Variance 1			0.76	0.01	3.57			0.01	-0.08
Variance 2			-0.71	0.04	-0.57			-0.02	0.73

Notes

Sample collected @ 1530

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-24 15:55:11

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-2D
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HD poly
Tubing Diameter 0.17 in
Tubing Length 81 ft

Pump placement from TOC 76 ft

Well Information:

Well ID PZ-2D
Well diameter 2 in
Well Total Depth 80.98 ft
Screen Length 10 ft
Depth to Water 22.64 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5515373 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 0 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:30:26	600.03	20.36	8.00	118.13	5.57	23.40	3.00	92.07
Last 5	15:35:26	900.03	20.10	8.30	126.86	3.57	23.40	3.09	84.03
Last 5	15:40:26	1200.03	20.01	8.43	134.17	2.93	23.40	3.16	81.70
Last 5	15:45:26	1500.02	20.01	8.50	138.79	2.62	23.40	3.19	80.09
Last 5	15:50:26	1800.02	20.03	8.56	141.30	1.78	23.40	3.19	77.35
Variance 0			-0.09	0.13	7.31			0.07	-2.33
Variance 1			-0.00	0.07	4.62			0.03	-1.61
Variance 2			0.03	0.06	2.51			-0.01	-2.74

Notes

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-24 16:23:38

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-2D
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HD poly
Tubing Diameter 0.17 in
Tubing Length 81 ft

Pump placement from TOC 76 ft

Well Information:

Well ID PZ-2D
Well diameter 2 in
Well Total Depth 80.98 ft
Screen Length 10 ft
Depth to Water 22.64 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.5515373 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 11 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	16:01:05	300.03	20.06	8.58	147.90	2.03	23.40	3.17	76.16
Last 5	16:06:05	600.02	19.97	8.60	150.07	2.18	23.40	3.16	75.74
Last 5	16:11:05	900.02	19.91	8.59	152.38	2.09	23.40	3.16	77.34
Last 5	16:16:05	1200.02	19.92	8.57	155.07	1.73	23.40	3.16	77.36
Last 5	16:21:05	1500.02	19.89	8.57	157.08	1.58	23.40	3.14	76.66
Variance 0			-0.06	-0.01	2.31			0.01	1.60
Variance 1			0.02	-0.02	2.69			0.00	0.02
Variance 2			-0.03	0.00	2.01			-0.02	-0.71

Notes

Sample PZ-2D. Time 1622

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-26 09:58:33

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Mitchell CCR Phase 2
Site Name PZ-7D
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369807
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .17 in
Tubing Length 60.37 ft

Pump placement from TOC 55.37 ft

Well Information:

Well ID PZ-7D
Well diameter 2 in
Well Total Depth 60.37 ft
Screen Length 10 ft
Depth to Water 26.97 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7494568 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:34:15	1800.03	20.39	7.07	586.65	0.81	27.21	0.39	62.00
Last 5	09:39:15	2100.03	20.34	7.08	589.88	0.74	27.21	0.39	60.62
Last 5	09:44:15	2400.03	20.36	7.07	592.44	0.71	27.21	0.38	60.85
Last 5	09:49:15	2700.03	20.35	7.09	595.18	0.72	27.21	0.37	59.32
Last 5	09:54:15	3000.03	20.34	7.09	596.96	0.56	27.21	0.35	61.22
Variance 0			0.02	-0.01	2.56			-0.01	0.22
Variance 1			-0.02	0.03	2.73			-0.01	-1.52
Variance 2			-0.01	-0.01	1.78			-0.02	1.90

Notes

Sample time = 0955 Also collected Dup-01 at this location

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-25 13:40:17

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Mitchell CCR Phase 2
Site Name PZ-14
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369807
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .17 in
Tubing Length 43.20 ft

Pump placement from TOC 48.20 ft

Well Information:

Well ID PZ-14
Well diameter 2 in
Well Total Depth 53.20 ft
Screen Length 10 ft
Depth to Water 36.18 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.6728199 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 8 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	13:16:42	1199.88	22.26	6.98	504.46	2.78	36.72	4.63	98.07
Last 5	13:21:42	1499.88	22.34	6.98	506.99	2.40	36.72	4.44	101.09
Last 5	13:26:42	1799.88	22.26	6.97	503.31	1.63	36.72	4.28	98.97
Last 5	13:31:42	2099.88	22.26	6.97	506.07	1.33	36.72	4.15	98.38
Last 5	13:36:42	2399.88	22.28	6.97	503.62	0.32	36.72	4.05	99.96
Variance 0			-0.08	-0.00	-3.68			-0.15	-2.11
Variance 1			-0.00	-0.00	2.75			-0.13	-0.59
Variance 2			0.02	-0.00	-2.45			-0.10	1.58

Notes

Sample time = 1340

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-26 11:12:57

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-15
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 83.2 ft

Pump placement from TOC 78.2 ft

Well Information:

Well ID PZ-15
Well diameter 2 in
Well Total Depth 83.22 ft
Screen Length 10 ft
Depth to Water 25.21 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 1.283107 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	10:50:02	600.03	23.18	7.11	541.68	2.34	24.87	0.10	25.73
Last 5	10:55:02	900.03	23.23	7.09	542.29	1.59	24.87	0.11	15.63
Last 5	11:00:02	1200.03	23.35	7.09	541.51	1.57	24.87	0.12	9.92
Last 5	11:05:02	1500.03	23.41	7.08	540.50	1.90	24.87	0.13	1.02
Last 5	11:10:02	1800.57	23.41	7.08	539.06	2.72	24.87	0.15	-9.18
Variance 0			0.12	-0.00	-0.78			0.01	-5.71
Variance 1			0.06	-0.00	-1.01			0.01	-8.90
Variance 2			-0.00	-0.00	-1.44			0.01	-10.20

Notes

PZ-15. Time 1112

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-26 09:40:29

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-16
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 53.2 ft

Pump placement from TOC 48.2 ft

Well Information:

Well ID PZ-16
Well diameter 2 in
Well Total Depth 53.19 ft
Screen Length 10 ft
Depth to Water 27.27 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.9935253 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	09:17:01	600.03	21.03	7.02	467.55	1.45	27.79	1.17	197.03
Last 5	09:22:00	899.94	21.04	7.06	467.36	1.03	27.79	1.15	196.05
Last 5	09:27:00	1199.94	21.08	7.09	467.99	0.70	27.79	1.16	196.41
Last 5	09:32:01	1500.01	21.17	7.11	467.87	0.62	27.79	1.16	197.05
Last 5	09:37:01	1799.96	21.21	7.12	467.75	0.46	27.79	1.16	198.13
Variance 0			0.04	0.03	0.63			0.00	0.36
Variance 1			0.09	0.02	-0.11			0.00	0.65
Variance 2			0.04	0.01	-0.12			-0.00	1.07

Notes

PZ-16. Time 0938

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-25 15:14:11

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-17
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 62.7 ft

Pump placement from TOC 57.7 ft

Well Information:

Well ID PZ-17
Well diameter 2 in
Well Total Depth 62.7 ft
Screen Length 10 ft
Depth to Water 25.21 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 1.085226 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:50:40	600.03	22.29	6.94	657.71	1.58	26.04	0.12	-15.68
Last 5	14:55:40	900.03	22.37	6.93	657.92	0.96	26.04	0.11	-14.05
Last 5	15:00:40	1200.02	22.46	6.93	656.57	1.10	26.04	0.12	-12.26
Last 5	15:05:40	1500.03	22.33	6.93	657.22	0.83	26.04	0.14	-10.71
Last 5	15:10:40	1800.03	22.30	6.93	657.89	0.69	26.04	0.15	-9.99
Variance 0			0.09	-0.01	-1.35			0.01	1.79
Variance 1			-0.13	0.00	0.65			0.01	1.55
Variance 2			-0.02	-0.00	0.68			0.01	0.72

Notes

PZ-17. Time 1511

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-26 12:08:04

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Mitchell CCR Phase 2
Site Name PZ-18
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369807
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .17 in
Tubing Length 63.18 ft

Pump placement from TOC 58.18 ft

Well Information:

Well ID PZ-18
Well diameter 2 in
Well Total Depth 63.18 ft
Screen Length 10 ft
Depth to Water 23.30 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.761999 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	11:45:28	1816.03	22.08	7.05	683.95	1.75	23.61	0.15	18.72
Last 5	11:50:29	2117.03	22.13	7.05	683.79	1.62	23.61	0.15	19.47
Last 5	11:55:29	2417.03	22.15	7.05	683.94	1.15	23.61	0.16	19.96
Last 5	12:00:28	2716.87	22.19	7.03	683.41	0.98	23.61	0.16	21.05
Last 5	12:05:28	3016.87	22.19	7.03	683.59	0.90	23.61	0.16	21.59
Variance 0			0.03	-0.00	0.15			0.00	0.48
Variance 1			0.04	-0.02	-0.53			0.00	1.10
Variance 2			0.00	-0.01	0.18			-0.00	0.54

Notes

Sample time =
Sample time = 1210

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-26 14:05:10

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-19
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 62.6 ft

Pump placement from TOC 57.6 ft

Well Information:

Well ID PZ-19
Well diameter 2 in
Well Total Depth 62.63 ft
Screen Length 10 ft
Depth to Water 24.16 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 1.084261 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:35:01	600.03	22.67	6.72	805.37	0.65	24.72	0.16	113.53
Last 5	13:40:01	900.04	22.64	6.72	809.53	0.46	24.72	0.16	109.83
Last 5	13:45:02	1200.96	22.59	6.71	809.61	0.78	24.72	0.16	110.17
Last 5	13:50:03	1501.95	22.52	6.71	812.39	0.68	24.72	0.16	107.20
Last 5	14:00:13	2111.95	22.42	6.70	815.24	0.63	24.72	0.17	105.96
Variance 0			-0.05	-0.00	0.09			0.00	0.34
Variance 1			-0.07	-0.00	2.78			0.00	-2.97
Variance 2			-0.10	-0.01	2.85			0.01	-1.24

Notes

PZ-19. Time 1400. And DUP-02 collected

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-25 16:00:28

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Mitchell CCR Phase 2
Site Name PZ-23A
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369807
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .17 in
Tubing Length 64.5 ft

Pump placement from TOC 59.5 ft

Well Information:

Well ID PZ-23A
Well diameter 2 in
Well Total Depth 64.50 ft
Screen Length 10 ft
Depth to Water 40.11 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7678908 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 9 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	15:38:06	1500.03	22.90	6.81	735.75	35.90	41.07	3.29	91.68
Last 5	15:43:06	1800.03	22.98	6.81	728.40	28.30	41.07	3.28	92.36
Last 5	15:48:06	2100.03	23.07	6.80	723.51	17.70	41.07	3.28	93.19
Last 5	15:53:06	2400.03	22.82	6.79	719.09	6.51	41.07	3.31	94.98
Last 5	15:58:06	2700.03	22.40	6.78	719.93	3.68	41.07	3.34	94.81
Variance 0			0.09	-0.01	-4.89			0.00	0.83
Variance 1			-0.25	-0.01	-4.42			0.03	1.79
Variance 2			-0.42	-0.01	0.84			0.03	-0.17

Notes

Sample time= 1605

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-25 13:36:28

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-25
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .25 in
Tubing Length 63.2 ft

Pump placement from TOC 58.2 ft

Well Information:

Well ID PZ-25
Well diameter 2 in
Well Total Depth 63.19 ft
Screen Length 10 ft
Depth to Water 22.41 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 1.090053 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 0.2	+/- 10
Last 5	13:11:40	600.03	22.23	7.01	477.25	1.10	22.66	0.16	-30.09
Last 5	13:17:20	940.03	22.33	7.01	477.44	0.86	22.66	0.12	-33.94
Last 5	13:22:20	1240.02	22.47	7.01	478.23	0.66	22.66	0.12	-34.35
Last 5	13:27:20	1540.03	22.33	7.01	476.88	0.51	22.66	0.13	-34.82
Last 5	13:32:20	1840.02	22.42	7.01	477.77	0.53	22.66	0.14	-35.70
Variance 0			0.14	-0.00	0.78			0.01	-0.41
Variance 1			-0.13	0.00	-1.35			0.01	-0.46
Variance 2			0.09	0.00	0.90			0.01	-0.89

Notes

PZ-25. Time 1333

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-25 10:20:13

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Mitchell CCR Phase 2
Site Name PZ-31
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369807
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .17 in
Tubing Length 61.60 ft

Pump placement from TOC 56.60 ft

Well Information:

Well ID PZ-31
Well diameter 2 in
Well Total Depth 61.60 ft
Screen Length 10 ft
Depth to Water 27.63 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.7549468 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	09:56:52	600.03	20.18	7.09	461.39	0.99	29.71	4.59	96.60
Last 5	10:01:52	900.03	20.23	7.09	461.41	0.76	28.81	4.59	96.83
Last 5	10:06:52	1200.03	20.21	7.08	461.23	1.71	29.71	4.60	97.08
Last 5	10:11:52	1499.89	20.19	7.08	461.59	0.71	28.71	4.60	97.59
Last 5	10:16:53	1800.88	20.21	7.08	461.71	0.81	28.71	4.61	97.24
Variance 0			-0.02	-0.01	-0.18			0.00	0.25
Variance 1			-0.01	-0.00	0.36			0.01	0.51
Variance 2			0.02	0.01	0.12			0.00	-0.36

Notes

Sample time = 1020

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-25 11:07:41

Project Information:

Operator Name Daniel Howard
Company Name Wood E&IS
Project Name Plant Mitchell CCR Phase II
Site Name PZ-32
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369323
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter 0.25 in
Tubing Length 63.30 ft

Pump placement from TOC 58.3 ft

Well Information:

Well ID PZ-32
Well diameter 2 in
Well Total Depth 65.30 ft
Screen Length 10 ft
Depth to Water 25.02 ft

Pumping Information:

Final Pumping Rate 300 mL/min
Total System Volume 0.8010179 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 6 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	10:44:52	600.03	19.04	7.09	321.34	1.82	26.05	0.46	96.34
Last 5	10:49:52	900.03	18.96	7.14	320.34	1.25	26.05	0.45	91.76
Last 5	10:54:52	1200.03	18.99	7.18	320.64	0.64	26.05	0.44	89.69
Last 5	10:59:52	1500.02	19.04	7.21	320.42	0.75	26.05	0.44	87.62
Last 5	11:04:52	1800.03	19.07	7.23	318.69	0.58	26.05	0.48	87.39
Variance 0			0.03	0.04	0.30			-0.01	-2.07
Variance 1			0.04	0.03	-0.22			0.00	-2.07
Variance 2			0.03	0.02	-1.73			0.03	-0.23

Notes

PZ-32. Time 1105

Grab Samples

Product Name: Low-Flow System

Date: 2020-03-26 14:50:42

Project Information:

Operator Name Ever Guillen
Company Name Wood
Project Name Plant Mitchell CCR Phase 2
Site Name PZ-33
Latitude 0° 0' 0"
Longitude 0° 0' 0"
Sonde SN 369807
Turbidity Make/Model Hach 2100Q

Pump Information:

Pump Model/Type QED
Tubing Type HDPE
Tubing Diameter .17 in
Tubing Length 73.60 ft

Pump placement from TOC 68.60 ft

Well Information:

Well ID PZ-33
Well diameter 2 in
Well Total Depth 73.60 ft
Screen Length 10 ft
Depth to Water 41.83 ft

Pumping Information:

Final Pumping Rate 200 mL/min
Total System Volume 0.8085079 L
Calculated Sample Rate 300 sec
Stabilization Drawdown 0 in
Total Volume Pumped 10 L

Low-Flow Sampling Stabilization Summary

	Time	Elapsed	Temp C	pH	SpCond μ S/cm	Turb NTU	DTW ft	RDO mg/L	ORP mV
Stabilization			+/- 0.5	+/- 0.1	+/- 5%	+/- 5		+/- 10%	+/- 10
Last 5	14:28:14	1799.88	21.94	7.01	614.50	0.50	42.11	0.27	58.84
Last 5	14:33:14	2099.88	21.98	7.01	614.85	0.44	42.11	0.25	60.64
Last 5	14:38:14	2399.88	21.91	7.01	614.84	0.23	42.11	0.23	61.54
Last 5	14:43:14	2699.88	21.93	7.01	614.58	0.20	42.11	0.21	62.02
Last 5	14:48:14	2999.88	21.86	7.01	614.73	0.19	42.11	0.20	62.95
Variance 0			-0.07	0.00	-0.01			-0.02	0.90
Variance 1			0.01	0.00	-0.25			-0.02	0.48
Variance 2			-0.07	-0.00	0.15			-0.01	0.93

Notes

Sample time= 1465

Grab Samples

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: ___ Event 9; ___ Event 10; ___ Event 11; X Event 12; ___ Event 13; ___ Event 14; ___ Event 15; ___ Event 16; ___ OTHER

WELL ID / SAMPLE ID: FB-01

MATRIX: Groundwater

WELL MATERIAL: ___ PVC ___ SS ___ OTHER

SAMPLE METHOD: Direct Fill

DUP./REP. OF: _____

WELL DIAMETER: NA
DEPTH TO WATER: NA GRAB (x) COMPOSITE ()
TOTAL DEPTH: NA
WATER COLUMN HEIGHT: NA
PURGE VOLUME: _____

Pump Intake Set at (btoc): NA
or

Tubing Inlet Set at (btoc): NA

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (± 0.2 mg/L or 10% for DO > 0.5 mg/L/ for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (± 0.1 pH units)	SPEC. COND. ($\mu\text{s/cm}$ [$\pm 5\%$])	TEMP ($^{\circ}\text{C}$) Record only	TURB. (NTU) [< 5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
Initial:								()	

NOTES: ¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.
If well is purged dry, allow to recharge and sample within 24 hrs.
Turbidity < 5 NTUs Field Blank FB-01 of ASTM Type I/II water - R I CCA Brand
Lot # 2808E04, Exp 12/2020

SAMPLE DATE: 3/25/20 2001A59
SAMPLE TIME: 0920

250/

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	<u>12</u>	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined

GENERAL INFORMATION	
WEATHER:	<u>Overcast, 75°F</u>
SHIPPED VIA:	FED-X
SHIPPED TO:	PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel; betsy.mcdaniel@pacelabs.com
SAMPLER:	<u>Daniel Howard</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: EB-01

MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER

SAMPLE METHOD: Direct Pour

DUP./REP. OF:

WELL DIAMETER: 1

DEPTH TO WATER: —

GRAB (x) COMPOSITE ()

TOTAL DEPTH: —

Pump Intake Set at (btoc): —

WATER COLUMN HEIGHT: —

or

PURGE VOLUME: —

Tubing Inlet Set at (btoc): —

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
Initial:								()	

NOTES:

¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs. Bladder Pump ID: 14264

Turbidity < 5 NTUs ASTM Type I + II water used to collect sample

AI CCA Brand Lot# 2808E04, Exp 3/2020

SAMPLE DATE: 3/24/20

SAMPLE TIME: 1255

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	1	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined

GENERAL INFORMATION	
WEATHER:	<u>Partly Cloudy, Temp 85°F</u>
SHIPPED VIA:	<u>FED-X</u>
SHIPPED TO:	<u>PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com</u>
SAMPLER:	<u>Daniel Howard</u>
OBSERVER:	

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-1D

MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER

SAMPLE METHOD: LOW FLOW - QED PUMP

DUP./REP. OF: _____

WELL DIAMETER: 2"

DEPTH TO WATER: 40.84

GRAB (x) COMPOSITE ()

TOTAL DEPTH: 61.21

WATER COLUMN HEIGHT: _____

PURGE VOLUME: _____

Pump Intake Set at (btoc): 56.21

or

Tubing Inlet Set at (btoc): _____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
Initial: 300	0.25	3.55	79.90	7.30	244.10	25.19	0.23	200	41.77
1450 300 600	0.25	3.38	77.60	7.30	247.30	25.48	0.23	200	41.77
1455 600	0.5	3.55	79.90	7.47	244.10	25.19	2.17	200	41.77
1500 900	0.75	3.53	82.30	7.59	242.20	24.69	1.74	200	41.77
1505 1200	1.0	3.58	84.30	7.65	244.20	23.91	1.92	200	41.77
1510 1500	1.25	3.55	85.20	7.69	244.40	23.74	1.52	200	41.77
1515 1800	1.5	3.50	85.70	7.73	243.30	23.42	1.65	200	41.77
1520 2101	1.75	3.50	85.60	7.74	246.90	24.18	1.82	200	41.77
1525 2401	2.0	3.49	86.40	7.78	246.30	23.47	1.41	200	41.77

NOTES: ¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.
If well is purged dry, allow to recharge and sample within 24 hrs.
Turbidity < 5 NTUs - PH @ SAMPLING = 7.79 - HNO₃ Sample PH = 1.0 ON PH STRIP

SAMPLE DATE: 3-24-20

SAMPLE TIME: 1530

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO ₃ to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	1	Cool to 6°C	E300.0	Cl, F, SO ₄ /TDS
1 L/Poly	2	HNO ₃ to pH <2	E9315/9320	Radium 226 & 228 Combined

GENERAL INFORMATION	
WEATHER:	<u>WARM - CLOUDY - DRY</u>
SHIPPED VIA:	FED-X
SHIPPED TO:	PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com
SAMPLER:	<u>EVER GUILLEN</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-2D MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER

SAMPLE METHOD: Bladder pump QED

DUP./REP. OF: _____

WELL DIAMETER: 2"
DEPTH TO WATER: 22.64
TOTAL DEPTH: 80.98

GRAB (x) COMPOSITE ()

Pump Intake Set at (btoc): 76.0

or

Tubing Inlet Set at (btoc): _____

WATER COLUMN HEIGHT: _____
PURGE VOLUME: 11 L

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
<u>Start 1520</u>									
Initial: <u>1525</u>	<u>0.25</u>	<u>7.36</u>	<u>104.90</u>	<u>6.76</u>	<u>0.20</u>	<u>30.17</u>	<u>9.54</u>	<u>200 ()</u>	<u>23.40</u>
<u>1530</u>	<u>0.5</u>	<u>3.00</u>	<u>92.10</u>	<u>8.00</u>	<u>118.10</u>	<u>20.36</u>	<u>5.57</u>	<u>200</u>	<u>23.40</u>
<u>1535</u>	<u>0.75</u>	<u>3.09</u>	<u>84.00</u>	<u>8.30</u>	<u>126.90</u>	<u>20.10</u>	<u>3.57</u>	<u>200</u>	<u>23.40</u>
<u>1540</u>	<u>1.0</u>	<u>3.16</u>	<u>81.70</u>	<u>8.43</u>	<u>126.134.20</u>	<u>20.01</u>	<u>2.93</u>	<u>200</u>	<u>23.40</u>
<u>1545</u>	<u>1.25</u>	<u>3.19</u>	<u>80.10</u>	<u>8.50</u>	<u>138.80</u>	<u>20.01</u>	<u>2.62</u>	<u>200</u>	<u>23.40</u>
<u>1550</u>	<u>1.50</u>	<u>3.19</u>	<u>77.40</u>	<u>8.56</u>	<u>141.30</u>	<u>20.03</u>	<u>1.78</u>	<u>200</u>	<u>23.40</u>
<u>1555</u>	<u>1.75</u>								
<u>1601</u>	<u>1.75</u>	<u>3.17</u>	<u>76.20</u>	<u>8.58</u>	<u>147.90</u>	<u>20.06</u>	<u>2.03</u>	<u>200</u>	<u>23.40</u>
<u>1606</u>	<u>2.0</u>	<u>3.16</u>	<u>75.70</u>	<u>8.60</u>	<u>150.10</u>	<u>19.97</u>	<u>2.18</u>	<u>200</u>	<u>23.40</u>
<u>1611</u>	<u>2.25</u>	<u>3.16</u>	<u>77.30</u>	<u>8.59</u>	<u>152.40</u>	<u>19.91</u>	<u>2.09</u>	<u>200</u>	<u>23.40</u>
<u>1616</u>	<u>2.5</u>	<u>3.16</u>	<u>77.40</u>	<u>8.57</u>	<u>155.10</u>	<u>19.92</u>	<u>1.73</u>	<u>200</u>	<u>23.40</u>
<u>1621</u>	<u>2.75</u>	<u>3.16</u>	<u>77.40</u>	<u>8.57</u>	<u>157.10</u>	<u>19.89</u>	<u>1.58</u>	<u>200</u>	<u>23.40</u>

to start

NOTES:

¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs.

Turbidity < 5 NTUs

Instrument stopped at 1550 had to restart

Final pH = 8.57

SAMPLE DATE: 10/3/24/20

SAMPLE TIME: 1622

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals <u>pH < 2</u>
500 mL/Poly	12	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined <u>pH < 2</u>

250/

GENERAL INFORMATION

WEATHER:	<u>Hot Temp 85°F</u>
SHIPPED VIA:	FED-X
SHIPPED TO:	PAGE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com
SAMPLER:	<u>Daniel Howard</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-7D MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER RED
SAMPLE METHOD: Low Flow - Bladder Pump

DUP./REP. OF: DUP-01 WELL DIAMETER: 2
DEPTH TO WATER: 26.97 GRAB (x) COMPOSITE ()

Pump Intake Set at (btoc): 55.37
or
Tubing Inlet Set at (btoc): _____
TOTAL DEPTH: 60.37
WATER COLUMN HEIGHT: _____
PURGE VOLUME: _____
[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
Initial: 0909 300	0.25	0.24	84.60	6.73	587.90	20.13	4.22	200 ()	27.21
914 600	0.5	0.18	70.20	6.92	586.00	20.16	1.05	200	27.21
919 900	0.75	0.26	64.80	7.02	581.80	20.17	0.94	200	27.21
924 1200	1.0	0.35	62.10	7.03	579.30	20.21	0.81	200	27.21
929 1500	1.25	0.38	61.00	7.06	582.50	20.39	0.66	200	27.21
934 1800	1.5	0.39	62.00	7.07	586.60	20.39	0.81	200	27.21
939 2100	1.75	0.39	60.60	7.08	589.90	20.34	0.74	200	27.21
944 2400	2.0	0.38	60.80	7.07	572.40	20.36	0.71	200	27.21
949 2700	2.25	0.37	59.30	7.09	595.20	20.35	0.72	200	27.21
955	Collect	Sample							

NOTES: ¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.
If well is purged dry, allow to recharge and sample within 24 hrs. PH @ SAMPLING = 7.12
Turbidity < 5 NTUs HNO3 SAMPLE PH = 1.0 PH STRIPS
ALSO COLLECTED DUP-01 @ 1200

SAMPLE DATE: 3-26-20
SAMPLE TIME: 955

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	1	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined

GENERAL INFORMATION	
WEATHER:	<u>WARM - CLEAR - HUMID</u>
SHIPPED VIA:	<u>FED-X</u>
SHIPPED TO:	<u>PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com</u>
SAMPLER:	<u>EVER-GUILLEN</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: ___ Event 9; ___ Event 10; ___ Event 11; X Event 12; ___ Event 13; ___ Event 14; ___ Event 15; ___ Event 16; ___ OTHER

WELL ID / SAMPLE ID: PZ-14 MATRIX: Groundwater

WELL MATERIAL: ___ PVC ___ SS ___ OTHER

SAMPLE METHOD: Low Flow - ~~BLADDER~~ ^{RED} PUMP

DUP./REP. OF: _____

WELL DIAMETER: 2"
DEPTH TO WATER: 36.18 GRAB (x) COMPOSITE ()
TOTAL DEPTH: 53.20
WATER COLUMN HEIGHT: _____
PURGE VOLUME: _____

Pump Intake Set at (btoc): 48.20

or

Tubing Inlet Set at (btoc): _____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
Initial: 1301 300	0.25	5.42	104.00	7.04	499.20	22.92	7.67	200 ()	36.72
1306 600	0.50	4.94 5.12	100.90	7.01	503.20	22.40	4.95	200	36.72
1311 899	0.75	4.94	98.00	6.99	502.40	22.47	3.69	200	36.72
1316 1199	1.0	4.63	98.10	6.98	504.50	22.26	2.78	200	36.72
1321 1499	1.25	4.44	101.10	6.98	507.00	22.39	2.40	200	36.72
1326 1799	1.5	4.28	99.00	6.97	503.30	22.26	1.63	200	36.72
1331 2099	1.75	4.15	98.40	6.97	506.10	22.26	1.33	200	36.72
1336 2399	2.0	4.05	100.00	6.97	503.60	22.28	0.32	200	36.72
1340	Collect sample								

NOTES: ¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.
If well is purged dry, allow to recharge and sample within 24 hrs. PH @ SAMPLING = 7.02
Turbidity < 5 NTUs HNO₃ SAMPLE PH = 1.0 ON PH STRIPS

SAMPLE DATE: 3-25-20

SAMPLE TIME: 1340

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	1	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined

GENERAL INFORMATION	
WEATHER:	<u>HOT-CLOUDY-HUMID</u>
SHIPPED VIA:	<u>FED-X</u>
SHIPPED TO:	<u>PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com</u>
SAMPLER:	<u>EVER GULLEN</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-15 MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER

SAMPLE METHOD: Bladder pump

DUP./REP. OF: _____

WELL DIAMETER: 2
DEPTH TO WATER: 25.21 GRAB (x) COMPOSITE ()
TOTAL DEPTH: 83.22
WATER COLUMN HEIGHT: _____
PURGE VOLUME: _____

Pump Intake Set at (btoc): 78.2

or

Tubing Inlet Set at (btoc): ✓

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]
[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]
[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L/ for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) (+/- 5%)	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
Start 1040									
Initial: 1045	0.25	0.12	44.60	7.14	539.40	23.16	3.01	300	24.87
1050	0.50	0.10	25.70	7.11	541.70	23.18	2.34	300	24.87
1055	0.75	0.11	15.60	7.09	542.30	23.23	1.59	300	24.87
1100	1.0	0.12	9.90	7.09	541.50	23.35	1.57	300	24.87
1105	1.25	0.13	1.00	7.08	540.50	23.41	1.90	300	24.87
1110	1.50	0.15	-9.20	7.08	539.10	23.41	2.72	300	24.87

NOTES: ¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.
If well is purged dry, allow to recharge and sample within 24 hrs.
Turbidity < 5 NTUs

SAMPLE DATE: 3/26/20 Final pH = 7.08
SAMPLE TIME: 1112

250

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals pH < 2
500 mL/Poly	1/2	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined pH < 2

GENERAL INFORMATION

WEATHER:	<u>Hot + Humid, 87.5°F</u>
SHIPPED VIA:	FED-X
SHIPPED TO:	PAGE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com
SAMPLER:	<u>Daniel Howard</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.

1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-16

MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER

SAMPLE METHOD: Bladder pump

DUP./REP. OF: _____

WELL DIAMETER: 2
DEPTH TO WATER: 27.27

GRAB (x) COMPOSITE ()

TOTAL DEPTH: 53.19

WATER COLUMN HEIGHT: _____

PURGE VOLUME: _____

Pump Intake Set at (btoc): 48.2

or

Tubing Inlet Set at (btoc): _____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
0907 <u>Start 0907</u>									
Initial: 0912	0.25	1.25	198.90	6.97	467.00	21.05	2.81	300	27.79
0917	0.5	1.17	197.00	7.02	467.60	21.03	1.45	300	27.79
0922	0.75	1.15	196.10	7.06	467.40	21.04	1.03	300	27.79
0927	1.0	1.16	196.40	7.09	468.00	21.08	0.70	300	27.79
0932	1.25	1.16	197.10	7.11	467.90	21.17	0.62	300	27.79
0937	1.50	1.16	198.10	7.12	467.80	21.21	0.46	300	27.79

NOTES:

¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs.

Turbidity < 5 NTUs

Final pH = 7.12

SAMPLE DATE: 3/26/20

SAMPLE TIME: 0938

250/

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	12	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined

pH < 2

pH < 2

GENERAL INFORMATION	
WEATHER:	<u>Clear & Sunny, Temp 75°F</u>
SHIPPED VIA:	FED-X
SHIPPED TO:	PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel; betsy.mcdaniel@pacelabs.com
SAMPLER:	<u>Daniel Howard</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-17

MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER

SAMPLE METHOD: QED Bladder pump

DUP./REP. OF: _____

WELL DIAMETER: 2 in
DEPTH TO WATER: 25.91 25.21 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 62.70

Pump Intake Set at (btoc): 57.70

WATER COLUMN HEIGHT: _____

or

PURGE VOLUME: _____

Tubing Inlet Set at (btoc): —

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
<u>start 1440</u>									
<u>Initial: 1445</u>	<u>0.25</u>	<u>0.20</u>	<u>-13.70</u>	<u>6.95</u>	<u>657.50</u>	<u>22.20</u>	<u>2.13</u>	<u>300 ()</u>	<u>26.04</u>
<u>1450</u>	<u>0.5</u>	<u>0.12</u>	<u>-15.70</u>	<u>6.94</u>	<u>657.70</u>	<u>22.29</u>	<u>1.58</u>	<u>300</u>	<u>26.04</u>
<u>1455</u>	<u>0.75</u>	<u>0.11</u>	<u>-14.00</u>	<u>6.93</u>	<u>657.90</u>	<u>22.37</u>	<u>0.96</u>	<u>300</u>	<u>26.04</u>
<u>1500</u>	<u>1.0</u>	<u>0.12</u>	<u>-12.30</u>	<u>6.93</u>	<u>656.60</u>	<u>22.46</u>	<u>1.10</u>	<u>300</u>	<u>26.04</u>
<u>1505</u>	<u>1.25</u>	<u>0.14</u>	<u>-10.70</u>	<u>6.93</u>	<u>657.20</u>	<u>22.33</u>	<u>0.83</u>	<u>300</u>	<u>26.04</u>
<u>1510</u>	<u>1.50</u>	<u>0.15</u>	<u>-10.00</u>	<u>6.93</u>	<u>657.90</u>	<u>22.30</u>	<u>0.69</u>	<u>300</u>	<u>26.04</u>

NOTES: ¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.
If well is purged dry, allow to recharge and sample within 24 hrs.
Turbidity < 5 NTUs
Final pH = 6.93

SAMPLE DATE: 3/25/20

SAMPLE TIME: 1511

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals <u>pH < 2</u>
<u>250</u> / 500 mL/Poly	<u>12</u>	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined <u>pH < 2</u>

GENERAL INFORMATION	
WEATHER:	<u>Partly Sunny, Temp 85°F</u>
SHIPPED VIA:	FED-X
SHIPPED TO:	PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com
SAMPLER:	<u>Daniel Howard</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-18 MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER

SAMPLE METHOD: Low Flow - QED Pump

DUP./REP. OF: _____

WELL DIAMETER: 2
DEPTH TO WATER: 23.30 GRAB (x) COMPOSITE ()

TOTAL DEPTH: 63.18

WATER COLUMN HEIGHT: _____

PURGE VOLUME: _____

Pump Intake Set at (btoc): 58.10

or

Tubing Inlet Set at (btoc): _____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
Initial: 1120 318	0.25	0.39	19.40	7.17	681.40	22.16	5.69	200 ()	23.61
1125 616	0.5	0.13	20.30	7.09	683.20	22.04	4.82	200	23.61
1130 916	0.75	0.12	19.30	7.07	683.70	22.11	3.43	200	23.61
1135 1216	1.0	0.13	18.20	7.07	684.50	22.15	2.97	200	23.61
1140 1516	1.25	0.14	17.30	7.06	684.40 684.40	22.09	2.07	200	23.61
1145 1816	1.5	0.15	18.70	7.05	684.00	22.08	1.75	200	23.61
1150 2117	1.75	0.15	19.50	7.05	683.80	22.13	1.62	200	23.61
1155 2417	2.0	0.16	20.00	7.05	683.90	22.15	1.15	200	23.61
1200 2716	2.25	0.16	21.10	7.03	683.40	22.19	0.98	200	23.61
1205 3016	2.5	0.16	21.60	7.03	683.60	22.19	0.90	200	23.61
1210	Collect sample								

NOTES: ¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.
If well is purged dry, allow to recharge and sample within 24 hrs. PH @ SAMPLE = 7.01
Turbidity < 5 NTUs HAND SAMPLE PH = 1.0

SAMPLE DATE: 3-26-20

SAMPLE TIME: 1210

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	1	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined

GENERAL INFORMATION

WEATHER:	<u>HOT-CLEAR-HUMID</u>
SHIPPED VIA:	<u>FED-X</u>
SHIPPED TO:	<u>PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com</u>
SAMPLER:	<u>EVER GUILLEN</u>
OBSERVER:	

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.
1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144
PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-19

MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER

SAMPLE METHOD: _____

DUP./REP. OF: DUP-02

WELL DIAMETER: 2

DEPTH TO WATER: 24.16

GRAB (x) COMPOSITE ()

TOTAL DEPTH: 62.63

WATER COLUMN HEIGHT: _____

PURGE VOLUME: _____

Pump Intake Set at (btoc): 57.6

or

Tubing Inlet Set at (btoc): _____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

1324 TIME start 1310	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
Initial: 1329	0.25	0.16	108.50	6.73	803.30	22.64	1.18	300	24.72
1334	0.5	0.16	113.50	6.72	805.40	22.67	0.65	300	24.72
1339	0.75	0.16	109.80	6.72	809.50	22.64	0.46	300	24.72
1344	1.0	0.16	110.20	6.71	809.60	22.59	0.78	300	24.72
1349	1.25	0.16	107.20	6.71	812.40	22.52	0.68	300	24.72
1354	1.50	0.16	—	—	—	—	0.64	300	24.72
1359	1.75	0.17	106.00	6.70	815.20	22.42	0.63	300	24.72

NOTES:

¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs.

Turbidity < 5 NTUs

Collected DUP-02 at well PZ-19
Final pH = 6.70

SAMPLE DATE: 3/26/20

SAMPLE TIME: 1356 / 1400

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	1	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined

GENERAL INFORMATION

WEATHER:	<u>Clear + Sunny, Temp 80°F</u>
SHIPPED VIA:	<u>FED-X</u>
SHIPPED TO:	<u>PAGE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel; betsy.mcdaniel@pacelabs.com</u>
SAMPLER:	<u>Daniel Howard</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.

1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-23A MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER QED

SAMPLE METHOD: Low Flow - Bladder Pump

DUP./REP. OF: _____

WELL DIAMETER: 2"

DEPTH TO WATER: 40.11

GRAB (x) COMPOSITE ()

TOTAL DEPTH: 69.5

WATER COLUMN HEIGHT: _____

PURGE VOLUME: _____

Pump Intake Set at (btoc): 59.5

or

Tubing Inlet Set at (btoc): _____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (± 0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (± 0.1 pH units)	SPEC. COND. ($\mu\text{s/cm}$) [$\pm 5\%$]	TEMP ($^{\circ}\text{C}$) Record only	TURB. (NTU) [≤ 5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
Initial: 1518 300	0.25	4.16	98.40	6.83	766.50	25.40	17.2	200 ()	41.07
1535 600	0.5	3.60	97.00	6.82	752.50	22.89	15.3	200	41.07
1528 900	0.75	3.38	93.10	6.83	748.90	22.62	20.2	200	41.07
1533 1200	1.0	3.30	91.10	6.82	741.50	22.62	47.6	200	41.07
1538 1500	1.25	3.29	91.70	6.81	735.80	22.90	35.9	200	41.07
1543 1800	1.5	3.28	92.40	6.81	728.40	22.98	28.3	200	41.07
1548 2100	1.75	3.28	93.20	6.80	723.50	23.07	17.7	200	41.07
1553 2400	2.0	3.31	95.00	6.79	719.10	22.82	6.51	200	41.07
1558 2700	2.25	3.34	94.80	6.78	719.90	22.40	3.68	200	41.07
1605	Collect Sample								

NOTES:

¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs.

PH @ SAMPLING = 6.84

Turbidity < 5 NTUs

HNO₃ Sample pH = 1.0

SAMPLE DATE: 3-25-20

SAMPLE TIME: 1605

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	1	Cool to 6°C	E300.0	Cl, F, SO ₄ /TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined

GENERAL INFORMATION

WEATHER:	<u>HOT - CLOUDY - HUMID</u>
SHIPPED VIA:	<u>FED-X</u>
SHIPPED TO:	<u>PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel; betsy.mcdaniel@pacelabs.com</u>
SAMPLER:	<u>EVER GUILLEN</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.

1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: ___ Event 9; ___ Event 10; ___ Event 11; X Event 12; ___ Event 13; ___ Event 14; ___ Event 15; ___ Event 16; ___ OTHER

WELL ID / SAMPLE ID: PZ-25

MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER

SAMPLE METHOD: QED Bladder pump

DUP./REP. OF: _____

WELL DIAMETER: 2

DEPTH TO WATER: 22.41

GRAB (x) COMPOSITE ()

TOTAL DEPTH: 63.19

WATER COLUMN HEIGHT: _____

PURGE VOLUME: _____

Pump Intake Set at (btoc): 58.2

or

Tubing Inlet Set at (btoc): _____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (± 0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. ($\mu\text{s}/\text{cm}$) [+/- 5%]	TEMP ($^{\circ}\text{C}$) Record only	TURB. (NTU) [< 5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
<u>1302</u>									
Initial: <u>1300</u>	<u>0.25</u>	<u>0.27</u>	<u>-27.00</u>	<u>7.03</u>	<u>476.50</u>	<u>22.26</u>	<u>1.75</u>	<u>300</u>	<u>22.66</u>
<u>1312</u>	<u>0.5</u>	<u>0.16</u>	<u>-30.10</u>	<u>7.01</u>	<u>477.20</u>	<u>22.23</u>	<u>1.10</u>	<u>300</u>	<u>22.66</u>
<u>1317</u>	<u>0.75</u>	<u>0.12</u>	<u>-33.90</u>	<u>7.01</u>	<u>477.40</u>	<u>22.33</u>	<u>0.86</u>	<u>300</u>	<u>22.66</u>
<u>1322</u>	<u>1.0</u>	<u>0.12</u>	<u>-34.40</u>	<u>7.01</u>	<u>478.20</u>	<u>22.47</u>	<u>0.66</u>	<u>300</u>	<u>22.66</u>
<u>1327</u>	<u>1.25</u>	<u>0.13</u>	<u>-34.80</u>	<u>7.01</u>	<u>476.90</u>	<u>22.33</u>	<u>0.51</u>	<u>300</u>	<u>22.66</u>
<u>1332th</u>	<u>1.50</u>	<u>0.14</u>	<u>-35.70</u>	<u>7.01</u>	<u>477.80</u>	<u>22.42</u>	<u>0.53</u>	<u>300</u>	<u>22.66</u>

NOTES:

¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs.

Turbidity < 5 NTUs

Final pH = 7.01

SAMPLE DATE: 3/25/20

SAMPLE TIME: 1333

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals <u>pH < 2</u>
500 mL/Poly	<u>12</u>	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined <u>pH < 2</u>

250/

GENERAL INFORMATION	
WEATHER:	<u>Partly Sunny, Temp 85°F</u>
SHIPPED VIA:	FED-X
SHIPPED TO:	PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com
SAMPLER:	<u>Daniel Howard</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.

1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-31 MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER GED

SAMPLE METHOD: LOW FLOW - HEADER PUMP

DUP./REP. OF: _____

WELL DIAMETER: 2"

DEPTH TO WATER: 27.63

GRAB (x) COMPOSITE ()

TOTAL DEPTH: 61.60

WATER COLUMN HEIGHT: _____

PURGE VOLUME: _____

Pump Intake Set at (btoc): 56.60

or

Tubing Inlet Set at (btoc): _____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L/ for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹	
Initial: 930	300	0.25	2.90	136.30	6.58	432.80	21.38	1.00	200 ()	28.53
951	300	0.25	4.57	96.90	7.06	461.10	20.21	1.05	200	28.71
956	600	0.5	4.59	96.60	7.09	461.40	20.18	0.99	200	28.71
1001	900	0.75	4.59	96.80	7.09	461.40	20.23	0.76	200	28.71
1006	1200	1.0	4.60	97.10	7.08	461.20	20.21	1.71	200	28.71
1011	1499	1.25	4.60	97.60	7.08	461.60	20.19	0.71	200	28.71
1016	1800	1.5	4.61	97.20	7.08	461.70	20.21	0.81	200	28.71
1020	<u>collect sample</u>									

NOTES:

¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs. PH @ SAMPLING = 7.15

Turbidity < 5 NTUs HNO3 SAMPLE PH = 1.0 ON PH STRIPS

SAMPLE DATE: 3-25-20

SAMPLE TIME: 1020

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	1	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined

GENERAL INFORMATION	
WEATHER:	<u>HOT - CLOUDY - HUMID</u>
SHIPPED VIA:	<u>FED-X</u>
SHIPPED TO:	<u>PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel; betsy.mcdaniel@pacelabs.com</u>
SAMPLER:	<u>EVER GUILLEN</u>
OBSERVER:	

PROJECT NAME: Plant Mitchell, GA - CCR GW

PLANT MITCHELL FIELD SAMPLING REPORT

Project Number: 6122-16-0170.1902

ASH PONDS 1 AND 2

Wood E&I Solutions, Inc.

1075 BIG SHANTY ROAD NW SUITE 100 KENNESAW GA 30144

PHONE: (770) 421-3400 / FAX: (770) 421-3486

SAMPLING EVENT: Event 9; Event 10; Event 11; Event 12; Event 13; Event 14; Event 15; Event 16; OTHER

WELL ID / SAMPLE ID: PZ-33

MATRIX: Groundwater

WELL MATERIAL: PVC SS OTHER

SAMPLE METHOD: Low Flow - QED Pump

DUP./REP. OF: _____

WELL DIAMETER: 2

DEPTH TO WATER: 41.83

GRAB (x) COMPOSITE ()

TOTAL DEPTH: 73.60

WATER COLUMN HEIGHT: _____

PURGE VOLUME: _____

Pump Intake Set at (btoc): 68.60'

or

Tubing Inlet Set at (btoc): _____

[0.163 x water column height (ft) x 3 (well volumes) for 2" wells]

[0.653 x water column height (ft) x 3 (well volumes) for 4" wells]

[1.47 x water column height (ft) x 3 (well volumes) for 6" wells]

TIME	VOL. PURGED (gal)	DO (±0.2 mg/L or 10% for DO > 0.5 mg/L for DO < 0.5 mg/L record only)	ORP (mV) record only	pH (+/- 0.1 pH units)	SPEC. COND. (µs/cm) [+/- 5%]	TEMP (°C) Record only	TURB. (NTU) [<5 NTU]	Pump Rate ml/min. (& pump setting) (100 ml/min)	Water Level (Ft BTOC) ¹
Initial: 1403 299	0.25	0.96	1.20	7.28	608.60	22.10	0.45	200 ()	42.11
1408 599	0.5	0.49	32.40	7.05	610.60	21.95	0.31	200	42.11
1413 899	0.75	0.39	43.90	7.03	611.10	21.93	0.35	200	42.11
1418 1199	1.0	0.32	50.40	7.02	613.50	21.99	0.24	200	42.11
1423 1499	1.25	0.29	55.20	7.02	614.50	21.99	0.181	200	42.11
1428 1799	1.5	0.27	58.80	7.01	614.50	21.94	0.50	200	42.11
1433 2099	1.75	0.25	60.60	7.01	614.80	21.98	0.44	200	42.11
1438 2399	2.0	0.23	61.50	7.01	614.80	21.91	0.23	200	42.11
1443 2699	2.25	0.21	62.00	7.01	614.60	21.93	0.20	200	42.11
1448 2999	2.5	0.20	63.00	7.01	614.70	21.86	0.19	200	42.11
1455	<u>Collect Sample</u>								

NOTES:

¹ Stabilization of water column will be considered achieved when 3 consecutive water level measurements vary by 0.3 foot or less at a pumping rate no greater than 100 ml/min and the water level is above the top of the screen.

If well is purged dry, allow to recharge and sample within 24 hrs.

PH @ SAMPLING = 7.00

Turbidity < 5 NTUs

HNO3 Sample PH = 1.0

SAMPLE DATE: 3-26-20

SAMPLE TIME: 1455

CONTAINER SIZE/TYPE	NO.	PRESERVATIVE	ANALYTICAL METHOD	ANALYSIS
250 mL/Poly	1	HNO3 to pH <2	SW6020B	App. III & IV Metals
500 mL/Poly	1	Cool to 6°C	E300.0	Cl, F, SO4/TDS
1 L/Poly	2	HNO3 to pH <2	E9315/9320	Radium 226 & 228 Combined

GENERAL INFORMATION

WEATHER:	<u>Hot - Clear - Humid</u>
SHIPPED VIA:	<u>FED-X</u>
SHIPPED TO:	<u>PACE Laboratories - 110 Technology Pkwy, Peachtree Corners, GA 30092 PH: (770) 734-4203 POC: Betsy McDaniel: betsy.mcdaniel@pacelabs.com</u>
SAMPLER:	<u>EVER GUILLEN</u>
OBSERVER:	

WELL INSPECTIONS

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-01D
 Date 3/23/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>yes</u>	<u> </u>	<u> </u>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-02D
 Date 3/23/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u> </u>	<u> </u>	<u>N/A</u>
c	Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>yes</u>	<u> </u>	<u> </u>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-07D
 Date 3/24/2019

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>yes</u>	<u> </u>	<u> </u>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-14
 Date 3/24/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>yes</u>	<u> </u>	<u> </u>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-15
 Date 3/24/2019

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>yes</u>	<u> </u>	<u> </u>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-16
 Date 3/24/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>yes</u>	<u> </u>	<u> </u>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-17
 Date 3/23/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>yes</u>	<u> </u>	<u> </u>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name	Plant Mitchell
Permit Number	N/A
Well ID	PZ-18
Date	3/23/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>yes</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	_____	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>yes</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>yes</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>yes</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	N/A
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	no	_____
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>yes</u>	_____	_____

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-19
 Date 3/24/2020

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	<u> </u>	<u> </u>
c Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<u>yes</u>	<u> </u>	<u> </u>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name	<u>Plant Mitchell</u>
Permit Number	<u>N/A</u>
Well ID	<u>PZ-23A</u>
Date	<u>3/24/2020</u>

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>yes</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	_____	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>yes</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>yes</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>yes</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>no</u>	_____
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<u>yes</u>	_____	_____

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-25
 Date 3/24/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	_____	_____
b	Is the well properly identified with the correct well ID?	<u>yes</u>	_____	_____
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	_____	_____
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	_____	_____
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	_____	_____
b	Is the casing free of degradation or deterioration?	<u>yes</u>	_____	_____
c	Does the casing have a functioning weep hole?	<u>yes</u>	_____	_____
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	_____	_____
e	Is the well locked and is the lock in good condition?	<u>yes</u>	_____	_____
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	_____	_____
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	_____	_____
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	_____	_____
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	_____	_____
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	_____	_____
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	_____	_____
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	_____	_____
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	_____	_____
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	_____	_____
e	Is the depth of the well consistent with the original well log?	_____	_____	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	_____	_____
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	_____	_____
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	_____	_____
c	Does the well require redevelopment (low flow, turbid)?	_____	<u>no</u>	_____
6	Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?	<u>yes</u>	_____	_____

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-31
 Date 3/23/2020

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	<u> </u>	<u> </u>
c Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<u>yes</u>	<u> </u>	<u> </u>

7 Corrective actions as needed, by date:

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-32
 Date 3/23/2020

	yes	no	n/a
1 Location/Identification			
a Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing			
a Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad			
a Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing			
a Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:			
a Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	<u> </u>	<u> </u>
c Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?			
	<u>yes</u>	<u> </u>	<u> </u>
7 Corrective actions as needed, by date:			
	<u> </u>	<u> </u>	<u> </u>
	<u> </u>	<u> </u>	<u> </u>

Signature and Seal of PE/PG responsible for inspection

Groundwater Monitoring Well Integrity Form

Site Name Plant Mitchell
 Permit Number N/A
 Well ID PZ-33
 Date 3/24/2020

		yes	no	n/a
1 Location/Identification				
a	Is the well visible and accessible?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well properly identified with the correct well ID?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well in a high traffic area and does the well require protection from traffic?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the drainage around the well acceptable? (no standing water, nor is well located in obvious drainage flow path)	<u>yes</u>	<u> </u>	<u> </u>
2 Protective Casing				
a	Is the protective casing free from apparent damage and able to be secured?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of degradation or deterioration?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the casing have a functioning weep hole?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the annular space between casings clear of debris and water, or filled with pea gravel/sand?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the well locked and is the lock in good condition?	<u>yes</u>	<u> </u>	<u> </u>
3 Surface pad				
a	Is the well pad in good condition (not cracked or broken)?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the well pad sloped away from the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well pad in complete contact with the protective casing?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the well pad in complete contact with the ground surface and stable? (not undermined by erosion, animal burrows, and does not move when stepped on)	<u>yes</u>	<u> </u>	<u> </u>
e	Is the pad surface clean (not covered with sediment or debris)?	<u>yes</u>	<u> </u>	<u> </u>
4 Internal casing				
a	Does the cap prevent entry of foreign material into the well?	<u>yes</u>	<u> </u>	<u> </u>
b	Is the casing free of kinks or bends, or any obstructions from foreign objects (such as bailers)?	<u>yes</u>	<u> </u>	<u> </u>
c	Is the well properly vented for equilibration of air pressure?	<u>yes</u>	<u> </u>	<u> </u>
d	Is the survey point clearly marked on the inner casing?	<u>yes</u>	<u> </u>	<u> </u>
e	Is the depth of the well consistent with the original well log?	<u> </u>	<u> </u>	<u>N/A</u>
f	Is the casing stable? (or does the pvc move easily when touched or can it be taken apart by hand due to lack of grout or use of slip couplings in construction)	<u>yes</u>	<u> </u>	<u> </u>
5 Sampling: Groundwater Wells Only:				
a	Does well recharge adequately when purged?	<u>yes</u>	<u> </u>	<u> </u>
b	If dedicated sampling equipment installed, is it in good condition and specified in the approved groundwater plan for the facility?	<u>yes</u>	<u> </u>	<u> </u>
c	Does the well require redevelopment (low flow, turbid)?	<u> </u>	<u>no</u>	<u> </u>
6 Based on your professional judgement, is the well construction / location appropriate to 1) achieve the objectives of the Groundwater Monitoring Program and 2) comply with the applicable regulatory requirements?				
		<u>yes</u>	<u> </u>	<u> </u>
7 Corrective actions as needed, by date:				
		<u> </u>	<u> </u>	<u> </u>
		<u> </u>	<u> </u>	<u> </u>

Signature and Seal of PE/PG responsible for inspection

APPENDIX C

STATISTICAL ANALYSES

STATISTICAL ANALYSES OF OCTOBER 2019 DATA

Table C-1
Appendix III October 2019 Results Compared with Prediction Limits
Plant Mitchell Ash Ponds A, 1 & 2

Parameter	Units	Well ID	Upper PL	Lower PL	September 10, 2019 and October 2-3, 2019
		Purpose of Event:			Assessment Semi-annual
Boron	mg/L	PZ-7D	0.028	-	0.24
Boron	mg/L	PZ-14	0.028	-	0.021 (J)
Boron	mg/L	PZ-15	0.028	-	0.17
Boron	mg/L	PZ-16	0.028	-	0.19
Boron	mg/L	PZ-17	0.028	-	0.28
Boron	mg/L	PZ-18	0.028	-	0.35
Boron	mg/L	PZ-19	0.028	-	0.52
Boron	mg/L	PZ-23	0.028	-	0.15
Boron	mg/L	PZ-25	0.028	-	0.21
Boron	mg/L	PZ-33	0.028	-	0.36
Calcium	mg/L	PZ-7D	110	-	127
Calcium	mg/L	PZ-14	110	-	103
Calcium	mg/L	PZ-15	110	-	101
Calcium	mg/L	PZ-16	110	-	89.1
Calcium	mg/L	PZ-17	110	-	115
Calcium	mg/L	PZ-18	110	-	139
Calcium	mg/L	PZ-19	110	-	125
Calcium	mg/L	PZ-23	110	-	137
Calcium	mg/L	PZ-25	110	-	92.3
Calcium	mg/L	PZ-33	110	-	110
Chloride	mg/L	PZ-7D	4.8	-	5.9
Chloride	mg/L	PZ-14	4.8	-	5.4
Chloride	mg/L	PZ-15	4.8	-	8.0
Chloride	mg/L	PZ-16	4.8	-	7.7
Chloride	mg/L	PZ-17	4.8	-	7.9
Chloride	mg/L	PZ-18	4.8	-	7.0
Chloride	mg/L	PZ-19	4.8	-	5.6
Chloride	mg/L	PZ-23	4.8	-	3.8
Chloride	mg/L	PZ-25	4.8	-	2.6
Chloride	mg/L	PZ-33	4.8	-	4.1
Fluoride	mg/L	PZ-7D	0.29	-	0.041 (J)
Fluoride	mg/L	PZ-14	0.29	-	0.056 (J)
Fluoride	mg/L	PZ-15	0.29	-	0.075 (J)
Fluoride	mg/L	PZ-16	0.29	-	0.053 (J)
Fluoride	mg/L	PZ-17	0.29	-	0.063 (J)
Fluoride	mg/L	PZ-18	0.29	-	0.043 (J)
Fluoride	mg/L	PZ-19	0.29	-	0.084 (J)
Fluoride	mg/L	PZ-23	0.29	-	<0.050
Fluoride	mg/L	PZ-25	0.29	-	0.16 (J)
Fluoride	mg/L	PZ-33	0.29	-	0.060 (J)
pH	s.u.	PZ-7D	9.7	7.0	6.9
pH	s.u.	PZ-14	9.7	7.0	7.0
pH	s.u.	PZ-15	9.7	7.0	7.2
pH	s.u.	PZ-16	9.7	7.0	7.2
pH	s.u.	PZ-17	9.7	7.0	7.0
pH	s.u.	PZ-18	9.7	7.0	6.8
pH	s.u.	PZ-19	9.7	7.0	6.9
pH	s.u.	PZ-23	9.7	7.0	6.8
pH	s.u.	PZ-25	9.7	7.0	7.2

Table C-1
Appendix III October 2019 Results Compared with Prediction Limits
Plant Mitchell Ash Ponds A, 1 & 2

Parameter	Units	Well ID	Upper PL	Lower PL	September 10, 2019 and October 2-3, 2019
Purpose of Event:					Assessment Semi-annual
pH	s.u.	PZ-33	9.7	7.0	7.0
Sulfate	mg/L	PZ-7D	6.4	-	59.6
Sulfate	mg/L	PZ-14	6.4	-	6.2
Sulfate	mg/L	PZ-15	6.4	-	83.0
Sulfate	mg/L	PZ-16	6.4	-	48.5
Sulfate	mg/L	PZ-17	6.4	-	104
Sulfate	mg/L	PZ-18	6.4	-	95.8
Sulfate	mg/L	PZ-19	6.4	-	84.9
Sulfate	mg/L	PZ-23	6.4	-	45.1
Sulfate	mg/L	PZ-25	6.4	-	43.0
Sulfate	mg/L	PZ-33	6.4	-	72.1
TDS	mg/L	PZ-7D	320	-	405
TDS	mg/L	PZ-14	320	-	312
TDS	mg/L	PZ-15	320	-	355
TDS	mg/L	PZ-16	320	-	284
TDS	mg/L	PZ-17	320	-	415
TDS	mg/L	PZ-18	320	-	464
TDS	mg/L	PZ-19	320	-	485
TDS	mg/L	PZ-23	320	-	420
TDS	mg/L	PZ-25	320	-	312
TDS	mg/L	PZ-33	320	-	414

Notes:

Downgradient well PZ-23 was sampled on September 10, 2019 before it was abandoned for construction activities.

The other downgradient wells were sampled on October 2 - 3, 2019.

- = Not applicable

< indicates the constituent was not detected above the method detection limit.

(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.

mg/L = milligrams per liter

s.u. - standard units

TDS = Total Dissolved Solids

PL = prediction limit

Shaded and bolded values indicate an exceedance of the statistically derived PL.

The pH value presented was recorded at the time of sample collection in the field. pH is the only parameter where the field result is compared to both the upper and lower PL.

An Alternate Source Demonstration (ASD) has not been prepared for these Appendix III statistical exceedances.

Assessment monitoring is currently being implemented.



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

10 April 2020

Mr. Joju Abraham
Georgia Power Company – Environmental Affairs
241 Ralph McGill Blvd
Atlanta, GA 30308-3374

T: +1 770-421-3400

www.woodplc.com

**RE: 2019 Semi-Annual Groundwater Monitoring & Corrective Action Statistical
Summary Letter
Plant Mitchell Ash Ponds A, 1, and 2
Wood Environment & Infrastructure Solutions, Inc. Project 6122-16-0170**

Dear Mr. Abraham:

Wood Environment & Infrastructure Solutions, Inc. (Wood) is pleased to submit this 2019 Semi-Annual Groundwater Monitoring & Corrective Action Statistical Summary Letter for the Plant Mitchell Ash Ponds A, 1, and 2 in Putney, Georgia. The letter and attachments are for your submittal to the Georgia Environmental Protection Division (EPD).

This 2019 Semi-Annual Groundwater Monitoring & Corrective Action Statistical Summary Letter provides the statistical analysis of the October 2019 Assessment Monitoring Event for the Georgia Power Company (GPC) Plant Mitchell Ash Ponds A, 1, and 2. The analysis complies with the Federal Rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia EPD Rules for Solid Waste Management Chapter 391-3-4-.10, and follows the USEPA Unified Guidance (2009).

1.0 BACKGROUND

Georgia Power Company's Plant Mitchell is located approximately eight miles south of Albany, Georgia. There are three CCR surface impoundments (ash ponds) at the Site: Ash Pond A, Ash Pond 1, and Ash Pond 2. 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 EPD in November 2018 and is currently under review. Groundwater monitoring has been initiated in order to meet 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.

Statistically Significant Increases (SSIs) 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 screening 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 screening 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 screening event in August 2019.

2.0 MONITORING NETWORK

Ash Ponds A, 1, and 2 are located adjacent to each other and are therefore considered to be one multi-unit for groundwater quality monitoring purposes. The monitoring network of 14 wells is designed to monitor groundwater passing the waste boundary of the Ash Ponds A, 1, and 2 within the uppermost aquifer and is summarized below.

Well ID	Hydraulic Location
PZ-1D	Upgradient
PZ-2D	Upgradient
PZ-31	Upgradient
PZ-32	Upgradient
PZ-7D	Downgradient
PZ-14	Downgradient
PZ-15	Downgradient
PZ-16	Downgradient
PZ-17	Downgradient
PZ-18	Downgradient
PZ-19	Downgradient
PZ-23	Downgradient
PZ-25	Downgradient
PZ-33	Downgradient

3.0 FIRST SEMI-ANNUAL ASSESSMENT EVENT STATISTICAL METHODS

The October 2019 Appendix III and Appendix IV constituent concentrations were statistically analyzed. The statistical methodology is described in the following sections.



3.1 Appendix III Statistical Method

Statistical analysis of Appendix III groundwater monitoring data was performed on samples collected from the groundwater monitoring network in October 2019 pursuant to § 257.93(f) and following the April 2019 Statistical Analysis Plan developed by Groundwater Stats Consulting. The Sanitas groundwater statistical software was used to perform the statistical analyses of groundwater quality data obtained in October 2019. Sanitas is a commercially available decision support software package that incorporates the statistical tests required of Subtitle C and D facilities by USEPA regulations and guidance as recommended in the Unified Guidance (USEPA, 2009) document. Interwell prediction limits (PLs) were 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 October 2019 monitoring event were compared to each statistical limit to determine whether downgradient well concentrations exceed interwell PLs. 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 PLs were used for the following locations and constituents:

- Ash Ponds A, 1, and 2 Downgradient Wells: PZ-7D, PZ-14, PZ-15, PZ-16, PZ-17, PZ-18, PZ-19, PZ-23, PZ-25, and PZ-33
- Constituents: boron, calcium, chloride, fluoride, sulfate, total dissolved solids (TDS), and pH

If data from a sampling event initially exceed 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. When the resample confirms the initial finding, the exceedance will be reported.

3.2 Appendix IV Statistical Method

The assessment monitoring program statistics for Appendix IV constituents at Plant Mitchell were conducted in two parts. The first part was the calculation of tolerance limits for site-specific background limits for Appendix IV constituents. The second part was the calculation of confidence limits for individual downgradient well/constituent pairs.

Interwell tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for Appendix IV constituents. Parametric tolerance limits are used when data follow



a normal or transformed-normal distribution such as for barium and radium. When data contained greater than 50% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then used when determining the groundwater protection standard (GWPS) under 40 CFR § 257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a).

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

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, CCR-rule specified level (RSLs) have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

On July 30, 2018, USEPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR § 257.95(h)(2). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix IV constituents for the October 2019 sample event. **Table 1: Summary of Groundwater Protection Standards for October 2019 Semi-Annual Monitoring Event** summarizes the background limits established for each Appendix IV constituent and the GWPS established under Georgia EPD Rules.

To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well. The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the Georgia EPD Rules 391-3-4-.10(6)(a). Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified.

4.0 FIRST SEMI-ANNUAL ASSESSMENT EVENT STATISTICAL RESULTS

The statistical results of the Appendix III and Appendix IV constituents from the October 2019 sampling event are discussed in the following sections.



4.1 Appendix III Statistical Results

Review of the Sanitas results indicates verified SSLs were noted following the October 2019 sampling event. **Table 2: Appendix III October 2019 Results Compared with Prediction Limits** lists the wells and Appendix III constituents with SSLs for the October 2019 sample event. The statistical analysis and comparison to PLs are included as **Appendix A: Appendix III Statistical Calculations**. The following summarizes the SSLs identified during the 2019 semi-annual monitoring event.

Statistical Analysis Results Summary

<u>Constituent</u>	<u>Wells with Concentrations Above Prediction Limits</u>
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

4.2 Appendix IV Statistical Results

Review of the Sanitas results indicates there were no confidence intervals of the individual well/constituent pairs above a GWPS, established according to Georgia EPD Rules 391-3-4-.10(6)(a). An exceedance is identified when the entire confidence interval is above the established GWPS. Therefore, no SSLs were identified for the October 2019 sample event. **Appendix B: Appendix IV Statistical Calculations** shows the individual well/constituent pairs with their respective confidence intervals in comparison to the respective constituent GWPS. Historical Appendix III and IV constituent concentrations are shown in **Appendix C: Time Series**.


Based on the results of the statistical analysis of Appendix III and IV constituents for the October 2019 sample event, Plant Mitchell will continue in assessment monitoring.

We appreciate the opportunity to provide environmental consulting services to the Georgia Power Company and Southern Company Services. Please feel free to contact us at (770) 421-3400 if you have questions or require additional information.

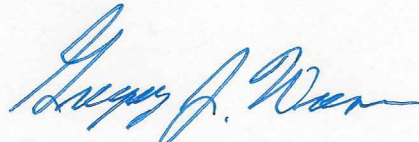


Sincerely,

Wood Environment & Infrastructure Solutions, Inc.



Rhonda N. Quinn, P.G.
Senior Geologist



Gregory J. Wrenn, P.E.
Associate Engineer/Project Manager



- Attachments: Table 1: Summary of Groundwater Protection Standards for October 2019 Semi-Annual Monitoring Event
Table 2: Appendix III October 2019 Results Compared with Prediction Limits
Appendix A: Appendix III Statistical Calculations
Appendix B: Appendix IV Statistical Calculations
Appendix C: Time Series



wood.

TABLES



Table 1
Summary of Groundwater Protection Standards
for October 2019 Semi-Annual Monitoring Event
Plant Mitchell Ash Ponds A, 1 & 2

Constituent	Units	MCL	RSL	Site-Specific Background October 2019	State Derived Site GWPS ⁽²⁾
Antimony	mg/L	0.006		0.0035	0.006
Arsenic	mg/L	0.01		0.005	0.01
Barium	mg/L	2.0		0.066	2.0
Beryllium	mg/L	0.004		0.003	0.004
Cadmium	mg/L	0.005		0.001	0.005
Chromium	mg/L	0.1		0.011	0.1
Cobalt ⁽¹⁾	mg/L		0.006	0.005	0.005
Fluoride	mg/L	4.0		0.3	4.0
Lead ^{(1) (3)}	mg/L		0.015	0.005	0.005
Lithium ^{(1) (4)}	mg/L		0.04	0.025	0.03
Mercury	mg/L	0.002		0.0005	0.002
Molybdenum ⁽¹⁾	mg/L		0.1	0.01	0.01
Combined Radium	piC/L	5.0		1.36	5.0
Selenium	mg/L	0.05		0.01	0.05
Thallium	mg/L	0.002		0.001	0.002

Notes:

mg/L - milligrams per liter

piC/L - picoCuries per liter

MCL - Maximum Contaminant Level

RSL - Regional Screening Level established by USEPA. RSL applied for constituent per Federal

CCR Rule 40 CFR § 257.95 (h) Amendment July 30, 2018.

GWPS - Groundwater Protection Standard

(1) Constituent without an established MCL. The background limits were used when determining the

groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia Environmental Protection Division (EPD) Rule 391-3-4-.10(6)(a).

(2) Under the existing Georgia EPD Rules, the GWPS is: (i) the MCL, (ii) where the MCL is not established, the background concentration, or

(iii) background concentrations for constituents where the background level is higher than the MCL.

(3) Currently, there is no MCL established for lead. The value listed is the established USEPA Action Level for drinking water.

(4) The background tolerance limit (TL) used to evaluate GWPS for lithium is equal to the most recent laboratory specified reporting limit (RL).

Per the Statistical Analysis Plan, and in accordance with the Unified Guidance, a non-parametric limit approach was used since the data set contains greater than 50% non-detect results for this analyte. Under this approach, the TL equals the highest value reported, for which is the laboratory RL. However, the highest laboratory RL used was 0.05 mg/L. As a result, we have modified the GWPS to be equal to the most recently used RL (0.03 mg/L).

Table 2
Appendix III October 2019 Results Compared with Prediction Limits
Plant Mitchell Ash Ponds A, 1 & 2

Parameter	Units	Well ID	Upper PL	Lower PL	September 10, 2019 and October 2-3, 2019
		Purpose of Event:			Assessment Semi-annual
Boron	mg/L	PZ-7D	0.028	-	0.24
Boron	mg/L	PZ-14	0.028	-	0.021 (J)
Boron	mg/L	PZ-15	0.028	-	0.17
Boron	mg/L	PZ-16	0.028	-	0.19
Boron	mg/L	PZ-17	0.028	-	0.28
Boron	mg/L	PZ-18	0.028	-	0.35
Boron	mg/L	PZ-19	0.028	-	0.52
Boron	mg/L	PZ-23	0.028	-	0.15
Boron	mg/L	PZ-25	0.028	-	0.21
Boron	mg/L	PZ-33	0.028	-	0.36
Calcium	mg/L	PZ-7D	110	-	127
Calcium	mg/L	PZ-14	110	-	103
Calcium	mg/L	PZ-15	110	-	101
Calcium	mg/L	PZ-16	110	-	89.1
Calcium	mg/L	PZ-17	110	-	115
Calcium	mg/L	PZ-18	110	-	139
Calcium	mg/L	PZ-19	110	-	125
Calcium	mg/L	PZ-23	110	-	137
Calcium	mg/L	PZ-25	110	-	92.3
Calcium	mg/L	PZ-33	110	-	110
Chloride	mg/L	PZ-7D	4.8	-	5.9
Chloride	mg/L	PZ-14	4.8	-	5.4
Chloride	mg/L	PZ-15	4.8	-	8.0
Chloride	mg/L	PZ-16	4.8	-	7.7
Chloride	mg/L	PZ-17	4.8	-	7.9
Chloride	mg/L	PZ-18	4.8	-	7.0
Chloride	mg/L	PZ-19	4.8	-	5.6
Chloride	mg/L	PZ-23	4.8	-	3.8
Chloride	mg/L	PZ-25	4.8	-	2.6
Chloride	mg/L	PZ-33	4.8	-	4.1
Fluoride	mg/L	PZ-7D	0.29	-	0.041 (J)
Fluoride	mg/L	PZ-14	0.29	-	0.056 (J)
Fluoride	mg/L	PZ-15	0.29	-	0.075 (J)
Fluoride	mg/L	PZ-16	0.29	-	0.053 (J)
Fluoride	mg/L	PZ-17	0.29	-	0.063 (J)
Fluoride	mg/L	PZ-18	0.29	-	0.043 (J)
Fluoride	mg/L	PZ-19	0.29	-	0.084 (J)
Fluoride	mg/L	PZ-23	0.29	-	<0.05
Fluoride	mg/L	PZ-25	0.29	-	0.16 (J)
Fluoride	mg/L	PZ-33	0.29	-	0.060 (J)
pH	s.u.	PZ-7D	9.7	7.0	6.9
pH	s.u.	PZ-14	9.7	7.0	7.0
pH	s.u.	PZ-15	9.7	7.0	7.2
pH	s.u.	PZ-16	9.7	7.0	7.2

Table 2
Appendix III October 2019 Results Compared with Prediction Limits
Plant Mitchell Ash Ponds A, 1 & 2

Parameter	Units	Well ID	Upper PL	Lower PL	September 10, 2019 and October 2-3, 2019
		Purpose of Event:			Assessment Semi-annual
pH	s.u.	PZ-17	9.7	7.0	7.0
pH	s.u.	PZ-18	9.7	7.0	6.8
pH	s.u.	PZ-19	9.7	7.0	6.9
pH	s.u.	PZ-23	9.7	7.0	6.8
pH	s.u.	PZ-25	9.7	7.0	7.2
pH	s.u.	PZ-33	9.7	7.0	7.0
Sulfate	mg/L	PZ-7D	6.4	-	59.6
Sulfate	mg/L	PZ-14	6.4	-	6.2
Sulfate	mg/L	PZ-15	6.4	-	83.0
Sulfate	mg/L	PZ-16	6.4	-	48.5
Sulfate	mg/L	PZ-17	6.4	-	104
Sulfate	mg/L	PZ-18	6.4	-	95.8
Sulfate	mg/L	PZ-19	6.4	-	84.9
Sulfate	mg/L	PZ-23	6.4	-	45.1
Sulfate	mg/L	PZ-25	6.4	-	43.0
Sulfate	mg/L	PZ-33	6.4	-	72.1
TDS	mg/L	PZ-7D	320	-	405
TDS	mg/L	PZ-14	320	-	312
TDS	mg/L	PZ-15	320	-	355
TDS	mg/L	PZ-16	320	-	284
TDS	mg/L	PZ-17	320	-	415
TDS	mg/L	PZ-18	320	-	464
TDS	mg/L	PZ-19	320	-	485
TDS	mg/L	PZ-23	320	-	420
TDS	mg/L	PZ-25	320	-	312
TDS	mg/L	PZ-33	320	-	414

Notes:

Downgradient well PZ-23 was sampled on September 10, 2019 before it was abandoned for construction activities.

The other downgradient wells were sampled on October 2 - 3, 2019.

- = Not applicable

< indicates the constituent was not detected above the method detection limit.

(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.

mg/L = milligrams per liter

s.u. - standard units

TDS = Total Dissolved Solids

PL = prediction limit

Shaded and bolded values indicate an exceedance of the statistically derived PL.

The pH value presented was recorded at the time of sample collection in the field. pH is the only parameter where the field result is compared to both the upper and lower PL.

An Alternate Source Demonstration (ASD) has not been prepared for these Appendix III statistical exceedances.

Assessment monitoring is currently being implemented.

APPENDIX A

APPENDIX III STATISTICAL CALCULATIONS



Prediction Limit Summary Table – App. III Significant Results

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4 Printed 2/24/2020, 1:02 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
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) ...

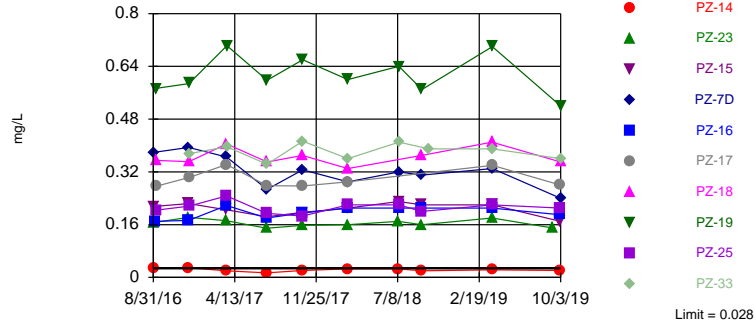
Prediction Limit Summary Table – App. IIIAll Results

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4 Printed 2/24/2020, 1:02 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Date</u>	<u>Observ.</u>	<u>Sig.</u>	<u>Bg N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
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

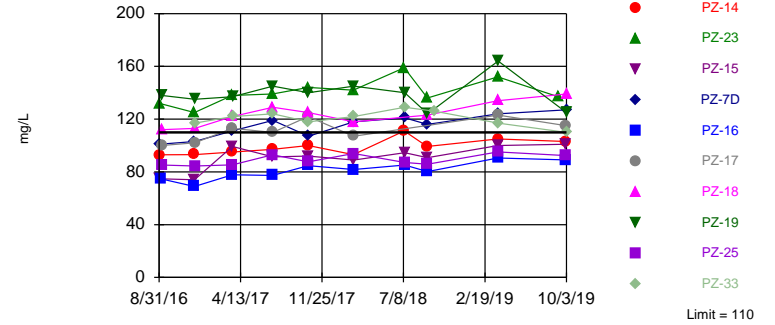


Background Data Summary (based on natural log transformation): Mean=-4.342, Std. Dev.=0.3785, n=39, 5.128% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9586, critical = 0.917. Kappa = 2.072 (c=7, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 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

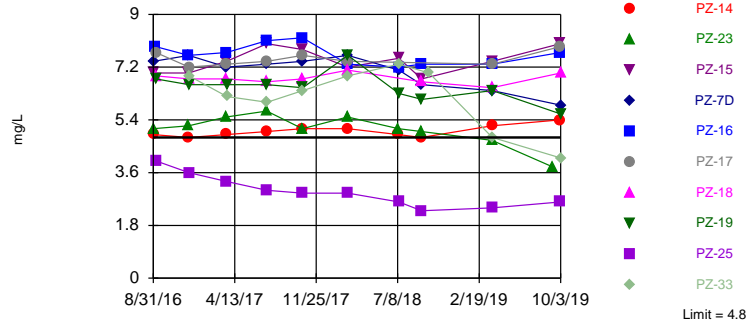


Background Data Summary: Mean=55.01, Std. Dev.=25.36, n=39, 2.564% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9312, critical = 0.917. Kappa = 2.072 (c=7, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0007523. Comparing 10 points to 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

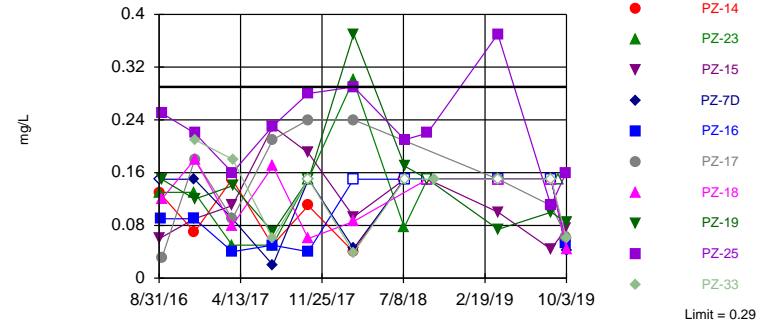


Background Data Summary: Mean=3.292, Std. Dev.=0.7191, n=39. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9239, critical = 0.917. Kappa = 2.072 (c=7, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0007523. Comparing 10 points to limit.

Constituent: Chloride Analysis Run 2/24/2020 12:59 PM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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)

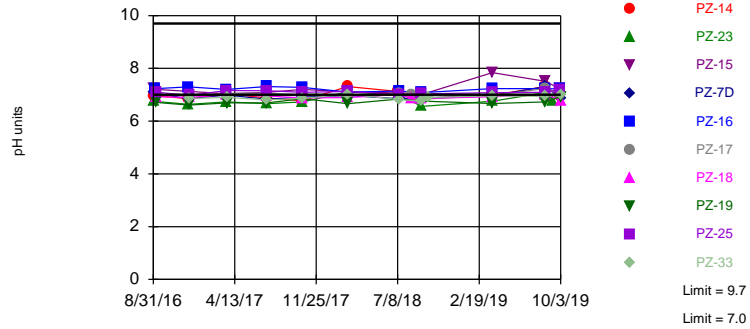
Prediction Limit

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

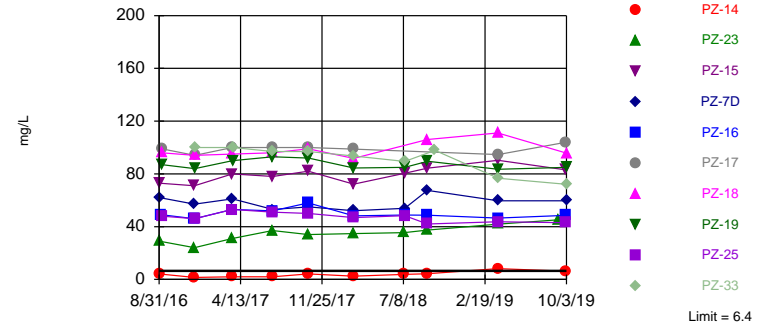


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 44 background values. Annual per-constituent alpha = 0.03794. Individual comparison alpha = 0.001914 (1 of 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

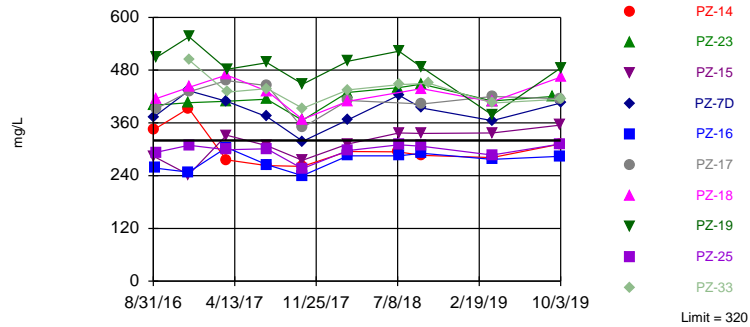


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 39 background values. Annual per-constituent alpha = 0.02314. Individual comparison alpha = 0.00117 (1 of 2). Comparing 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

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
pH (pH units)	PZ-2D (bg)	-0.6498	-38	-31	Yes	11	0	n/a	n/a	0.02	NP

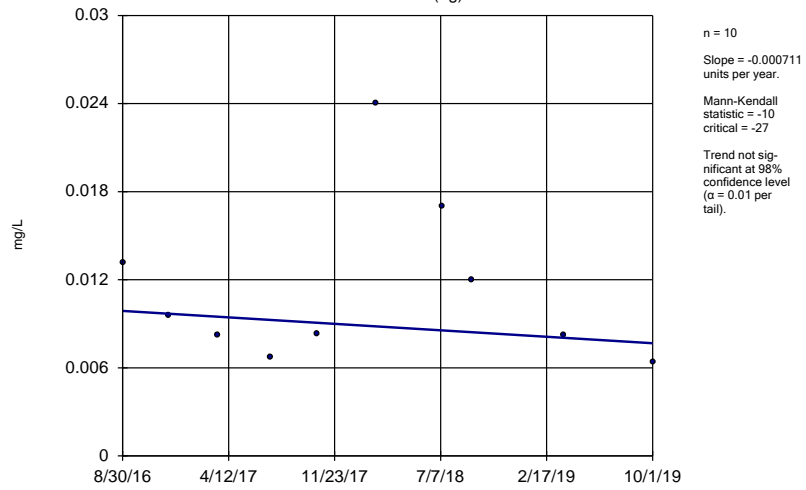
Sen Slope - All

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4 Printed 2/24/2020, 1:09 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
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

Sen's Slope Estimator

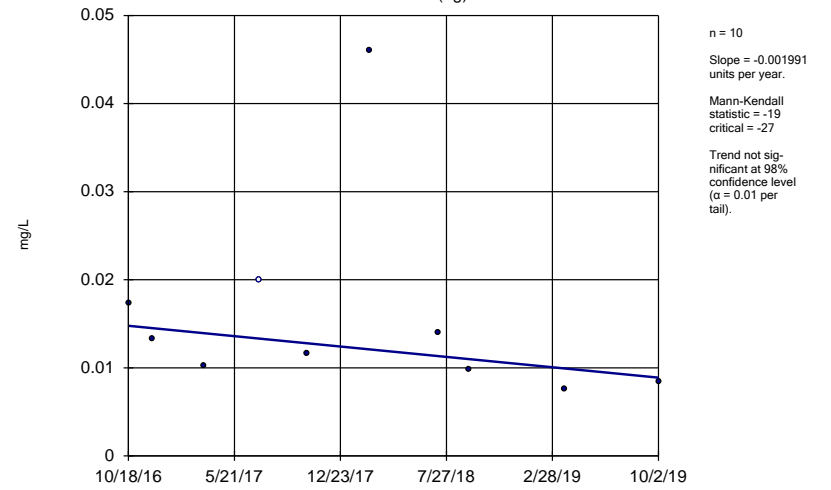
PZ-1D (bg)



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

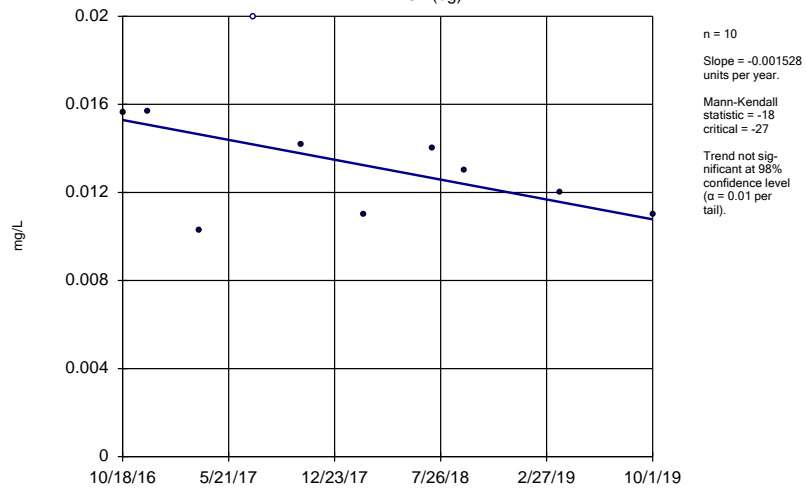
PZ-31 (bg)



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

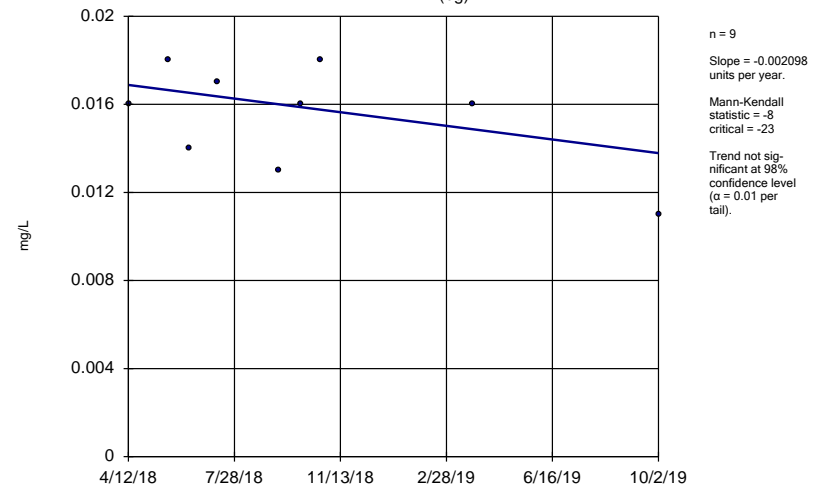
PZ-32 (bg)



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

PZ-2D (bg)



Constituent: Boron Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

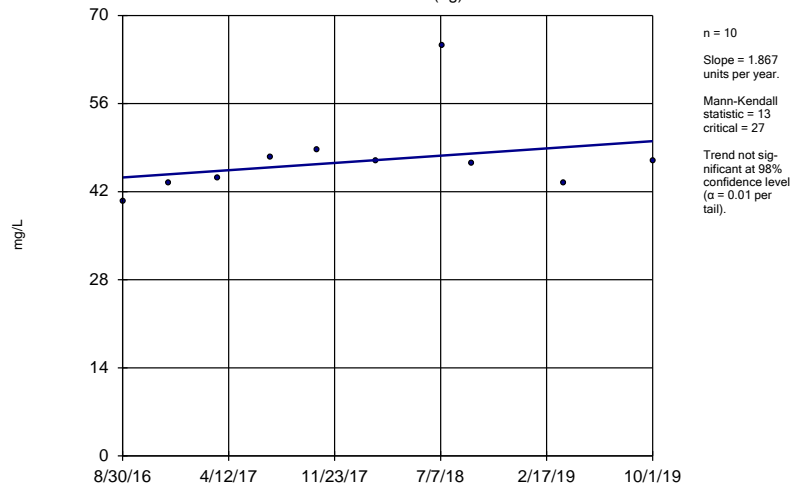
Sen's Slope Estimator

Constituent: Boron Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

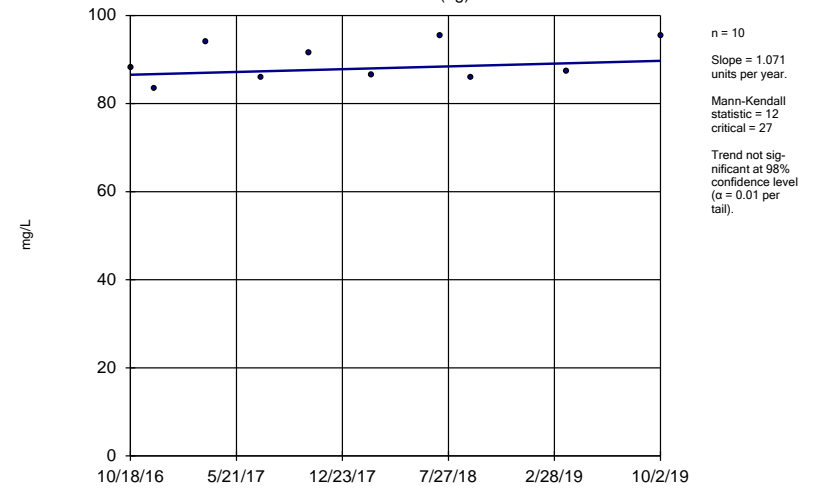
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.0132 (X)			
10/18/2016		0.0174 (X)	0.0156 (X)	
12/6/2016	0.0096 (X)	0.0133 (X)		
12/7/2016			0.0157 (X)	
3/21/2017	0.0082 (X)	0.0103 (X)		
3/23/2017			0.0103 (X)	
7/11/2017	0.0067 (X)	<0.04	<0.04	
10/17/2017	0.0083 (X)	0.0116 (X)	0.0142 (X)	
2/20/2018	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)



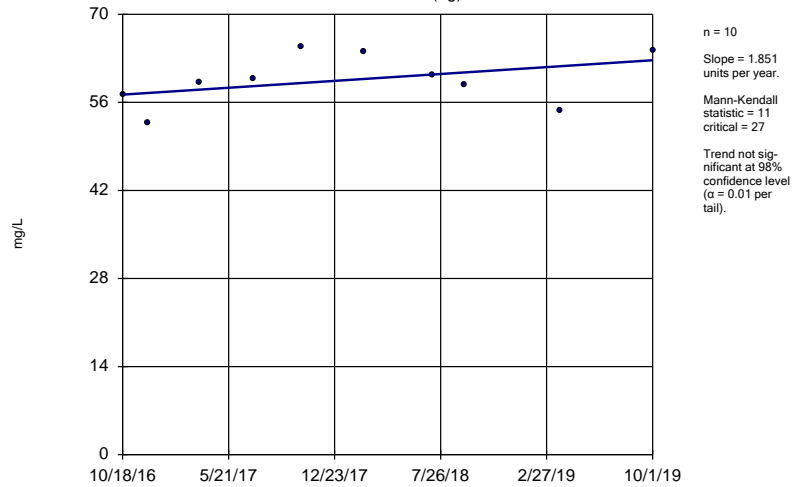
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Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator
PZ-31 (bg)



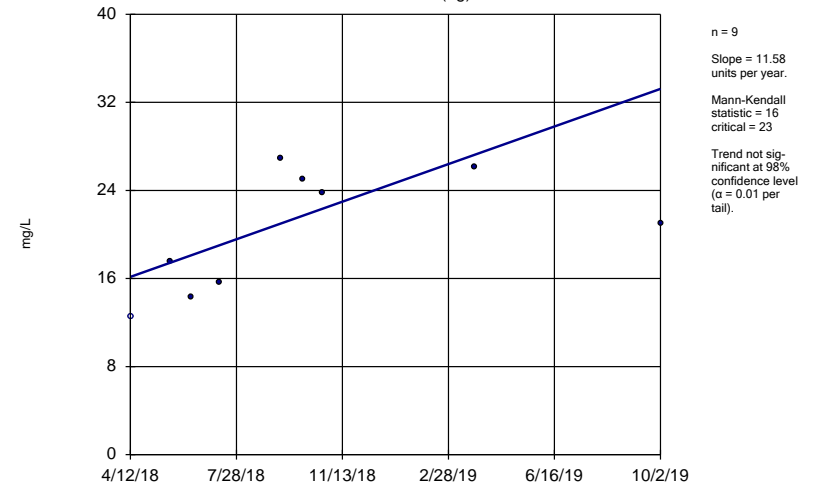
Constituent: Calcium Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator
PZ-32 (bg)



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-2D (bg)



Constituent: Calcium Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

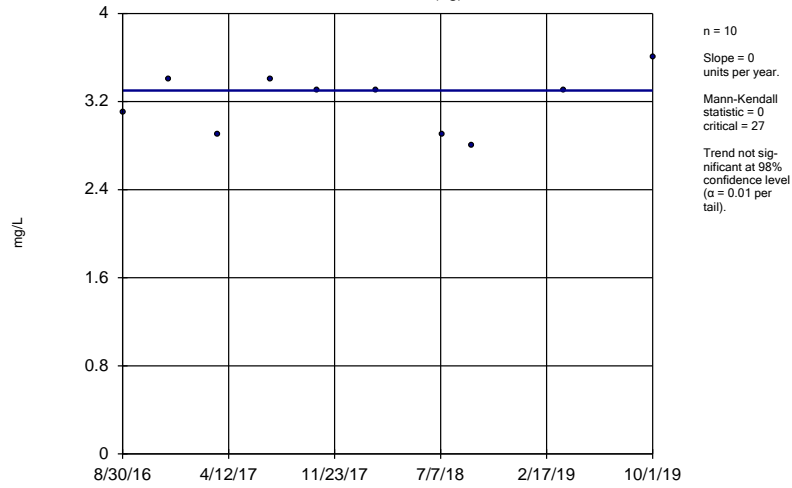
Sen's Slope Estimator

Constituent: Calcium Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

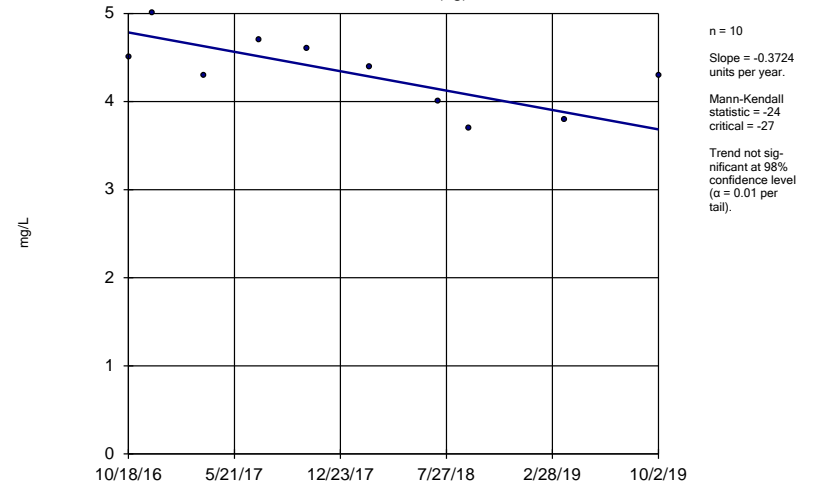
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	40.4			
10/18/2016		88.3	57.2	
12/6/2016	43.3	83.4		
12/7/2016			52.8	
3/21/2017	44.1	94		
3/23/2017			59.1	
7/11/2017	47.4	86	59.7	
10/17/2017	48.7	91.6	64.9	
2/20/2018	46.8	86.5	64.1	
4/12/2018				<25
5/23/2018				17.6 (X)
6/13/2018				14.3
7/11/2018	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)



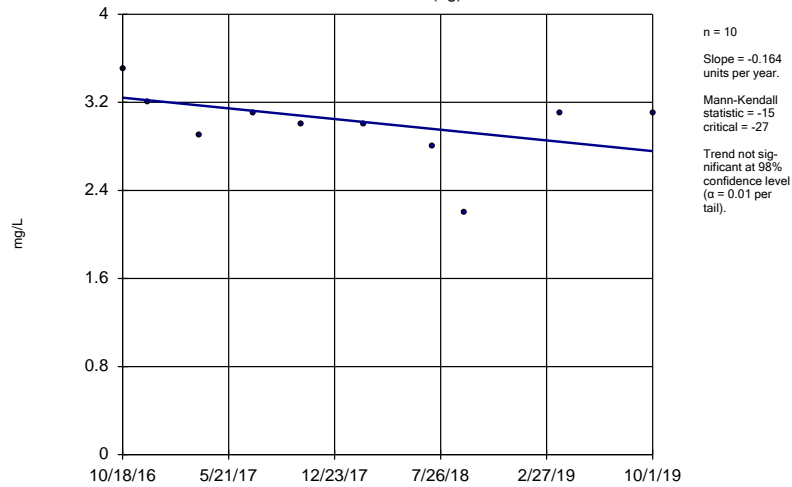
Constituent: Chloride Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator
PZ-31 (bg)



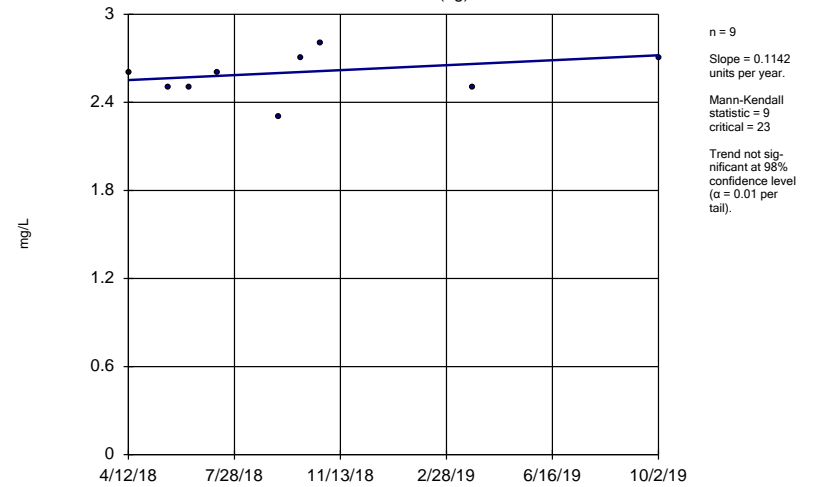
Constituent: Chloride Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator
PZ-32 (bg)



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
PZ-2D (bg)



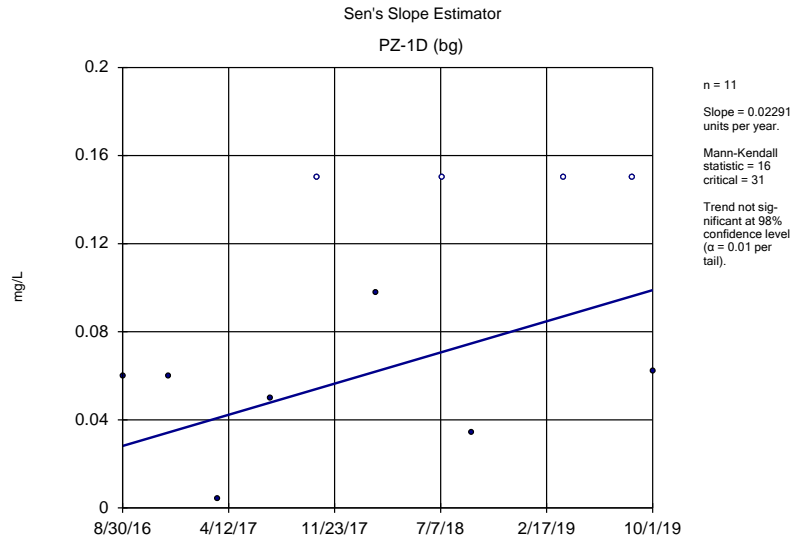
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Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

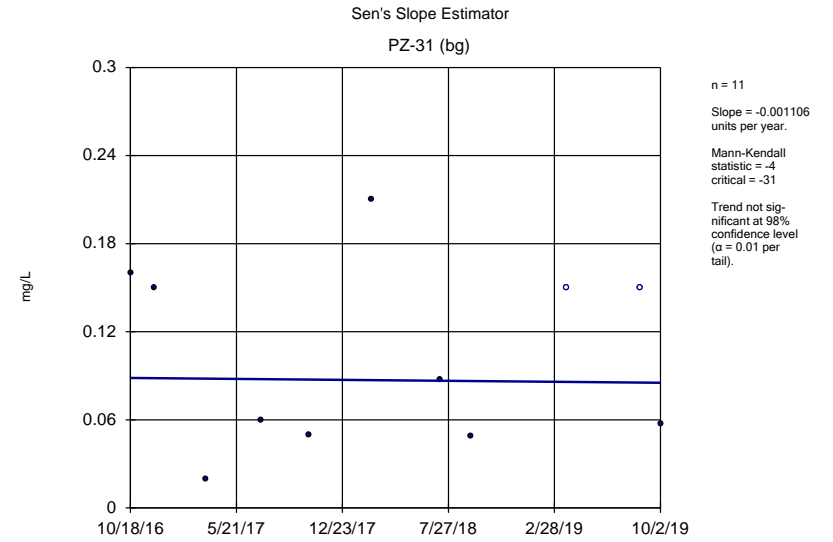
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Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

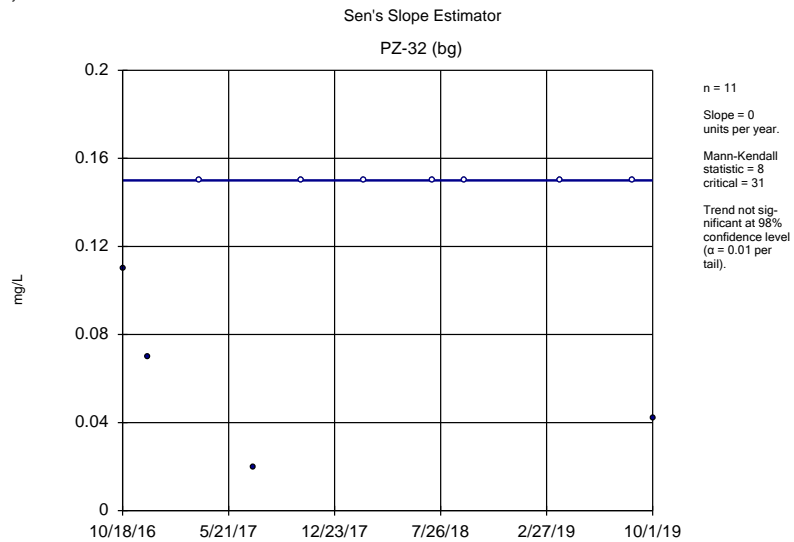
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	3.1 (B)			
10/18/2016		4.5	3.5	
12/6/2016	3.4	5		
12/7/2016			3.2	
3/21/2017	2.9	4.3		
3/23/2017			2.9	
7/11/2017	3.4	4.7	3.1	
10/17/2017	3.3	4.6	3	
2/20/2018	3.3	4.4	3	
4/12/2018				2.6
5/23/2018				2.5
6/13/2018				2.5
7/11/2018	2.9	4	2.8	2.6
9/12/2018	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



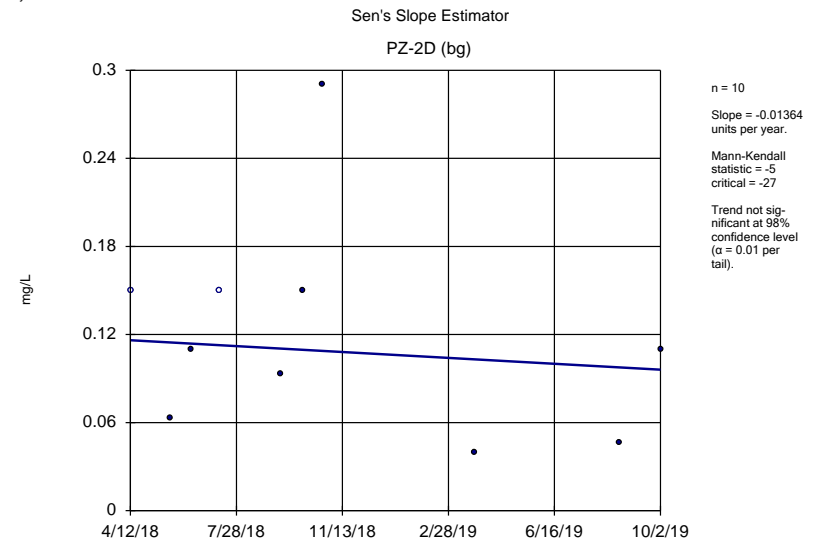
Constituent: Fluoride Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Fluoride Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Fluoride Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Fluoride Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

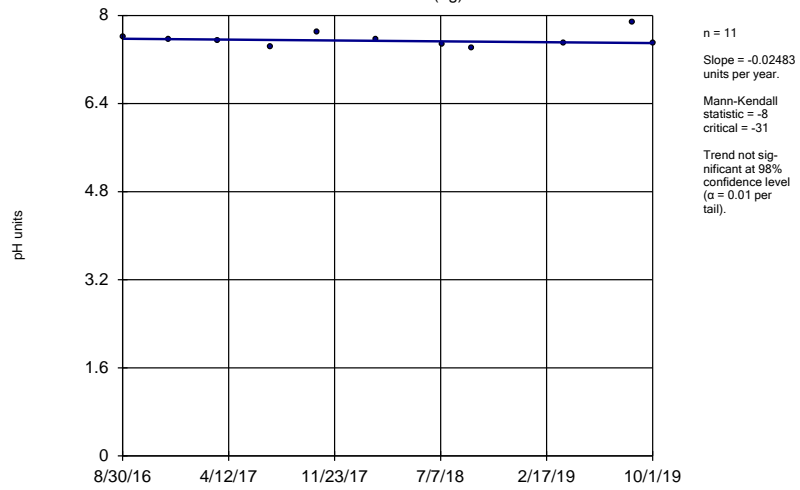
Sen's Slope Estimator

Constituent: Fluoride Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

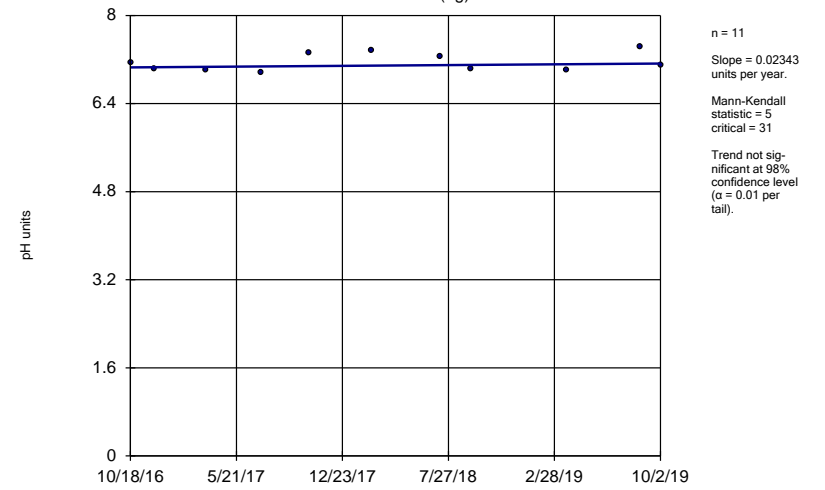
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.06 (X)			
10/18/2016		0.16 (X)	0.11 (X)	
12/6/2016	0.06 (X)	0.15 (X)		
12/7/2016			0.07 (X)	
3/21/2017	0.004 (X)	0.02 (X)		
3/23/2017			<0.3	
7/11/2017	0.05 (X)	0.06 (X)	0.02 (X)	
10/17/2017	<0.3	0.05 (X)	<0.3	
2/20/2018	0.098 (X)	0.21 (X)	<0.3	
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)



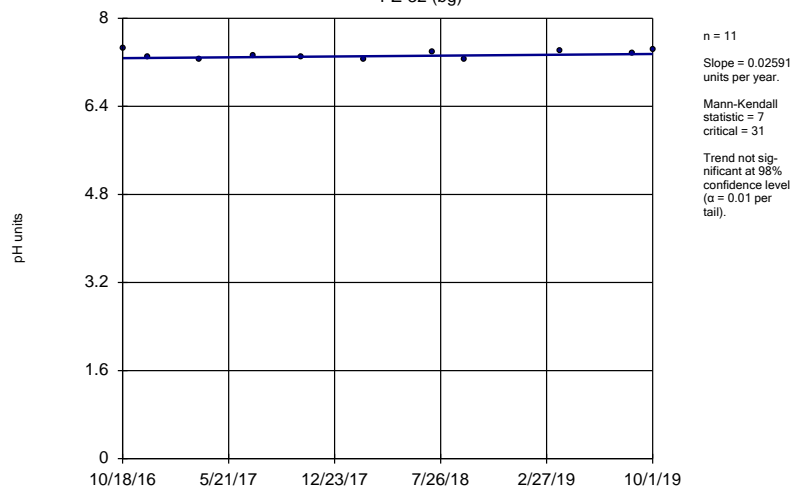
Constituent: pH Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator
PZ-31 (bg)



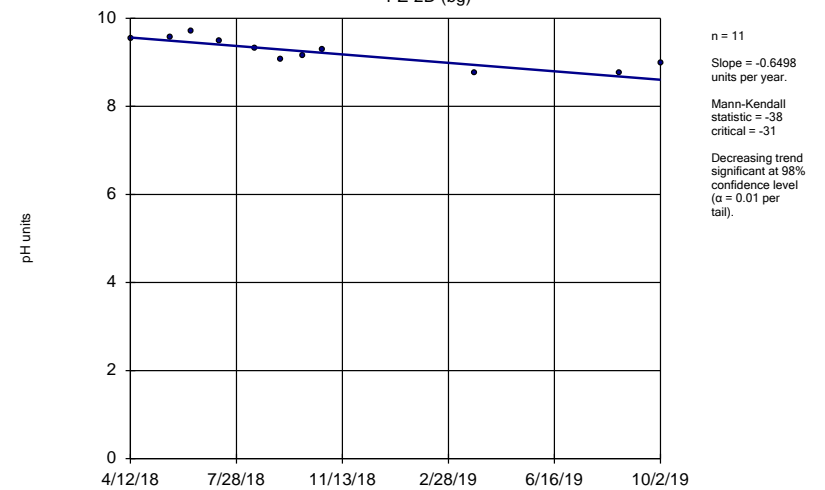
Constituent: pH Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator
PZ-32 (bg)



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)



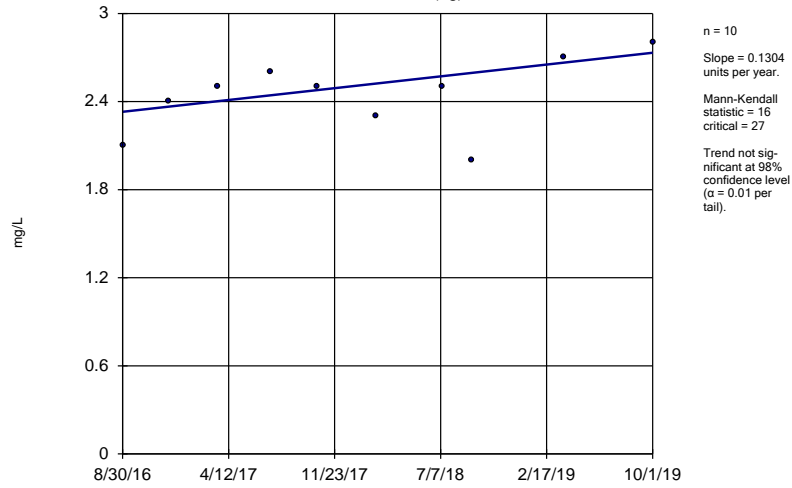
Constituent: pH Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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

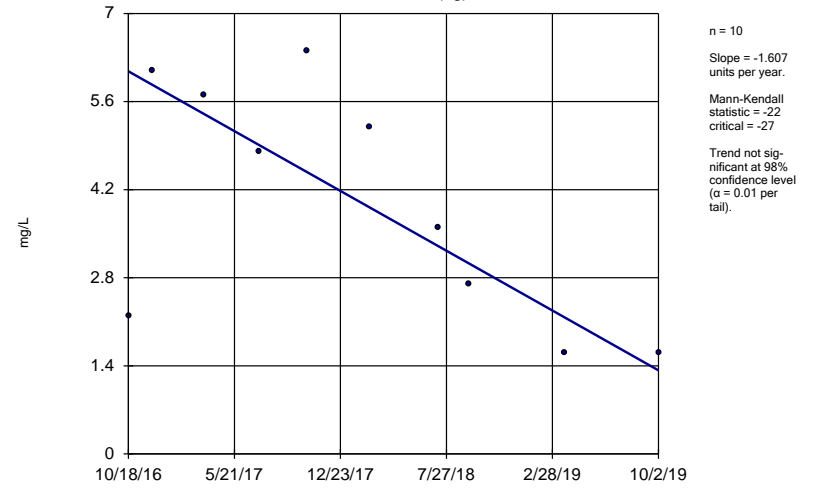
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	7.62			
10/18/2016		7.15	7.45	
12/6/2016	7.57	7.04		
12/7/2016			7.29	
3/21/2017	7.54	7.01		
3/23/2017			7.26	
7/11/2017	7.43	6.96	7.31	
10/17/2017	7.7	7.31	7.29	
2/20/2018	7.57	7.37	7.26	
4/12/2018				9.54
5/23/2018				9.57
6/13/2018				9.71
7/11/2018	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)



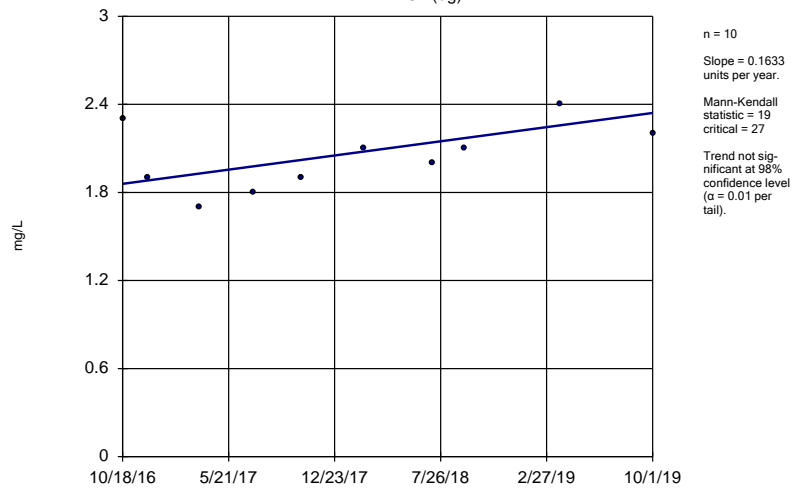
Constituent: Sulfate Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator
PZ-31 (bg)



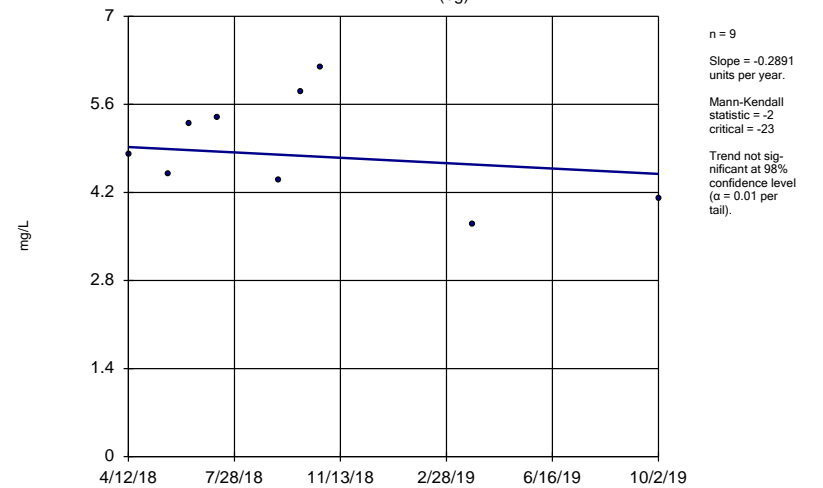
Constituent: Sulfate Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator
PZ-32 (bg)



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)



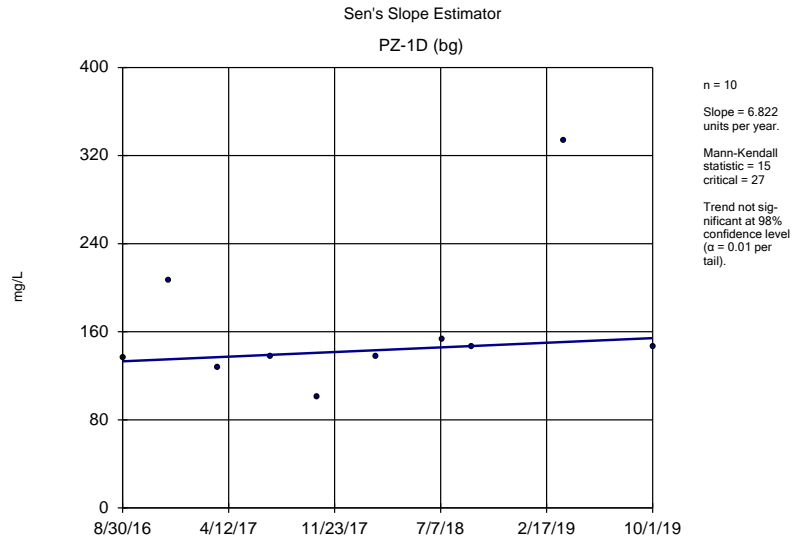
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Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Sen's Slope Estimator

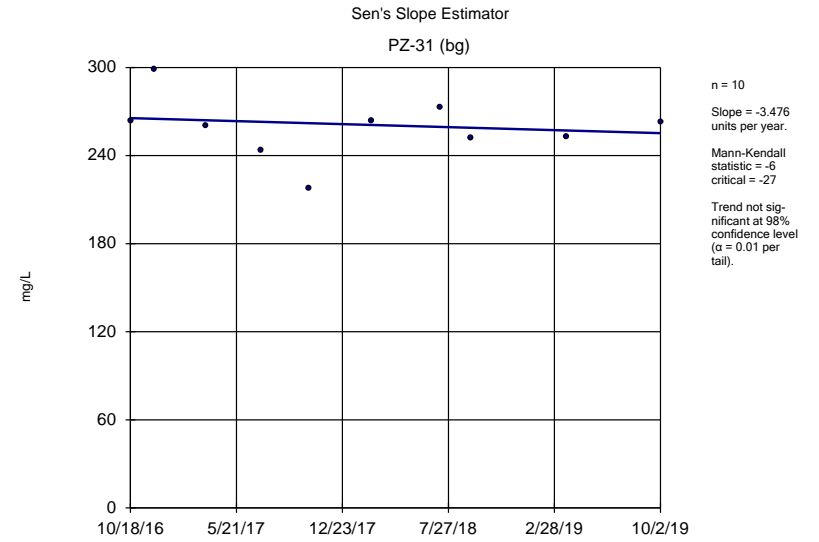
Constituent: Sulfate Analysis Run 2/24/2020 1:09 PM View: App III background only

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

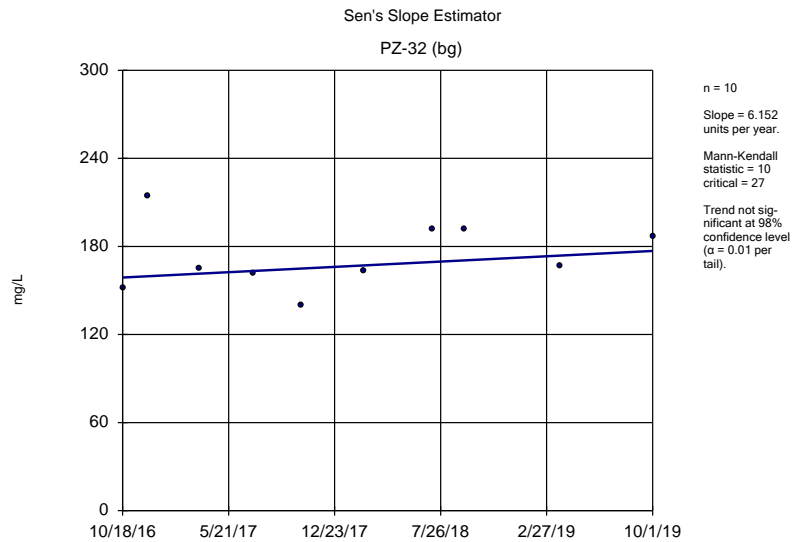
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	2.1			
10/18/2016		2.2	2.3	
12/6/2016	2.4	6.1		
12/7/2016			1.9	
3/21/2017	2.5	5.7		
3/23/2017			1.7	
7/11/2017	2.6	4.8	1.8	
10/17/2017	2.5	6.4	1.9	
2/20/2018	2.3	5.2	2.1	
4/12/2018				4.8 (X)
5/23/2018				4.5
6/13/2018				5.3
7/11/2018	2.5	3.6	2	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



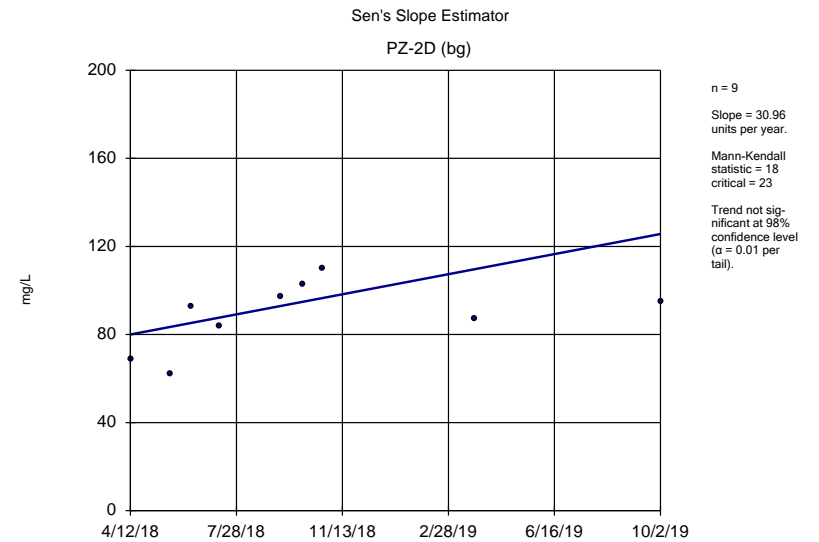
Constituent: Total Dissolved Solids Analysis Run 2/24/2020 1:07 PM View: App III background only
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



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



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



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

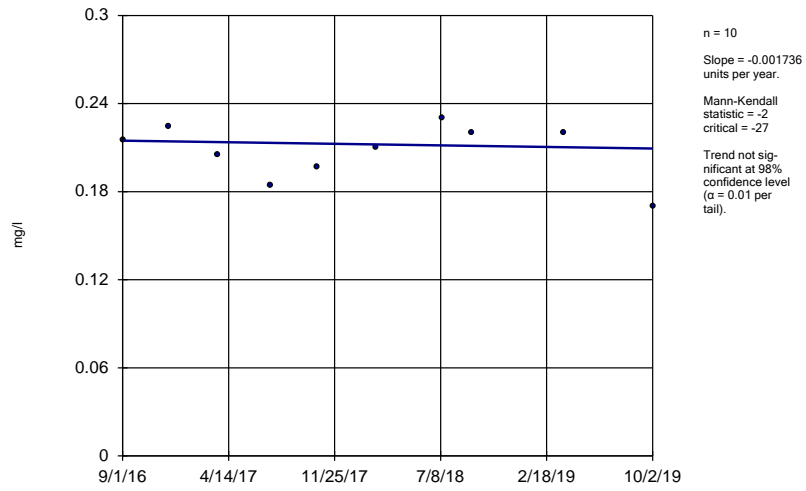
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/l)	PZ-18	6.257	28	27	Yes	10	0	n/a	n/a	0.02	NP
Calcium (mg/l)	PZ-7D	7.604	33	27	Yes	10	0	n/a	n/a	0.02	NP
Chloride (mg/l)	PZ-19	-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

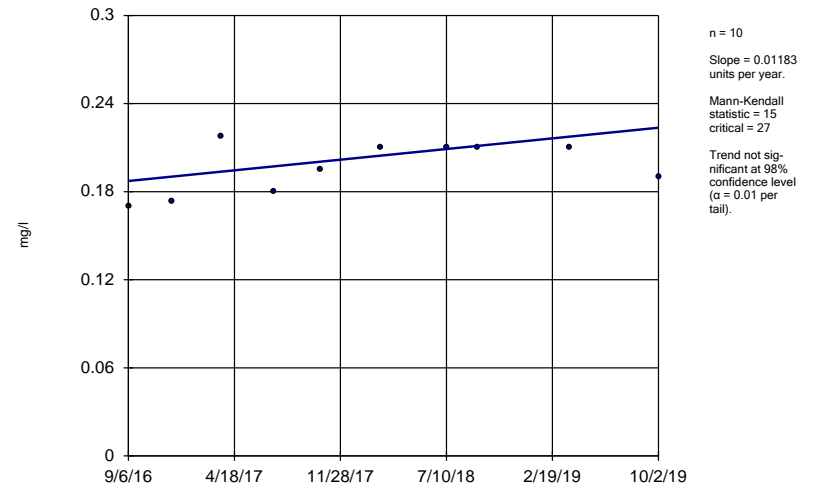
<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Boron (mg/l)	PZ-15	-0.00...	-2	-27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/l)	PZ-16	0.01183	15	27	No	10	0	n/a	n/a	0.02	NP
Boron (mg/l)	PZ-17	0.003961	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



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
PZ-16



Sen's Slope Estimator

Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: Appll 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: Appll 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: Appll Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

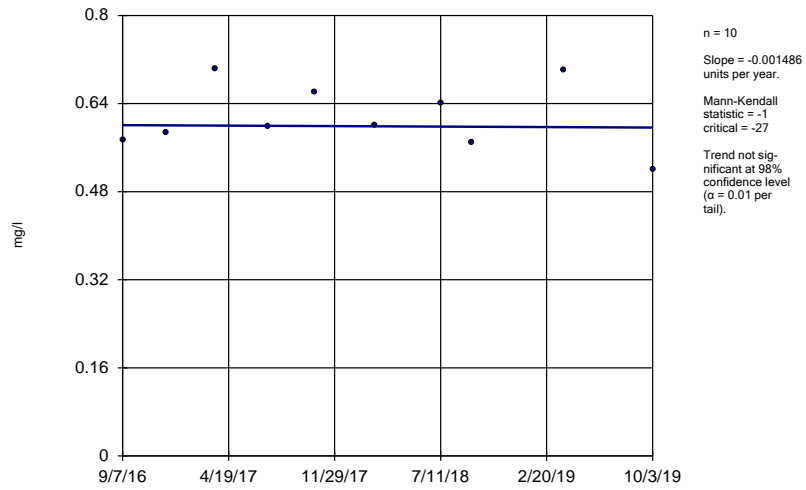
	PZ-17
9/7/2016	0.276
12/8/2016	0.303
3/22/2017	0.342
7/12/2017	0.278
10/18/2017	0.277
2/21/2018	0.29
8/16/2018	0.33
9/14/2018	0.31
3/28/2019	0.34
10/2/2019	0.28

Sen's Slope Estimator

Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: Appll Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

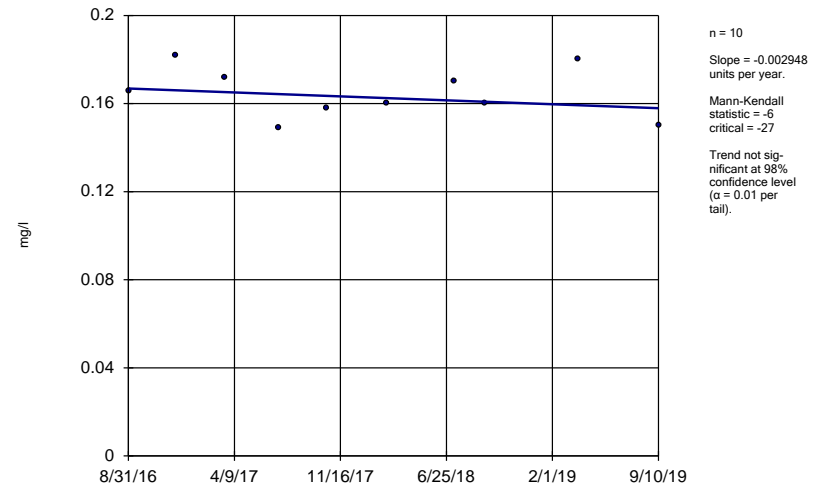
	PZ-18
9/7/2016	0.355
12/8/2016	0.351
3/22/2017	0.405
7/12/2017	0.35
10/18/2017	0.37
2/21/2018	0.33
8/15/2018	0.37
9/13/2018	0.37
3/27/2019	0.41
10/3/2019	0.35

Sen's Slope Estimator
PZ-19



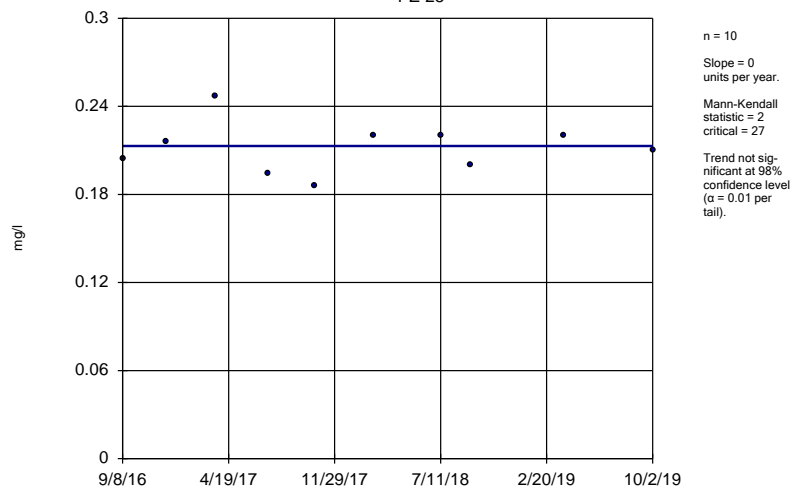
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Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-23



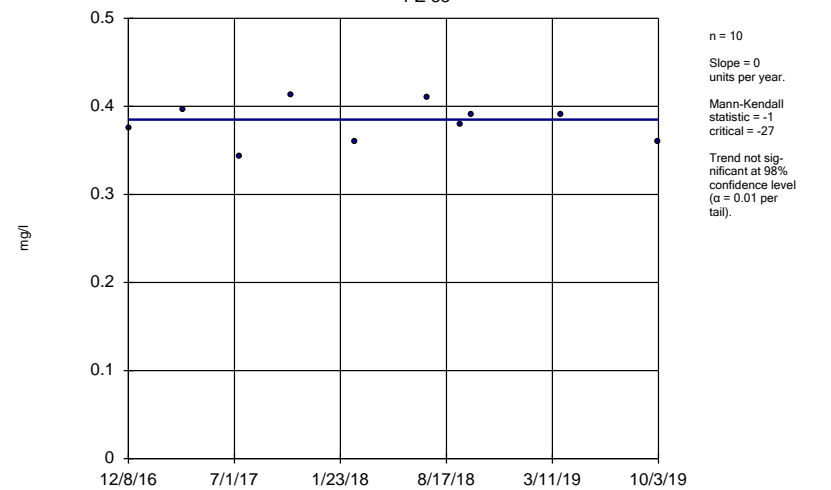
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Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-25



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
PZ-33



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: Appll 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: Appll 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: Appll Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

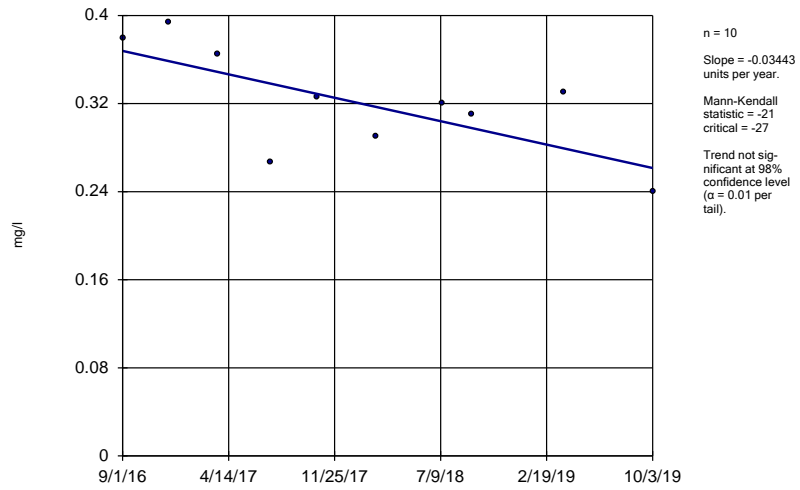
	PZ-25
9/8/2016	0.204
12/8/2016	0.216
3/22/2017	0.247
7/11/2017	0.194
10/18/2017	0.186
2/21/2018	0.22
7/12/2018	0.22
9/13/2018	0.2
3/27/2019	0.22
10/2/2019	0.21

Sen's Slope Estimator

Constituent: Boron (mg/l) Analysis Run 12/19/2019 9:52 AM View: Appll Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

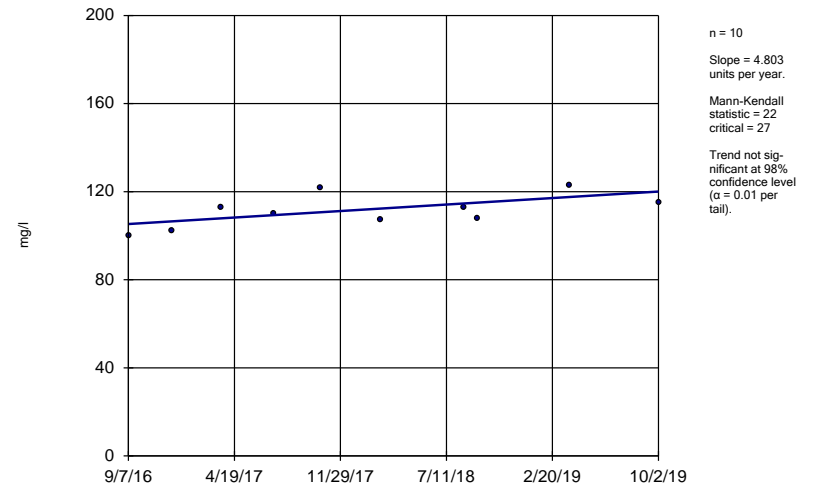
	PZ-33
12/8/2016	0.375
3/23/2017	0.396
7/12/2017	0.343
10/19/2017	0.413
2/21/2018	0.36
7/12/2018	0.41
9/14/2018	0.38
10/4/2018	0.39
3/28/2019	0.39
10/3/2019	0.36

Sen's Slope Estimator
PZ-7D



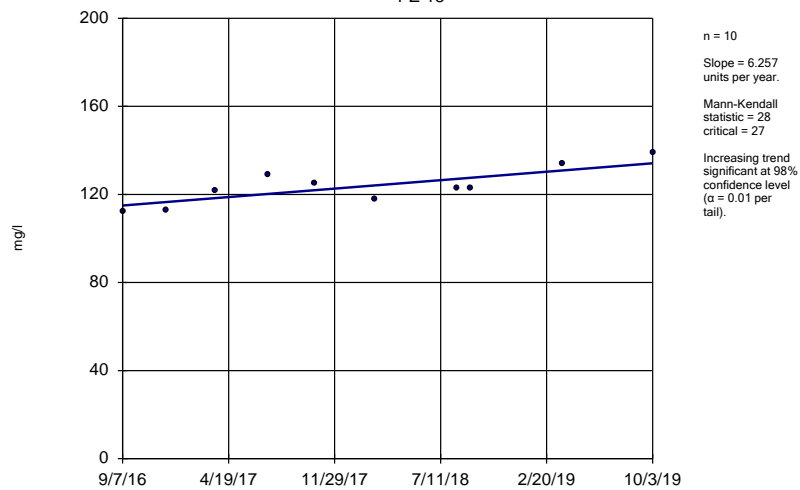
Constituent: Boron Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-17



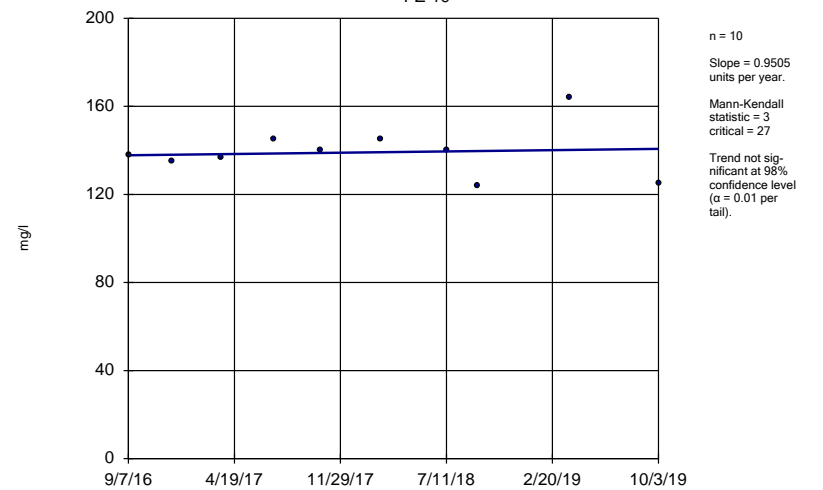
Constituent: Calcium Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-18



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



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: Appll 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: ApplIII 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: ApplIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

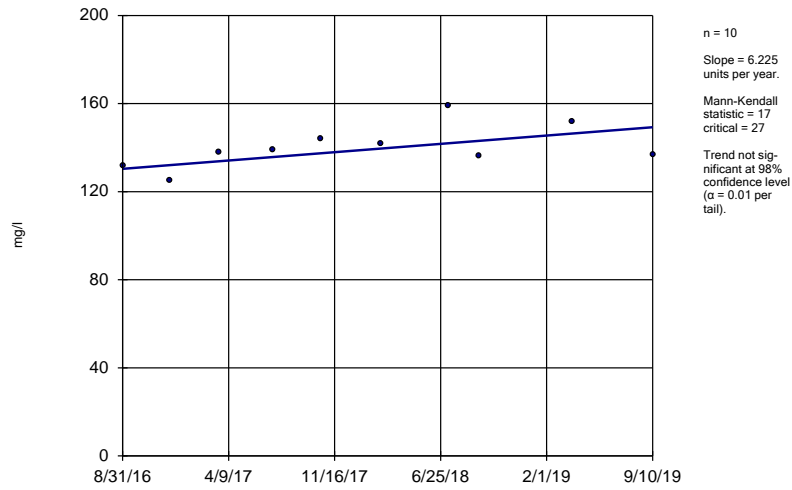
	PZ-18
9/7/2016	112
12/8/2016	113
3/22/2017	122
7/12/2017	129
10/18/2017	125
2/21/2018	118
8/15/2018	123
9/13/2018	123
3/27/2019	134
10/3/2019	139

Sen's Slope Estimator

Constituent: Calcium (mg/l) Analysis Run 12/19/2019 9:52 AM View: ApplIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

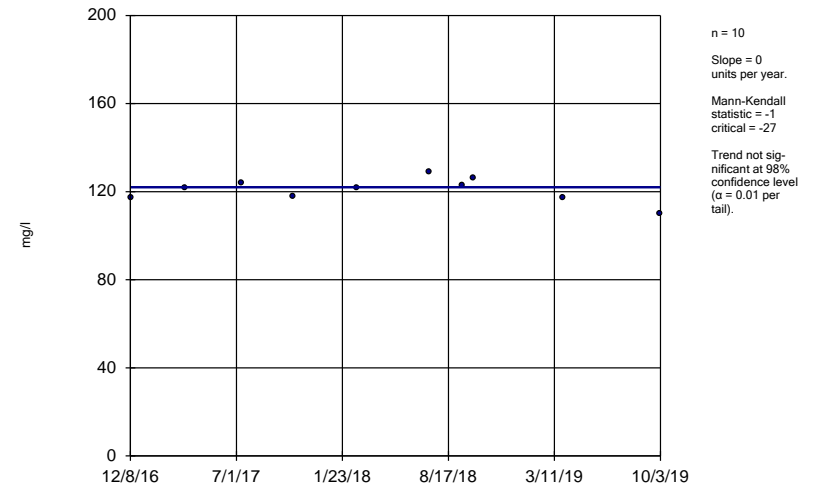
	PZ-19
9/7/2016	138
12/8/2016	135
3/23/2017	137
7/12/2017	145
10/19/2017	140
2/21/2018	145
7/12/2018	140
9/14/2018	124
3/28/2019	164
10/3/2019	125

Sen's Slope Estimator
PZ-23



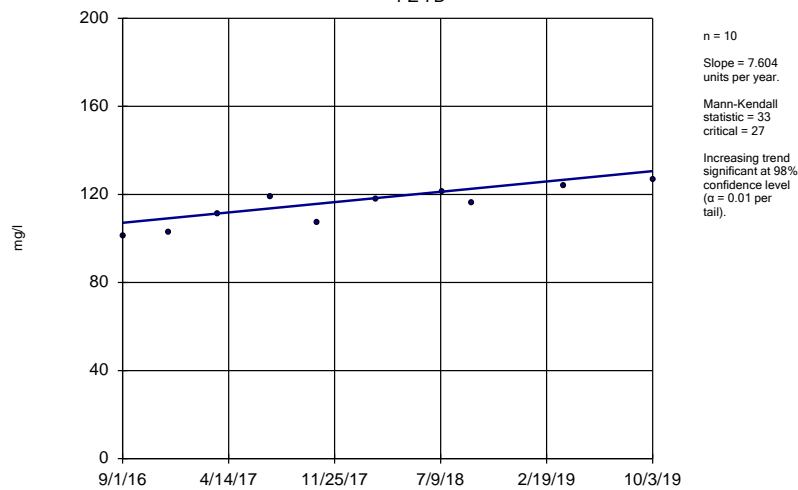
Constituent: Calcium Analysis Run 12/19/2019 9:47 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-33



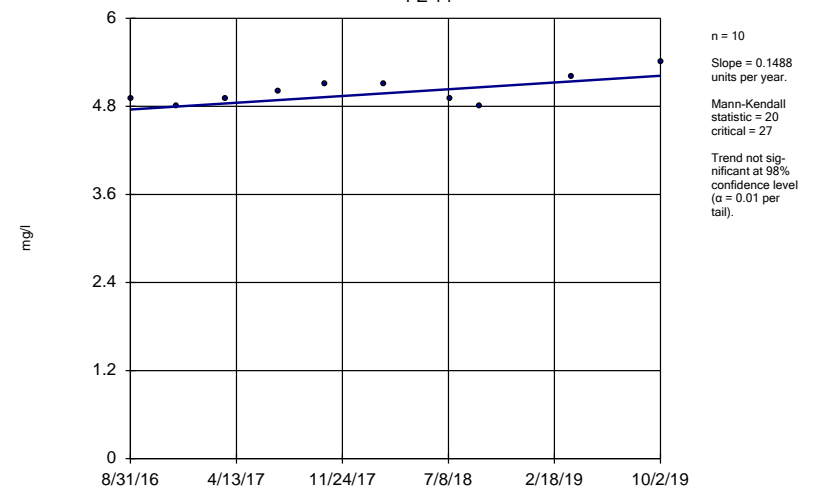
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Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-7D



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



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: ApplIII 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: ApplIII 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

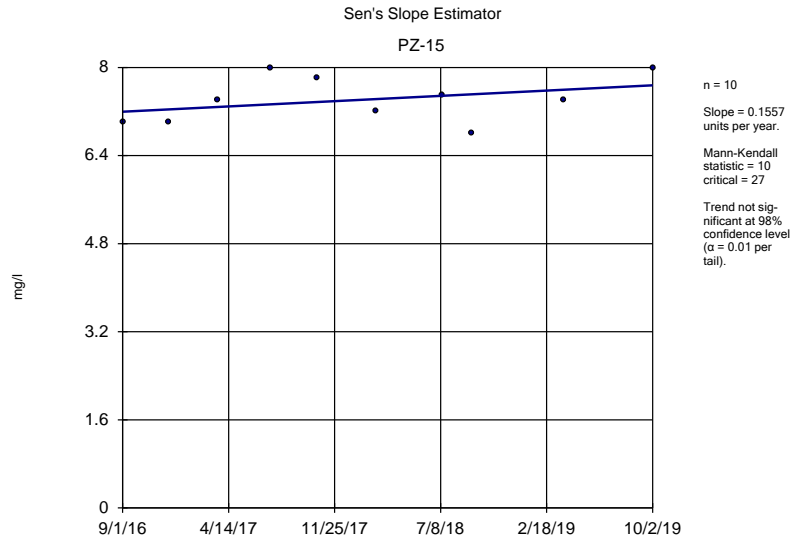
Constituent: Calcium (mg/l) Analysis Run 12/19/2019 9:53 AM View: ApplIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

	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

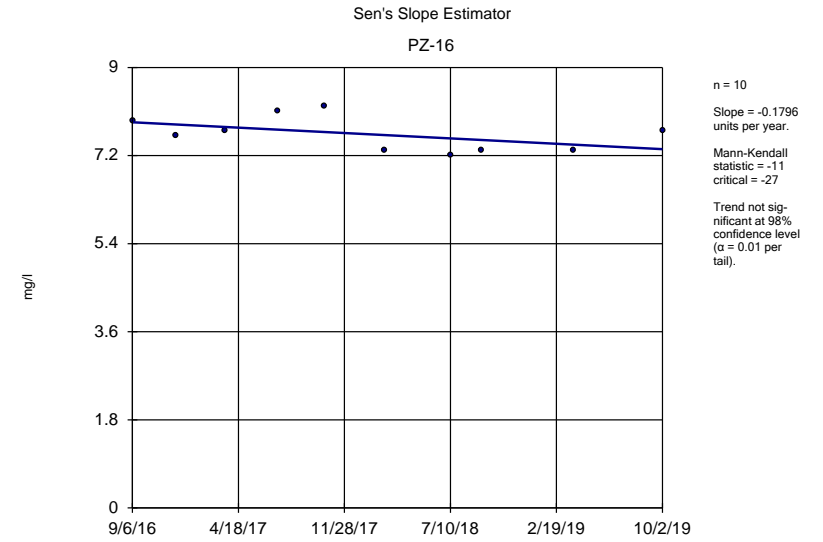
Sen's Slope Estimator

Constituent: Chloride (mg/l) Analysis Run 12/19/2019 9:53 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

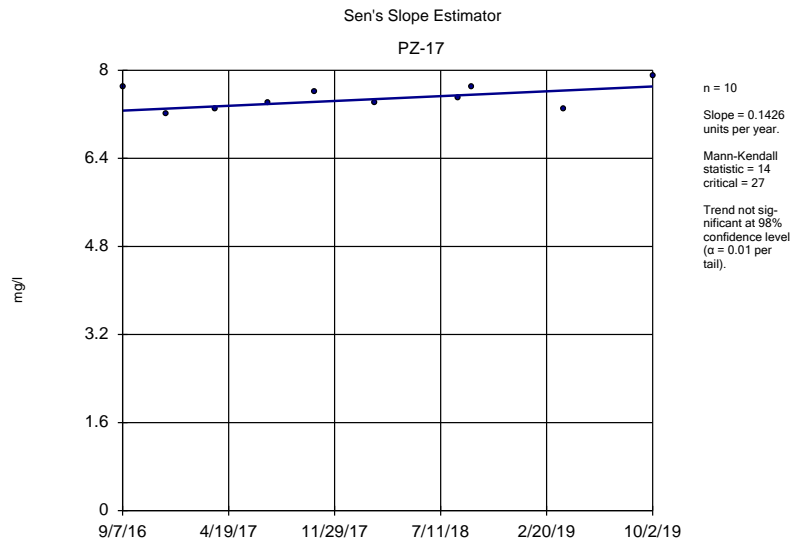
	PZ-14
8/31/2016	4.9
12/7/2016	4.8
3/21/2017	4.9
7/11/2017	5
10/18/2017	5.1
2/20/2018	5.1
7/11/2018	4.9
9/12/2018	4.8
3/27/2019	5.2
10/2/2019	5.4



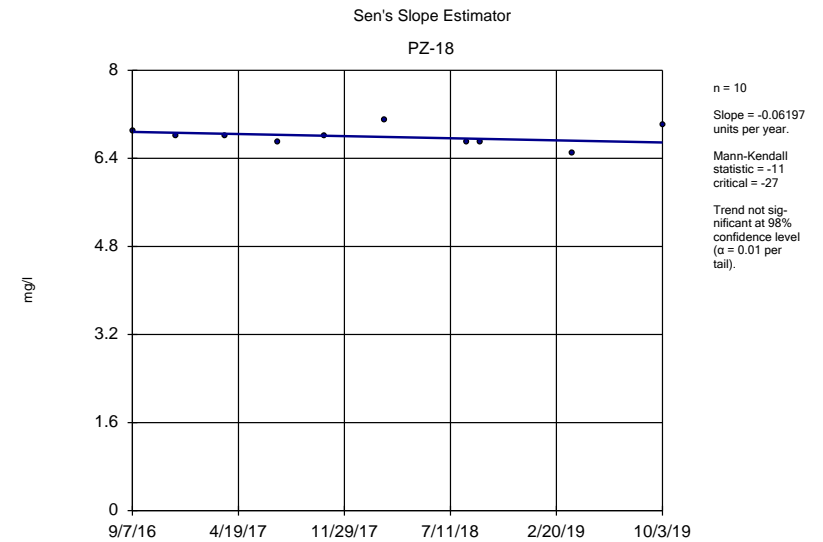
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Plant Mitchell Client: Southern Company Data: Mitchel V3



Constituent: Chloride Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3



Constituent: Chloride Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3



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

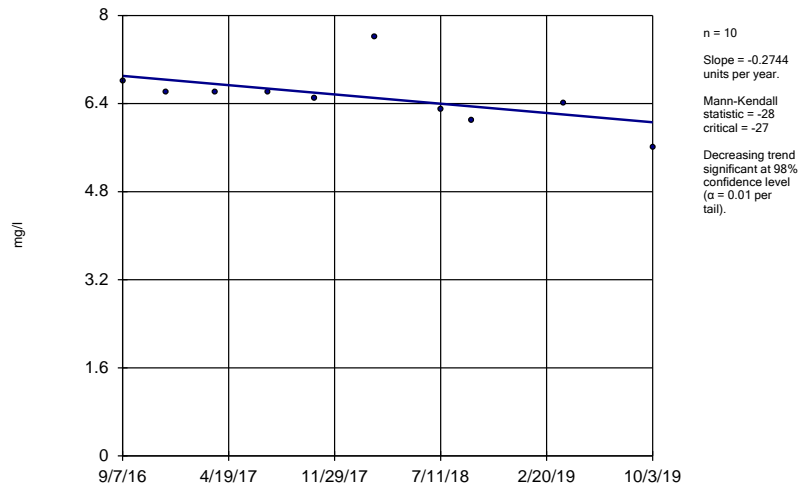
	PZ-17
9/7/2016	7.7
12/8/2016	7.2
3/22/2017	7.3
7/12/2017	7.4
10/18/2017	7.6
2/21/2018	7.4
8/16/2018	7.5
9/14/2018	7.7
3/28/2019	7.3
10/2/2019	7.9

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

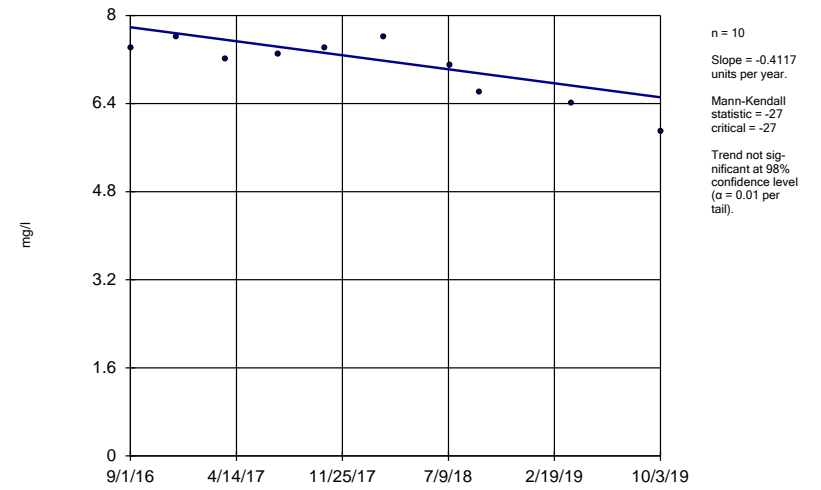
	PZ-18
9/7/2016	6.9
12/8/2016	6.8
3/22/2017	6.8
7/12/2017	6.7
10/18/2017	6.8
2/21/2018	7.1
8/15/2018	6.7
9/13/2018	6.7
3/27/2019	6.5
10/3/2019	7

Sen's Slope Estimator
PZ-19



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-7D



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: ApplIII 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: ApplIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

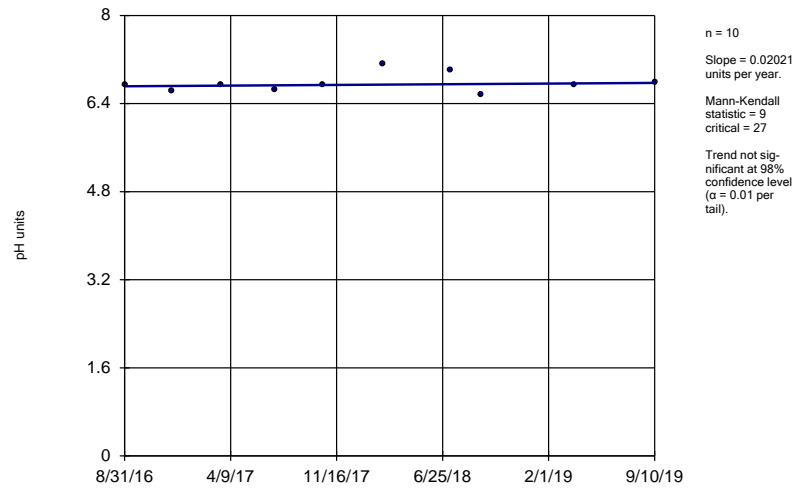
	PZ-18
9/7/2016	6.92
12/8/2016	6.9
3/22/2017	7
7/12/2017	6.95
10/18/2017	6.88
2/21/2018	6.89
7/12/2018	7.01
8/15/2018	6.87
9/13/2018	6.86
3/27/2019	6.92
10/3/2019	6.78

Sen's Slope Estimator

Constituent: pH (pH units) Analysis Run 12/19/2019 9:53 AM View: ApplIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

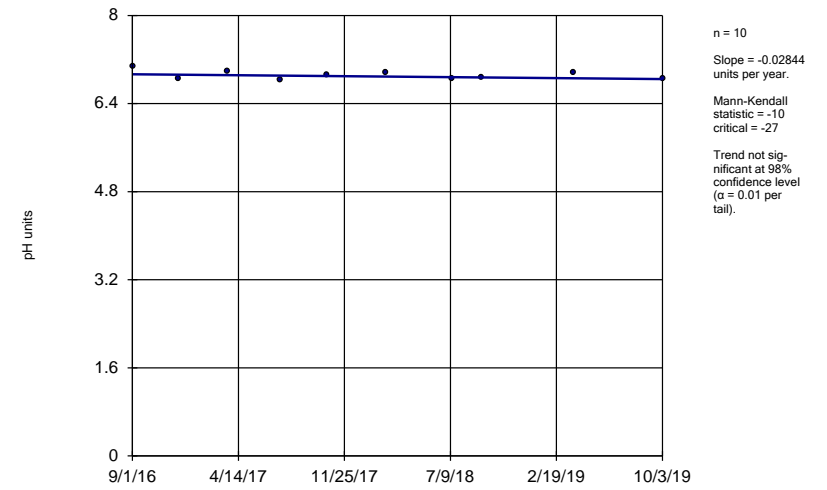
	PZ-19
9/7/2016	6.71
12/8/2016	6.61
3/23/2017	6.69
7/12/2017	6.69
10/19/2017	6.85
2/21/2018	6.66
7/12/2018	6.84
9/14/2018	6.76
3/28/2019	6.67
10/3/2019	6.93

Sen's Slope Estimator
PZ-23



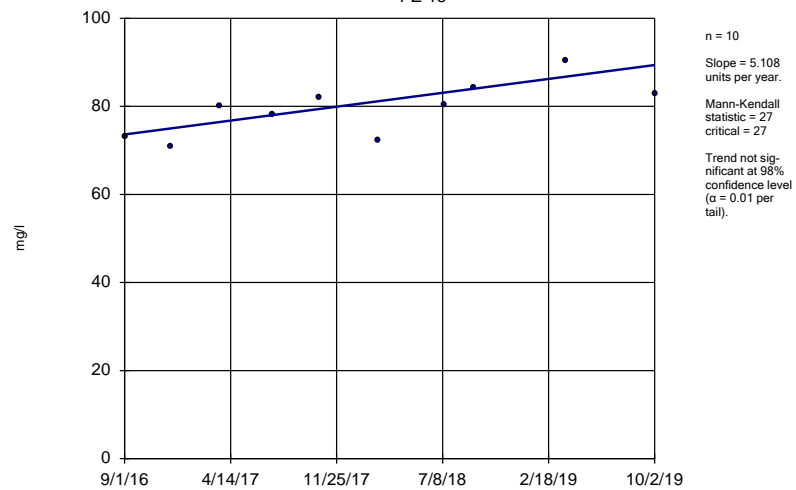
Constituent: pH Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-7D



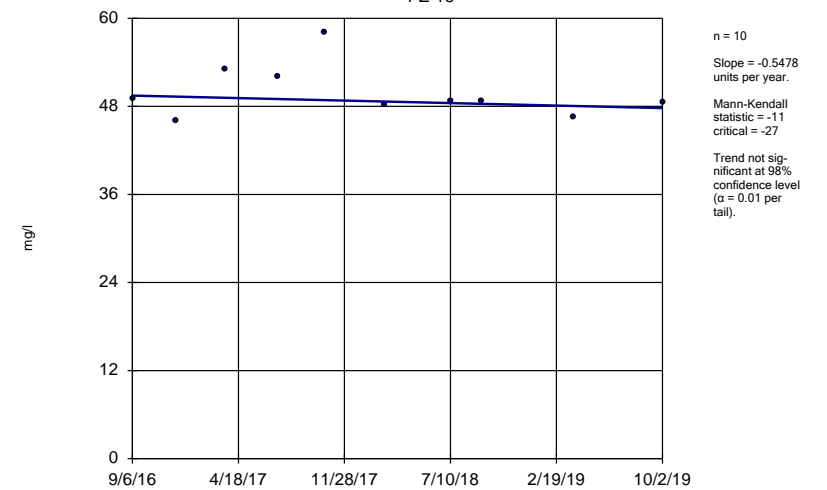
Constituent: pH Analysis Run 12/19/2019 9:48 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

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: ApplIII 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: ApplIII 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

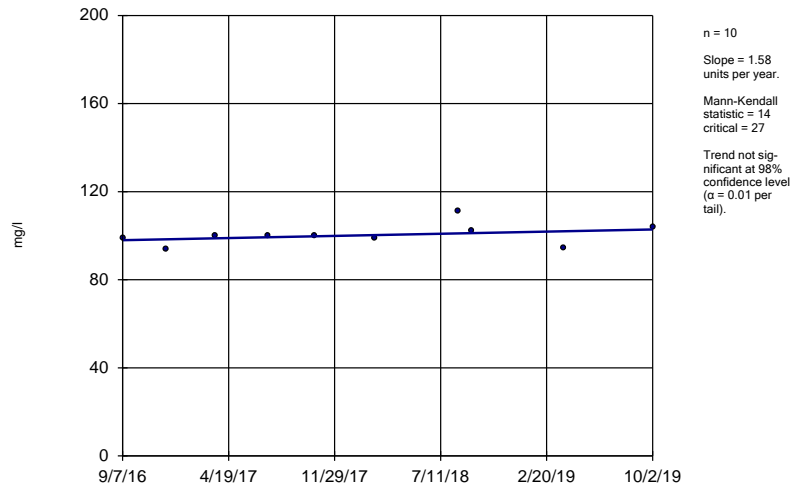
	PZ-15
9/1/2016	73
12/7/2016	71
3/22/2017	80
7/12/2017	78
10/18/2017	82
2/21/2018	72.2
7/12/2018	80.5
9/13/2018	84.4
3/28/2019	90.3
10/2/2019	83

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

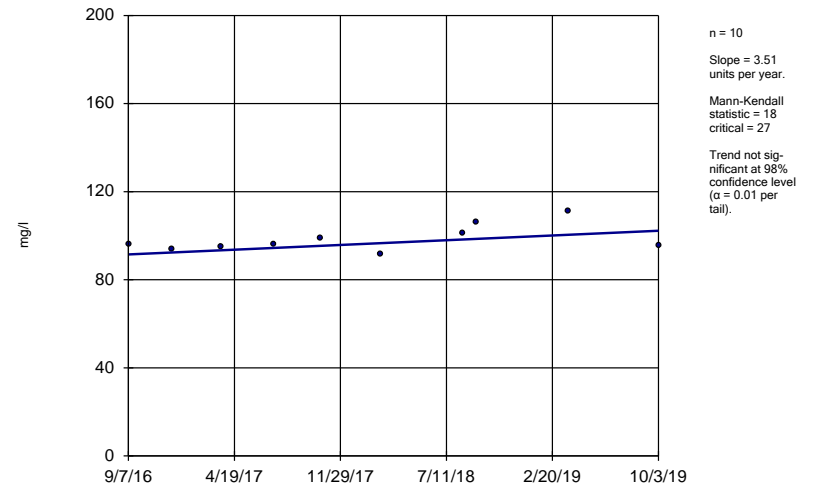
	PZ-16
9/6/2016	49
12/7/2016	46
3/22/2017	53
7/11/2017	52
10/18/2017	58
2/21/2018	48.2
7/12/2018	48.8
9/13/2018	48.7
3/27/2019	46.5
10/2/2019	48.5

Sen's Slope Estimator
PZ-17



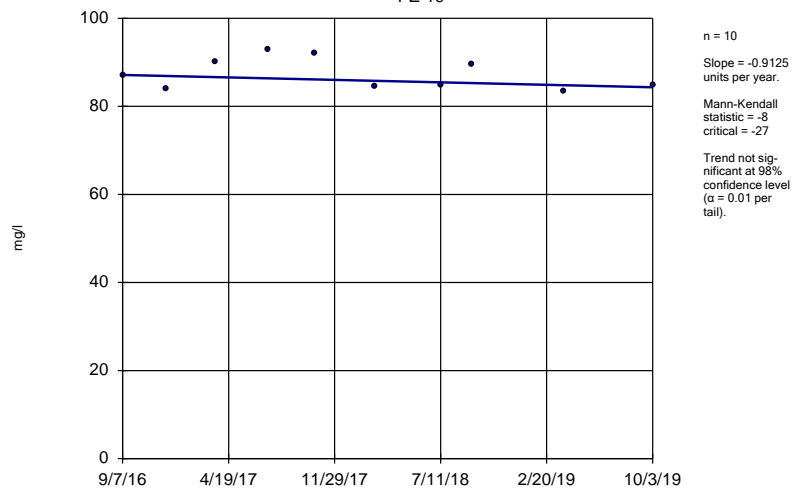
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Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-18



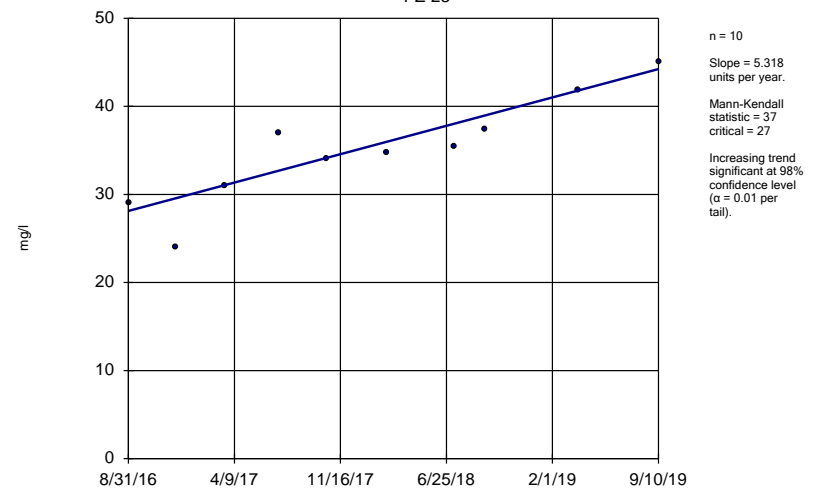
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Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-19



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-23



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

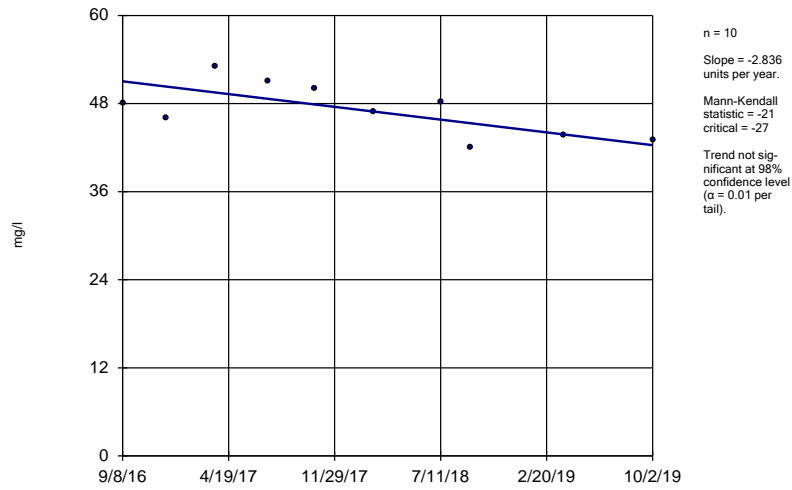
	PZ-19
9/7/2016	87
12/8/2016	84
3/23/2017	90
7/12/2017	93
10/19/2017	92
2/21/2018	84.5
7/12/2018	84.9
9/14/2018	89.5
3/28/2019	83.5
10/3/2019	84.9

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

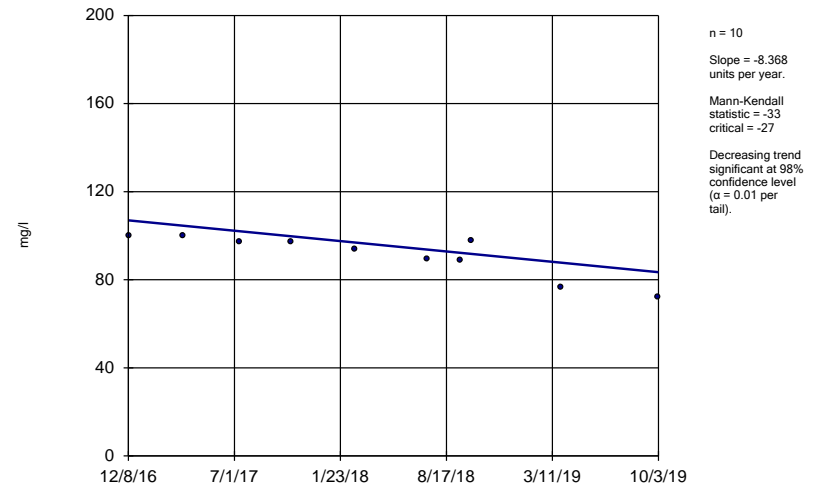
	PZ-23
8/31/2016	29
12/7/2016	24
3/21/2017	31
7/11/2017	37
10/18/2017	34
2/20/2018	34.7
7/11/2018	35.4
9/13/2018	37.4
3/27/2019	41.9
9/10/2019	45.1

Sen's Slope Estimator
PZ-25



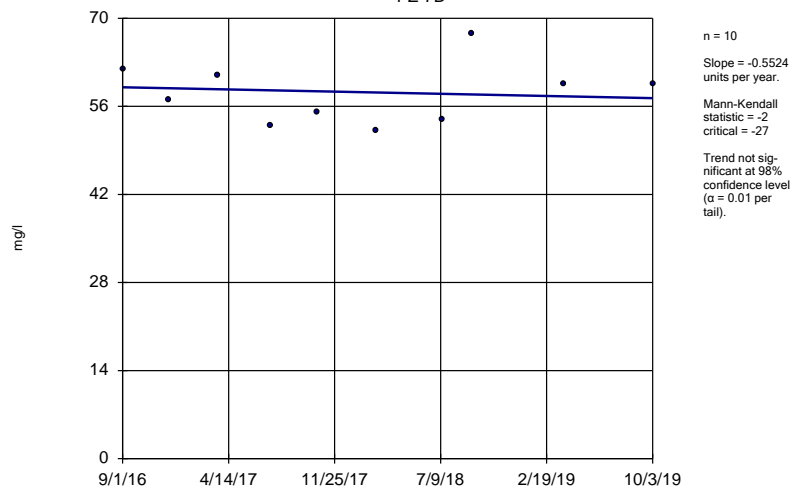
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Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-33



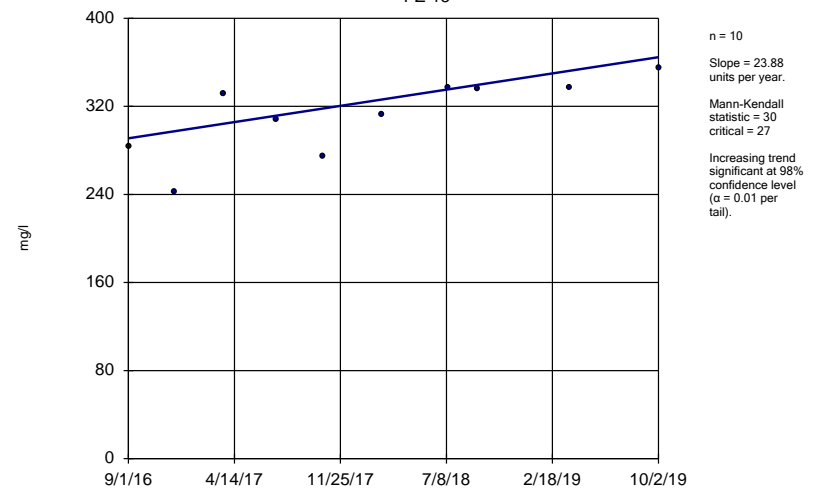
Constituent: Sulfate Analysis Run 12/19/2019 9:49 AM View: AppIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-7D



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



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

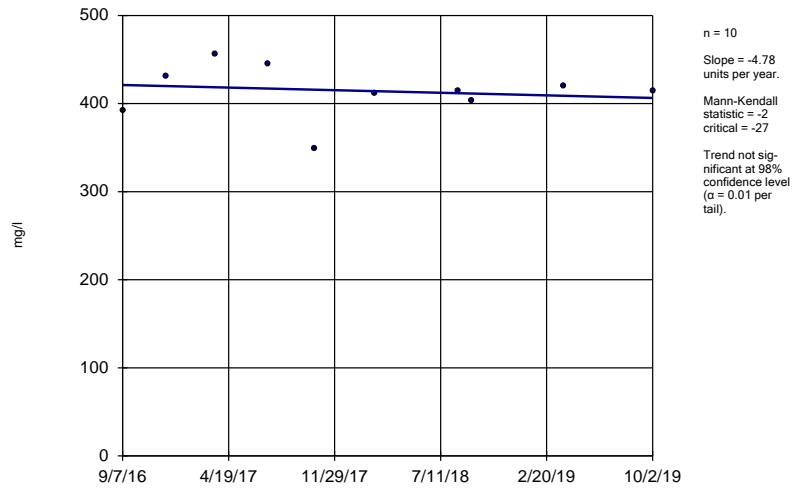
	PZ-7D
9/1/2016	62
12/7/2016	57
3/22/2017	61
7/12/2017	53
10/19/2017	55
2/21/2018	52.1
7/12/2018	53.9
9/13/2018	67.5
3/28/2019	59.6
10/3/2019	59.6

Sen's Slope Estimator

Constituent: Total Dissolved Solids (mg/l) Analysis Run 12/19/2019 9:53 AM View: ApplIII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

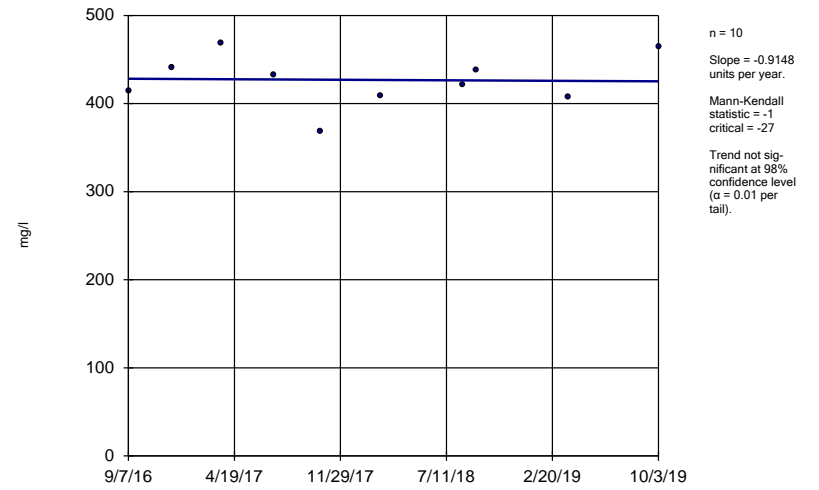
	PZ-15
9/1/2016	284
12/7/2016	242
3/22/2017	332
7/12/2017	308
10/18/2017	275
2/21/2018	312
7/12/2018	337
9/13/2018	336
3/28/2019	337
10/2/2019	355

Sen's Slope Estimator
PZ-17



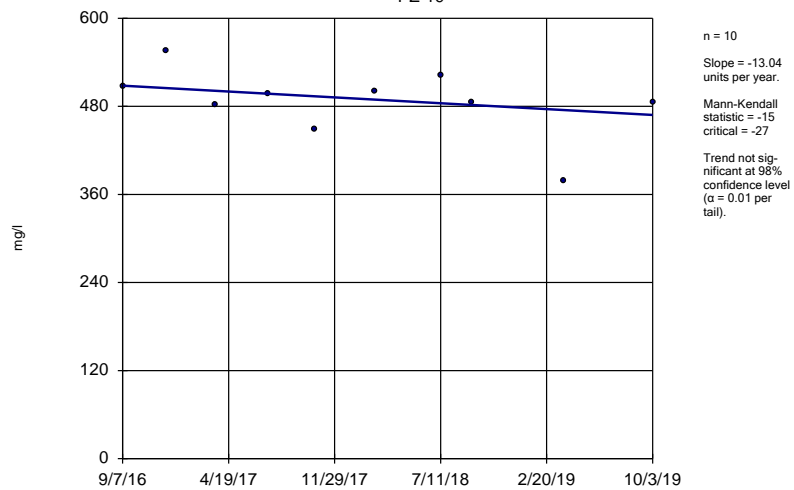
Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:49 AM View: ApplII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-18



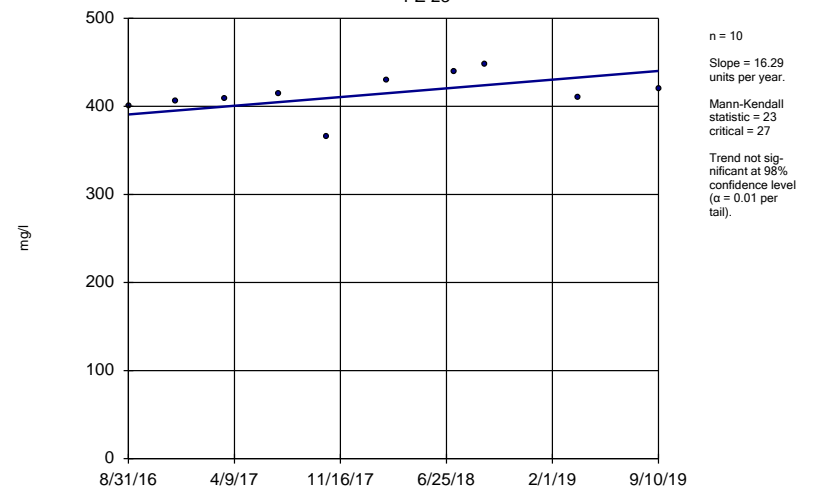
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Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-19



Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:50 AM View: ApplII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-23



Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:50 AM View: ApplII 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: ApplIII 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: ApplIII 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: ApplIII 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

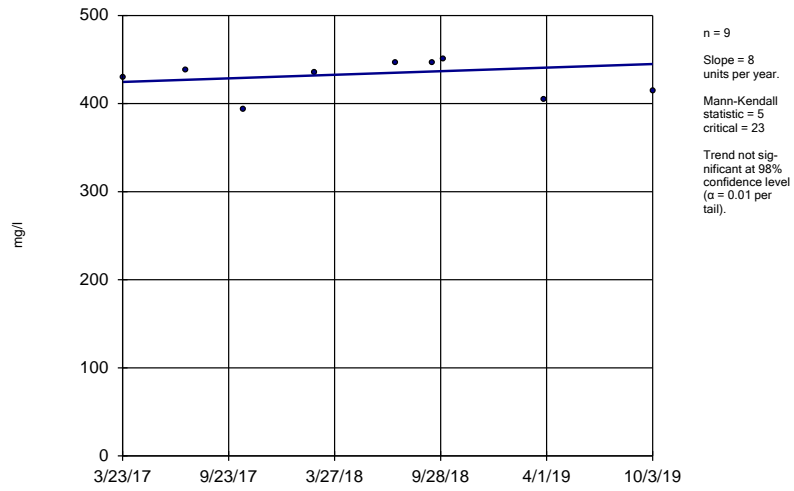
Sen's Slope Estimator

Constituent: Total Dissolved Solids (mg/l) Analysis Run 12/19/2019 9:53 AM View: ApplIII Sen Slopes

Plant Mitchell Client: Southern Company Data: Mitchel V3

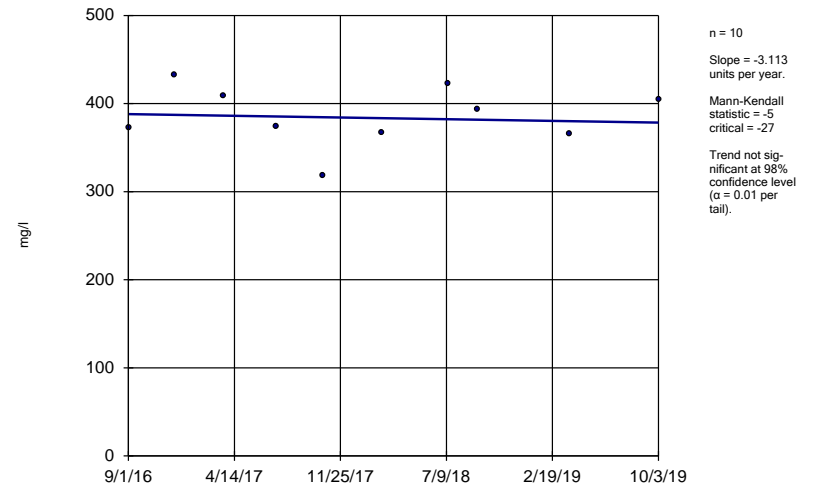
	PZ-23
8/31/2016	400
12/7/2016	406
3/21/2017	409
7/11/2017	414
10/18/2017	366
2/20/2018	429
7/11/2018	440
9/13/2018	448
3/27/2019	410
9/10/2019	420

Sen's Slope Estimator
PZ-33



Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:50 AM View: ApplII Sen Slopes
Plant Mitchell Client: Southern Company Data: Mitchel V3

Sen's Slope Estimator
PZ-7D



Constituent: Total Dissolved Solids Analysis Run 12/19/2019 9:50 AM View: ApplII 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: ApplIII 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: ApplIII 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

APPENDIX B

APPENDIX IV STATISTICAL CALCULATIONS



UTL's - Appendix IV

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 3/26/2019, 10:09 AM

Constituent	Well	Upper Lim.	Lower Lim.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	n/a	0.0035	n/a	32	n/a	n/a	59.38	n/a	n/a	0.1937	NP Inter(normality)
Arsenic (mg/L)	n/a	0.005	n/a	32	n/a	n/a	84.38	n/a	n/a	0.1937	NP Inter(NDs)
Barium (mg/L)	n/a	0.06635	n/a	32	0.2602	0.06578	3.125	None	x^(1/3)	0.05	Inter
Beryllium (mg/L)	n/a	0.003	n/a	32	n/a	n/a	93.75	n/a	n/a	0.1937	NP Inter(NDs)
Cadmium (mg/L)	n/a	0.001	n/a	32	n/a	n/a	100	n/a	n/a	0.1937	NP Inter(NDs)
Chromium (mg/L)	n/a	0.011	n/a	32	n/a	n/a	34.38	n/a	n/a	0.1937	NP Inter(normality)
Cobalt (mg/L)	n/a	0.005	n/a	32	n/a	n/a	93.75	n/a	n/a	0.1937	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	n/a	1.356	n/a	31	0.5484	0.3655	0	None	No	0.05	Inter
Fluoride (mg/L)	n/a	0.3	n/a	32	n/a	n/a	31.25	n/a	n/a	0.1937	NP Inter(normality)
Lead (mg/L)	n/a	0.005	n/a	32	n/a	n/a	84.38	n/a	n/a	0.1937	NP Inter(NDs)
Lithium (mg/L)	n/a	0.025	n/a	32	n/a	n/a	84.38	n/a	n/a	0.1937	NP Inter(NDs)
Mercury (mg/L)	n/a	0.0005	n/a	32	n/a	n/a	93.75	n/a	n/a	0.1937	NP Inter(NDs)
Molybdenum (mg/L)	n/a	0.01	n/a	32	n/a	n/a	84.38	n/a	n/a	0.1937	NP Inter(NDs)
Selenium (mg/L)	n/a	0.01	n/a	32	n/a	n/a	100	n/a	n/a	0.1937	NP Inter(NDs)
Thallium (mg/L)	n/a	0.001	n/a	32	n/a	n/a	81.25	n/a	n/a	0.1937	NP Inter(NDs)

Confidence Interval Downgradient wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4 Printed 3/27/2020, 2:22 PM

<u>Constituent</u>	<u>Well</u>	<u>Upper Lim.</u>	<u>Lower Lim.</u>	<u>Compliance</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Transform</u>	<u>Alpha</u>	<u>Method</u>
Antimony (mg/L)	PZ-14	0.0015	0.0004	0.006	No	10	80	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-23	0.0015	0.0015	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-15	0.0015	0.0015	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-7D	0.0015	0.0015	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-16	0.0015	0.0015	0.006	No	10	100	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-17	0.0015	0.0015	0.006	No	8	100	No	0.004	NP (NDs)
Antimony (mg/L)	PZ-18	0.0015	0.00045	0.006	No	9	88.89	No	0.002	NP (NDs)
Antimony (mg/L)	PZ-19	0.0015	0.0015	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-25	0.0015	0.0015	0.006	No	10	90	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-33	0.0015	0.0015	0.006	No	9	100	No	0.002	NP (NDs)
Arsenic (mg/L)	PZ-14	0.0025	0.0025	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-23	0.0025	0.0025	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-15	0.0025	0.00089	0.01	No	10	70	No	0.011	NP (normality)
Arsenic (mg/L)	PZ-7D	0.0025	0.0025	0.01	No	10	100	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-16	0.0025	0.0025	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-17	0.0025	0.0007	0.01	No	8	75	No	0.004	NP (normality)
Arsenic (mg/L)	PZ-18	0.0025	0.0025	0.01	No	9	100	No	0.002	NP (NDs)
Arsenic (mg/L)	PZ-19	0.0025	0.0025	0.01	No	10	90	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-25	0.0025	0.00071	0.01	No	10	60	No	0.011	NP (normality)
Arsenic (mg/L)	PZ-33	0.0025	0.0007	0.01	No	9	77.78	No	0.002	NP (NDs)
Barium (mg/L)	PZ-14	0.04121	0.01889	2	No	10	0	sqrt(x)	0.01	Param.
Barium (mg/L)	PZ-23	0.05738	0.03444	2	No	10	0	No	0.01	Param.
Barium (mg/L)	PZ-15	0.07949	0.04891	2	No	10	0	No	0.01	Param.
Barium (mg/L)	PZ-7D	0.01136	0.007558	2	No	10	0	No	0.01	Param.
Barium (mg/L)	PZ-16	0.0589	0.03664	2	No	10	0	ln(x)	0.01	Param.
Barium (mg/L)	PZ-17	0.0824	0.07117	2	No	8	0	No	0.01	Param.
Barium (mg/L)	PZ-18	0.0717	0.022	2	No	9	0	No	0.002	NP (normality)
Barium (mg/L)	PZ-19	0.06168	0.0523	2	No	10	0	No	0.01	Param.
Barium (mg/L)	PZ-25	0.1061	0.098	2	No	10	0	ln(x)	0.01	Param.
Barium (mg/L)	PZ-33	0.162	0.057	2	No	9	0	No	0.002	NP (normality)
Beryllium (mg/L)	PZ-14	0.0075	0.0015	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	PZ-23	0.0015	0.0015	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	PZ-15	0.0015	0.0015	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	PZ-7D	0.0015	0.0015	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	PZ-16	0.0015	0.0015	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	PZ-17	0.0015	0.0015	0.004	No	7	100	No	0.008	NP (NDs)
Beryllium (mg/L)	PZ-18	0.0015	0.0015	0.004	No	8	100	No	0.004	NP (NDs)
Beryllium (mg/L)	PZ-19	0.0015	0.0015	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	PZ-25	0.0015	0.0015	0.004	No	9	100	No	0.002	NP (NDs)
Beryllium (mg/L)	PZ-33	0.0015	0.0015	0.004	No	8	100	No	0.004	NP (NDs)
Cadmium (mg/L)	PZ-14	0.00125	0.0005	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	PZ-23	0.00125	0.0002	0.005	No	9	77.78	No	0.002	NP (NDs)
Cadmium (mg/L)	PZ-15	0.00125	0.0005	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	PZ-7D	0.00125	0.0005	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	PZ-16	0.00125	0.0005	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	PZ-17	0.00125	0.0005	0.005	No	7	100	No	0.008	NP (NDs)
Cadmium (mg/L)	PZ-18	0.00125	0.0005	0.005	No	8	100	No	0.004	NP (NDs)
Cadmium (mg/L)	PZ-19	0.00125	0.0005	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	PZ-25	0.00125	0.0005	0.005	No	9	100	No	0.002	NP (NDs)
Cadmium (mg/L)	PZ-33	0.00125	0.0001	0.005	No	8	87.5	No	0.004	NP (NDs)

Confidence Interval Downgradient wells

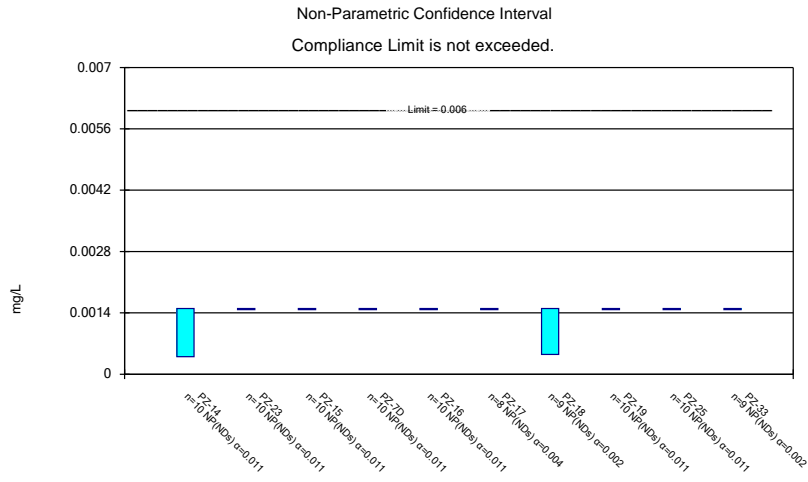
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Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Chromium (mg/L)	PZ-14	0.005	0.005	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-23	0.003025	0.001361	0.1	No	10	30	sqrt(x)	0.01	Param.
Chromium (mg/L)	PZ-15	0.005	0.005	0.1	No	10	90	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-7D	0.005	0.0005	0.1	No	10	50	No	0.011	NP (normality)
Chromium (mg/L)	PZ-16	0.005	0.0008	0.1	No	10	70	No	0.011	NP (normality)
Chromium (mg/L)	PZ-17	0.005	0.005	0.1	No	8	100	No	0.004	NP (NDs)
Chromium (mg/L)	PZ-18	0.005	0.00081	0.1	No	9	88.89	No	0.002	NP (NDs)
Chromium (mg/L)	PZ-19	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-25	0.005	0.005	0.1	No	10	100	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-33	0.005	0.0017	0.1	No	9	88.89	No	0.002	NP (NDs)
Cobalt (mg/L)	PZ-14	0.005	0.002	0.005	No	10	80	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-23	0.005	0.0025	0.005	No	10	90	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-15	0.005	0.0004	0.005	No	10	50	No	0.011	NP (normality)
Cobalt (mg/L)	PZ-7D	0.005	0.0025	0.005	No	10	100	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-16	0.005	0.0025	0.005	No	10	90	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-17	0.0008392	0.0004392	0.005	No	8	37.5	ln(x)	0.01	Param.
Cobalt (mg/L)	PZ-18	0.005	0.0011	0.005	No	9	88.89	No	0.002	NP (NDs)
Cobalt (mg/L)	PZ-19	0.005	0.0012	0.005	No	10	80	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-25	0.0017	0.0008	0.005	No	10	10	No	0.011	NP (normality)
Cobalt (mg/L)	PZ-33	0.002212	0.00037	0.005	No	9	33.33	sqrt(x)	0.01	Param.
Combined Radium 226 + Radium 22...	PZ-14	1.35	0.388	5	No	10	0	sqrt(x)	0.01	Param.
Combined Radium 226 + Radium 22...	PZ-23	1.631	0.6598	5	No	10	0	No	0.01	Param.
Combined Radium 226 + Radium 22...	PZ-15	1.406	0.6071	5	No	10	0	sqrt(x)	0.01	Param.
Combined Radium 226 + Radium 22...	PZ-7D	0.826	0.09002	5	No	10	0	No	0.01	Param.
Combined Radium 226 + Radium 22...	PZ-16	1.076	0.4502	5	No	10	0	No	0.01	Param.
Combined Radium 226 + Radium 22...	PZ-17	1.28	0.7681	5	No	10	0	No	0.01	Param.
Combined Radium 226 + Radium 22...	PZ-18	1.436	0.5433	5	No	10	0	No	0.01	Param.
Combined Radium 226 + Radium 22...	PZ-19	1.55	0.7591	5	No	10	0	No	0.01	Param.
Combined Radium 226 + Radium 22...	PZ-25	1.381	0.8347	5	No	10	0	No	0.01	Param.
Combined Radium 226 + Radium 22...	PZ-33	1.193	0.6008	5	No	10	0	No	0.01	Param.
Fluoride (mg/L)	PZ-14	0.15	0.05	4	No	11	45.45	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-23	0.1672	0.04665	4	No	11	45.45	sqrt(x)	0.01	Param.
Fluoride (mg/L)	PZ-15	0.1648	0.07013	4	No	11	9.091	No	0.01	Param.
Fluoride (mg/L)	PZ-7D	0.15	0.041	4	No	11	54.55	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-16	0.15	0.04	4	No	11	45.45	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-17	0.2205	0.07132	4	No	9	0	No	0.01	Param.
Fluoride (mg/L)	PZ-18	0.1494	0.0617	4	No	10	30	No	0.01	Param.
Fluoride (mg/L)	PZ-19	0.1856	0.08006	4	No	11	18.18	x^(1/3)	0.01	Param.
Fluoride (mg/L)	PZ-25	0.2867	0.1679	4	No	11	0	No	0.01	Param.
Fluoride (mg/L)	PZ-33	0.1751	0.05094	4	No	10	40	No	0.01	Param.
Lead (mg/L)	PZ-14	0.0025	0.0025	0.005	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	PZ-23	0.0025	0.0025	0.005	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	PZ-15	0.0025	0.0025	0.005	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	PZ-7D	0.0025	0.0025	0.005	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	PZ-16	0.0025	0.0025	0.005	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	PZ-17	0.0025	0.0025	0.005	No	8	100	No	0.004	NP (NDs)
Lead (mg/L)	PZ-18	0.0025	0.00043	0.005	No	9	88.89	No	0.002	NP (NDs)
Lead (mg/L)	PZ-19	0.0025	0.0025	0.005	No	10	100	No	0.011	NP (NDs)
Lead (mg/L)	PZ-25	0.0025	0.0025	0.005	No	10	90	No	0.011	NP (NDs)
Lead (mg/L)	PZ-33	0.0025	0.000047	0.005	No	9	77.78	No	0.002	NP (NDs)

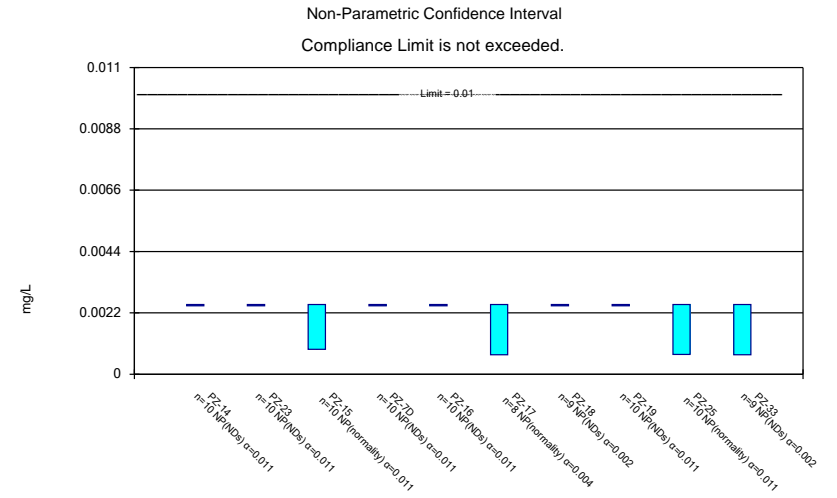
Confidence Interval Downgradient wells

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4 Printed 3/27/2020, 2:22 PM

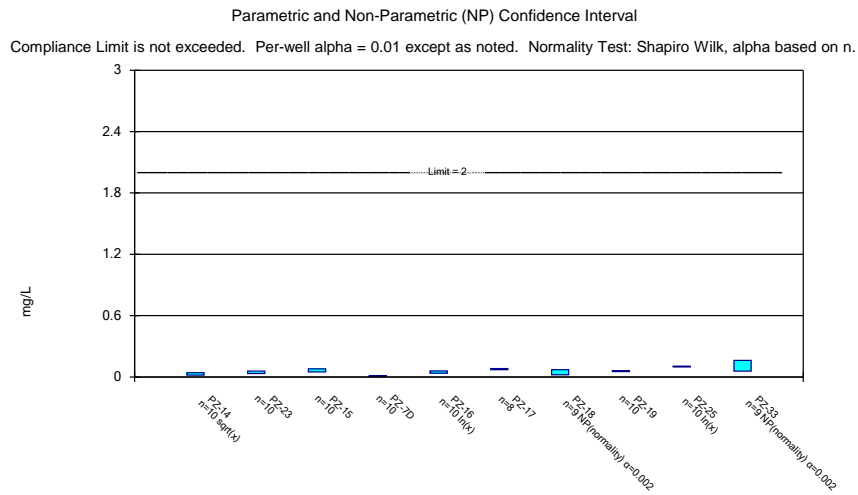
Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	%NDs	Transform	Alpha	Method
Lithium (mg/L)	PZ-14	0.025	0.015	0.03	No	10	90	No	0.011	NP (NDs)
Lithium (mg/L)	PZ-23	0.025	0.015	0.03	No	10	90	No	0.011	NP (NDs)
Lithium (mg/L)	PZ-15	0.025	0.0012	0.03	No	10	50	No	0.011	NP (normality)
Lithium (mg/L)	PZ-7D	0.0038	0.0023	0.03	No	10	10	No	0.011	NP (normality)
Lithium (mg/L)	PZ-16	0.025	0.015	0.03	No	10	100	No	0.011	NP (NDs)
Lithium (mg/L)	PZ-17	0.025	0.002	0.03	No	8	25	No	0.004	NP (normality)
Lithium (mg/L)	PZ-18	0.025	0.0021	0.03	No	9	22.22	No	0.002	NP (normality)
Lithium (mg/L)	PZ-19	0.01521	0.008789	0.03	No	10	0	No	0.01	Param.
Lithium (mg/L)	PZ-25	0.007041	0.004819	0.03	No	10	0	No	0.01	Param.
Lithium (mg/L)	PZ-33	0.125	0.015	0.03	No	9	100	No	0.002	NP (NDs)
Mercury (mg/L)	PZ-14	0.00025	0.00007	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	PZ-23	0.00025	0.00009	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	PZ-15	0.00025	0.000097	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	PZ-7D	0.00025	0.000053	0.002	No	9	77.78	No	0.002	NP (NDs)
Mercury (mg/L)	PZ-16	0.00025	0.000068	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	PZ-17	0.00025	0.000086	0.002	No	7	85.71	No	0.008	NP (NDs)
Mercury (mg/L)	PZ-18	0.00025	0.000057	0.002	No	8	87.5	No	0.004	NP (NDs)
Mercury (mg/L)	PZ-19	0.00025	0.000045	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	PZ-25	0.00025	0.000053	0.002	No	9	88.89	No	0.002	NP (NDs)
Mercury (mg/L)	PZ-33	0.00025	0.000043	0.002	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	PZ-14	0.005	0.005	0.01	No	10	90	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-23	0.005	0.005	0.01	No	10	90	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-15	0.005	0.005	0.01	No	10	90	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-7D	0.005	0.005	0.01	No	10	100	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-16	0.005	0.005	0.01	No	10	90	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-17	0.005	0.0004	0.01	No	8	87.5	No	0.004	NP (NDs)
Molybdenum (mg/L)	PZ-18	0.005	0.005	0.01	No	9	100	No	0.002	NP (NDs)
Molybdenum (mg/L)	PZ-19	0.0027	0.0021	0.01	No	10	10	No	0.011	NP (normality)
Molybdenum (mg/L)	PZ-25	0.005	0.0014	0.01	No	10	80	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-33	0.005	0.005	0.01	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	PZ-14	0.005	0.0015	0.05	No	10	80	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-23	0.005	0.0018	0.05	No	10	70	No	0.011	NP (normality)
Selenium (mg/L)	PZ-15	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-7D	0.005	0.005	0.05	No	10	90	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-16	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-17	0.005	0.005	0.05	No	8	100	No	0.004	NP (NDs)
Selenium (mg/L)	PZ-18	0.005	0.005	0.05	No	9	100	No	0.002	NP (NDs)
Selenium (mg/L)	PZ-19	0.005	0.0034	0.05	No	10	80	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-25	0.005	0.005	0.05	No	10	100	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-33	0.005	0.005	0.05	No	9	100	No	0.002	NP (NDs)
Thallium (mg/L)	PZ-14	0.0005	0.0005	0.002	No	10	90	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-23	0.0002488	0.0001337	0.002	No	10	30	sqrt(x)	0.01	Param.
Thallium (mg/L)	PZ-15	0.0005	0.00022	0.002	No	10	80	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-7D	0.0005	0.000086	0.002	No	10	50	No	0.011	NP (normality)
Thallium (mg/L)	PZ-16	0.0001836	0.00006696	0.002	No	10	30	sqrt(x)	0.01	Param.
Thallium (mg/L)	PZ-17	0.0005	0.00016	0.002	No	8	75	No	0.004	NP (normality)
Thallium (mg/L)	PZ-18	0.0005	0.00004	0.002	No	9	66.67	No	0.002	NP (normality)
Thallium (mg/L)	PZ-19	0.0006824	0.0003736	0.002	No	10	10	No	0.01	Param.
Thallium (mg/L)	PZ-25	0.0005	0.00046	0.002	No	10	80	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-33	0.0005	0.0001	0.002	No	9	44.44	No	0.002	NP (normality)



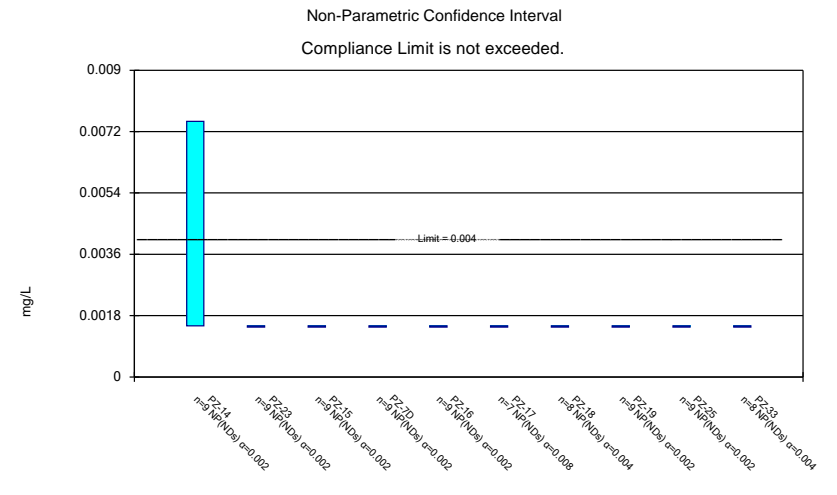
Constituent: Antimony Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Arsenic Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Barium Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Beryllium Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 3/27/2020 2:22 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)	
Mean	0.001279	0.001405	0.00145	0.001379	0.0015	0.0015	0.001383	0.001394	0.00149
Std. Dev.	0.0004659	0.0003004	0.0001581	0.0003826	0	0	0.00035	0.0003352	3.162E-05
Upper Lim.	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015	0.0015
Lower Lim.	0.0004	0.0015	0.0015	0.0015	0.0015	0.0015	0.00045	0.0015	0.0015

Confidence Interval

Constituent: Antimony (mg/L) Analysis Run 3/27/2020 2:22 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
Mean	0.0015
Std. Dev.	0
Upper Lim.	0.0015
Lower Lim.	0.0015

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 3/27/2020 2:22 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	
Mean	0.002333	0.002286	0.002009	0.0025	0.002286	0.002052	0.0025	0.00232	0.001904
Std. Dev.	0.0005281	0.0006767	0.0007994	0	0.0006767	0.0008286	0	0.0005692	0.0008191
Upper Lim.	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.0025	0.0025	0.00089	0.0025	0.0025	0.0007	0.0025	0.0025	0.00071

Confidence Interval

Constituent: Arsenic (mg/L) Analysis Run 3/27/2020 2:22 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
Mean	0.002127
Std. Dev.	0.0007432
Upper Lim.	0.0025
Lower Lim.	0.0007

Confidence Interval

Constituent: Barium (mg/L) Analysis Run 3/27/2020 2:22 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	
Mean	0.03019	0.04591	0.0642	0.00946	0.04809	0.07679	0.03356	0.05699	0.1021
Std. Dev.	0.01408	0.01286	0.01714	0.002132	0.0145	0.005297	0.01678	0.005258	0.004629
Upper Lim.	0.04121	0.05738	0.07949	0.01136	0.0589	0.0824	0.0717	0.06168	0.1061
Lower Lim.	0.01889	0.03444	0.04891	0.007558	0.03664	0.07117	0.022	0.0523	0.098

Confidence Interval

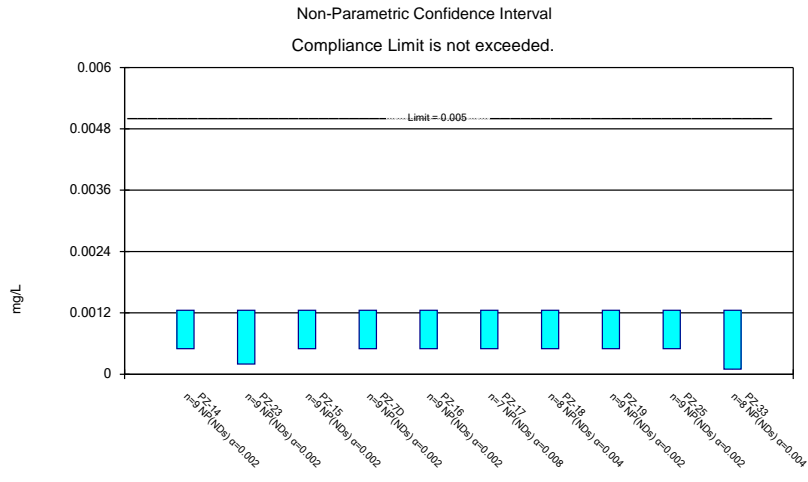
Constituent: Barium (mg/L) Analysis Run 3/27/2020 2:22 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	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
Mean	0.08167
Std. Dev.	0.03117
Upper Lim.	0.162
Lower Lim.	0.057

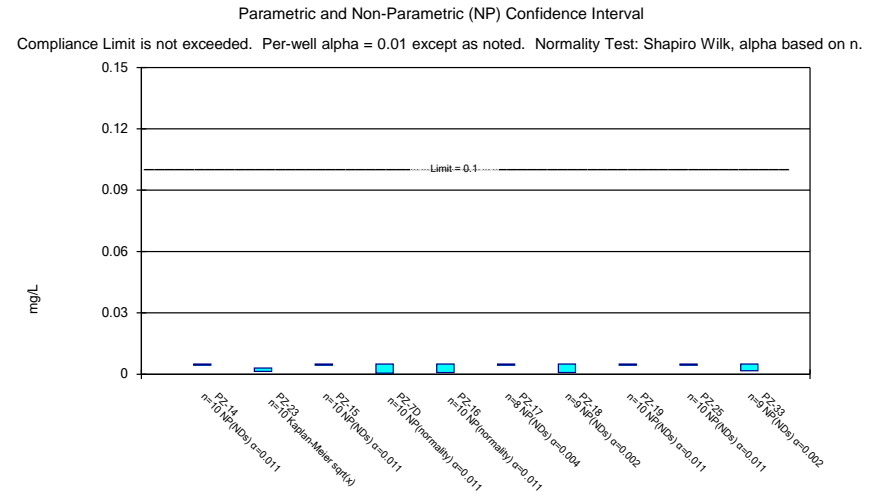
Confidence Interval

Constituent: Beryllium (mg/L) Analysis Run 3/27/2020 2:22 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

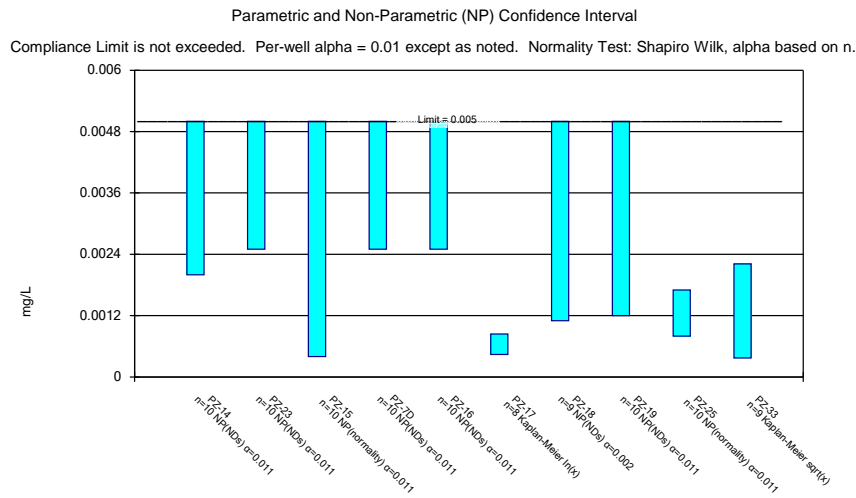
PZ-33	
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.003
3/21/2017	
3/22/2017	
3/23/2017	<0.003
7/11/2017	
7/12/2017	<0.003
10/18/2017	
10/19/2017	<0.003
2/20/2018	
2/21/2018	<0.003
7/11/2018	
7/12/2018	<0.003
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.003
8/21/2019	
8/22/2019	<0.003
Mean	0.0015
Std. Dev.	0
Upper Lim.	0.0015
Lower Lim.	0.0015



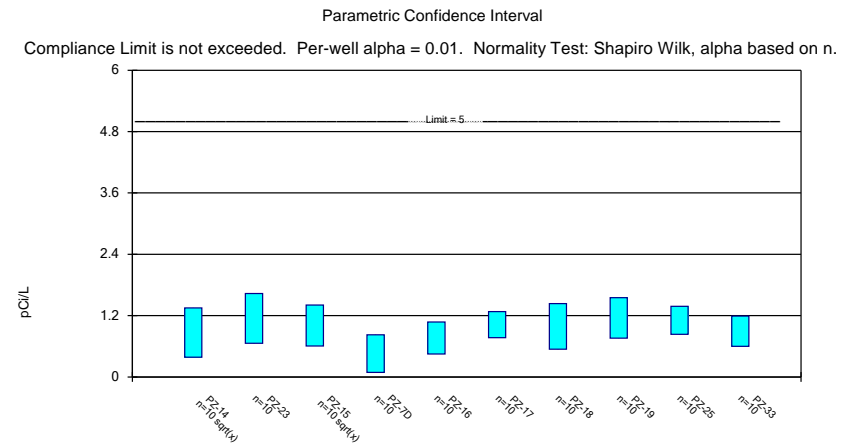
Constituent: Cadmium Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Chromium Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Cobalt Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Combined Radium 226 + Radium 228 Analysis Run 3/27/2020 2:20 PM View: App IV downgrng
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Confidence Interval

Constituent: Cadmium (mg/L) Analysis Run 3/27/2020 2:22 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
Mean	0.0005438
Std. Dev.	0.0003178
Upper Lim.	0.00125
Lower Lim.	0.0001

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 3/27/2020 2:22 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	
Mean	0.004573	0.00305	0.004548	0.00307	0.003719	0.005	0.004534	0.005	0.005
Std. Dev.	0.00135	0.00161	0.001429	0.002163	0.002066	0	0.001397	0	0
Upper Lim.	0.005	0.003025	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.005	0.001361	0.005	0.0005	0.0008	0.005	0.00081	0.005	0.005

Confidence Interval

Constituent: Chromium (mg/L) Analysis Run 3/27/2020 2:22 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
Mean	0.004633
Std. Dev.	0.0011
Upper Lim.	0.005
Lower Lim.	0.0017

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 3/27/2020 2:22 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	
Mean	0.00373	0.00408	0.0023	0.0045	0.00405	0.001662	0.004011	0.00371	0.001465
Std. Dev.	0.001747	0.001552	0.002024	0.001054	0.001624	0.001595	0.001537	0.001736	0.001279
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.0008392	0.005	0.005	0.0017
Lower Lim.	0.002	0.0025	0.0004	0.0025	0.0025	0.0004392	0.0011	0.0012	0.0008

Confidence Interval

Constituent: Cobalt (mg/L) Analysis Run 3/27/2020 2:22 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
Mean	0.001981
Std. Dev.	0.001662
Upper Lim.	0.002212
Lower Lim.	0.00037

Confidence Interval

Constituent: Combined Radium 226 + Radium 228 (pCi/L) Analysis Run 3/27/2020 2:22 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	
Mean	0.8785	1.146	1.012	0.458	0.763	1.024	0.9899	1.155	1.108
Std. Dev.	0.6042	0.5444	0.4906	0.4125	0.3505	0.287	0.5005	0.4434	0.3062
Upper Lim.	1.35	1.631	1.406	0.826	1.076	1.28	1.436	1.55	1.381
Lower Lim.	0.388	0.6598	0.6071	0.09002	0.4502	0.7681	0.5433	0.7591	0.8347

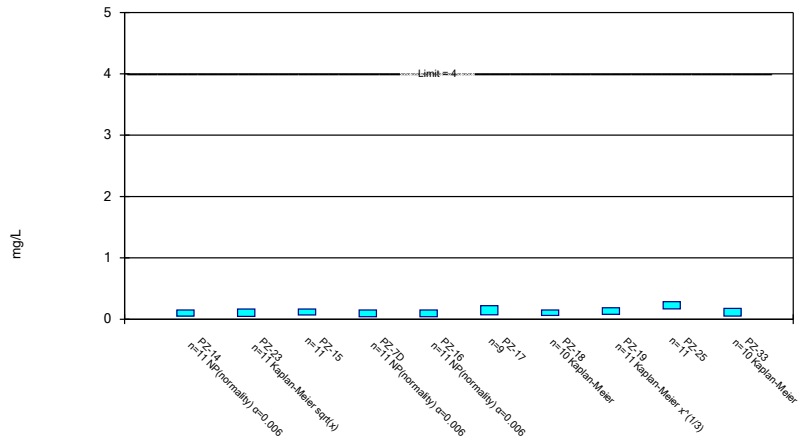
Confidence Interval

Constituent: Combined Radium 226 + Radium 228 (pCi/L) Analysis Run 3/27/2020 2:22 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)
Mean	0.8968
Std. Dev.	0.3317
Upper Lim.	1.193
Lower Lim.	0.6008

Parametric and Non-Parametric (NP) Confidence Interval

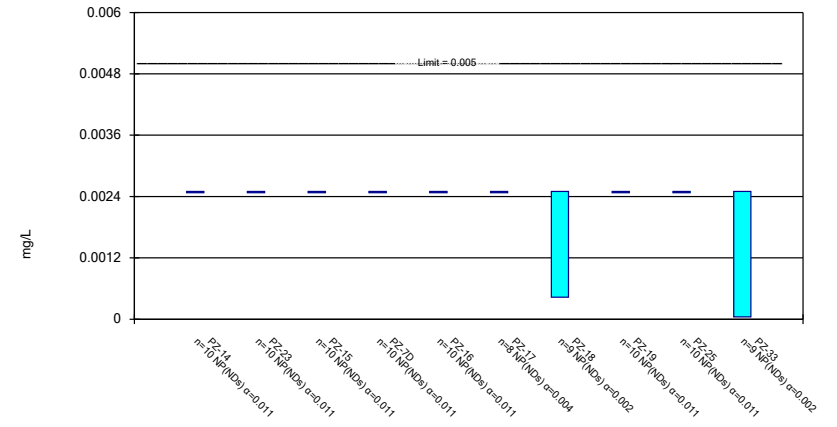
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Fluoride Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Non-Parametric Confidence Interval

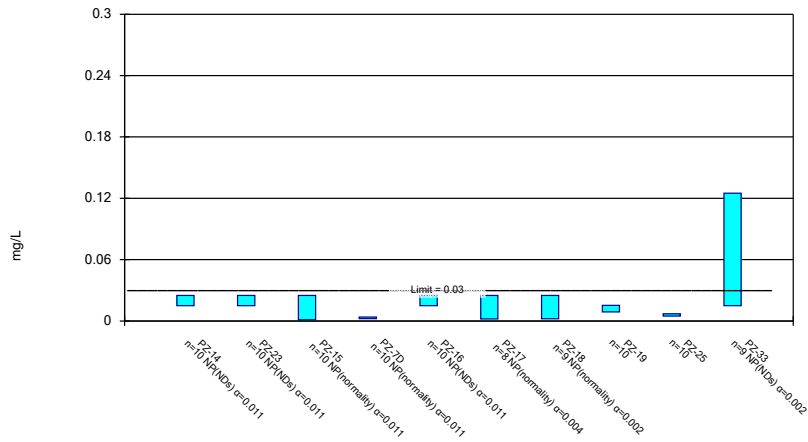
Compliance Limit is not exceeded.



Constituent: Lead Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Parametric and Non-Parametric (NP) Confidence Interval

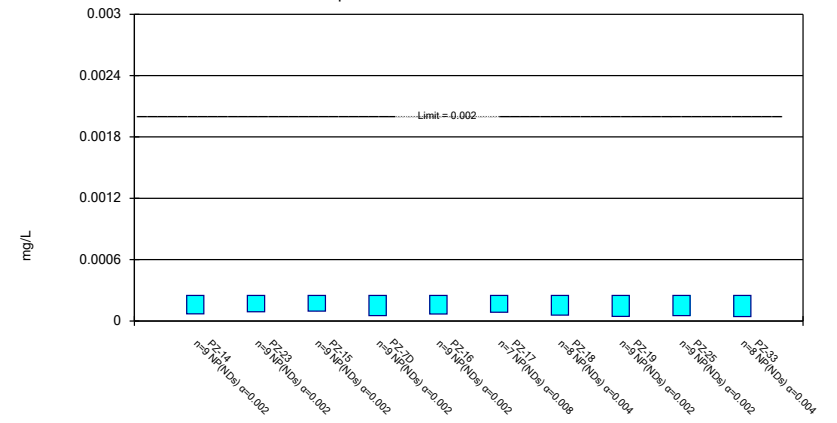
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Non-Parametric Confidence Interval

Compliance Limit is not exceeded.



Constituent: Mercury Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 3/27/2020 2:22 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)	
Mean	0.1096	0.1352	0.1175	0.1133	0.1012	0.1459	0.1189	0.1435	0.2273
Std. Dev.	0.04628	0.06798	0.0568	0.05345	0.04959	0.07723	0.04839	0.08268	0.07129
Upper Lim.	0.15	0.1672	0.1648	0.15	0.15	0.2205	0.1494	0.1856	0.2867
Lower Lim.	0.05	0.04665	0.07013	0.041	0.04	0.07132	0.0617	0.08006	0.1679

Confidence Interval

Constituent: Fluoride (mg/L) Analysis Run 3/27/2020 2:22 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)
Mean	0.1299
Std. Dev.	0.05675
Upper Lim.	0.1751
Lower Lim.	0.05094

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 3/27/2020 2:22 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	
Mean	0.002256	0.0025	0.002255	0.0025	0.002258	0.0025	0.00227	0.0025	0.002291
Std. Dev.	0.0007703	0	0.0007748	0	0.000765	0	0.00069	0	0.0006609
Upper Lim.	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
Lower Lim.	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.00043	0.0025	0.0025

Confidence Interval

Constituent: Lead (mg/L) Analysis Run 3/27/2020 2:22 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)
Mean	0.00196
Std. Dev.	0.001072
Upper Lim.	0.0025
Lower Lim.	4.7E-05

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 3/27/2020 2:22 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)	
Mean	0.0308	0.02159	0.01312	0.01512	0.023	0.0079	0.007589	0.012	0.00593
Std. Dev.	0.03391	0.00792	0.01252	0.03861	0.004216	0.01056	0.009874	0.003598	0.001245
Upper Lim.	0.025	0.025	0.025	0.0038	0.025	0.025	0.025	0.01521	0.007041
Lower Lim.	0.015	0.015	0.0012	0.0023	0.015	0.002	0.0021	0.008789	0.004819

Confidence Interval

Constituent: Lithium (mg/L) Analysis Run 3/27/2020 2:22 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
Mean	0.03389
Std. Dev.	0.03444
Upper Lim.	0.125
Lower Lim.	0.015

Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 3/27/2020 2:22 PM View: App IV downgradient

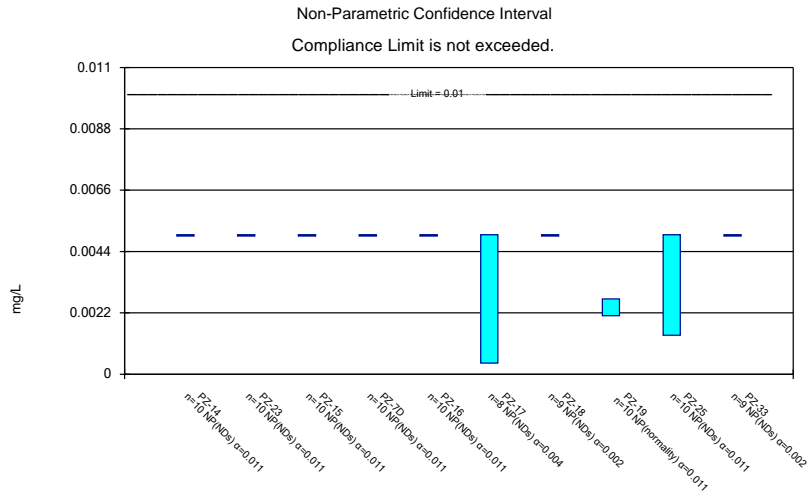
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	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	
Mean	0.00023	0.0002322	0.000233	0.000207	0.0002298	0.0002266	0.0002259	0.0002272	0.0002281
Std. Dev.	6E-05	5.333E-05	5.1E-05	8.534E-05	6.067E-05	6.199E-05	6.824E-05	6.833E-05	6.567E-05
Upper Lim.	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025	0.00025
Lower Lim.	7E-05	9E-05	9.7E-05	5.3E-05	6.8E-05	8.6E-05	5.7E-05	4.5E-05	5.3E-05

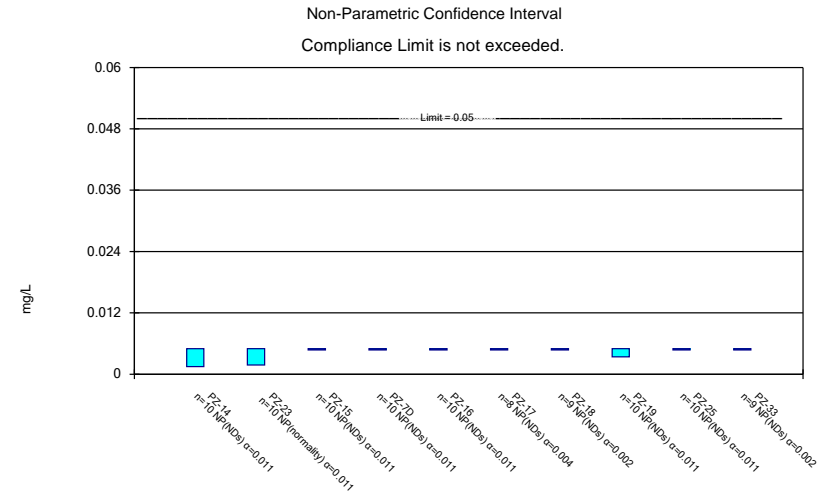
Confidence Interval

Constituent: Mercury (mg/L) Analysis Run 3/27/2020 2:22 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

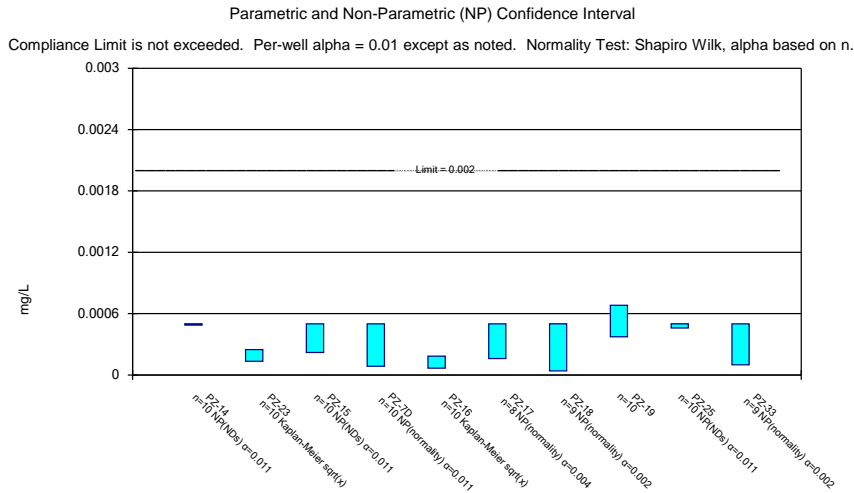
	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.0005
3/21/2017	
3/22/2017	
3/23/2017	<0.0005
7/11/2017	
7/12/2017	<0.0005
10/18/2017	
10/19/2017	<0.0005
2/20/2018	
2/21/2018	4.3E-05 (X)
7/11/2018	
7/12/2018	<0.0005
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.0005
8/21/2019	
8/22/2019	<0.0005
Mean	0.0002241
Std. Dev.	7.319E-05
Upper Lim.	0.00025
Lower Lim.	4.3E-05



Constituent: Molybdenum Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Selenium Analysis Run 3/27/2020 2:20 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Thallium Analysis Run 3/27/2020 2:21 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 3/27/2020 2:22 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)	
Mean	0.00455	0.00456	0.00454	0.005	0.00454	0.004425	0.005	0.00257	0.00424
Std. Dev.	0.001423	0.001391	0.001455	0	0.001455	0.001626	0	0.0008744	0.001605
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.0027	0.005
Lower Lim.	0.005	0.005	0.005	0.005	0.005	0.0004	0.005	0.0021	0.0014

Confidence Interval

Constituent: Molybdenum (mg/L) Analysis Run 3/27/2020 2:22 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
Mean	0.005
Std. Dev.	0
Upper Lim.	0.005
Lower Lim.	0.005

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 3/27/2020 2:22 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)	
Mean	0.00427	0.00404	0.005	0.00467	0.005	0.005	0.005	0.00449	0.005
Std. Dev.	0.001541	0.001557	0	0.001044	0	0	0	0.001165	0
Upper Lim.	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005	0.005
Lower Lim.	0.0015	0.0018	0.005	0.005	0.005	0.005	0.005	0.0034	0.005

Confidence Interval

Constituent: Selenium (mg/L) Analysis Run 3/27/2020 2:22 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
Mean	0.005
Std. Dev.	0
Upper Lim.	0.005
Lower Lim.	0.005

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 3/27/2020 2:22 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)	
Mean	0.000456	0.00029	0.000438	0.0003064	0.000256	0.0004175	0.0003511	0.000528	0.00047
Std. Dev.	0.0001391	0.0001544	0.0001315	0.0002067	0.000177	0.0001529	0.0002235	0.000173	8.179E-05
Upper Lim.	0.0005	0.0002488	0.0005	0.0005	0.0001836	0.0005	0.0005	0.0006824	0.0005
Lower Lim.	0.0005	0.0001337	0.00022	8.6E-05	6.696E-05	0.00016	4E-05	0.0003736	0.00046

Confidence Interval

Constituent: Thallium (mg/L) Analysis Run 3/27/2020 2:22 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

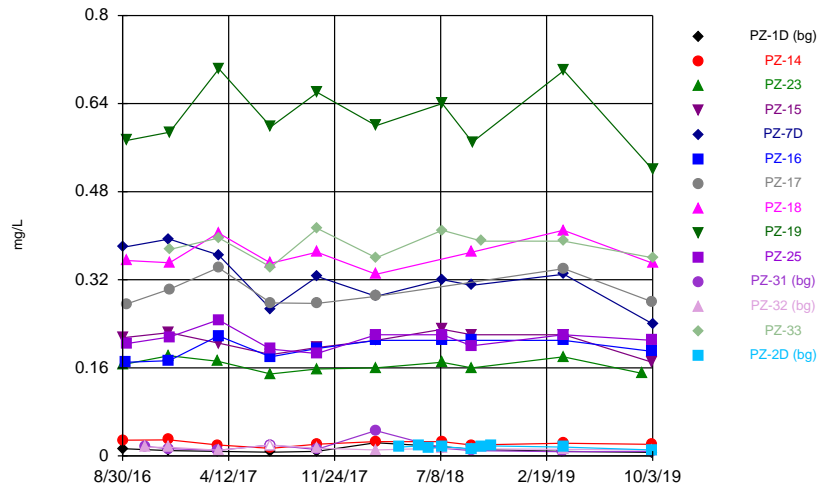
	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.001
3/21/2017	
3/22/2017	
3/23/2017	0.0001 (X)
7/11/2017	
7/12/2017	0.0001 (X)
10/18/2017	
10/19/2017	0.0001 (X)
2/20/2018	
2/21/2018	<0.001
7/11/2018	
7/12/2018	<0.001
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.001
8/21/2019	
8/22/2019	0.00017 (X)
9/10/2019	
10/2/2019	
10/3/2019	0.00018 (X)
Mean	0.0002944
Std. Dev.	0.0001972
Upper Lim.	0.0005
Lower Lim.	0.0001

APPENDIX C

TIME SERIES

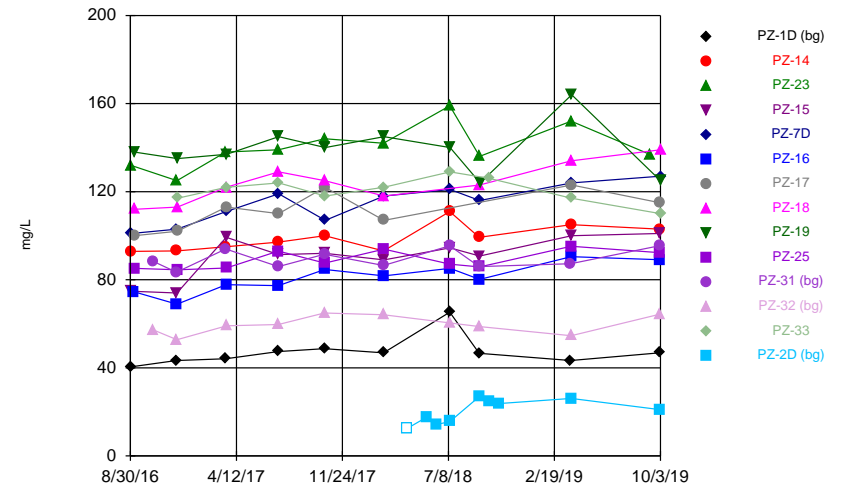


Time Series



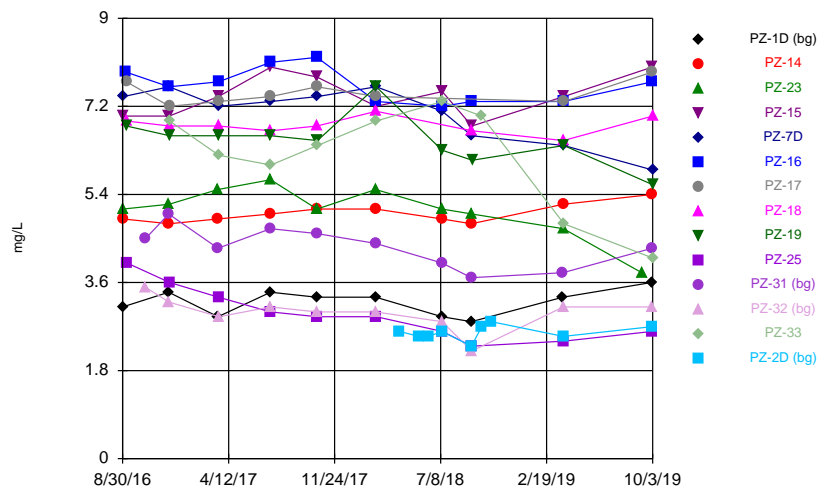
Constituent: Boron Analysis Run 2/24/2020 11:38 AM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series



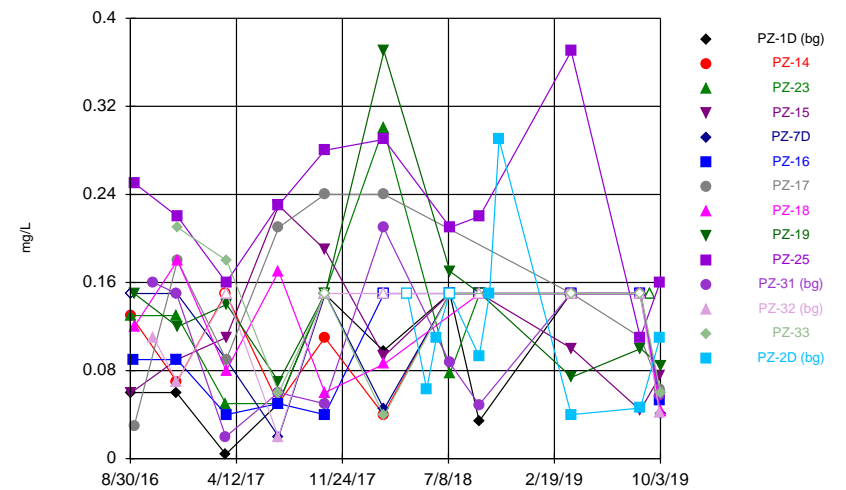
Constituent: Calcium Analysis Run 2/24/2020 11:38 AM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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

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

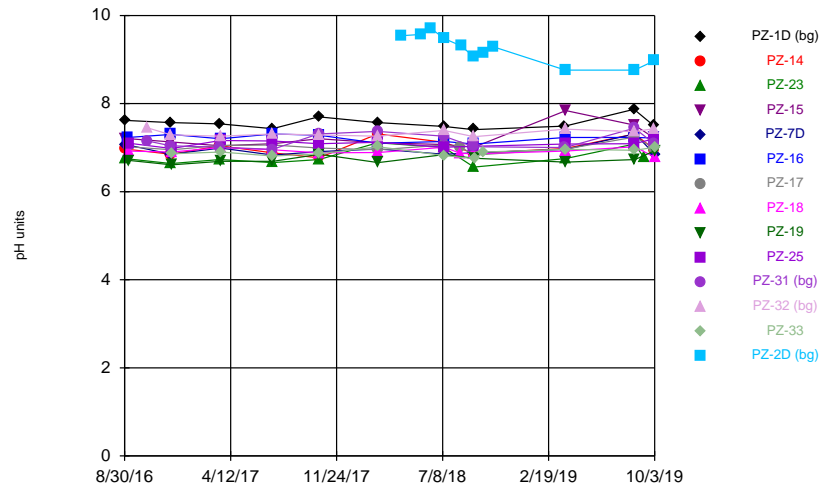
	PZ-1D (bg)	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19
8/30/2016	0.06 (X)								
8/31/2016		0.13 (X)	0.13 (X)						
9/1/2016				0.06 (X)	<0.3				
9/6/2016						0.09 (X)			
9/7/2016							0.03 (X)	0.12 (X)	0.15 (X)
9/8/2016									
10/18/2016									
12/6/2016	0.06 (X)								
12/7/2016		0.07 (X)	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

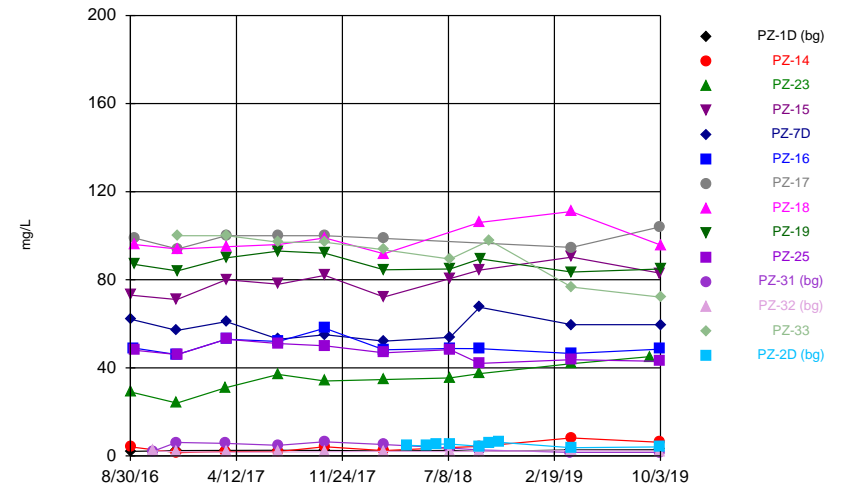
	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	0.25 (X)				
10/18/2016		0.16 (X)	0.11 (X)		
12/6/2016		0.15 (X)			
12/7/2016			0.07 (X)		
12/8/2016	0.22 (X)			0.21 (X)	
3/21/2017		0.02 (X)			
3/22/2017	0.16 (X)				
3/23/2017			<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



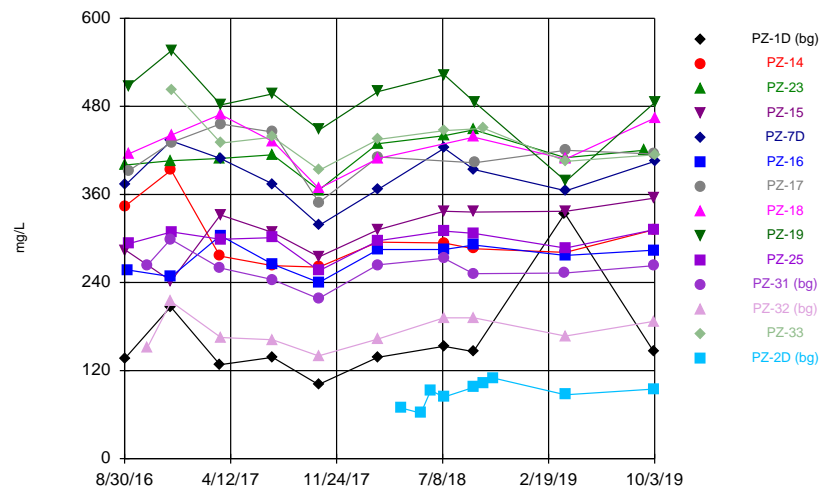
Constituent: pH Analysis Run 2/24/2020 11:38 AM View: App III all wells
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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

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

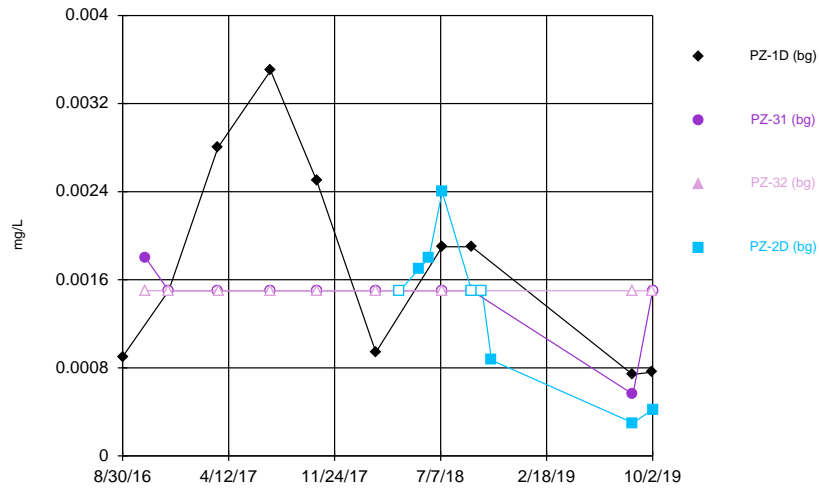
	PZ-1D (bg)	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19
8/30/2016	136								
8/31/2016		344	400						
9/1/2016				284	373				
9/6/2016						257			
9/7/2016							392	415	508
9/8/2016									
10/18/2016									
12/6/2016	207								
12/7/2016		393	406	242	433	248			
12/8/2016							431	441	556
3/21/2017	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

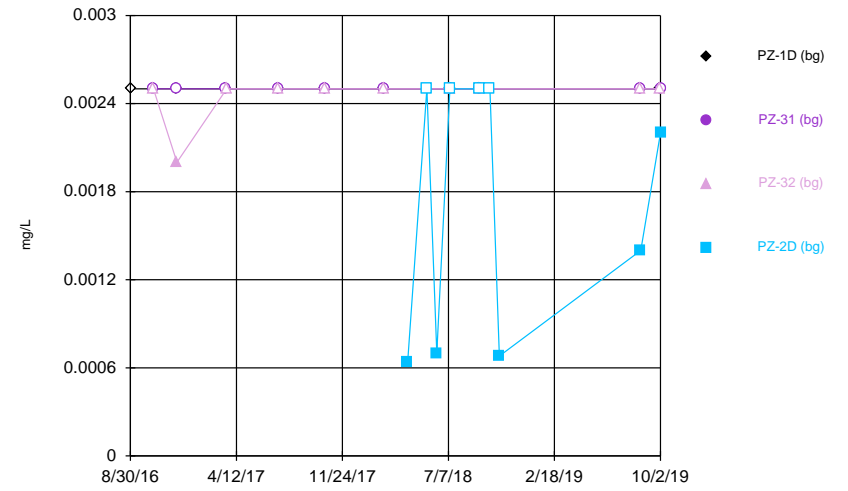
	PZ-25	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	293				
10/18/2016		264	152		
12/6/2016		299			
12/7/2016			214		
12/8/2016	309			503	
3/21/2017		260			
3/22/2017	299				
3/23/2017			165	430	
7/11/2017	301	244	162		
7/12/2017				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	

Time Series



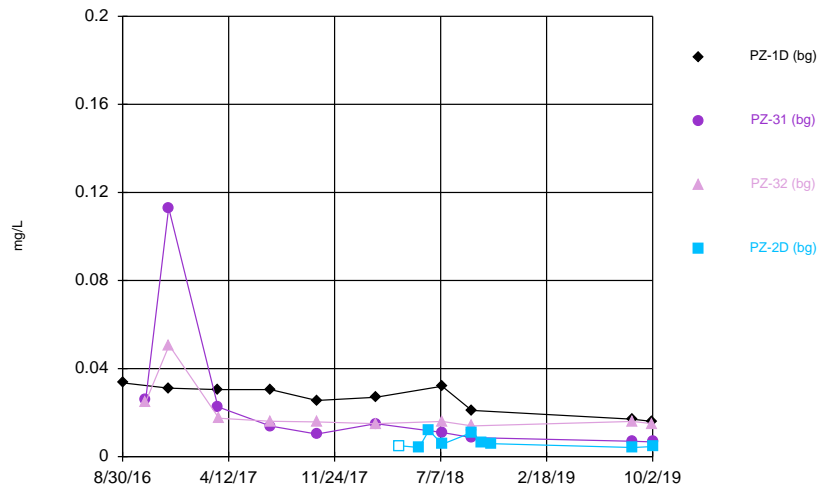
Constituent: Antimony Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series



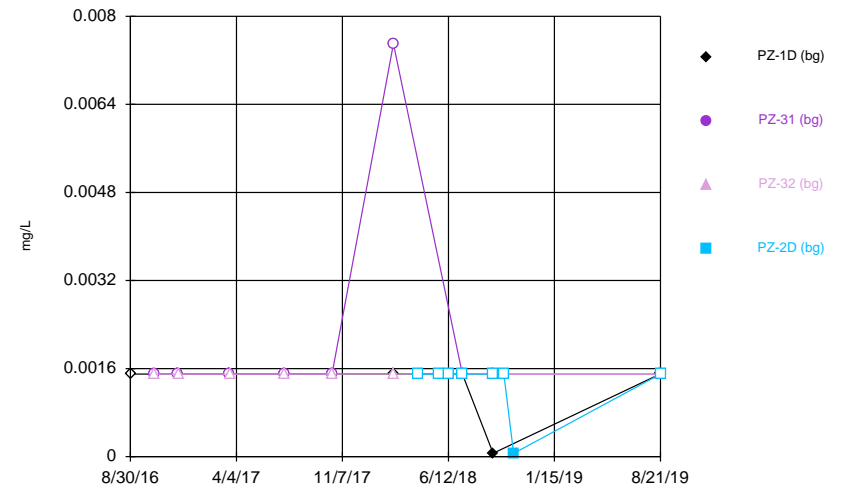
Constituent: Arsenic Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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

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

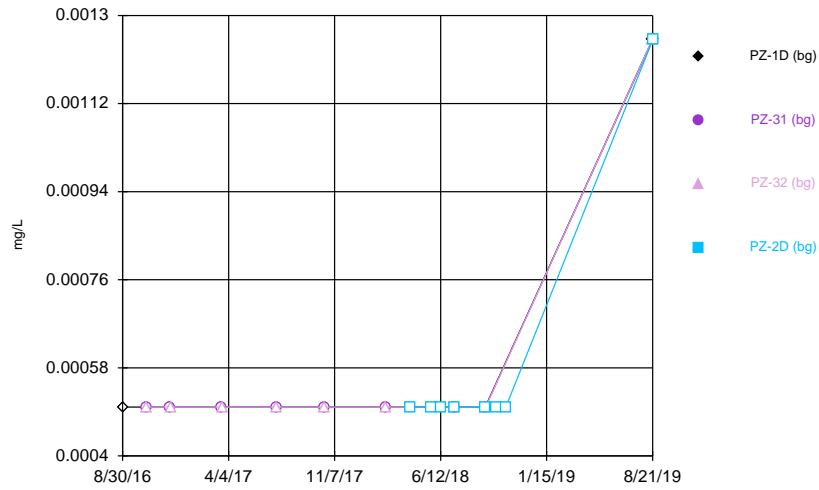
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.0335			
10/18/2016		0.0257	0.0248	
12/6/2016	0.0311	0.113		
12/7/2016			0.0506	
3/21/2017	0.0305	0.0226		
3/23/2017			0.0175	
7/11/2017	0.0305	0.0139	0.0161	
10/17/2017	0.0255	0.0103	0.0158	
2/20/2018	0.027	0.015	0.015	
4/12/2018				<0.01
5/23/2018				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

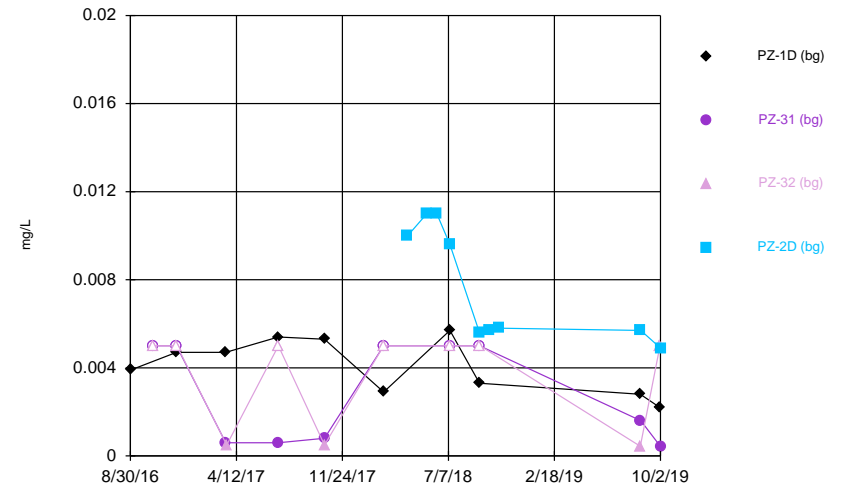
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.003			
10/18/2016		<0.003	<0.003	
12/6/2016	<0.003	<0.003		
12/7/2016			<0.003	
3/21/2017	<0.003	<0.003		
3/23/2017			<0.003	
7/11/2017	<0.003	<0.003	<0.003	
10/17/2017	<0.003	<0.003	<0.003	
2/20/2018	<0.003	<0.015	<0.003	
4/12/2018				<0.003
5/23/2018				<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

Time Series



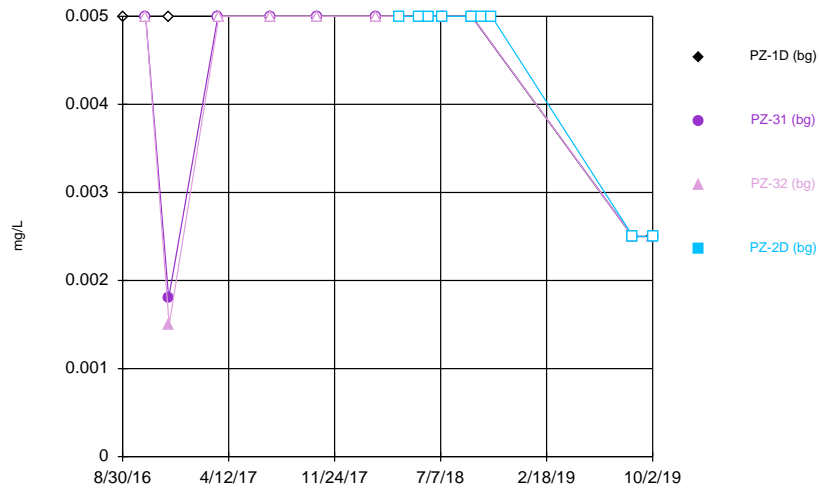
Constituent: Cadmium Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series



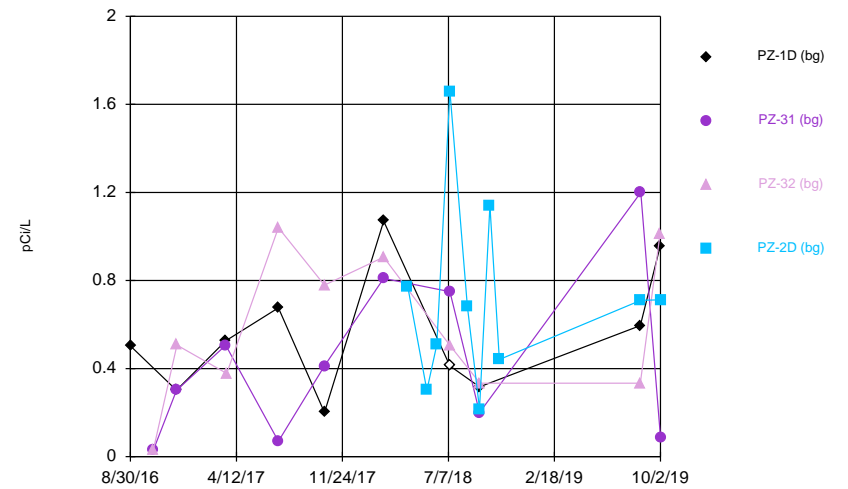
Constituent: Chromium Analysis Run 2/24/2020 4:16 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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

Time Series



Constituent: Combined Radium 226 + Radium 228 Analysis Run 2/24/2020 4:16 PM View: App IV background
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

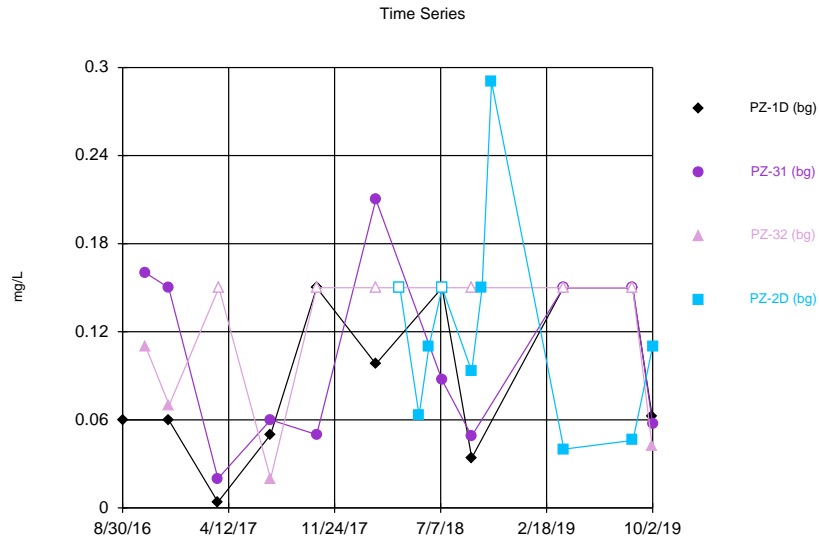
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.01			
10/18/2016		<0.01	<0.01	
12/6/2016	<0.01	0.0018 (X)		
12/7/2016			0.0015 (X)	
3/21/2017	<0.01	<0.01		
3/23/2017			<0.01	
7/11/2017	<0.01	<0.01	<0.01	
10/17/2017	<0.01	<0.01	<0.01	
2/20/2018	<0.01	<0.01	<0.01	
4/12/2018				<0.01
5/23/2018				<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

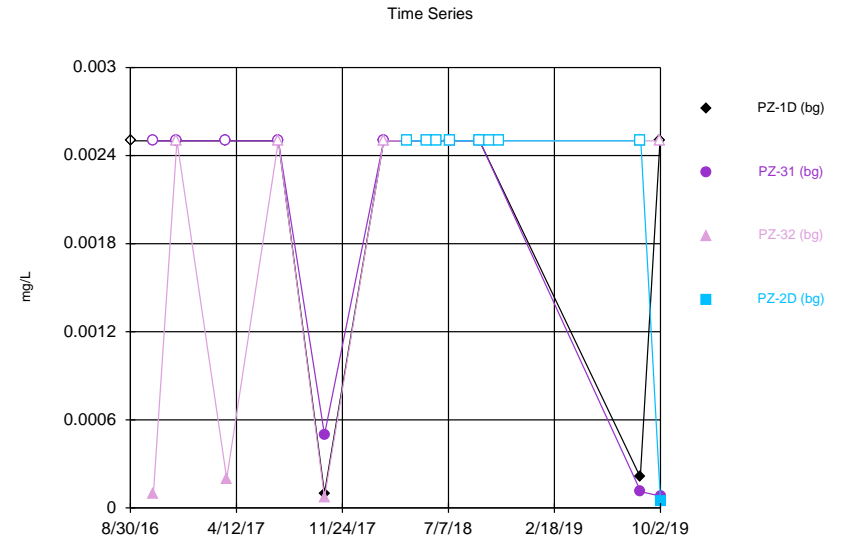
Constituent: Combined Radium 226 + Radium 228 (pCi/L) Analysis Run 2/24/2020 4:18 PM View: App IV background

Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

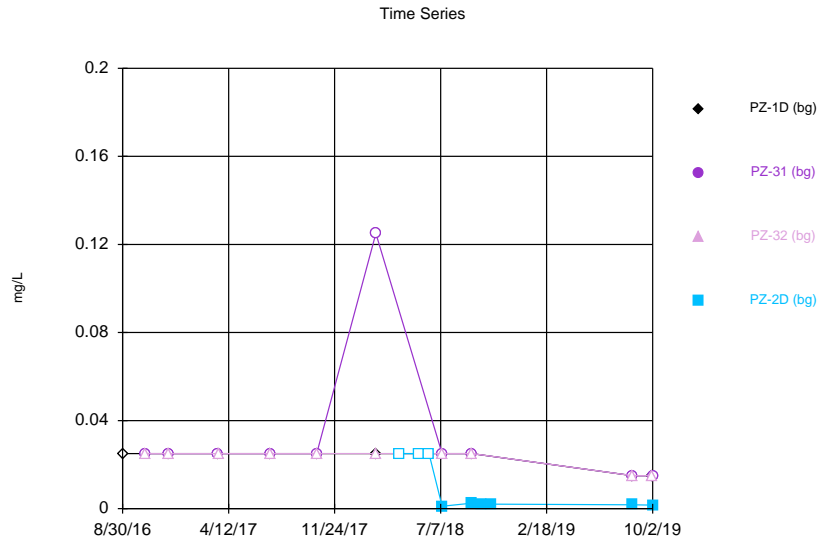
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	0.503			
10/18/2016		0.0311	0.0333	
12/6/2016	0.302	0.301		
12/7/2016			0.507	
3/21/2017	0.526	0.506		
3/23/2017			0.378	
7/11/2017	0.676 (U)	0.0701 (U)	1.04	
10/17/2017	0.201 (U)	0.412 (U)	0.779 (U)	
2/20/2018	1.07	0.81	0.906	
4/12/2018				0.774
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)



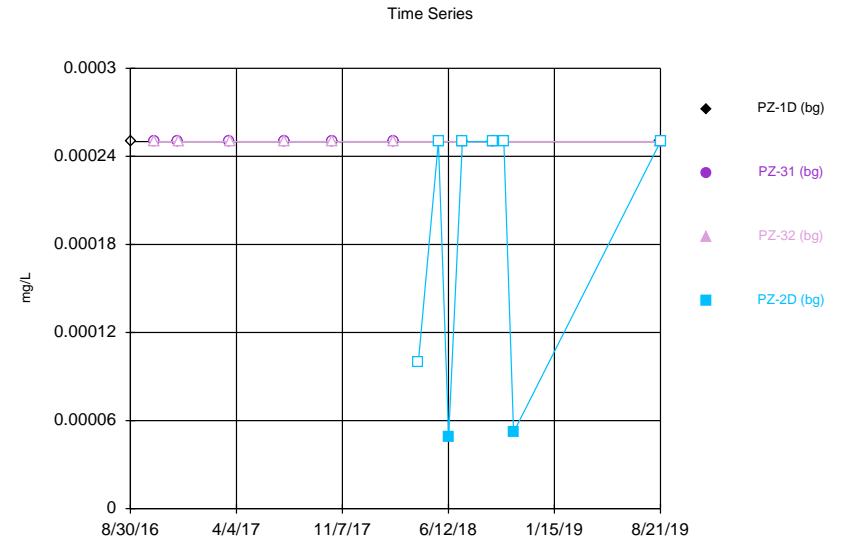
Constituent: Fluoride Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Lead Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Lithium Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



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

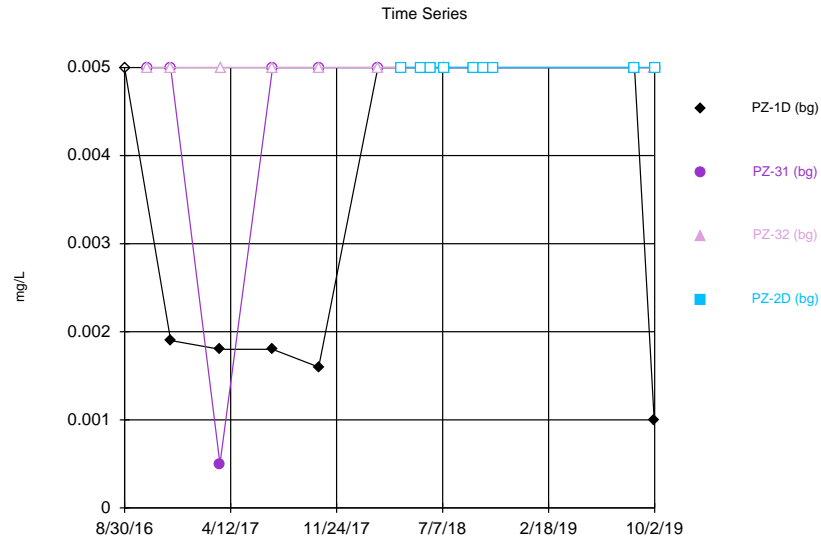
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	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)

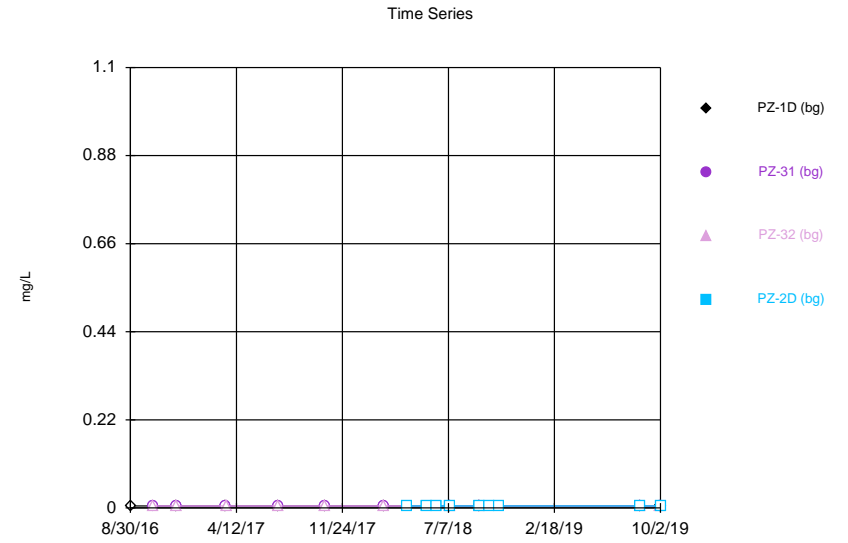
Time Series

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

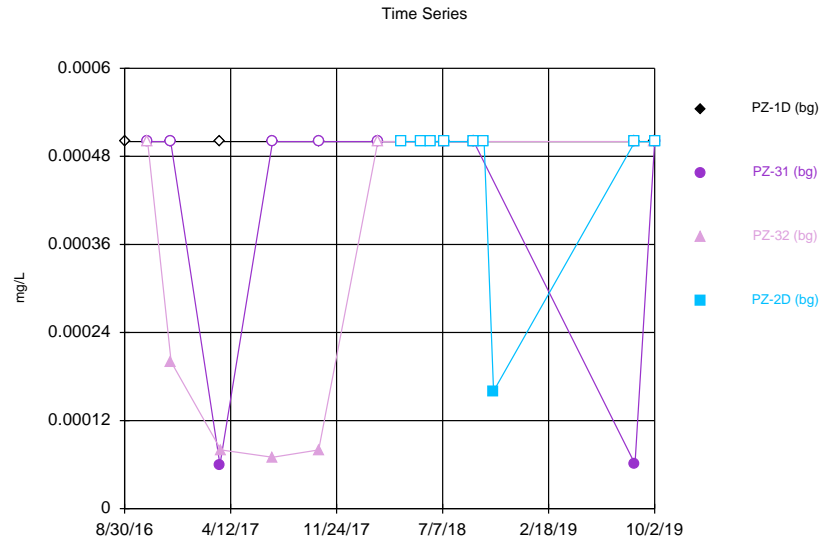
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.0005			
10/18/2016		<0.0005	<0.0005	
12/6/2016	<0.0005	<0.0005		
12/7/2016			<0.0005	
3/21/2017	<0.0005	<0.0005		
3/23/2017			<0.0005	
7/11/2017	<0.0005	<0.0005	<0.0005	
10/17/2017	<0.0005	<0.0005	<0.0005	
2/20/2018	<0.0005	<0.0005	<0.0005	
4/12/2018				<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



Constituent: Molybdenum Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Selenium Analysis Run 2/24/2020 4:17 PM View: App IV background
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



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

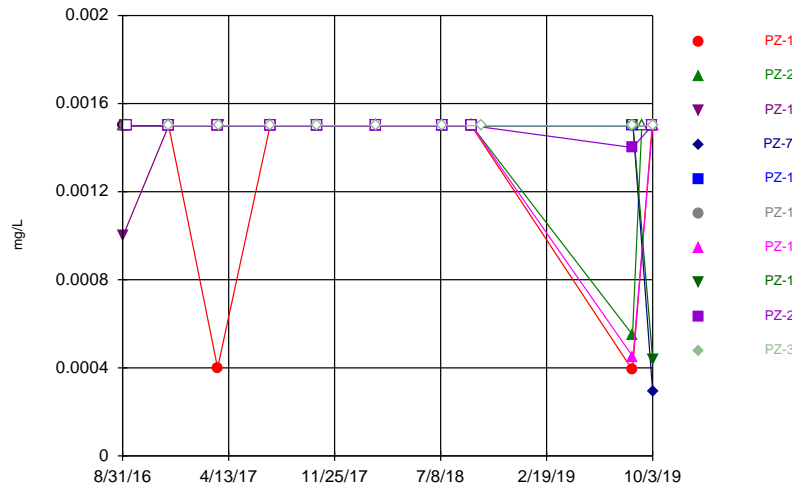
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.01			
10/18/2016		<0.01	<0.01	
12/6/2016	<0.01	<0.01		
12/7/2016			<0.01	
3/21/2017	<0.01	<0.01		
3/23/2017			<0.01	
7/11/2017	<0.01	<0.01	<0.01	
10/17/2017	<0.01	<0.01	<0.01	
2/20/2018	<0.01	<0.01	<0.01	
4/12/2018				<0.01
5/23/2018				<0.01
6/13/2018				<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

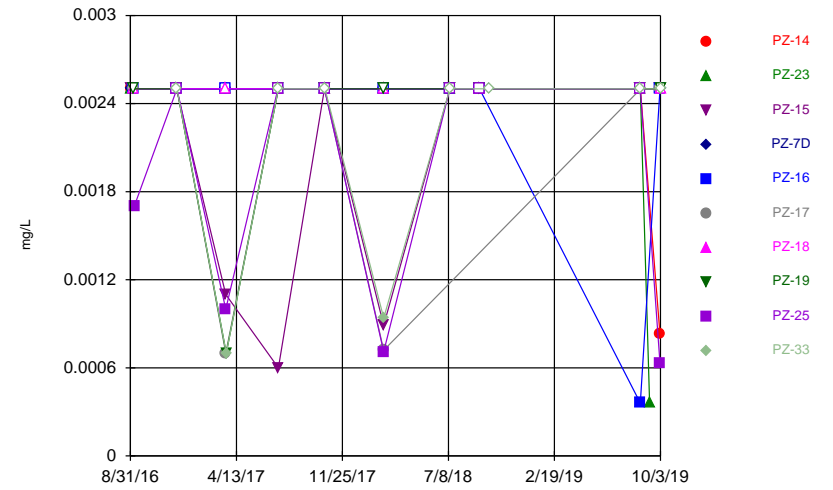
	PZ-1D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016	<0.001			
10/18/2016		<0.001	<0.001	
12/6/2016	<0.001	<0.001		
12/7/2016			0.0002 (X)	
3/21/2017	<0.001	6E-05 (X)		
3/23/2017			8E-05 (X)	
7/11/2017	<0.001	<0.001	7E-05 (X)	
10/17/2017	<0.001	<0.001	8E-05 (X)	
2/20/2018	<0.001	<0.001	<0.001	
4/12/2018				<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

Time Series



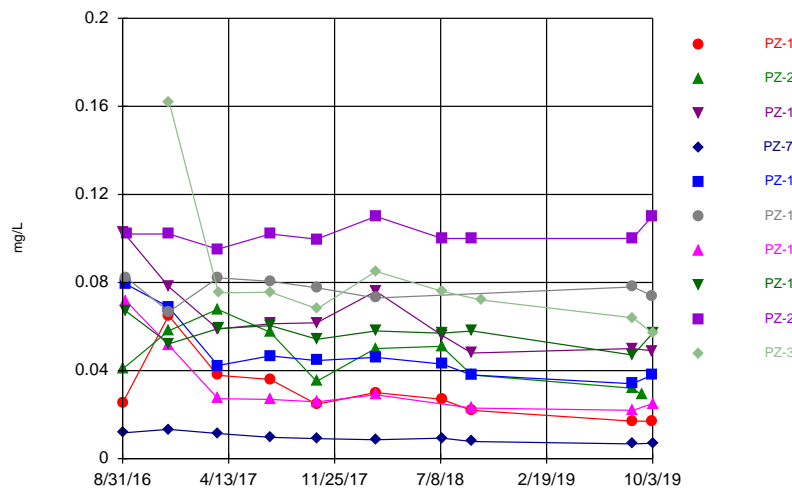
Constituent: Antimony Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

Time Series



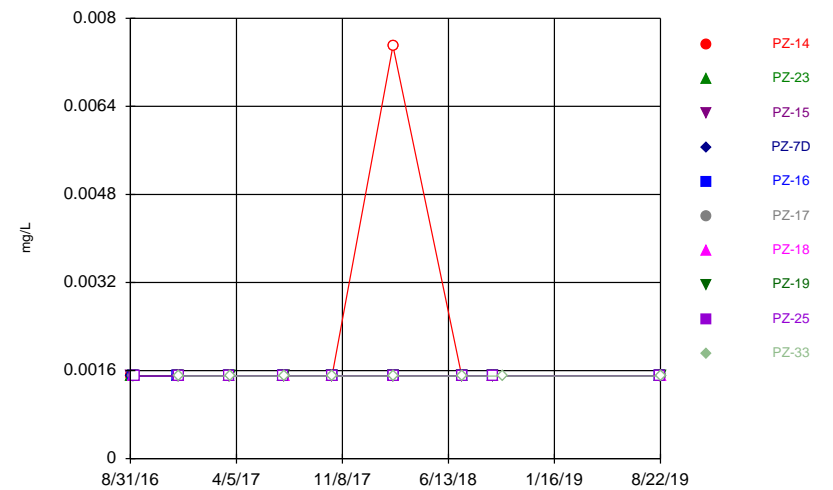
Constituent: Arsenic Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

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

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

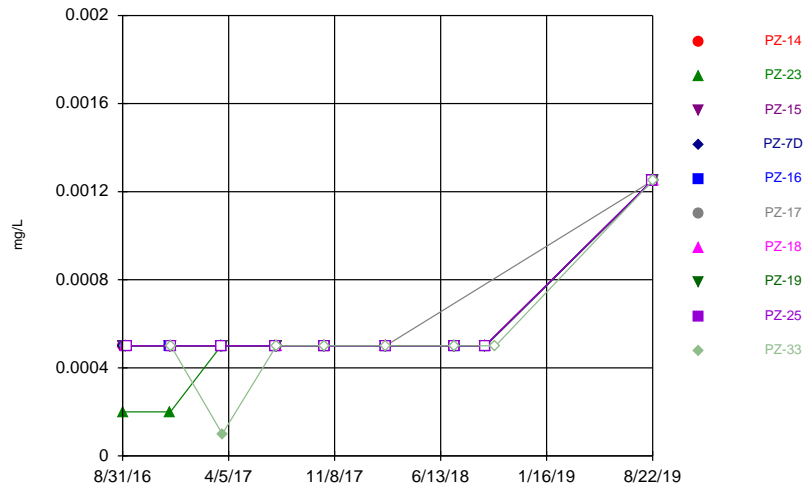
	PZ-14	PZ-23	PZ-15	PZ-7D	PZ-16	PZ-17	PZ-18	PZ-19	PZ-25
8/31/2016	<0.003	<0.003							
9/1/2016			<0.003	<0.003					
9/6/2016					<0.003				
9/7/2016						<0.003	<0.003	<0.003	
9/8/2016									<0.003
12/7/2016	<0.003	<0.003	<0.003	<0.003	<0.003				
12/8/2016						<0.003	<0.003	<0.003	<0.003
3/21/2017	<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

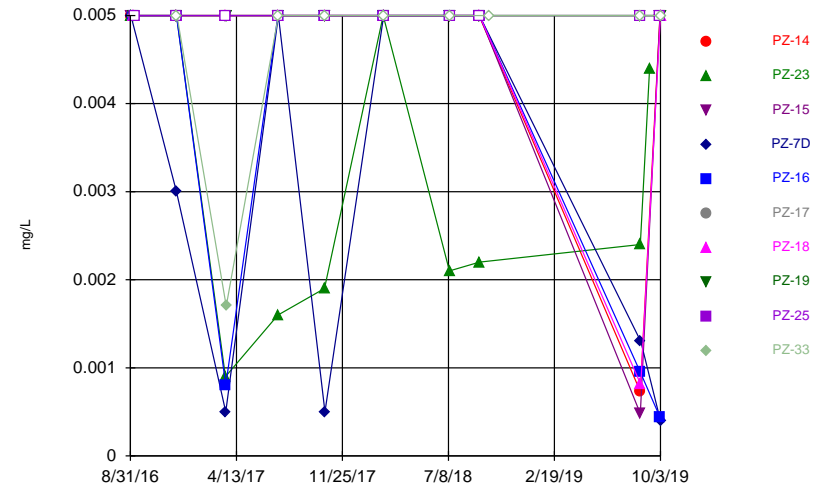
Constituent: Beryllium (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	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

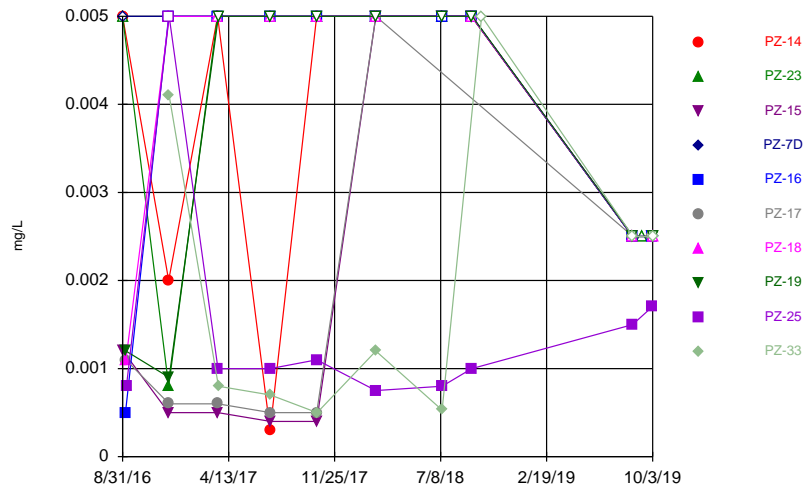
Time Series



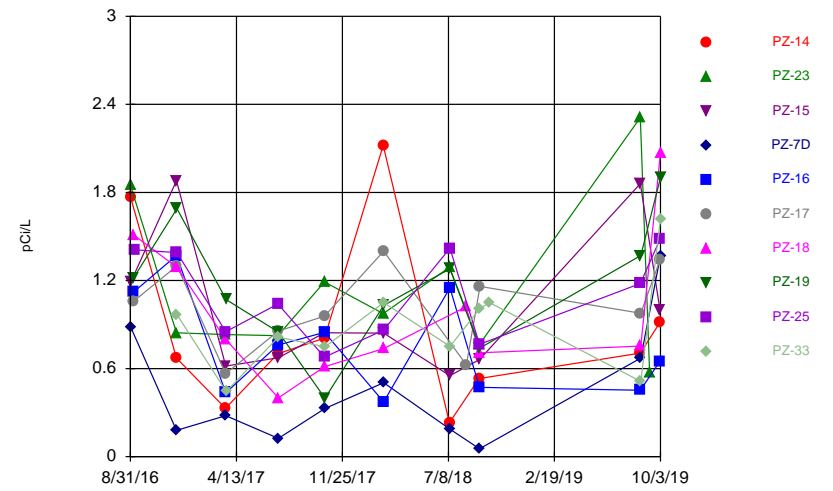
Time Series



Time Series



Time Series



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

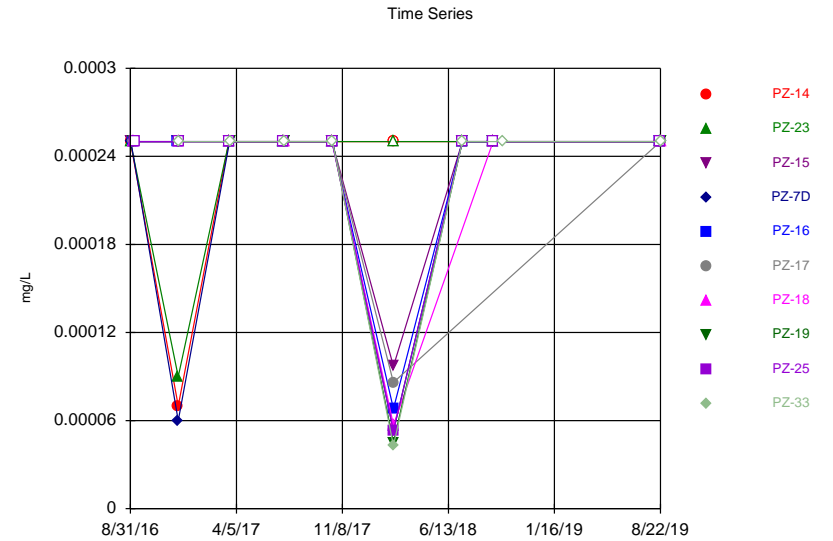
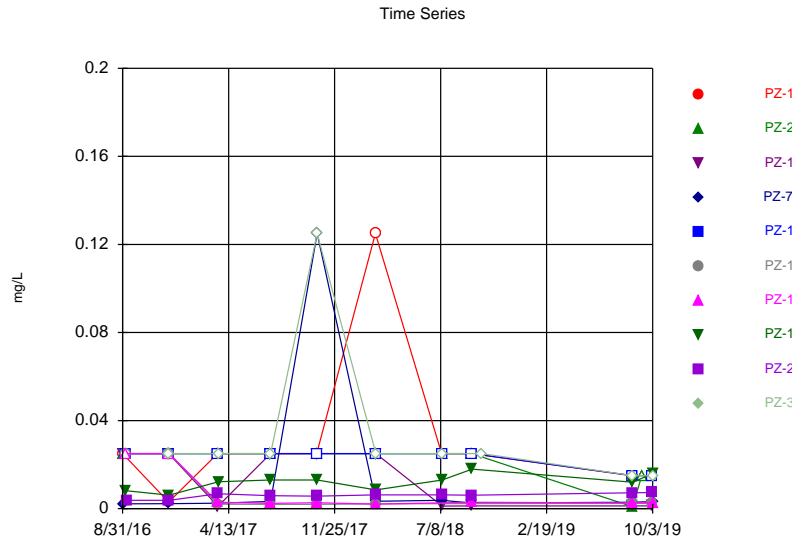
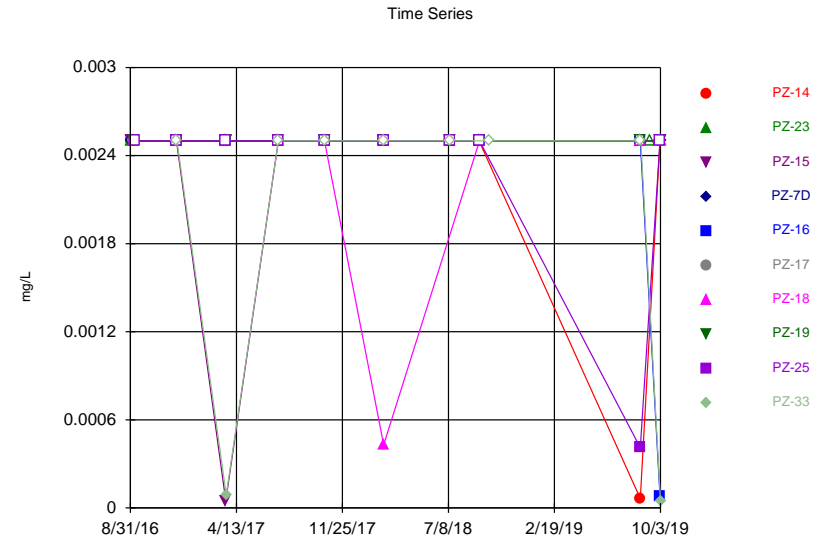
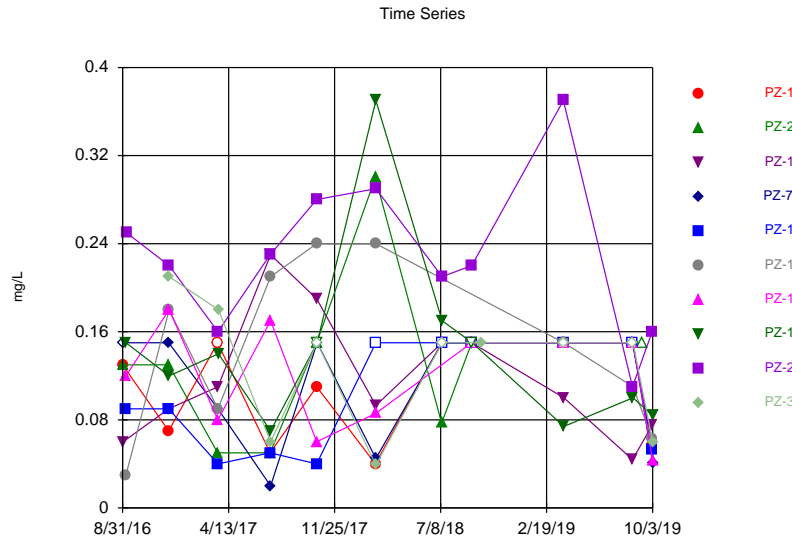
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	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)



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

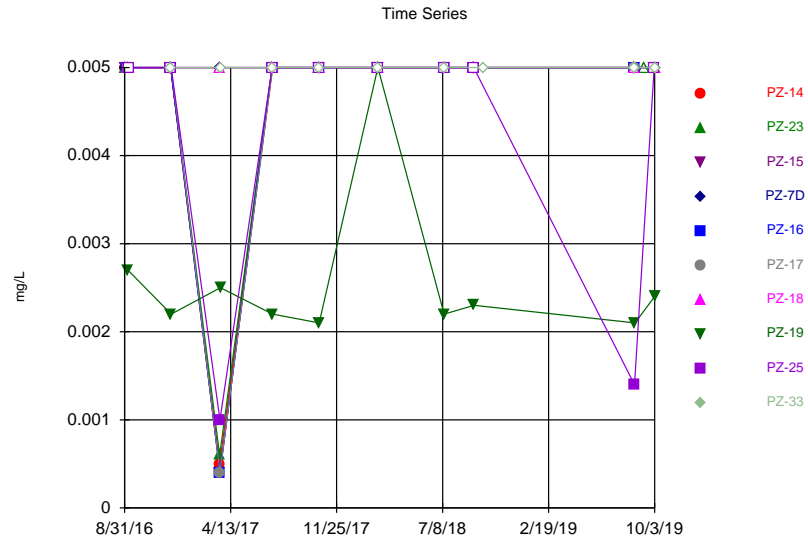
Constituent: Mercury (mg/L) Analysis Run 2/24/2020 3:13 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4

	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	

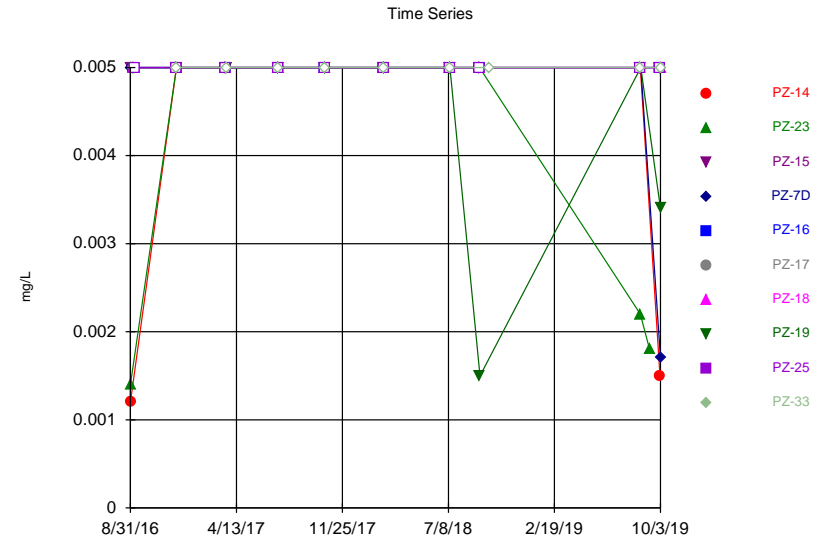
Time Series

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

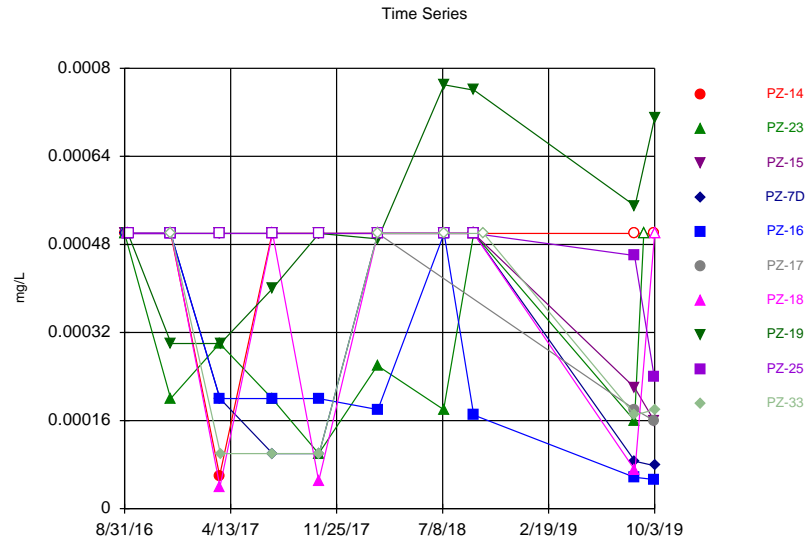
	PZ-33
8/31/2016	
9/1/2016	
9/6/2016	
9/7/2016	
9/8/2016	
12/7/2016	
12/8/2016	<0.0005
3/21/2017	
3/22/2017	
3/23/2017	<0.0005
7/11/2017	
7/12/2017	<0.0005
10/18/2017	
10/19/2017	<0.0005
2/20/2018	
2/21/2018	4.3E-05 (X)
7/11/2018	
7/12/2018	<0.0005
9/12/2018	
9/13/2018	
9/14/2018	
10/4/2018	<0.0005
8/21/2019	
8/22/2019	<0.0005



Constituent: Molybdenum Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



Constituent: Selenium Analysis Run 2/24/2020 3:10 PM View: App IV downgradient
Plant Mitchell Client: Southern Company Data: Mitchell_mod V4



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)

STATISTICAL ANALYSES OF MARCH 2020 DATA

Table C-2
Appendix III March 2020 Results Compared with Prediction Limits
Plant Mitchell Ash Ponds A, 1 & 2

Parameter	Units	Well ID	Upper PL	Lower PL	March 24-26, 2020
		Purpose of Event:			Assessment Semi-annual
Boron	mg/L	PZ-7D	0.0274	-	0.24
Boron	mg/L	PZ-14	0.0274	-	0.027 (J)
Boron	mg/L	PZ-15	0.0274	-	0.21
Boron	mg/L	PZ-16	0.0274	-	0.19
Boron	mg/L	PZ-17	0.0274	-	0.33
Boron	mg/L	PZ-18	0.0274	-	0.36
Boron	mg/L	PZ-19	0.0274	-	0.60
Boron	mg/L	PZ-23A	0.0274	-	0.19
Boron	mg/L	PZ-25	0.0274	-	0.21
Boron	mg/L	PZ-33	0.0274	-	0.38
Calcium	mg/L	PZ-7D	107.4	-	122
Calcium	mg/L	PZ-14	107.4	-	105
Calcium	mg/L	PZ-15	107.4	-	103
Calcium	mg/L	PZ-16	107.4	-	89.8
Calcium	mg/L	PZ-17	107.4	-	121
Calcium	mg/L	PZ-18	107.4	-	138
Calcium	mg/L	PZ-19	107.4	-	158
Calcium	mg/L	PZ-23A	107.4	-	157
Calcium	mg/L	PZ-25	107.4	-	97.5
Calcium	mg/L	PZ-33	107.4	-	122
Chloride	mg/L	PZ-7D	4.77	-	4.8
Chloride	mg/L	PZ-14	4.77	-	4.2
Chloride	mg/L	PZ-15	4.77	-	7.0
Chloride	mg/L	PZ-16	4.77	-	7.0
Chloride	mg/L	PZ-17	4.77	-	6.1
Chloride	mg/L	PZ-18	4.77	-	5.7
Chloride	mg/L	PZ-19	4.77	-	5.4
Chloride	mg/L	PZ-23A	4.77	-	6.4
Chloride	mg/L	PZ-25	4.77	-	1.6
Chloride	mg/L	PZ-33	4.77	-	2.9
Fluoride	mg/L	PZ-7D	0.3	-	< 0.050
Fluoride	mg/L	PZ-14	0.3	-	< 0.050
Fluoride	mg/L	PZ-15	0.3	-	0.056 (J)
Fluoride	mg/L	PZ-16	0.3	-	< 0.050
Fluoride	mg/L	PZ-17	0.3	-	< 0.050
Fluoride	mg/L	PZ-18	0.3	-	< 0.050
Fluoride	mg/L	PZ-19	0.3	-	0.077 (J)
Fluoride	mg/L	PZ-23A	0.3	-	0.066 (J)
Fluoride	mg/L	PZ-25	0.3	-	0.13 (J)
Fluoride	mg/L	PZ-33	0.3	-	< 0.050
pH	s.u.	PZ-7D	9.5	7.0	7.1
pH	s.u.	PZ-14	9.5	7.0	7.0
pH	s.u.	PZ-15	9.5	7.0	7.1
pH	s.u.	PZ-16	9.5	7.0	7.1
pH	s.u.	PZ-17	9.5	7.0	6.9
pH	s.u.	PZ-18	9.5	7.0	7.0
pH	s.u.	PZ-19	9.5	7.0	6.7
pH	s.u.	PZ-23A	9.5	7.0	6.8
pH	s.u.	PZ-25	9.5	7.0	7.0
pH	s.u.	PZ-33	9.5	7.0	7.0

Table C-2
Appendix III March 2020 Results Compared with Prediction Limits
Plant Mitchell Ash Ponds A, 1 & 2

Parameter	Units	Well ID	Upper PL	Lower PL	March 24-26, 2020
		Purpose of Event:			Assessment Semi-annual
Sulfate	mg/L	PZ-7D	6.4	-	57.1
Sulfate	mg/L	PZ-14	6.4	-	11.9
Sulfate	mg/L	PZ-15	6.4	-	83.6
Sulfate	mg/L	PZ-16	6.4	-	43.5
Sulfate	mg/L	PZ-17	6.4	-	92.4
Sulfate	mg/L	PZ-18	6.4	-	91.0
Sulfate	mg/L	PZ-19	6.4	-	84.9
Sulfate	mg/L	PZ-23A	6.4	-	47.0
Sulfate	mg/L	PZ-25	6.4	-	39.1
Sulfate	mg/L	PZ-33	6.4	-	66.6
TDS	mg/L	PZ-7D	317	-	332
TDS	mg/L	PZ-14	317	-	330
TDS	mg/L	PZ-15	317	-	330
TDS	mg/L	PZ-16	317	-	286
TDS	mg/L	PZ-17	317	-	408
TDS	mg/L	PZ-18	317	-	415
TDS	mg/L	PZ-19	317	-	440
TDS	mg/L	PZ-23A	317	-	454
TDS	mg/L	PZ-25	317	-	280
TDS	mg/L	PZ-33	317	-	336

Notes:

- = Not applicable

< indicates the constituent was not detected above the method detection limit.

(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.

mg/L = milligrams per liter

s.u. - standard units

TDS = Total Dissolved Solids

PL = prediction limit

Shaded and bolded values indicate an exceedance of the statistically derived PL.

The pH value presented was recorded at the time of sample collection in the field. pH is the only parameter where the field result is compared to both the upper and lower PL.

An Alternate Source Demonstration (ASD) has not been prepared for these Appendix III statistical exceedances. Assessment monitoring is currently being implemented.

GROUNDWATER STATS CONSULTING

July 27, 2020

Southern Company Services
Attn: Mr. Joju Abraham
241 Ralph McGill Blvd NE, Bin 10160
Atlanta, Georgia 30308-3374

Re: Plant Mitchell Ash Pond
March 2020 Statistical Analysis

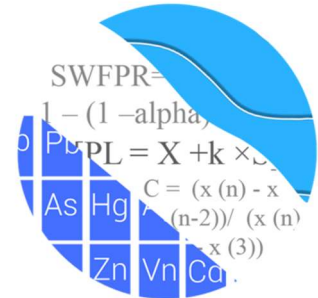
Dear Mr. Abraham,

Groundwater Stats Consulting, formerly the statistical consulting division of Sanitas Technologies, is pleased to provide the March 2020 Semi-Annual Groundwater Monitoring and Corrective Action Statistical summary of groundwater data for Georgia Power Company's Plant Mitchell Ash Pond. The analysis complies with the federal rule for the Disposal of Coal Combustion Residuals from Electric Utilities (CCR Rule, 2015), the Georgia Environmental Protection Division Rules for Solid Waste Management Chapter 391-3-4-.10, and follows the USEPA Unified Guidance (2009).

Sampling for the Appendix III parameters began in 2016, and at least 8 background samples were collected at each of the groundwater monitoring wells. Semi-annual sampling of the majority of Appendix IV constituents has been performed for several years in accordance with the Georgia Department of Natural Resources, Environmental Protection Division groundwater monitoring regulations. A list of all parameters is provided below.

The monitoring well network, as provided by Southern Company Services, consists of the following:

- **Upgradient wells:** PZ-1D, PZ-2D, PZ-31, PZ-32
- **Downgradient wells:** PZ-7D, PZ-14, PZ-15, PZ-16, PZ-17, PZ-18, PZ-19, PZ-23A, PZ-25, PZ-33



Note that well PZ-23 was abandoned and was replaced with well PZ-23A. Since the new well PZ-23A was installed in close proximity to well PZ-23, the historical data and new data can be combined. Well PZ-23A was first sampled during the March 2020 event.

Data were sent electronically to Groundwater Stats Consulting, and the statistical analysis was reviewed Kristina Rayner, Groundwater Statistician and Founder of Groundwater Stats Consulting.

The CCR program consists of the following constituents:

- **Appendix III** (Detection Monitoring) - boron, calcium, chloride, fluoride, pH, sulfate, and TDS
- **Appendix IV** (Assessment Monitoring) – antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, mercury, molybdenum, selenium, and thallium

Note that when there are no detections present in downgradient wells for a given constituent, statistical analyses are not required. A summary of well/constituent pairs with 100% nondetects follows this letter. Additionally, the following Appendix IV analytes were detected during the August 2019 scan event: antimony, arsenic, barium, chromium, cobalt, combined radium 226 + 228, fluoride, lead, lithium, molybdenum, selenium, and thallium. Therefore, statistics were not required for beryllium, cadmium, and mercury since they were not detected.

Time series plots for Appendix III and IV parameters at all wells are provided for the purpose of screening data at these wells (Figure A). Additionally, a separate section of box plots is included for all constituents at upgradient and downgradient wells (Figure B). The time series plots are used to initially screen for suspected outliers and trends, while the box plots provide visual representation of variation within individual wells and between all wells. Values in background which have been flagged as outliers may be seen in a lighter font and as a disconnected symbol on the graphs. A summary of flagged outliers follows this report (Figure C).

In earlier analyses, data at all wells were evaluated for the following: 1) outliers; 2) trends; 3) most appropriate statistical method for Appendix III parameters based on site characteristics of groundwater data upgradient of the facility; and 4) eligibility of downgradient wells when intrawell statistical methods are recommended. Power curves were provided with the previous screening to demonstrate that the selected statistical methods for Appendix III parameters comply with the USEPA Unified Guidance. The EPA suggests the selected statistical method should provide at least 55% power at 3 standard deviations or at least 80% power at 4 standard deviations.

Summary of Statistical Methods – Appendix III Parameters:

Based on the earlier evaluation described above, the following method was selected:

- Interwell prediction limits, combined with a 1-of-2 resample plan for boron, calcium, chloride, fluoride, pH, sulfate, and TDS

Parametric prediction limits are utilized when the screened historical data follow a normal or transformed-normal distribution. When data cannot be normalized or the majority of data are nondetects, a nonparametric test is utilized. While the false positive rate associated with the parametric limits is based on an annual 10% (5% per semi-annual event) as recommended by the EPA Unified Guidance (2009), the false positive rate associated with the nonparametric limits is dependent upon the available background sample size, number of future comparisons, and verification resample plan. The distribution of data is tested using the Shapiro-Wilk/Shapiro-Francia test for normality. After testing for normality and performing any adjustments as discussed below (US EPA, 2009), data are analyzed using either parametric or non-parametric prediction limits.

- No statistical analyses are required on wells and analytes containing 100% nondetects (USEPA Unified Guidance, 2009, Chapter 6).
- When data contain <15% nondetects in background, simple substitution of one-half the reporting limit is utilized in the statistical analysis. The reporting limit utilized for nondetects is the practical quantification limit (PQL) as reported by the laboratory.
- When data contain between 15-50% nondetects, the Kaplan-Meier nondetect adjustment is applied to the background data. This technique adjusts the mean and standard deviation of the historical concentrations to account for concentrations below the reporting limit.
- Nonparametric prediction limits are used on data containing greater than 50% nondetects.

Natural systems continuously evolve due to physical changes made to the environment. Examples include capping a landfill, paving areas near a well, or lining a drainage channel to prevent erosion. Periodic updating of background statistical limits is necessary to accommodate these types of changes. In the interwell case, prediction limits are updated with upgradient well data during each event after careful screening for any new outliers. In the intrawell case, data for all wells and constituents may be re-evaluated when a minimum of 4 new data points are available to determine whether earlier concentrations are representative of present-day groundwater quality. In some cases, the earlier portion of data are deselected prior to construction of limits to provide sensitive limits that will

rapidly detect changes in groundwater quality. Even though the data are excluded from the calculation, the values will continue to be reported and shown in tables and graphs.

Background Screening – Conducted in March 2019

Outlier and Trend Testing

Time series plots are used to identify suspected outliers, or extreme values that would result in limits that are not conservative from a regulatory perspective, in proposed background data. Suspected outliers at all wells for Appendix III and Appendix IV parameters are formally tested using Tukey's box plot method and, when identified, flagged in the computer database with "o" and deselected prior to construction of statistical limits.

Using the Tukey box plot method, several outliers were identified and the reports were submitted with the screening. In cases where the most recent value was identified as an outlier, values were not flagged in the database at that time as they may represent a future trend. If future values do not remain at similar concentrations, these values will be flagged as outliers and deselected. Several low values exist in the data sets and appear on the graphs as possible low outliers relative to the laboratory's Practical Quantitation Limit. However, these values are observed trace values (i.e. measurements reported by the laboratory between the Method Detection Limit and the Practical Quantitation Limit) and, therefore, were not flagged as outliers.

Of the outliers identified by Tukey's method, only a few of these values were flagged in the database as all other values are similar to remaining measurements within a given well or neighboring wells or were nondetects.

When any values are flagged in the database as outliers, they are plotted in a disconnected and lighter symbol on the time series graph. The accompanying data pages display the flagged value in a lighter font as well. A substitution of the most recent reporting limit was applied when varying detection limits existed in data.

No obvious seasonal patterns were observed on the time series plots for any of the detected data; therefore, no deseasonalizing adjustments were made to the data. When seasonal patterns are observed, data may be deseasonalized so that the resulting limits will correctly account for the seasonality as a predictable pattern rather than random variation or a release.

While trends may be visual, a quantification of the trend and its significance is needed. The Sen's Slope/Mann Kendall trend test was used to evaluate all data at each well to identify statistically significant increasing or decreasing trends, and the reports were submitted with the screening. In the absence of suspected contamination, significant trending data are typically not included as part of the background data used for construction of prediction limits. This step serves to eliminate the trend and, thus, reduce variation in background. When statistically significant decreasing trends are present, earlier data are evaluated to determine whether earlier concentration levels are significantly different than current reported concentrations and will be deselected as necessary. When the historical records of data are truncated for the reasons above, a summary report will be provided to show the date ranges used in construction of the statistical limits.

The results of the trend analyses were included with the previous screening and showed one statistically significant decreasing trend for chloride at well PZ-25. This trend was relatively low in magnitude when compared to average concentrations; therefore, no adjustments were made to the data sets.

Appendix III – Determination of Spatial Variation

The Analysis of Variance (ANOVA) was used to statistically evaluate differences in average concentrations among upgradient wells, which assists in identifying the most appropriate statistical approach. Interwell tests, which compare downgradient well data to statistical limits constructed from pooled upgradient well data, are appropriate when average concentrations are similar across upgradient wells. Intrawell tests, which compare compliance data from a single well to screened historical data within the same well, are appropriate when upgradient wells exhibit spatial variation; when statistical limits constructed from upgradient wells would not be conservative from a regulatory perspective; and when downgradient water quality is unimpacted compared to upgradient water quality for the same parameter.

The ANOVA identified no variation among upgradient well data for boron and fluoride, making these constituents eligible for interwell analyses. Variation was noted for calcium, chloride, pH, sulfate and TDS. While data were further tested for intrawell eligibility during the screening, interwell methods will be used for all Appendix III constituents in accordance with Georgia EPD requirements.

Statistical Analysis of Appendix III Parameters – March 2020 Sample Event

Interwell prediction limits, combined with a 1-of-2 resample plan, were constructed using all historical upgradient well data through March 2020 (Figure D). Interwell prediction limits pool upgradient well data to establish a background limit for an individual constituent. The most recent sample from each downgradient well is compared to the background limit to determine whether there are statistically significant increases (SSIs).

In the event of an initial exceedance of compliance well data, the 1-of-2 resample plan allows for collection of one additional sample to determine whether the initial exceedance is confirmed. When a resample confirms the initial exceedance, a statistically significant increase is identified and further research would be required to identify the cause of the exceedance (i.e. impact from the site, natural variation, or an off-site source). If the resample falls within the statistical limit, the initial exceedance is considered to be a false positive result and, therefore, no exceedance is noted and no further action is necessary. If no resample is collected, the original result is considered a confirmed exceedance. Several prediction limit exceedances were noted for Appendix III parameters. A summary table of the interwell prediction limits follows this letter.

When prediction limit exceedances are identified in downgradient wells, data are further evaluated using the Sen's Slope/Mann Kendall trend test to determine whether concentrations are statistically increasing, decreasing, or stable (Figure E). Upgradient wells are included in the trend analyses for all parameters found to exceed their prediction limit in downgradient wells to identify whether similar patterns exist upgradient of the site which is an indication of natural variability in groundwater unrelated to practices at the site. Statistically significant increasing trends were noted for calcium in downgradient wells PZ-18 and PZ-7D; and for sulfate in downgradient wells PZ-14 and PZ-23A. Statistically significant decreasing trends were noted for chloride in downgradient wells PZ-19 and PZ-7D; and for sulfate in downgradient well PZ-33. A summary of the trend test results follows this letter.

Statistical Analysis of Appendix IV Parameters – March 2020 Sample Event

Interwell tolerance limits were used to calculate the site-specific background limits from pooled upgradient well data for the Appendix IV constituents discussed above (Figure F). Parametric tolerance limits are used when data follow a normal or transformed-normal distribution such as for barium and combined radium 226 + 228. When data contained greater than 50% nondetects or did not follow a normal or transformed-normal distribution, non-parametric tolerance limits were used. The background limits were then

used when determining the groundwater protection standard (GWPS) under 40 CFR §257.95(h) and Georgia EPD Rule 391-3-4-.10(6)(a) (Figure G).

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

- The maximum contaminant level (MCL) established under §141.62 and §141.66 of this title
- Where an MCL has not been established for a constituent, CCR-rule specified level have been specified for cobalt (0.006 mg/L), lead (0.015 mg/L), lithium (0.040 mg/L), and molybdenum (0.100 mg/L)
- The respective background level for a constituent when the background level is higher than the MCL or Federal CCR Rule identified GWPS

On July 30, 2018, USEPA revised the Federal CCR rule updating GWPS for cobalt, lead, lithium, and molybdenum as described above in 40 CFR §257.95(h)(2). Georgia EPD has not incorporated the updated GWPS into the current Georgia EPD Rules for Solid Waste Management 391-3-4-.10(6)(a); therefore, for sites regulated under Georgia EPD Rules, the GWPS is:

- The MCL or
- The background concentration when an MCL is not established or when the background concentration is higher than the MCL.

Following the above Georgia EPD Rule requirements, GWPS were established for statistical comparison of Appendix IV constituents for the March 2020 sample event. To complete the statistical comparison to GWPS, confidence intervals were constructed for each of the Appendix IV constituents in each downgradient well (Figure H). The Sanitas software was used to calculate the tolerance limits and the confidence intervals. Those confidence intervals were compared to the GWPS established using the Georgia EPD Rules 391-3-4-.10(6)(a). Only when the entire confidence interval is above a GWPS is the downgradient well/constituent pair considered to exceed its respective standard. If there is an exceedance of the GWPS, a statistically significant level (SSL) exceedance is identified. No exceedances were noted for any of the Appendix IV parameters and a summary of the confidence intervals follows this letter.

Thank you for the opportunity to assist you in the statistical analysis of groundwater quality for Plant Mitchell Ash Pond. If you have any questions or comments, please feel free to contact us.

For Groundwater Stats Consulting,



Andrew T. Collins
Groundwater Analyst



Kristina L. Rayner
Groundwater Statistician

100% Nondetect Well-Constituent Pairs

Date: 4/28/2020 4:16 PM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Antimony (mg/L)

PZ-16, PZ-23A, PZ-25, PZ-32, PZ-33

Arsenic (mg/L)

PZ-16, PZ-18, PZ-1D, PZ-31, PZ-7D

Beryllium (mg/L)

PZ-14, PZ-15, PZ-16, PZ-17, PZ-18, PZ-19, PZ-23A, PZ-25, PZ-31, PZ-32, PZ-33, PZ-7D

Cadmium (mg/L)

PZ-14, PZ-15, PZ-16, PZ-17, PZ-18, PZ-19, PZ-1D, PZ-25, PZ-2D, PZ-31, PZ-32, PZ-7D

Chromium (mg/L)

PZ-15, PZ-17, PZ-25

Cobalt (mg/L)

PZ-1D, PZ-2D, PZ-7D

Lead (mg/L)

PZ-14, PZ-17, PZ-19, PZ-25, PZ-7D

Lithium (mg/L)

PZ-16, PZ-1D, PZ-31, PZ-32, PZ-33

Mercury (mg/L)

PZ-1D, PZ-31, PZ-32

Molybdenum (mg/L)

PZ-18, PZ-2D, PZ-32, PZ-33, PZ-7D

Selenium (mg/L)

PZ-15, PZ-16, PZ-17, PZ-18, PZ-1D, PZ-25, PZ-2D, PZ-31, PZ-32, PZ-33

Thallium (mg/L)

PZ-1D

Outlier Summary

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/27/2020, 3:14 PM

	PZ-33 Barium (mg/L)	PZ-1D Calcium (mg/L)	PZ-33 pH (SU)	PZ-33 TDS (mg/L)
12/8/2016	0.162 (o)			503 (o)
7/11/2017			7.82 (o)	
7/11/2018		65.3 (o)		

Interwell Prediction Limits Summary Table - Significant Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq	N	Bq	Mean	Std. Dev.	%NDs	ND Adj.	Alpha	Method
Boron (mg/L)	PZ-15	0.0274	n/a	3/26/2020	0.21	Yes	44	-4.335	0.3594	4.545	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-16	0.0274	n/a	3/26/2020	0.19	Yes	44	-4.335	0.3594	4.545	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-17	0.0274	n/a	3/25/2020	0.33	Yes	44	-4.335	0.3594	4.545	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-18	0.0274	n/a	3/26/2020	0.36	Yes	44	-4.335	0.3594	4.545	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-19	0.0274	n/a	3/26/2020	0.6	Yes	44	-4.335	0.3594	4.545	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-23A	0.0274	n/a	3/25/2020	0.19	Yes	44	-4.335	0.3594	4.545	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-25	0.0274	n/a	3/25/2020	0.21	Yes	44	-4.335	0.3594	4.545	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-33	0.0274	n/a	3/26/2020	0.38	Yes	44	-4.335	0.3594	4.545	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-7D	0.0274	n/a	3/26/2020	0.24	Yes	44	-4.335	0.3594	4.545	4.545	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-17	107.4	n/a	3/25/2020	121	Yes	43	54.51	25.72	2.326	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-18	107.4	n/a	3/26/2020	138	Yes	43	54.51	25.72	2.326	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-19	107.4	n/a	3/26/2020	158	Yes	43	54.51	25.72	2.326	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-23A	107.4	n/a	3/25/2020	157	Yes	43	54.51	25.72	2.326	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-33	107.4	n/a	3/26/2020	122	Yes	43	54.51	25.72	2.326	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-7D	107.4	n/a	3/26/2020	122	Yes	43	54.51	25.72	2.326	2.326	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-15	4.77	n/a	3/26/2020	7	Yes	44	1.781	0.1964	0	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-16	4.77	n/a	3/26/2020	7	Yes	44	1.781	0.1964	0	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-17	4.77	n/a	3/25/2020	6.1	Yes	44	1.781	0.1964	0	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-18	4.77	n/a	3/26/2020	5.7	Yes	44	1.781	0.1964	0	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-19	4.77	n/a	3/26/2020	5.4	Yes	44	1.781	0.1964	0	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-23A	4.77	n/a	3/25/2020	6.4	Yes	44	1.781	0.1964	0	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-7D	4.77	n/a	3/26/2020	4.8	Yes	44	1.781	0.1964	0	0	None	0.0007523	Param Inter 1 of 2	
pH (SU)	PZ-17	9.48	6.96	3/25/2020	6.93	Yes	40	n/a	n/a	0	n/a	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-19	9.48	6.96	3/26/2020	6.7	Yes	40	n/a	n/a	0	n/a	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-23A	9.48	6.96	3/25/2020	6.84	Yes	40	n/a	n/a	0	n/a	n/a	0.002217	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-14	6.4	n/a	3/25/2020	11.9	Yes	44	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-15	6.4	n/a	3/26/2020	83.6	Yes	44	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-16	6.4	n/a	3/26/2020	43.5	Yes	44	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-17	6.4	n/a	3/25/2020	92.4	Yes	44	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-18	6.4	n/a	3/26/2020	91	Yes	44	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-19	6.4	n/a	3/26/2020	84.9	Yes	44	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-23A	6.4	n/a	3/25/2020	47	Yes	44	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-25	6.4	n/a	3/25/2020	39.1	Yes	44	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-33	6.4	n/a	3/26/2020	66.6	Yes	44	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-7D	6.4	n/a	3/26/2020	57.1	Yes	44	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
TDS (mg/L)	PZ-14	317	n/a	3/25/2020	330	Yes	44	174.4	69.49	0	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-15	317	n/a	3/26/2020	330	Yes	44	174.4	69.49	0	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-17	317	n/a	3/25/2020	408	Yes	44	174.4	69.49	0	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-18	317	n/a	3/26/2020	415	Yes	44	174.4	69.49	0	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-19	317	n/a	3/26/2020	440	Yes	44	174.4	69.49	0	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-23A	317	n/a	3/25/2020	454	Yes	44	174.4	69.49	0	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-33	317	n/a	3/26/2020	336	Yes	44	174.4	69.49	0	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-7D	317	n/a	3/26/2020	332	Yes	44	174.4	69.49	0	0	None	0.0007523	Param Inter 1 of 2	

Interwell Prediction Limits Summary Table - All Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bq	N Bq	Bq Mean	Std. Dev.	%NDs	ND Adj.	Alpha	Method
Boron (mg/L)	PZ-14	0.0274	n/a	3/25/2020	0.027	No	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-15	0.0274	n/a	3/26/2020	0.21	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-16	0.0274	n/a	3/26/2020	0.19	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-17	0.0274	n/a	3/25/2020	0.33	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-18	0.0274	n/a	3/26/2020	0.36	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-19	0.0274	n/a	3/26/2020	0.6	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-23A	0.0274	n/a	3/25/2020	0.19	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-25	0.0274	n/a	3/25/2020	0.21	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-33	0.0274	n/a	3/26/2020	0.38	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-7D	0.0274	n/a	3/26/2020	0.24	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-14	107.4	n/a	3/25/2020	105	No	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-15	107.4	n/a	3/26/2020	103	No	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-16	107.4	n/a	3/26/2020	89.8	No	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-17	107.4	n/a	3/25/2020	121	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-18	107.4	n/a	3/26/2020	138	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-19	107.4	n/a	3/26/2020	158	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-23A	107.4	n/a	3/25/2020	157	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-25	107.4	n/a	3/25/2020	97.5	No	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-33	107.4	n/a	3/26/2020	122	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-7D	107.4	n/a	3/26/2020	122	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-14	4.77	n/a	3/25/2020	4.2	No	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-15	4.77	n/a	3/26/2020	7	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-16	4.77	n/a	3/26/2020	7	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-17	4.77	n/a	3/25/2020	6.1	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-18	4.77	n/a	3/26/2020	5.7	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-19	4.77	n/a	3/26/2020	5.4	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-23A	4.77	n/a	3/25/2020	6.4	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-25	4.77	n/a	3/25/2020	1.6	No	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-33	4.77	n/a	3/26/2020	2.9	No	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-7D	4.77	n/a	3/26/2020	4.8	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Fluoride (mg/L)	PZ-14	0.3	n/a	3/25/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-15	0.3	n/a	3/26/2020	0.056	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-16	0.3	n/a	3/26/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-17	0.3	n/a	3/25/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-18	0.3	n/a	3/26/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-19	0.3	n/a	3/26/2020	0.077	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-23A	0.3	n/a	3/25/2020	0.066	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-25	0.3	n/a	3/25/2020	0.13	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-33	0.3	n/a	3/26/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-7D	0.3	n/a	3/26/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
pH (SU)	PZ-14	9.48	6.96	3/25/2020	7.02	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-15	9.48	6.96	3/26/2020	7.08	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-16	9.48	6.96	3/26/2020	7.12	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-17	9.48	6.96	3/25/2020	6.93	Yes	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-18	9.48	6.96	3/26/2020	7.01	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-19	9.48	6.96	3/26/2020	6.7	Yes	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-23A	9.48	6.96	3/25/2020	6.84	Yes	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-25	9.48	6.96	3/25/2020	7.01	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-33	9.48	6.96	3/26/2020	7	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-7D	9.48	6.96	3/26/2020	7.12	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-14	6.4	n/a	3/25/2020	11.9	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-15	6.4	n/a	3/26/2020	83.6	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-16	6.4	n/a	3/26/2020	43.5	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-17	6.4	n/a	3/25/2020	92.4	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-18	6.4	n/a	3/26/2020	91	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	

Interwell Prediction Limits Summary Table - All Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N	Bg	Mean	Std. Dev.	%NDs	ND Adj.	Alpha	Method
Sulfate (mg/L)	PZ-19	6.4	n/a	3/26/2020	84.9	Yes	44	n/a	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2
Sulfate (mg/L)	PZ-23A	6.4	n/a	3/25/2020	47	Yes	44	n/a	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2
Sulfate (mg/L)	PZ-25	6.4	n/a	3/25/2020	39.1	Yes	44	n/a	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2
Sulfate (mg/L)	PZ-33	6.4	n/a	3/26/2020	66.6	Yes	44	n/a	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2
Sulfate (mg/L)	PZ-7D	6.4	n/a	3/26/2020	57.1	Yes	44	n/a	n/a	n/a	0	0	n/a	0.0009571	NP Inter (normality) 1 of 2
TDS (mg/L)	PZ-14	317	n/a	3/25/2020	330	Yes	44	174.4	69.49	69.49	0	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-15	317	n/a	3/26/2020	330	Yes	44	174.4	69.49	69.49	0	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-16	317	n/a	3/26/2020	286	No	44	174.4	69.49	69.49	0	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-17	317	n/a	3/25/2020	408	Yes	44	174.4	69.49	69.49	0	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-18	317	n/a	3/26/2020	415	Yes	44	174.4	69.49	69.49	0	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-19	317	n/a	3/26/2020	440	Yes	44	174.4	69.49	69.49	0	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-23A	317	n/a	3/25/2020	454	Yes	44	174.4	69.49	69.49	0	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-25	317	n/a	3/25/2020	280	No	44	174.4	69.49	69.49	0	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-33	317	n/a	3/26/2020	336	Yes	44	174.4	69.49	69.49	0	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-7D	317	n/a	3/26/2020	332	Yes	44	174.4	69.49	69.49	0	0	None	0.0007523	Param Inter 1 of 2

Interwell Parameters Trend Tests - PL Exceedances - Significant Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
Calcium (mg/L)	PZ-18	6.257	36	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-7D	6.314	39	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-19	-0.3547	-38	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-7D	-0.5264	-37	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-14	1.801	38	34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-23A	5.318	47	34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-33	-9.928	-43	-34	Yes	11	0	n/a	n/a	0.01	NP

Interwell Parameters Trend Tests - PL Exceedances - All Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:14 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	PZ-15	-0.001402	-3	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-16	0.005149	12	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-17	0.009605	16	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-18	0	3	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-19	0	0	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-1D (bg)	-0.0001349	-6	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-23A	0.00215	4	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-25	0	1	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-2D (bg)	-0.001174	-12	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-31 (bg)	-0.001967	-21	-34	No	11	9.091	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-32 (bg)	-0.001365	-10	-34	No	11	9.091	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-33	-0.005599	-17	-43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-7D	-0.03718	-30	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-17	4.888	28	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-18	6.257	36	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-19	3.141	11	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-1D (bg)	1.295	17	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-23A	6.65	25	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-2D (bg)	6.396	21	34	No	11	9.091	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-31 (bg)	1.695	22	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-32 (bg)	2.068	21	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-33	0	-1	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-7D	6.314	39	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-15	0	4	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-16	-0.1986	-21	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-17	0.04345	4	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-18	-0.1033	-21	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-19	-0.3547	-38	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-1D (bg)	-0.04345	-9	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-23A	-0.1159	-13	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-2D (bg)	0	2	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-31 (bg)	-0.4562	-34	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-32 (bg)	-0.2327	-24	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-7D	-0.5264	-37	-34	Yes	11	0	n/a	n/a	0.01	NP
pH (SU)	PZ-17	-0.02417	-19	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	PZ-19	0.02514	11	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	PZ-1D (bg)	-0.02483	-6	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	PZ-23A	0.0338	15	34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	PZ-2D (bg)	-0.191	-3	-14	No	6	0	n/a	n/a	0.01	NP
pH (SU)	PZ-31 (bg)	0	-1	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	PZ-32 (bg)	-0.0137	-15	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-14	1.801	38	34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-15	3.476	33	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-16	-1.555	-21	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-17	0.3042	4	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-18	2.479	8	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-19	-0.6838	-10	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-1D (bg)	0.1534	26	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-23A	5.318	47	34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-25	-3.578	-31	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-2D (bg)	-0.8488	-16	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-31 (bg)	-1.437	-32	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-32 (bg)	0.0953	15	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-33	-9.928	-43	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-7D	-0.5524	-2	-34	No	11	0	n/a	n/a	0.01	NP

Interwell Parameters Trend Tests - PL Exceedances - All Results Page 2

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<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
TDS (mg/L)	PZ-14	2.48	1	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-15	21.13	30	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-17	-4.78	-6	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-18	-1.7	-4	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-19	-20.73	-23	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-1D (bg)	10.86	23	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-23A	16.26	33	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-2D (bg)	24.24	27	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-31 (bg)	1.184	2	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-32 (bg)	5.911	12	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-33	-6.32	-4	-30	No	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-7D	-9.922	-13	-34	No	11	0	n/a	n/a	0.01	NP

Tolerance Limit Summary Table

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/27/2020, 2:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	PZ-14	0.0035	n/a	3/25/2020	<0.003	No	40	n/a	n/a	57.5	n/a	n/a	0.1285	NP Inter(NDs)
Arsenic (mg/L)	PZ-14	0.005	n/a	3/25/2020	<0.005	No	40	n/a	n/a	85	n/a	n/a	0.1285	NP Inter(NDs)
Barium (mg/L)	PZ-14	0.06706	n/a	3/25/2020	0.021	No	40	-4.233	0.7198	2.5	None	ln(x)	0.05	Inter
Beryllium (mg/L)	PZ-14	0.003	n/a	9/12/2018	<0.003	No	32	n/a	n/a	93.75	n/a	n/a	0.1937	NP Inter(NDs)
Cadmium (mg/L)	PZ-14	0.001	n/a	9/12/2018	<0.001	No	32	n/a	n/a	100	n/a	n/a	0.1937	NP Inter(NDs)
Chromium (mg/L)	PZ-14	0.011	n/a	3/25/2020	0.0013	No	40	n/a	n/a	30	n/a	n/a	0.1285	NP Inter(normality)
Cobalt (mg/L)	PZ-14	0.005	n/a	3/25/2020	<0.005	No	40	n/a	n/a	95	n/a	n/a	0.1285	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	PZ-14	1.906	n/a	3/25/2020	0.694	No	39	0.745	0.2978	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	PZ-14	0.3	n/a	3/25/2020	<0.3	No	44	n/a	n/a	36.36	n/a	n/a	0.1047	NP Inter(normality)
Lead (mg/L)	PZ-14	0.005	n/a	3/25/2020	<0.005	No	40	n/a	n/a	80	n/a	n/a	0.1285	NP Inter(NDs)
Lithium (mg/L)	PZ-14	0.03	n/a	3/25/2020	<0.03	No	40	n/a	n/a	82.5	n/a	n/a	0.1285	NP Inter(NDs)
Mercury (mg/L)	PZ-14	0.0005	n/a	9/12/2018	<0.0005	No	32	n/a	n/a	93.75	n/a	n/a	0.1937	NP Inter(NDs)
Molybdenum (mg/L)	PZ-14	0.01	n/a	3/25/2020	<0.01	No	40	n/a	n/a	82.5	n/a	n/a	0.1285	NP Inter(NDs)
Selenium (mg/L)	PZ-14	0.01	n/a	3/25/2020	<0.01	No	40	n/a	n/a	100	n/a	n/a	0.1285	NP Inter(NDs)
Thallium (mg/L)	PZ-14	0.001	n/a	3/25/2020	<0.001	No	40	n/a	n/a	85	n/a	n/a	0.1285	NP Inter(NDs)

Confidence Intervals - All Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/29/2020, 2:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig. N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	PZ-14	0.003	0.003	0.006	No 10	0.00274	0.0008222	90	None	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-15	0.003	0.003	0.006	No 10	0.0028	0.0006325	90	None	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-17	0.003	0.003	0.006	No 10	0.002794	0.0006514	90	None	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-18	0.003	0.003	0.006	No 10	0.00288	0.0003795	90	None	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-19	0.003	0.003	0.006	No 10	0.002744	0.0008095	90	None	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-7D	0.003	0.00042	0.006	No 10	0.002471	0.001116	80	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-14	0.005	0.005	0.01	No 10	0.004583	0.001319	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-15	0.005	0.00089	0.01	No 10	0.003759	0.002002	70	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-17	0.005	0.0007	0.01	No 10	0.003712	0.002074	70	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-19	0.005	0.005	0.01	No 10	0.00457	0.00136	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-23A	0.005	0.005	0.01	No 10	0.004536	0.001467	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-25	0.005	0.00071	0.01	No 10	0.003404	0.002079	60	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-33	0.005	0.00094	0.01	No 10	0.004164	0.001763	80	None	No	0.011	NP (NDs)
Barium (mg/L)	PZ-14	0.04126	0.01966	2	No 10	0.03059	0.01372	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	PZ-15	0.07946	0.04854	2	No 10	0.064	0.01733	0	None	No	0.01	Param.
Barium (mg/L)	PZ-16	0.0589	0.03664	2	No 10	0.04809	0.0145	0	None	ln(x)	0.01	Param.
Barium (mg/L)	PZ-17	0.08199	0.07307	2	No 10	0.07753	0.004999	0	None	No	0.01	Param.
Barium (mg/L)	PZ-18	0.0513	0.023	2	No 10	0.033	0.01588	0	None	No	0.011	NP (normality)
Barium (mg/L)	PZ-19	0.06138	0.0536	2	No 10	0.05749	0.004365	0	None	No	0.01	Param.
Barium (mg/L)	PZ-23A	0.05812	0.0369	2	No 10	0.04751	0.0119	0	None	No	0.01	Param.
Barium (mg/L)	PZ-25	0.1077	0.09846	2	No 10	0.1031	0.005177	0	None	No	0.01	Param.
Barium (mg/L)	PZ-33	0.07956	0.062	2	No 9	0.07078	0.009094	0	None	No	0.01	Param.
Barium (mg/L)	PZ-7D	0.01135	0.007668	2	No 10	0.00951	0.002065	0	None	No	0.01	Param.
Chromium (mg/L)	PZ-14	0.01	0.01	0.1	No 10	0.00913	0.002751	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-16	0.01	0.0008	0.1	No 10	0.007254	0.004426	70	None	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-18	0.01	0.01	0.1	No 10	0.009056	0.002985	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-19	0.01	0.01	0.1	No 10	0.009073	0.002931	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-23A	0.002763	0.001202	0.1	No 10	0.00443	0.003955	30	Kaplan-Meier	ln(x)	0.01	Param.
Chromium (mg/L)	PZ-33	0.01	0.01	0.1	No 10	0.00917	0.002625	90	Kaplan-Meier	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-7D	0.01	0.0005	0.1	No 10	0.0056	0.004698	50	None	No	0.011	NP (normality)
Cobalt (mg/L)	PZ-14	0.005	0.002	0.005	No 10	0.00423	0.001672	80	None	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-15	0.005	0.0004	0.005	No 10	0.0028	0.00233	50	None	No	0.011	NP (normality)
Cobalt (mg/L)	PZ-16	0.005	0.005	0.005	No 10	0.00455	0.001423	90	None	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-17	0.005	0.0005	0.005	No 10	0.002362	0.002279	40	None	No	0.011	NP (normality)
Cobalt (mg/L)	PZ-18	0.005	0.005	0.005	No 10	0.00461	0.001233	90	None	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-19	0.005	0.0012	0.005	No 10	0.00421	0.001667	80	None	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-23A	0.005	0.0008	0.005	No 10	0.00411	0.00188	80	None	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-25	0.0018	0.0008	0.005	No 10	0.001495	0.001284	10	None	No	0.011	NP (normality)
Cobalt (mg/L)	PZ-33	0.005	0.00053	0.005	No 10	0.002783	0.002172	40	None	No	0.011	NP (normality)
Combined Radium 226 + 228 (pCi/L)	PZ-14	1.349	0.387	5	No 10	0.8774	0.6046	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-15	1.218	0.5998	5	No 10	0.9124	0.3901	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-16	0.9929	0.3985	5	No 10	0.6957	0.3332	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-17	1.341	0.6641	5	No 9	1.003	0.3507	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-18	1.525	0.514	5	No 9	1.02	0.5236	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-19	1.601	0.7663	5	No 10	1.184	0.4678	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-23A	1.391	0.7162	5	No 10	1.054	0.378	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-25	1.358	0.8034	5	No 10	1.081	0.311	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-33	1.194	0.5921	5	No 10	0.8928	0.3371	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-7D	0.7284	0.1228	5	No 10	0.4338	0.4056	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	PZ-14	0.3	0.05	4	No 11	0.1778	0.1197	45.45	None	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-15	0.197	0.06736	4	No 11	0.1322	0.07779	9.091	None	No	0.01	Param.
Fluoride (mg/L)	PZ-16	0.3	0.04	4	No 11	0.1694	0.1262	45.45	None	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-17	0.1865	0.06896	4	No 11	0.1705	0.09621	18.18	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	PZ-18	0.1438	0.06382	4	No 11	0.1763	0.1064	36.36	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	PZ-19	0.188	0.07472	4	No 11	0.1686	0.1062	18.18	Kaplan-Meier	sqrt(x)	0.01	Param.

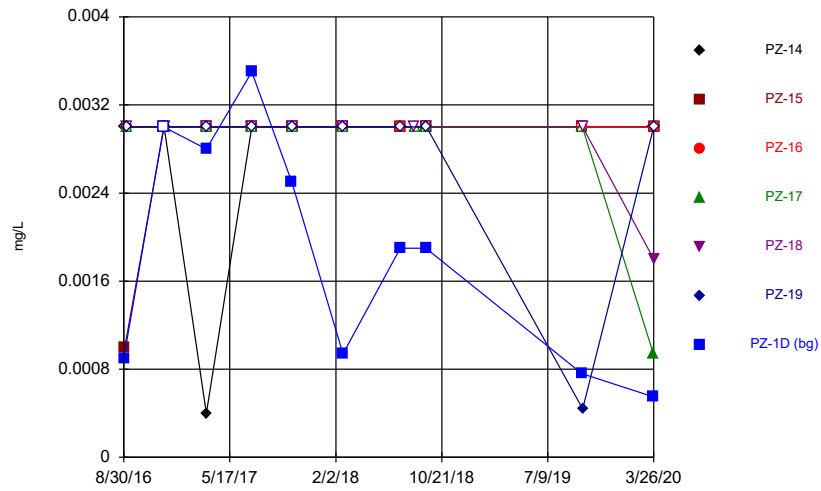
Confidence Intervals - All Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/29/2020, 2:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	PZ-23A	0.3	0.05	4	No	11	0.1821	0.1159	36.36	None	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-25	0.2859	0.1723	4	No	11	0.2291	0.06818	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-33	0.3	0.06	4	No	11	0.1999	0.1087	45.45	None	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-7D	0.3	0.041	4	No	11	0.1951	0.1249	54.55	None	No	0.006	NP (NDs)
Lead (mg/L)	PZ-15	0.005	0.005	0.005	No	10	0.004505	0.001565	90	None	No	0.011	NP (NDs)
Lead (mg/L)	PZ-16	0.005	0.005	0.005	No	10	0.004508	0.001556	90	None	No	0.011	NP (NDs)
Lead (mg/L)	PZ-18	0.005	0.005	0.005	No	10	0.004543	0.001445	90	None	No	0.011	NP (NDs)
Lead (mg/L)	PZ-23A	0.005	0.005	0.005	No	10	0.004515	0.001534	90	None	No	0.011	NP (NDs)
Lead (mg/L)	PZ-33	0.005	0.00009	0.005	No	10	0.004014	0.002079	80	None	No	0.011	NP (NDs)
Lithium (mg/L)	PZ-14	0.03	0.03	0.03	No	10	0.0273	0.008538	90	None	No	0.011	NP (NDs)
Lithium (mg/L)	PZ-15	0.03	0.0012	0.03	No	10	0.01563	0.01515	50	None	No	0.011	NP (normality)
Lithium (mg/L)	PZ-17	0.03	0.002	0.03	No	10	0.00789	0.01166	20	None	No	0.011	NP (normality)
Lithium (mg/L)	PZ-18	0.03	0.0024	0.03	No	10	0.00811	0.01154	20	None	No	0.011	NP (normality)
Lithium (mg/L)	PZ-19	0.01532	0.008877	0.03	No	10	0.0121	0.003612	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-23A	0.03	0.03	0.03	No	10	0.02711	0.009139	90	None	No	0.011	NP (NDs)
Lithium (mg/L)	PZ-25	0.006932	0.004808	0.03	No	10	0.00587	0.001191	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-7D	0.0038	0.0023	0.03	No	10	0.00564	0.008575	10	None	No	0.011	NP (normality)
Molybdenum (mg/L)	PZ-14	0.01	0.01	0.01	No	10	0.00905	0.003004	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-15	0.01	0.01	0.01	No	10	0.00904	0.003036	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-16	0.01	0.01	0.01	No	10	0.00904	0.003036	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-17	0.01	0.01	0.01	No	10	0.00904	0.003036	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-19	0.0027	0.0021	0.01	No	10	0.00307	0.002442	10	None	No	0.011	NP (normality)
Molybdenum (mg/L)	PZ-23A	0.01	0.0011	0.01	No	10	0.00817	0.00386	80	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-25	0.01	0.01	0.01	No	10	0.0091	0.002846	90	None	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-14	0.01	0.0015	0.05	No	10	0.00827	0.003648	80	None	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-19	0.01	0.0016	0.05	No	10	0.00765	0.003817	70	None	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-23A	0.01	0.0018	0.05	No	10	0.00762	0.003852	70	None	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-7D	0.01	0.01	0.05	No	10	0.00917	0.002625	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-14	0.001	0.001	0.002	No	10	0.000906	0.0002973	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-15	0.001	0.00016	0.002	No	10	0.00083	0.0003584	80	None	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-16	0.001	0.00017	0.002	No	10	0.0005003	0.0004322	40	None	No	0.011	NP (normality)
Thallium (mg/L)	PZ-17	0.001	0.0002	0.002	No	10	0.000836	0.0003459	80	None	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-18	0.001	0.00005	0.002	No	10	0.0007161	0.0004572	70	None	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-19	0.0007958	0.0003862	0.002	No	10	0.000591	0.0002296	10	None	No	0.01	Param.
Thallium (mg/L)	PZ-23A	0.0002469	0.0001296	0.002	No	10	0.000439	0.0003909	30	Kaplan-Meier	ln(x)	0.01	Param.
Thallium (mg/L)	PZ-25	0.001	0.00037	0.002	No	10	0.000861	0.0002946	80	Kaplan-Meier	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-33	0.001	0.0001	0.002	No	10	0.000563	0.0004613	50	None	No	0.011	NP (normality)
Thallium (mg/L)	PZ-7D	0.001	0.000085	0.002	No	10	0.0005563	0.0004689	50	None	No	0.011	NP (normality)

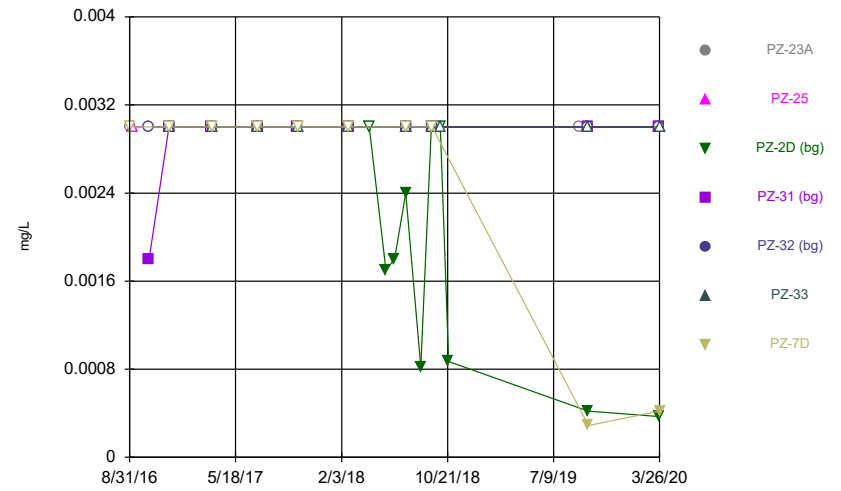
FIGURE A.

Time Series



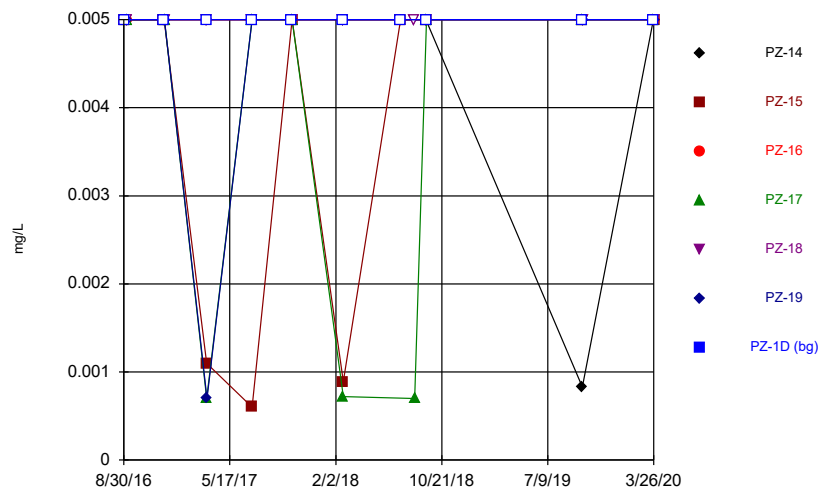
Constituent: Antimony Analysis Run 7/27/2020 10:16 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



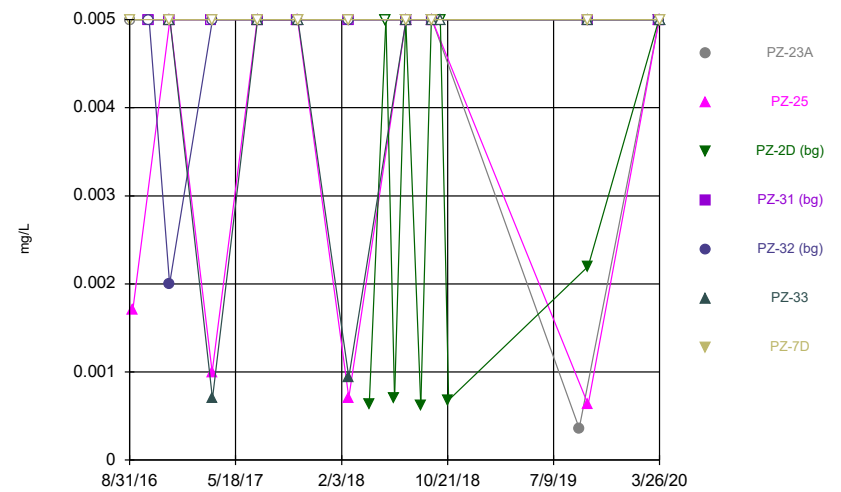
Constituent: Antimony Analysis Run 7/27/2020 10:16 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



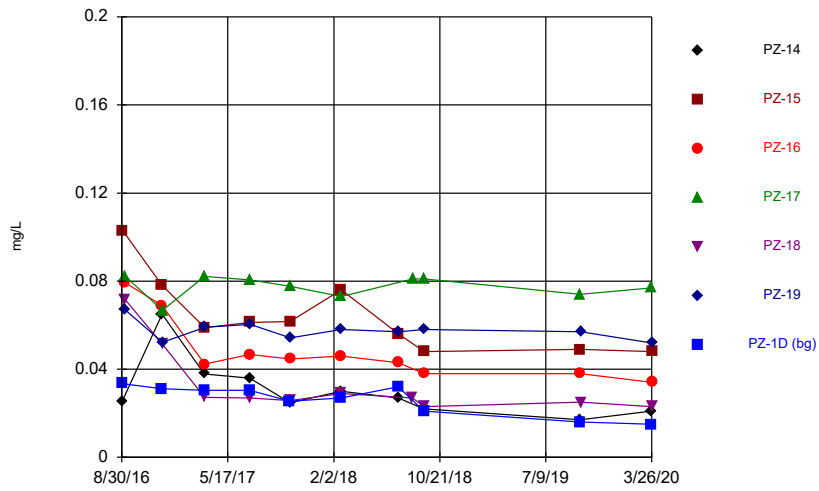
Constituent: Arsenic Analysis Run 7/27/2020 10:16 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



Constituent: Arsenic Analysis Run 7/27/2020 10:16 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

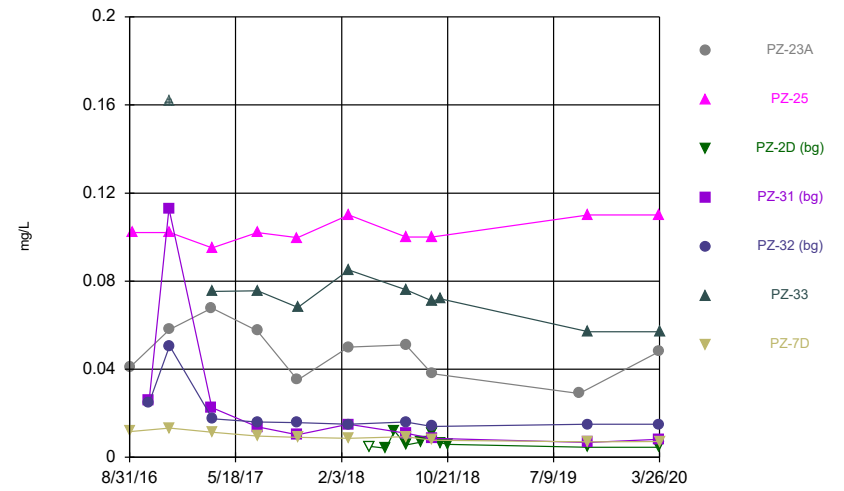
Time Series



Constituent: Barium Analysis Run 7/27/2020 10:16 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Hollow symbols indicate censored values.

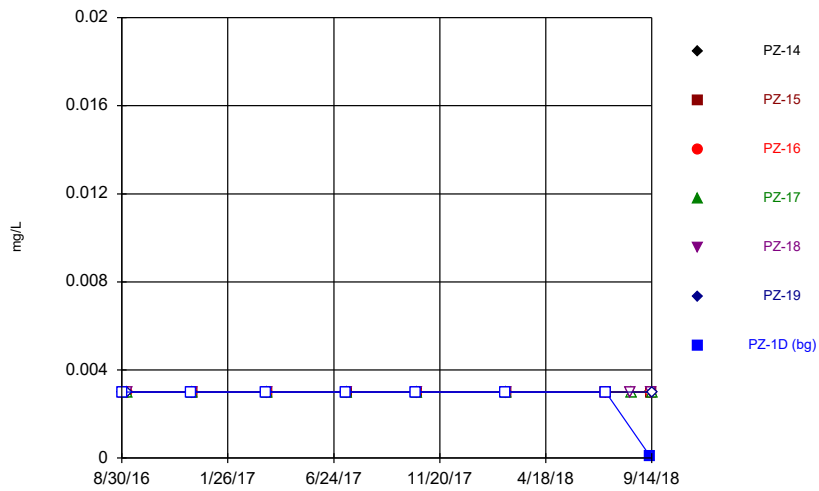
Time Series



Constituent: Barium Analysis Run 7/27/2020 10:16 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Hollow symbols indicate censored values.

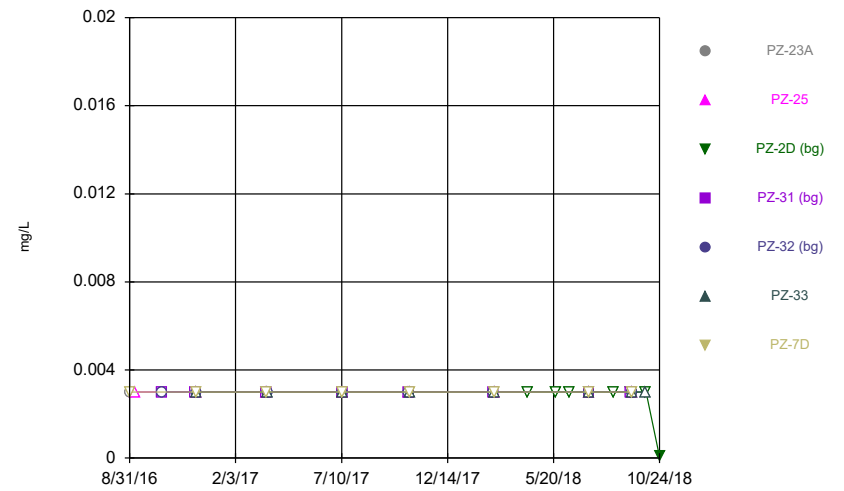
Time Series



Constituent: Beryllium Analysis Run 7/27/2020 10:16 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

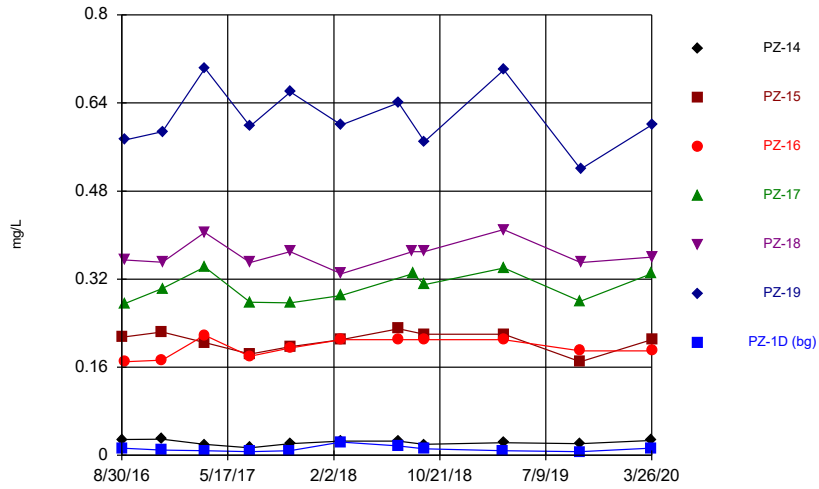
Hollow symbols indicate censored values.

Time Series



Constituent: Beryllium Analysis Run 7/27/2020 10:16 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

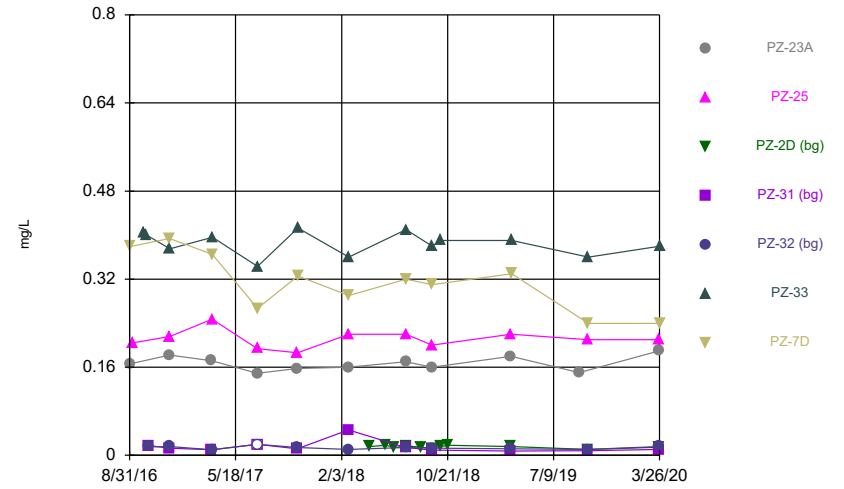
Time Series



Constituent: Boron Analysis Run 7/27/2020 10:16 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Hollow symbols indicate censored values.

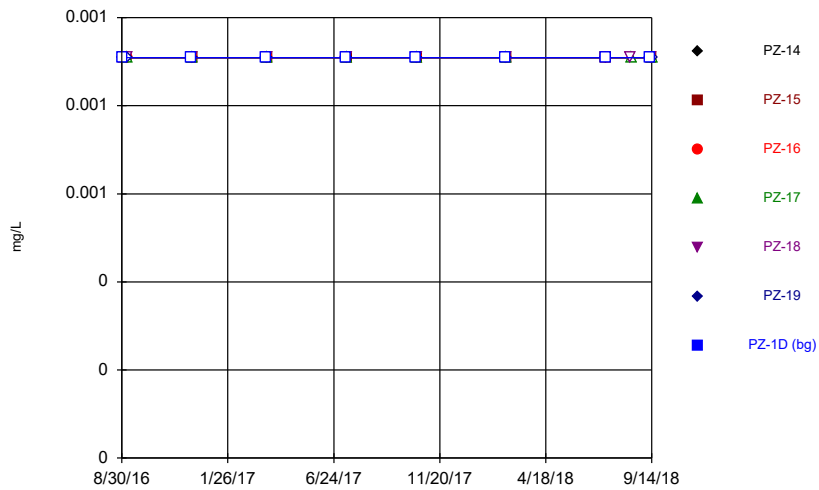
Time Series



Constituent: Boron Analysis Run 7/27/2020 10:16 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Hollow symbols indicate censored values.

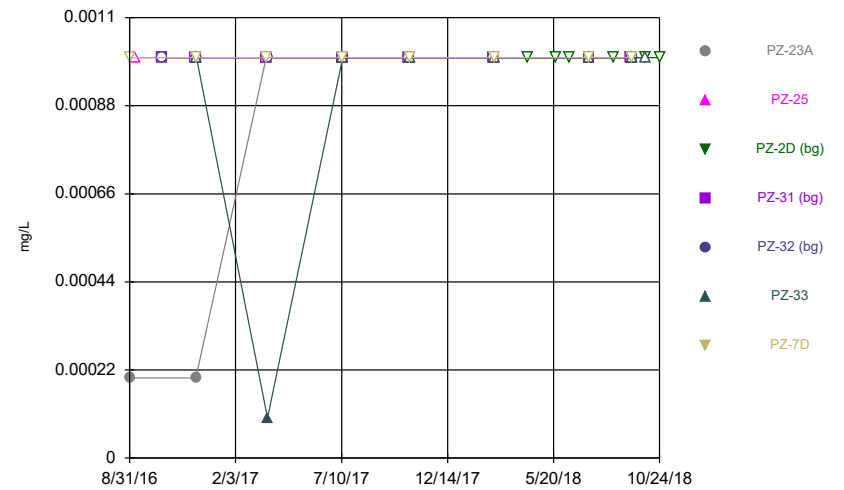
Time Series



Constituent: Cadmium Analysis Run 7/27/2020 10:16 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

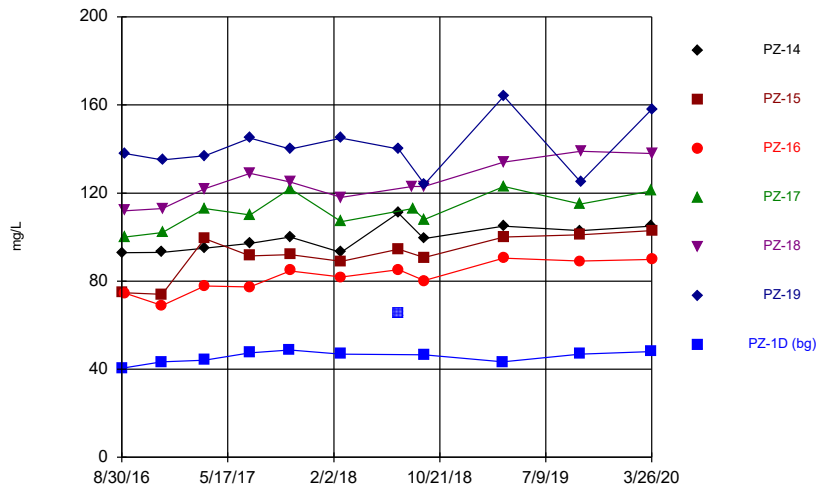
Hollow symbols indicate censored values.

Time Series



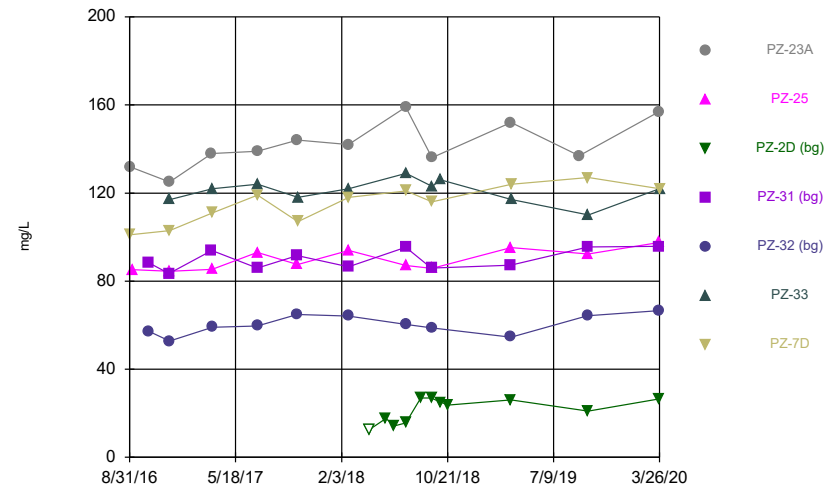
Constituent: Cadmium Analysis Run 7/27/2020 10:16 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



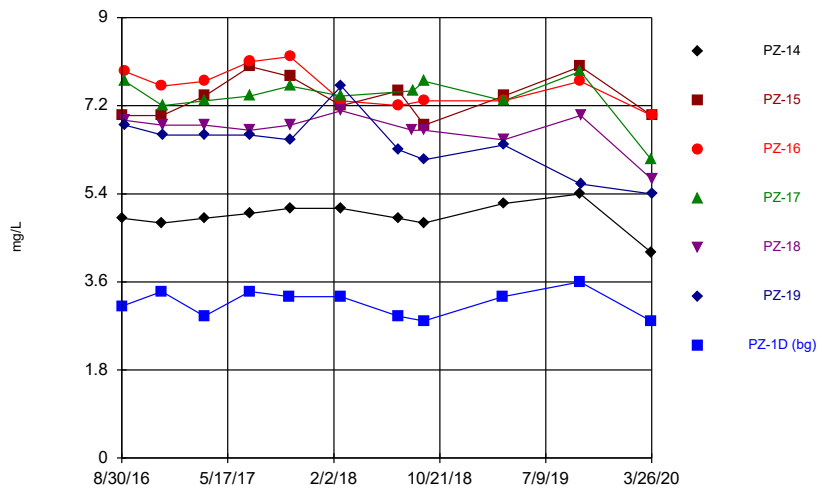
Constituent: Calcium Analysis Run 7/27/2020 10:16 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



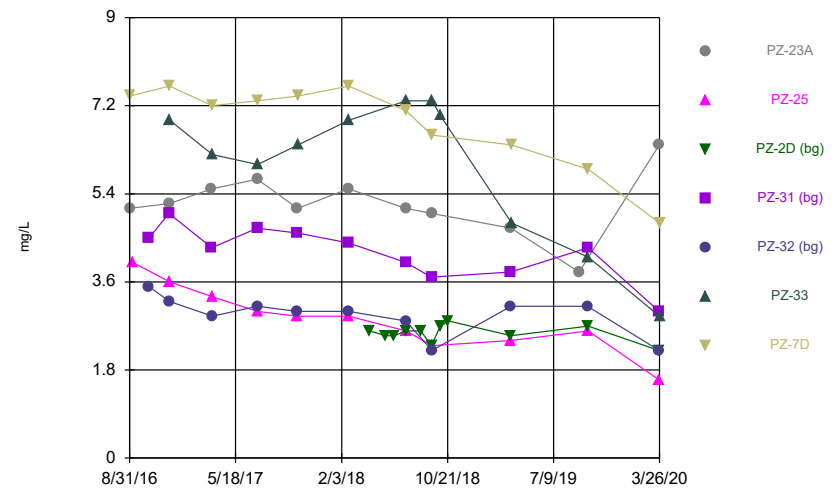
Constituent: Calcium Analysis Run 7/27/2020 10:16 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



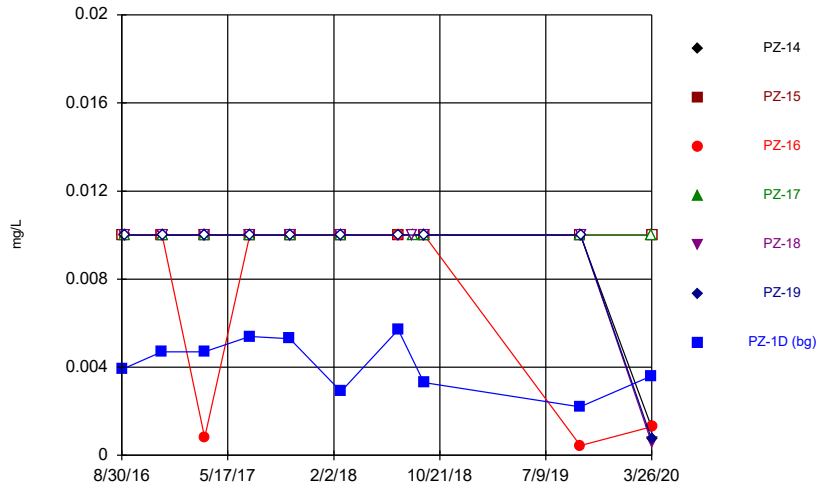
Constituent: Chloride Analysis Run 7/27/2020 10:16 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



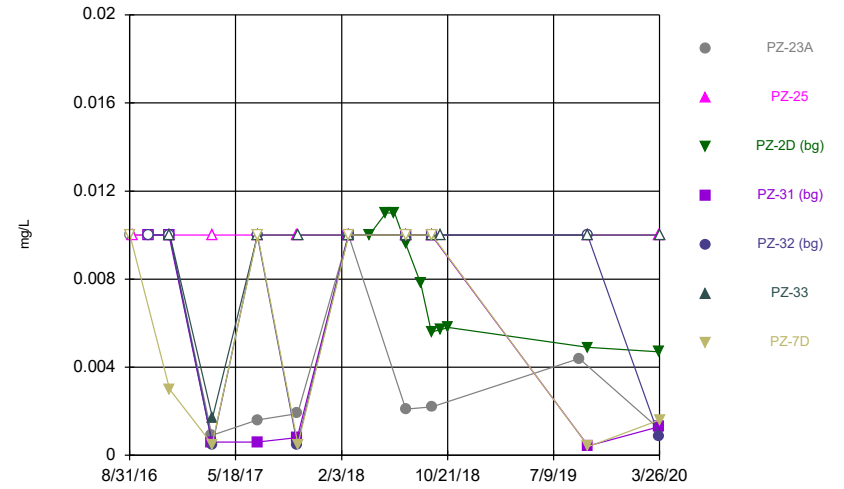
Constituent: Chloride Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



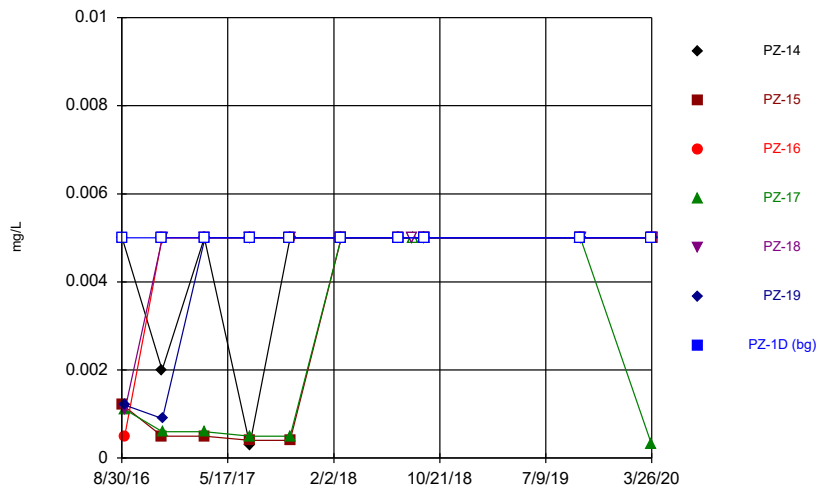
Constituent: Chromium Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



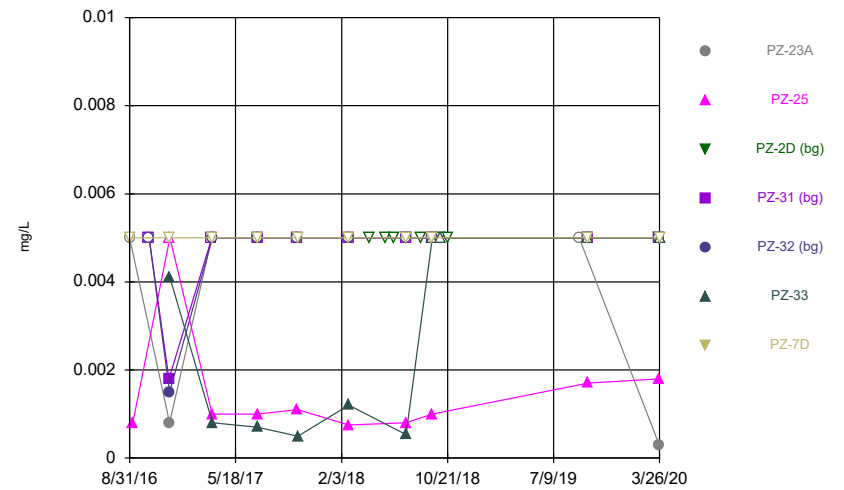
Constituent: Chromium Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



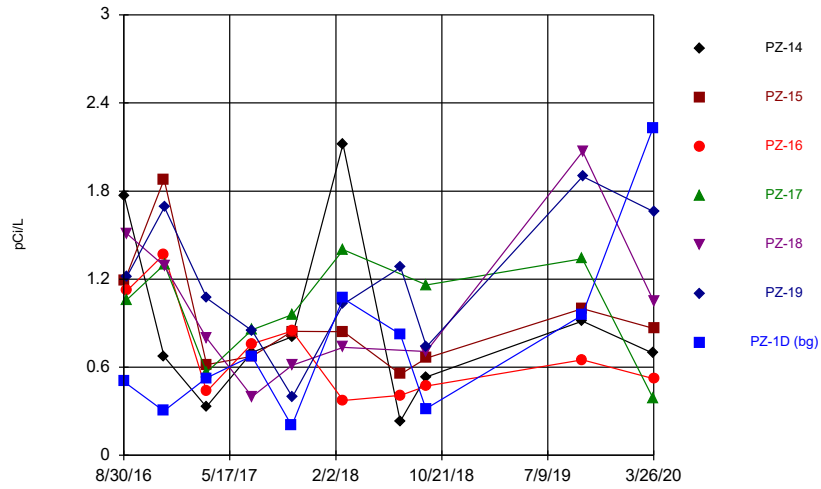
Constituent: Cobalt Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



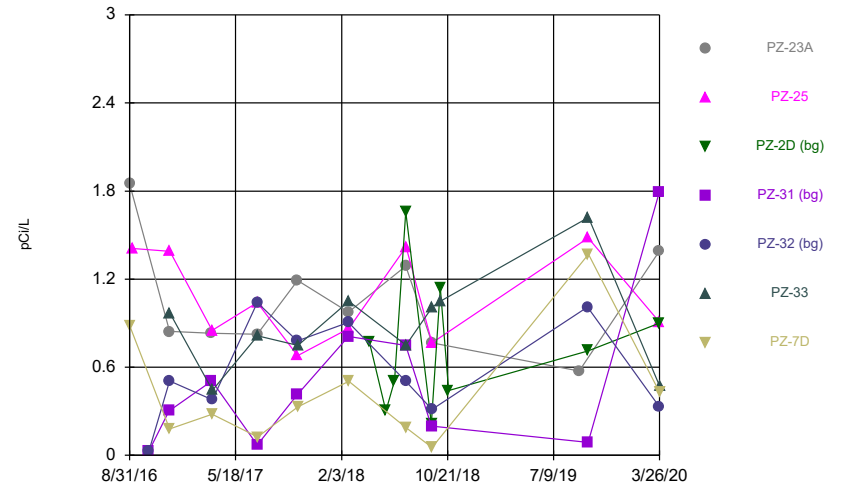
Constituent: Cobalt Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



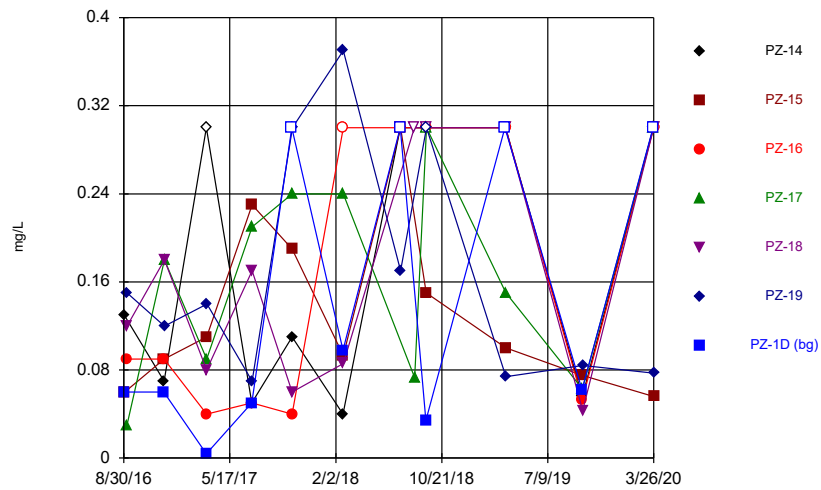
Constituent: Combined Radium 226 + 228 Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



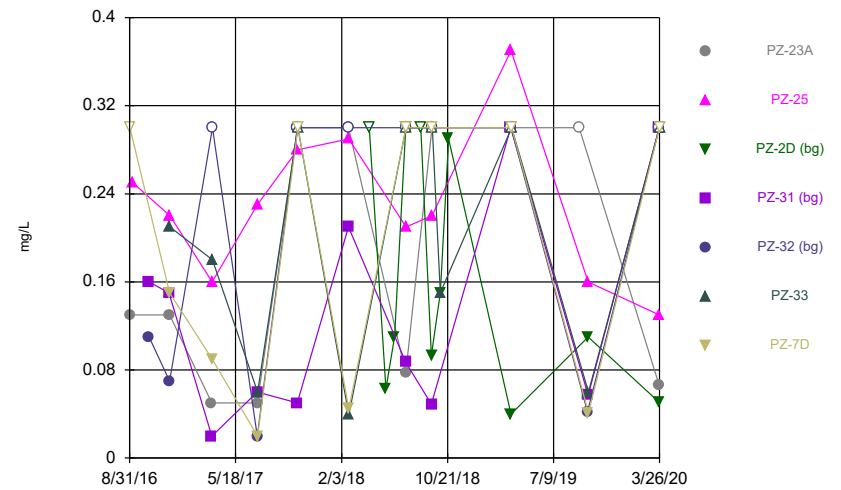
Constituent: Combined Radium 226 + 228 Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



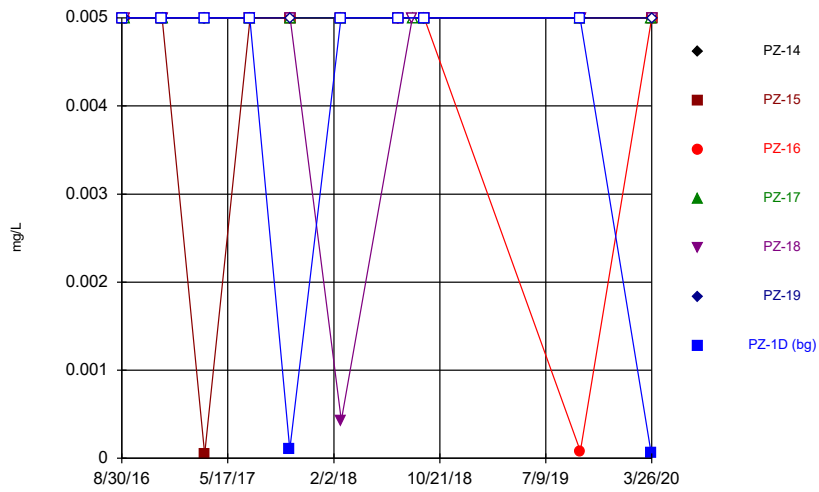
Constituent: Fluoride Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



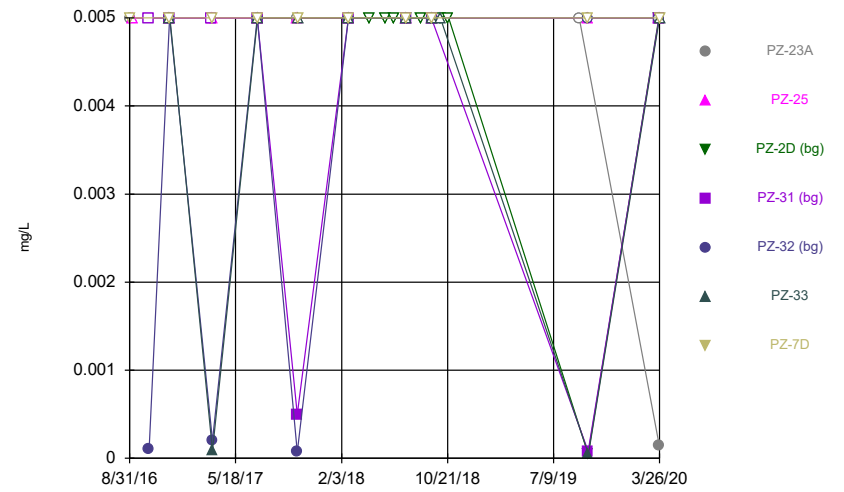
Constituent: Fluoride Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



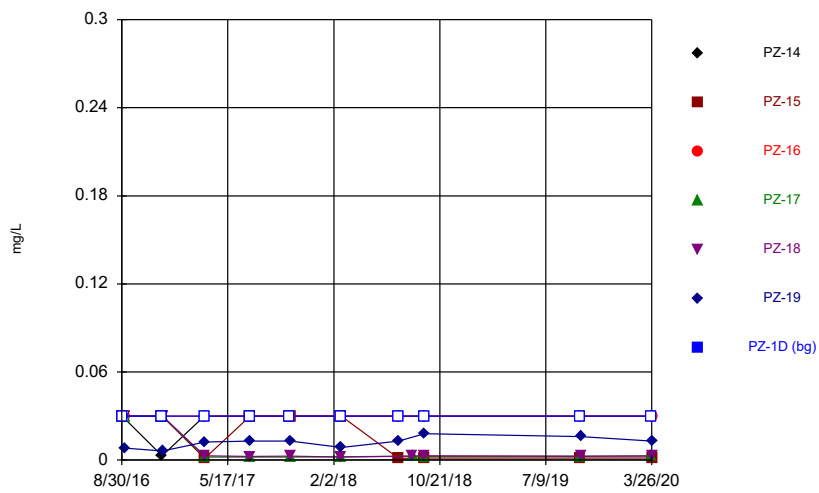
Constituent: Lead Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



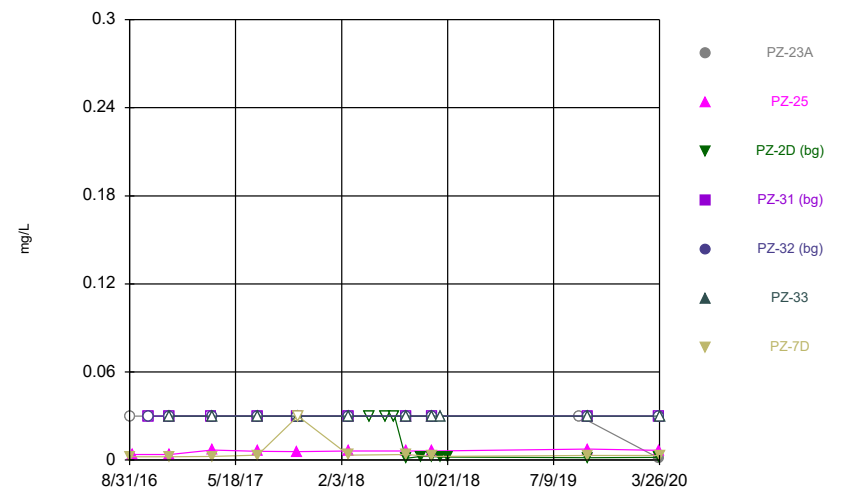
Constituent: Lead Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



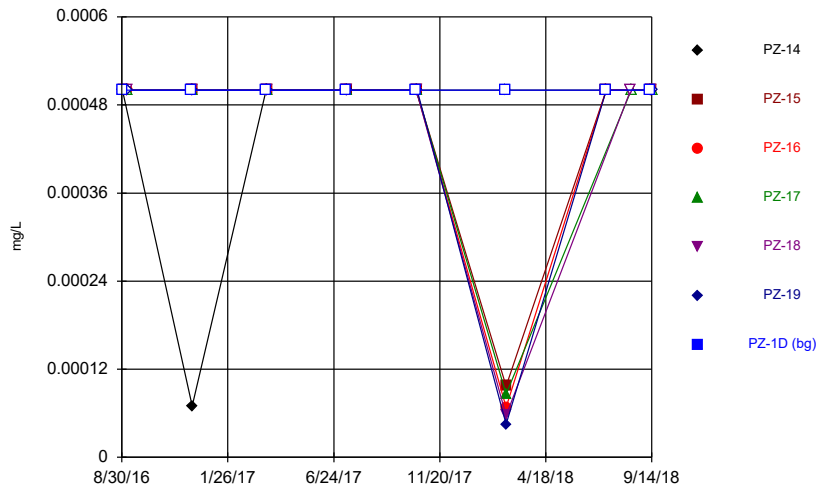
Constituent: Lithium Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



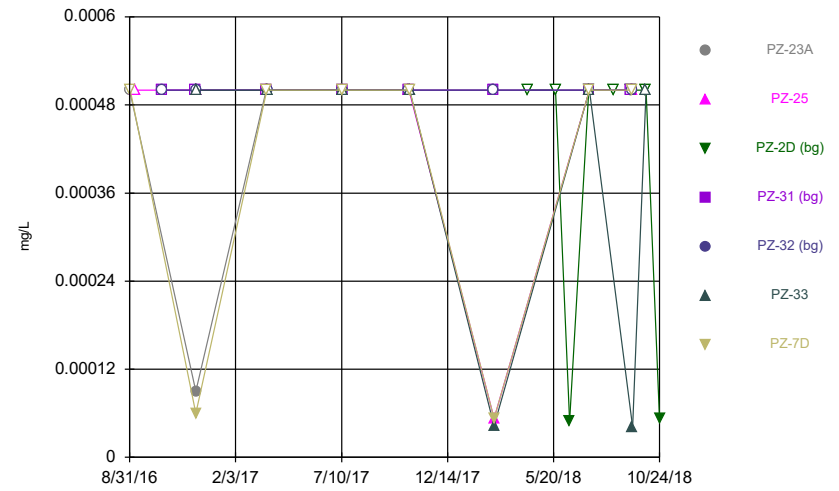
Constituent: Lithium Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



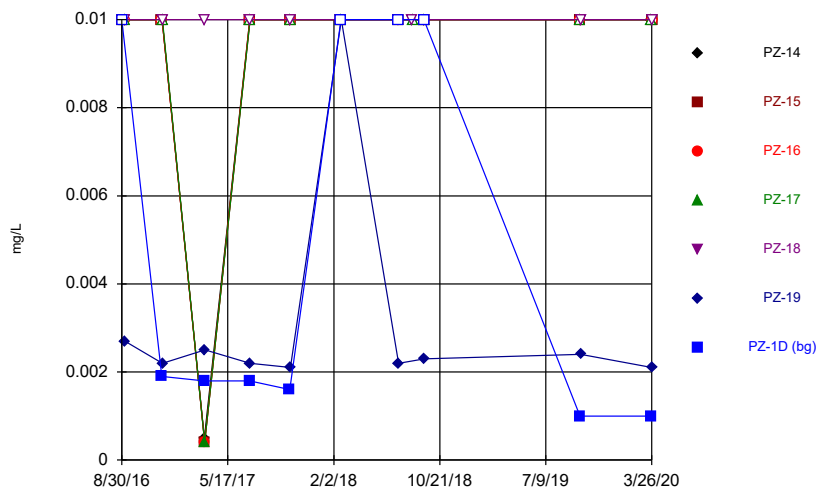
Constituent: Mercury Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



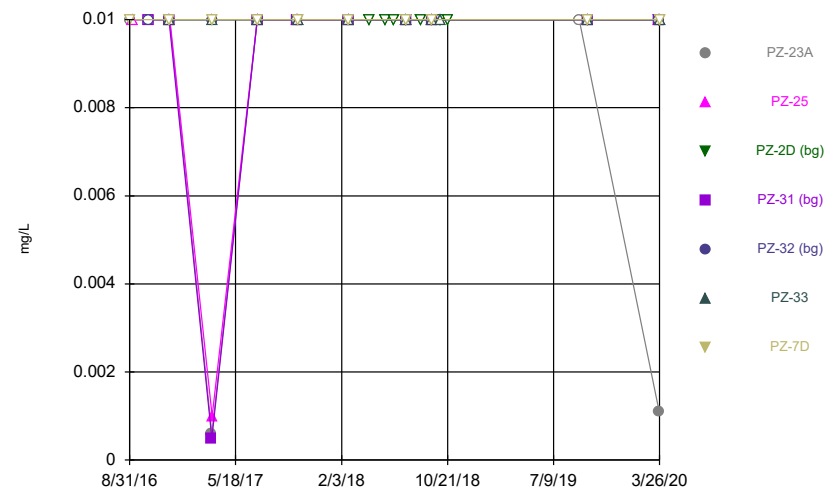
Constituent: Mercury Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



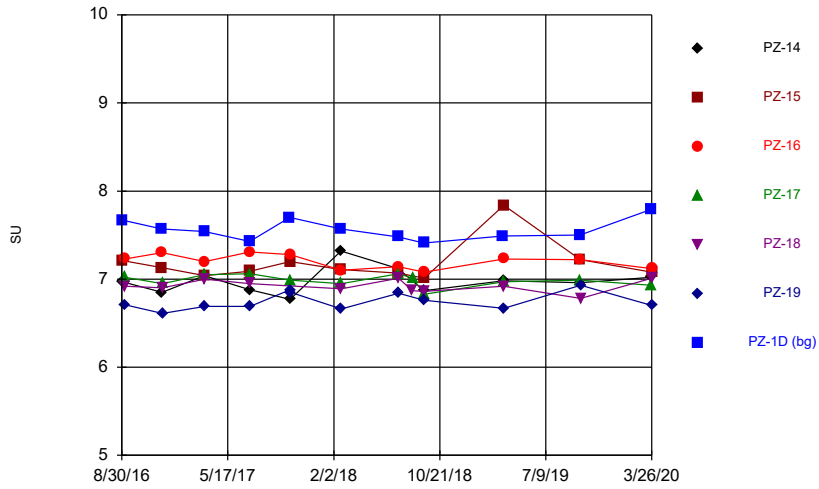
Constituent: Molybdenum Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



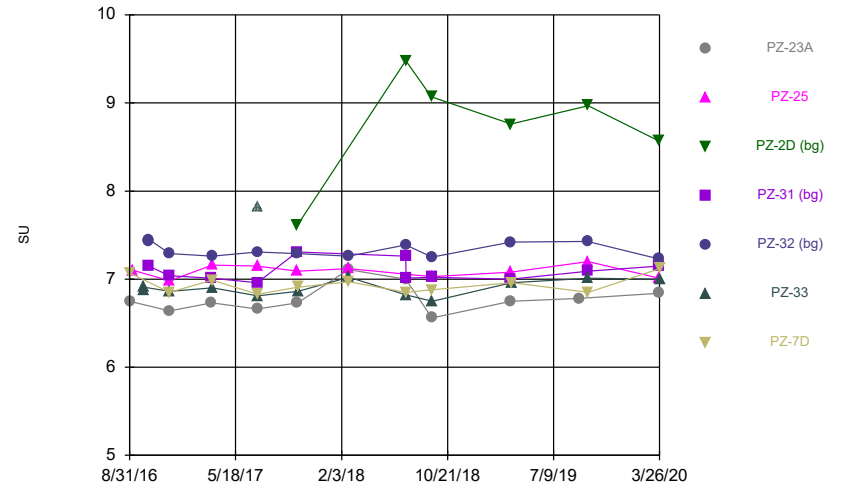
Constituent: Molybdenum Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



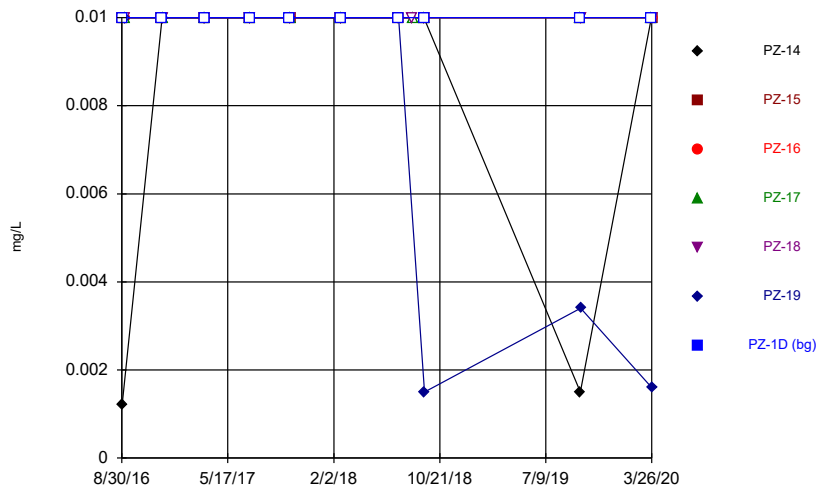
Constituent: pH Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



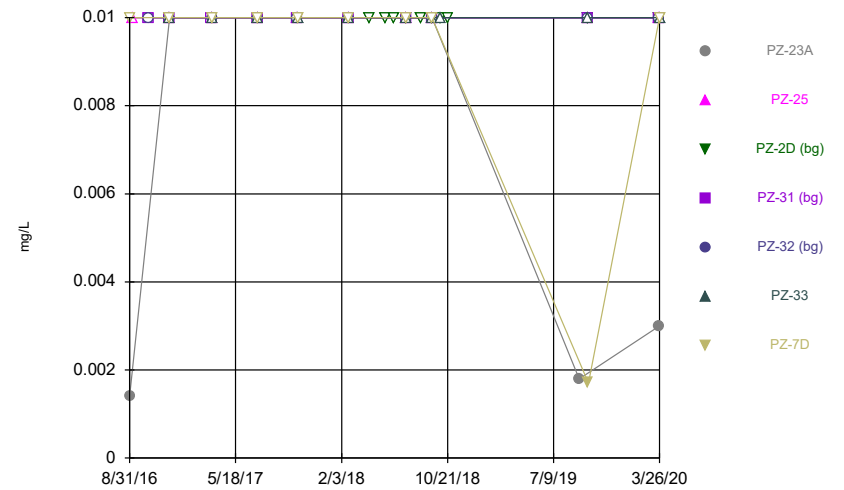
Constituent: pH Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



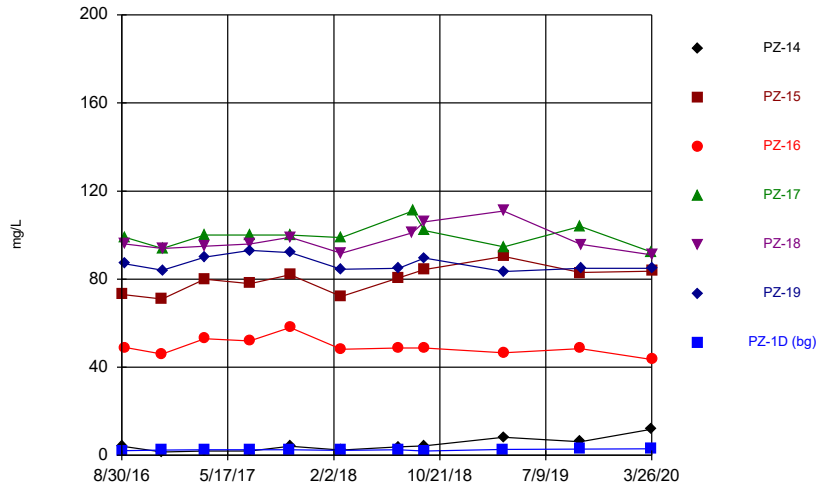
Constituent: Selenium Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



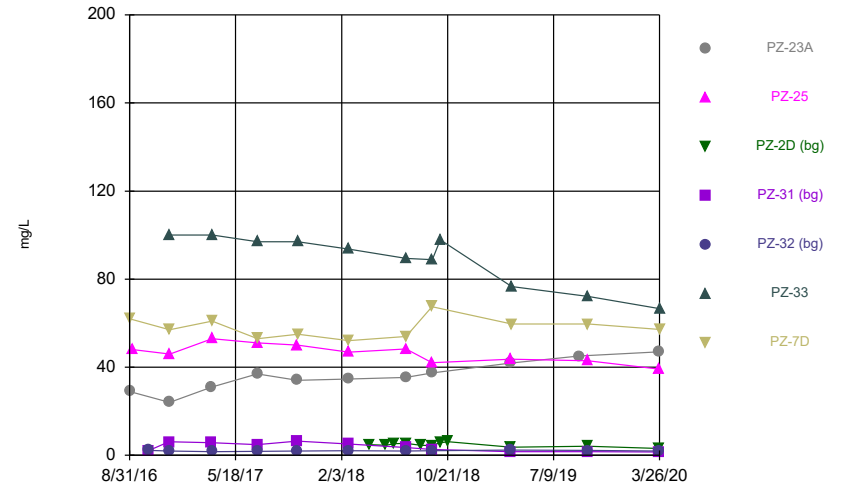
Constituent: Selenium Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



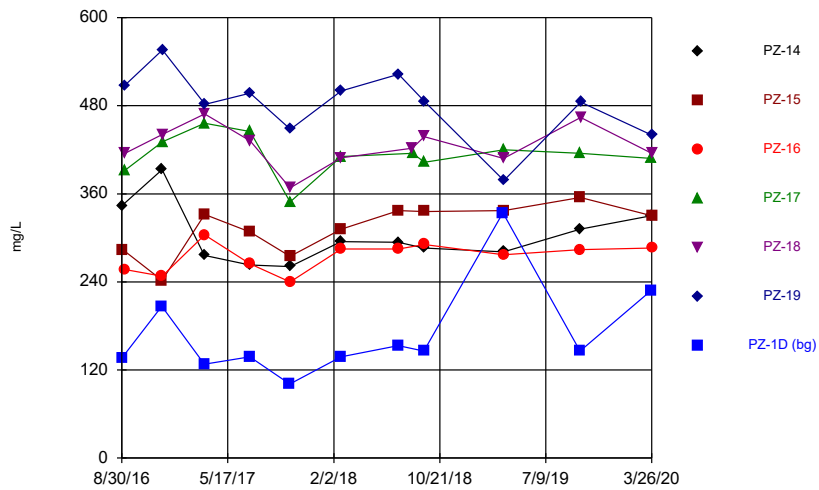
Constituent: Sulfate Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



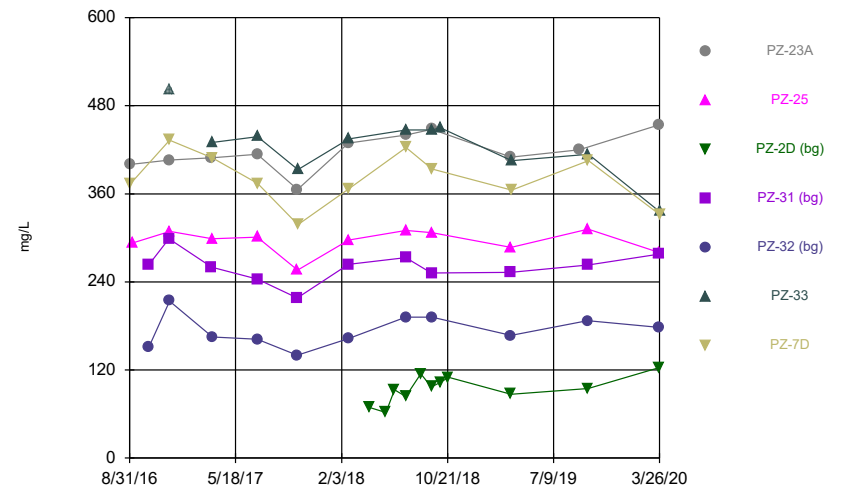
Constituent: Sulfate Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



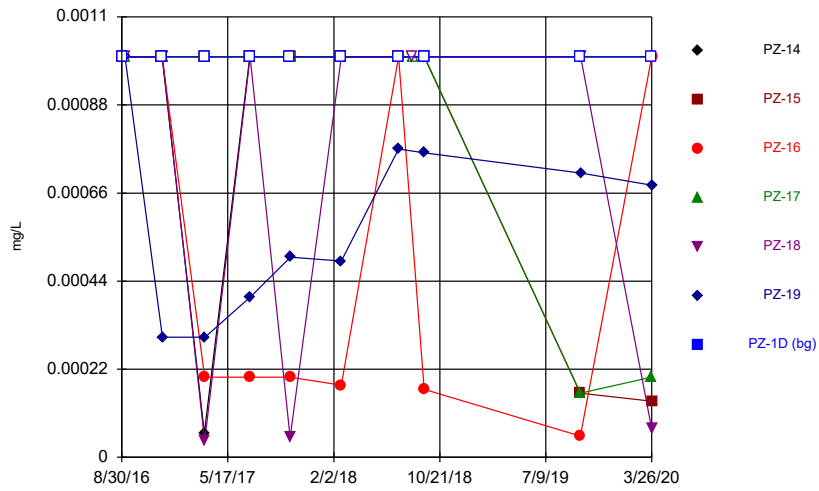
Constituent: TDS Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



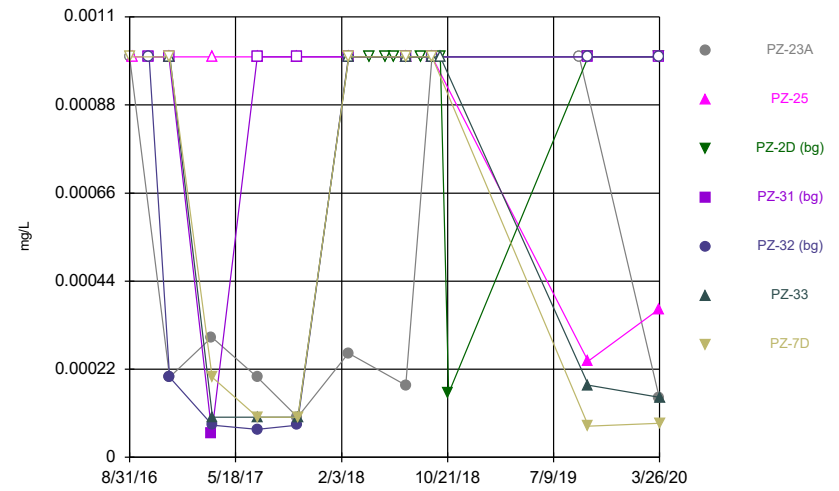
Constituent: TDS Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



Constituent: Thallium Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series



Constituent: Thallium Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							0.0009 (J)
8/31/2016	<0.003						
9/1/2016		0.001 (J)					
9/6/2016			<0.003				
9/7/2016				<0.003	<0.003	<0.003	
12/6/2016							<0.003
12/7/2016	<0.003	<0.003	<0.003				
12/8/2016				<0.003	<0.003	<0.003	
3/21/2017	0.0004 (J)						0.0028 (J)
3/22/2017		<0.003	<0.003	<0.003	<0.003		
3/23/2017						<0.003	
7/11/2017	<0.003		<0.003				0.0035
7/12/2017		<0.003		<0.003	<0.003	<0.003	
10/17/2017							0.0025 (J)
10/18/2017	<0.003	<0.003	<0.003	<0.003	<0.003		
10/19/2017						<0.003	
2/20/2018	<0.003						0.00094 (J)
2/21/2018		<0.003	<0.003	<0.003	<0.003	<0.003	
7/11/2018	<0.003						0.0019 (J)
7/12/2018		<0.003	<0.003			<0.003	
8/15/2018					<0.003		
8/16/2018				<0.003			
9/12/2018	<0.003						0.0019 (J)
9/13/2018		<0.003	<0.003		<0.003		
9/14/2018				<0.003		<0.003	
10/1/2019							0.00076 (X)
10/2/2019	<0.003	<0.003	<0.003	<0.003			
10/3/2019					<0.003	0.00044 (X)	
3/24/2020							0.00055 (J)
3/25/2020	<0.003			0.00094 (J)			
3/26/2020		<0.003	<0.003		0.0018 (J)	<0.003	

Time Series

Constituent: Antimony (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	<0.003						
9/1/2016							<0.003
9/8/2016		<0.003					
10/18/2016				0.0018 (J)	<0.003		
12/6/2016				<0.003			
12/7/2016	<0.003				<0.003		<0.003
12/8/2016		<0.003				<0.003	
3/21/2017	<0.003			<0.003			
3/22/2017		<0.003					<0.003
3/23/2017					<0.003	<0.003	
7/11/2017	<0.003	<0.003		<0.003	<0.003		
7/12/2017						<0.003	<0.003
10/17/2017				<0.003	<0.003		
10/18/2017	<0.003	<0.003					
10/19/2017						<0.003	<0.003
2/20/2018	<0.003			<0.003	<0.003		
2/21/2018		<0.003				<0.003	<0.003
4/12/2018			<0.003				
5/23/2018			0.0017 (J)				
6/13/2018			0.0018 (J)				
7/11/2018	<0.003		0.0024 (J)	<0.003	<0.003		
7/12/2018		<0.003				<0.003	<0.003
8/17/2018			0.00082 (J)				
9/12/2018			<0.003	<0.003			
9/13/2018	<0.003	<0.003			<0.003		<0.003
9/14/2018						<0.003	
10/4/2018			<0.003			<0.003	
10/24/2018			0.00087 (J)				
9/10/2019	<0.003						
10/1/2019					<0.003		
10/2/2019		<0.003	0.00042 (X)	<0.003			
10/3/2019						<0.003	0.00029 (X)
3/24/2020			0.00037 (J)				
3/25/2020	<0.003	<0.003		<0.003	<0.003		
3/26/2020						<0.003	0.00042 (J)

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							<0.005
8/31/2016	<0.005						
9/1/2016		<0.005					
9/6/2016			<0.005				
9/7/2016				<0.005	<0.005	<0.005	
12/6/2016							<0.005
12/7/2016	<0.005	<0.005	<0.005				
12/8/2016				<0.005	<0.005	<0.005	
3/21/2017	<0.005						<0.005
3/22/2017		0.0011 (J)	<0.005	0.0007 (J)	<0.005		
3/23/2017						0.0007 (J)	
7/11/2017	<0.005		<0.005				<0.005
7/12/2017		0.0006 (J)		<0.005	<0.005	<0.005	
10/17/2017							<0.005
10/18/2017	<0.005	<0.005	<0.005	<0.005	<0.005		
10/19/2017						<0.005	
2/20/2018	<0.005						<0.005
2/21/2018		0.00089 (J)	<0.005	0.00072 (J)	<0.005	<0.005	
7/11/2018	<0.005						<0.005
7/12/2018		<0.005	<0.005			<0.005	
8/15/2018					<0.005		
8/16/2018				0.0007 (J)			
9/12/2018	<0.005						<0.005
9/13/2018		<0.005	<0.005		<0.005		
9/14/2018				<0.005		<0.005	
10/1/2019							<0.005
10/2/2019	0.00083 (X)	<0.005	<0.005	<0.005			
10/3/2019					<0.005	<0.005	
3/24/2020							<0.005
3/25/2020	<0.005			<0.005			
3/26/2020		<0.005	<0.005		<0.005	<0.005	

Time Series

Constituent: Arsenic (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	<0.005						
9/1/2016							<0.005
9/8/2016		0.0017 (J)					
10/18/2016				<0.005	<0.005		
12/6/2016				<0.005			
12/7/2016	<0.005				0.002 (J)		<0.005
12/8/2016		<0.005				<0.005	
3/21/2017	<0.005			<0.005			
3/22/2017		0.001 (J)					<0.005
3/23/2017					<0.005	0.0007 (J)	
7/11/2017	<0.005	<0.005		<0.005	<0.005		
7/12/2017						<0.005	<0.005
10/17/2017				<0.005	<0.005		
10/18/2017	<0.005	<0.005					
10/19/2017						<0.005	<0.005
2/20/2018	<0.005			<0.005	<0.005		
2/21/2018		0.00071 (J)				0.00094 (J)	<0.005
4/12/2018			0.00064 (J)				
5/23/2018			<0.005				
6/13/2018			0.0007 (J)				
7/11/2018	<0.005		<0.005	<0.005	<0.005		
7/12/2018		<0.005				<0.005	<0.005
8/17/2018			0.00062 (J)				
9/12/2018			<0.005	<0.005			
9/13/2018	<0.005	<0.005			<0.005		<0.005
9/14/2018						<0.005	
10/4/2018			<0.005			<0.005	
10/24/2018			0.00068 (J)				
9/10/2019	0.00036 (X)						
10/1/2019					<0.005		
10/2/2019		0.00063 (X)	0.0022 (X)	<0.005			
10/3/2019						<0.005	<0.005
3/24/2020			<0.005				
3/25/2020	<0.005	<0.005		<0.005	<0.005		
3/26/2020						<0.005	<0.005

Time Series

Constituent: Barium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							0.0335
8/31/2016	0.0253						
9/1/2016		0.103					
9/6/2016			0.0794				
9/7/2016				0.0823	0.0717	0.067	
12/6/2016							0.0311
12/7/2016	0.065	0.0781	0.0689				
12/8/2016				0.0668	0.0513	0.0522	
3/21/2017	0.0379						0.0305
3/22/2017		0.0589	0.0423	0.0821	0.0273		
3/23/2017						0.0591	
7/11/2017	0.036		0.0467				0.0305
7/12/2017		0.0613		0.0805	0.0269	0.0604	
10/17/2017							0.0255
10/18/2017	0.0247	0.0617	0.0446	0.0776	0.0258		
10/19/2017						0.0542	
2/20/2018	0.03						0.027
2/21/2018		0.076	0.046	0.073	0.029	0.058	
7/11/2018	0.027						0.032
7/12/2018		0.056	0.043			0.057	
8/15/2018					0.027		
8/16/2018				0.081			
9/12/2018	0.022						0.021
9/13/2018		0.048	0.038		0.023		
9/14/2018				0.081		0.058	
10/1/2019							0.016
10/2/2019	0.017	0.049	0.038	0.074			
10/3/2019					0.025	0.057	
3/24/2020							0.015
3/25/2020	0.021			0.077			
3/26/2020		0.048	0.034		0.023	0.052	

Time Series

Constituent: Barium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	0.0407						
9/1/2016							0.0117
9/8/2016		0.102					
10/18/2016				0.0257	0.0248		
12/6/2016				0.113			
12/7/2016	0.0581				0.0506		0.0133
12/8/2016		0.102				0.162 (o)	
3/21/2017	0.0678			0.0226			
3/22/2017		0.0951					0.0114
3/23/2017					0.0175	0.0753	
7/11/2017	0.0574	0.102		0.0139	0.0161		
7/12/2017						0.0756	0.0097 (J)
10/17/2017				0.0103	0.0158		
10/18/2017	0.0351	0.0997					
10/19/2017						0.0681	0.0091 (J)
2/20/2018	0.05			0.015	0.015		
2/21/2018		0.11				0.085	0.0086 (J)
4/12/2018			<0.01				
5/23/2018			0.0042 (J)				
6/13/2018			0.012				
7/11/2018	0.051		0.0056 (J)	0.011	0.016		
7/12/2018		0.1				0.076	0.0093 (J)
8/17/2018			0.0069 (J)				
9/12/2018			0.011	0.0087 (J)			
9/13/2018	0.038	0.1			0.014		0.0078 (J)
9/14/2018						0.071	
10/4/2018			0.0066 (J)			0.072	
10/24/2018			0.0059 (J)				
9/10/2019	0.029						
10/1/2019					0.015		
10/2/2019		0.11	0.0046 (X)	0.0067 (X)			
10/3/2019						0.057	0.007 (X)
3/24/2020			0.0046 (J)				
3/25/2020	0.048	0.11		0.0082 (J)	0.015		
3/26/2020						0.057	0.0072 (J)

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							<0.003
8/31/2016	<0.003						
9/1/2016		<0.003					
9/6/2016			<0.003				
9/7/2016				<0.003	<0.003	<0.003	
12/6/2016							<0.003
12/7/2016	<0.003	<0.003	<0.003				
12/8/2016				<0.003	<0.003	<0.003	
3/21/2017	<0.003						<0.003
3/22/2017		<0.003	<0.003	<0.003	<0.003		
3/23/2017						<0.003	
7/11/2017	<0.003		<0.003				<0.003
7/12/2017		<0.003		<0.003	<0.003	<0.003	
10/17/2017							<0.003
10/18/2017	<0.003	<0.003	<0.003	<0.003	<0.003		
10/19/2017						<0.003	
2/20/2018	<0.003						<0.003
2/21/2018		<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	
8/15/2018					<0.003		
8/16/2018				<0.003			
9/12/2018	<0.003						6.1E-05 (J)
9/13/2018		<0.003	<0.003		<0.003		
9/14/2018				<0.003		<0.003	

Time Series

Constituent: Beryllium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	<0.003						
9/1/2016							<0.003
9/8/2016		<0.003					
10/18/2016				<0.003	<0.003		
12/6/2016				<0.003			
12/7/2016	<0.003				<0.003		<0.003
12/8/2016		<0.003				<0.003	
3/21/2017	<0.003			<0.003			
3/22/2017		<0.003					<0.003
3/23/2017					<0.003	<0.003	
7/11/2017	<0.003	<0.003		<0.003	<0.003		
7/12/2017						<0.003	<0.003
10/17/2017				<0.003	<0.003		
10/18/2017	<0.003	<0.003					
10/19/2017						<0.003	<0.003
2/20/2018	<0.003			<0.003	<0.003		
2/21/2018		<0.003				<0.003	<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		
7/12/2018		<0.003				<0.003	<0.003
8/17/2018			<0.003				
9/12/2018			<0.003	<0.003			
9/13/2018	<0.003	<0.003			<0.003		<0.003
9/14/2018						<0.003	
10/4/2018			<0.003			<0.003	
10/24/2018			6E-05 (J)				

Time Series

Constituent: Boron (mg/L) Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							0.0132 (J)
8/31/2016	0.0285 (J)						
9/1/2016		0.215					
9/6/2016			0.17				
9/7/2016				0.276	0.355	0.573	
12/6/2016							0.0096 (J)
12/7/2016	0.0292 (J)	0.224	0.173				
12/8/2016				0.303	0.351	0.588	
3/21/2017	0.0198 (J)						0.0082 (J)
3/22/2017		0.205	0.218	0.342	0.405		
3/23/2017						0.703	
7/11/2017	0.0137 (J)		0.18				0.0067 (J)
7/12/2017		0.184		0.278	0.35	0.598	
10/17/2017							0.0083 (J)
10/18/2017	0.0212 (J)	0.197	0.195	0.277	0.37		
10/19/2017						0.66	
2/20/2018	0.026 (J)						0.024 (J)
2/21/2018		0.21	0.21	0.29	0.33	0.6	
7/11/2018	0.026 (J)						0.017 (J)
7/12/2018		0.23	0.21			0.64	
8/15/2018					0.37		
8/16/2018				0.33			
9/12/2018	0.02 (J)						0.012 (J)
9/13/2018		0.22	0.21		0.37		
9/14/2018				0.31		0.57	
3/26/2019							0.0082
3/27/2019	0.023		0.21		0.41		
3/28/2019		0.22		0.34		0.7	
10/1/2019							0.0064 (X)
10/2/2019	0.021 (X)	0.17	0.19	0.28			
10/3/2019					0.35	0.52	
3/24/2020							0.013 (J)
3/25/2020	0.027 (J)			0.33			
3/26/2020		0.21	0.19		0.36	0.6	

Time Series

Constituent: Boron (mg/L) Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	0.166						
9/1/2016							0.379
9/8/2016		0.204					
10/5/2016						0.404	
10/10/2016						0.401	
10/18/2016				0.0174 (J)	0.0156 (J)		
12/6/2016				0.0133 (J)			
12/7/2016	0.182				0.0157 (J)		0.394
12/8/2016		0.216				0.375	
3/21/2017	0.172			0.0103 (J)			
3/22/2017		0.247					0.365
3/23/2017					0.0103 (J)	0.396	
7/11/2017	0.149	0.194		<0.04	<0.04		
7/12/2017						0.343	0.267
10/17/2017				0.0116 (J)	0.0142 (J)		
10/18/2017	0.158	0.186					
10/19/2017						0.413	0.326
2/20/2018	0.16			0.046 (J)	0.011 (J)		
2/21/2018		0.22				0.36	0.29
4/12/2018			0.016 (J)				
5/23/2018			0.018 (J)				
6/13/2018			0.014 (J)				
7/11/2018	0.17		0.017 (J)	0.014 (J)	0.014 (J)		
7/12/2018		0.22				0.41	0.32
8/17/2018			0.015 (J)				
9/12/2018			0.013 (J)	0.0098 (J)			
9/13/2018	0.16	0.2			0.013 (J)		0.31
9/14/2018						0.38	
10/4/2018			0.016 (J)			0.39	
10/24/2018			0.018 (J)				
3/26/2019				0.0076			
3/27/2019	0.18	0.22	0.016		0.012		
3/28/2019						0.39	0.33
9/10/2019	0.15						
10/1/2019					0.011 (X)		
10/2/2019		0.21	0.011 (X)	0.0084 (X)			
10/3/2019						0.36	0.24
3/24/2020			0.015 (J)				
3/25/2020	0.19	0.21		0.011 (J)	0.016 (J)		
3/26/2020						0.38	0.24

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							<0.001
8/31/2016	<0.001						
9/1/2016		<0.001					
9/6/2016			<0.001				
9/7/2016				<0.001	<0.001	<0.001	
12/6/2016							<0.001
12/7/2016	<0.001	<0.001	<0.001				
12/8/2016				<0.001	<0.001	<0.001	
3/21/2017	<0.001						<0.001
3/22/2017		<0.001	<0.001	<0.001	<0.001		
3/23/2017						<0.001	
7/11/2017	<0.001		<0.001				<0.001
7/12/2017		<0.001		<0.001	<0.001	<0.001	
10/17/2017							<0.001
10/18/2017	<0.001	<0.001	<0.001	<0.001	<0.001		
10/19/2017						<0.001	
2/20/2018	<0.001						<0.001
2/21/2018		<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	
8/15/2018					<0.001		
8/16/2018				<0.001			
9/12/2018	<0.001						<0.001
9/13/2018		<0.001	<0.001		<0.001		
9/14/2018				<0.001		<0.001	

Time Series

Constituent: Cadmium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	0.0002 (J)						
9/1/2016							<0.001
9/8/2016		<0.001					
10/18/2016				<0.001	<0.001		
12/6/2016				<0.001			
12/7/2016	0.0002 (J)				<0.001		<0.001
12/8/2016		<0.001				<0.001	
3/21/2017	<0.001			<0.001			
3/22/2017		<0.001					<0.001
3/23/2017					<0.001	0.0001 (J)	
7/11/2017	<0.001	<0.001		<0.001	<0.001		
7/12/2017						<0.001	<0.001
10/17/2017				<0.001	<0.001		
10/18/2017	<0.001	<0.001					
10/19/2017						<0.001	<0.001
2/20/2018	<0.001			<0.001	<0.001		
2/21/2018		<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		
7/12/2018		<0.001				<0.001	<0.001
8/17/2018			<0.001				
9/12/2018			<0.001	<0.001			
9/13/2018	<0.001	<0.001			<0.001		<0.001
9/14/2018						<0.001	
10/4/2018			<0.001			<0.001	
10/24/2018			<0.001				

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							40.4
8/31/2016	92.9						
9/1/2016		74.8					
9/6/2016			74.6				
9/7/2016				100	112	138	
12/6/2016							43.3
12/7/2016	93.1	74	68.9				
12/8/2016				102	113	135	
3/21/2017	95						44.1
3/22/2017		99.3	77.8	113	122		
3/23/2017						137	
7/11/2017	97.1		77.3				47.4
7/12/2017		91.4		110	129	145	
10/17/2017							48.7
10/18/2017	100	92	84.7	122	125		
10/19/2017						140	
2/20/2018	93.1						46.8
2/21/2018		89	81.8	107	118	145	
7/11/2018	111						65.3 (o)
7/12/2018		94.5	85.2			140	
8/15/2018					123		
8/16/2018				113			
9/12/2018	99.3						46.6
9/13/2018		90.8	80.2		123		
9/14/2018				108		124	
3/26/2019							43.3
3/27/2019	105		90.5		134		
3/28/2019		100		123		164	
10/1/2019							46.8
10/2/2019	103	101	89.1	115			
10/3/2019					139	125	
3/24/2020							48
3/25/2020	105			121			
3/26/2020		103	89.8		138	158	

Time Series

Constituent: Calcium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	132						
9/1/2016							101
9/8/2016		85.2					
10/18/2016				88.3	57.2		
12/6/2016				83.4			
12/7/2016	125				52.8		103
12/8/2016		84.5				117	
3/21/2017	138			94			
3/22/2017		85.3					111
3/23/2017					59.1	122	
7/11/2017	139	93		86	59.7		
7/12/2017						124	119
10/17/2017				91.6	64.9		
10/18/2017	144	87.6					
10/19/2017						118	107
2/20/2018	142			86.5	64.1		
2/21/2018		93.9				122	118
4/12/2018			<25				
5/23/2018			17.6 (J)				
6/13/2018			14.3				
7/11/2018	159		15.6	95.4	60.4		
7/12/2018		87.1				129	121
8/17/2018			27				
9/12/2018			26.9	86			
9/13/2018	136	85.8			58.7		116
9/14/2018						123	
10/4/2018			25			126	
10/24/2018			23.8				
3/26/2019				87.3			
3/27/2019	152	95.2	26.1		54.6		
3/28/2019						117	124
9/10/2019	137						
10/1/2019					64.3		
10/2/2019		92.3	21	95.5			
10/3/2019						110	127
3/24/2020			26.5				
3/25/2020	157	97.5		95.8	66.6		
3/26/2020						122	122

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							3.1
8/31/2016	4.9						
9/1/2016		7					
9/6/2016			7.9				
9/7/2016				7.7	6.9	6.8	
12/6/2016							3.4
12/7/2016	4.8	7	7.6				
12/8/2016				7.2	6.8	6.6	
3/21/2017	4.9						2.9
3/22/2017		7.4	7.7	7.3	6.8		
3/23/2017						6.6	
7/11/2017	5		8.1				3.4
7/12/2017		8		7.4	6.7	6.6	
10/17/2017							3.3
10/18/2017	5.1	7.8	8.2	7.6	6.8		
10/19/2017						6.5	
2/20/2018	5.1						3.3
2/21/2018		7.2	7.3	7.4	7.1	7.6	
7/11/2018	4.9						2.9
7/12/2018		7.5	7.2			6.3	
8/15/2018					6.7		
8/16/2018				7.5			
9/12/2018	4.8						2.8
9/13/2018		6.8	7.3		6.7		
9/14/2018				7.7		6.1	
3/26/2019							3.3
3/27/2019	5.2		7.3		6.5		
3/28/2019		7.4		7.3		6.4	
10/1/2019							3.6
10/2/2019	5.4	8	7.7	7.9			
10/3/2019					7	5.6	
3/24/2020							2.8
3/25/2020	4.2			6.1			
3/26/2020		7	7		5.7	5.4	

Time Series

Constituent: Chloride (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	5.1						
9/1/2016							7.4
9/8/2016		4					
10/18/2016				4.5	3.5		
12/6/2016				5			
12/7/2016	5.2				3.2		7.6
12/8/2016		3.6				6.9	
3/21/2017	5.5			4.3			
3/22/2017		3.3					7.2
3/23/2017					2.9	6.2	
7/11/2017	5.7	3		4.7	3.1		
7/12/2017						6	7.3
10/17/2017				4.6	3		
10/18/2017	5.1	2.9					
10/19/2017						6.4	7.4
2/20/2018	5.5			4.4	3		
2/21/2018		2.9				6.9	7.6
4/12/2018			2.6				
5/23/2018			2.5				
6/13/2018			2.5				
7/11/2018	5.1		2.6	4	2.8		
7/12/2018		2.6				7.3	7.1
8/17/2018			2.6				
9/12/2018			2.3	3.7			
9/13/2018	5	2.3			2.2		6.6
9/14/2018						7.3	
10/4/2018			2.7			7	
10/24/2018			2.8				
3/26/2019				3.8			
3/27/2019	4.7	2.4	2.5		3.1		
3/28/2019						4.8	6.4
9/10/2019	3.8						
10/1/2019					3.1		
10/2/2019		2.6	2.7	4.3			
10/3/2019						4.1	5.9
3/24/2020			2.2				
3/25/2020	6.4	1.6		3	2.2		
3/26/2020						2.9	4.8

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							0.0039 (J)
8/31/2016	<0.01						
9/1/2016		<0.01					
9/6/2016			<0.01				
9/7/2016				<0.01	<0.01	<0.01	
12/6/2016							0.0047 (J)
12/7/2016	<0.01	<0.01	<0.01				
12/8/2016				<0.01	<0.01	<0.01	
3/21/2017	<0.01						0.0047 (J)
3/22/2017		<0.01	0.0008 (J)	<0.01	<0.01		
3/23/2017						<0.01	
7/11/2017	<0.01		<0.01				0.0054 (J)
7/12/2017		<0.01		<0.01	<0.01	<0.01	
10/17/2017							0.0053 (J)
10/18/2017	<0.01	<0.01	<0.01	<0.01	<0.01		
10/19/2017						<0.01	
2/20/2018	<0.01						0.0029 (J)
2/21/2018		<0.01	<0.01	<0.01	<0.01	<0.01	
7/11/2018	<0.01						0.0057 (J)
7/12/2018		<0.01	<0.01			<0.01	
8/15/2018					<0.01		
8/16/2018				<0.01			
9/12/2018	<0.01						0.0033 (J)
9/13/2018		<0.01	<0.01		<0.01		
9/14/2018				<0.01		<0.01	
10/1/2019							0.0022 (X)
10/2/2019	<0.01	<0.01	0.00044 (X)	<0.01			
10/3/2019					<0.01	<0.01	
3/24/2020							0.0036 (J)
3/25/2020	0.0013 (J)			<0.01			
3/26/2020		<0.01	0.0013 (J)		0.00056 (J)	0.00073 (J)	

Time Series

Constituent: Chromium (mg/L) Analysis Run 7/27/2020 10:17 AM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	<0.01						
9/1/2016							<0.01
9/8/2016		<0.01					
10/18/2016				<0.01	<0.01		
12/6/2016				<0.01			
12/7/2016	<0.01				<0.01		0.003 (J)
12/8/2016		<0.01				<0.01	
3/21/2017	0.0009 (J)			0.0006 (J)			
3/22/2017		<0.01					0.0005 (J)
3/23/2017					0.0005 (J)	0.0017 (J)	
7/11/2017	0.0016 (J)	<0.01		0.0006 (J)	<0.01		
7/12/2017						<0.01	<0.01
10/17/2017				0.0008 (J)	0.0005 (J)		
10/18/2017	0.0019 (J)	<0.01					
10/19/2017						<0.01	0.0005 (J)
2/20/2018	<0.01			<0.01	<0.01		
2/21/2018		<0.01				<0.01	<0.01
4/12/2018			0.01				
5/23/2018			0.011				
6/13/2018			0.011				
7/11/2018	0.0021 (J)		0.0096 (J)	<0.01	<0.01		
7/12/2018		<0.01				<0.01	<0.01
8/17/2018			0.0078 (J)				
9/12/2018			0.0056 (J)	<0.01			
9/13/2018	0.0022 (J)	<0.01			<0.01		<0.01
9/14/2018						<0.01	
10/4/2018			0.0057 (J)			<0.01	
10/24/2018			0.0058 (J)				
9/10/2019	0.0044 (X)						
10/1/2019					<0.01		
10/2/2019		<0.01	0.0049 (X)	0.00043 (X)			
10/3/2019						<0.01	0.0004 (X)
3/24/2020			0.0047 (J)				
3/25/2020	0.0012 (J)	<0.01		0.0013 (J)	0.00086 (J)		
3/26/2020						<0.01	0.0016 (J)

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							<0.005
8/31/2016	<0.005						
9/1/2016		0.0012 (J)					
9/6/2016			0.0005 (J)				
9/7/2016				0.0011 (J)	0.0011 (J)	0.0012 (J)	
12/6/2016							<0.005
12/7/2016	0.002 (J)	0.0005 (J)	<0.005				
12/8/2016				0.0006 (J)	<0.005	0.0009 (J)	
3/21/2017	<0.005						<0.005
3/22/2017		0.0005 (J)	<0.005	0.0006 (J)	<0.005		
3/23/2017						<0.005	
7/11/2017	0.0003 (J)		<0.005				<0.005
7/12/2017		0.0004 (J)		0.0005 (J)	<0.005	<0.005	
10/17/2017							<0.005
10/18/2017	<0.005	0.0004 (J)	<0.005	0.0005 (J)	<0.005		
10/19/2017						<0.005	
2/20/2018	<0.005						<0.005
2/21/2018		<0.005	<0.005	<0.005	<0.005	<0.005	
7/11/2018	<0.005						<0.005
7/12/2018		<0.005	<0.005			<0.005	
8/15/2018					<0.005		
8/16/2018				<0.005			
9/12/2018	<0.005						<0.005
9/13/2018		<0.005	<0.005		<0.005		
9/14/2018				<0.005		<0.005	
10/1/2019							<0.005
10/2/2019	<0.005	<0.005	<0.005	<0.005			
10/3/2019					<0.005	<0.005	
3/24/2020							<0.005
3/25/2020	<0.005			0.00032 (J)			
3/26/2020		<0.005	<0.005		<0.005	<0.005	

Time Series

Constituent: Cobalt (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	<0.005						
9/1/2016							<0.005
9/8/2016		0.0008 (J)					
10/18/2016				<0.005	<0.005		
12/6/2016				0.0018 (J)			
12/7/2016	0.0008 (J)				0.0015 (J)		<0.005
12/8/2016		<0.005				0.0041 (J)	
3/21/2017	<0.005			<0.005			
3/22/2017		0.001 (J)					<0.005
3/23/2017					<0.005	0.0008 (J)	
7/11/2017	<0.005	0.001 (J)		<0.005	<0.005		
7/12/2017						0.0007 (J)	<0.005
10/17/2017				<0.005	<0.005		
10/18/2017	<0.005	0.0011 (J)					
10/19/2017						0.0005 (J)	<0.005
2/20/2018	<0.005			<0.005	<0.005		
2/21/2018		0.00075 (J)				0.0012 (J)	<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		
7/12/2018		0.0008 (J)				0.00053 (J)	<0.005
8/17/2018			<0.005				
9/12/2018			<0.005	<0.005			
9/13/2018	<0.005	0.001 (J)			<0.005		<0.005
9/14/2018						<0.005	
10/4/2018			<0.005			<0.005	
10/24/2018			<0.005				
9/10/2019	<0.005						
10/1/2019					<0.005		
10/2/2019		0.0017 (X)	<0.005	<0.005			
10/3/2019						<0.005	<0.005
3/24/2020			<0.005				
3/25/2020	0.0003 (J)	0.0018 (J)		<0.005	<0.005		
3/26/2020						<0.005	<0.005

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							0.503 (U)
8/31/2016	1.77						
9/1/2016		1.19					
9/6/2016			1.12				
9/7/2016				1.06 (U)	1.51	1.22	
12/6/2016							0.302 (U)
12/7/2016	0.672 (U)	1.88	1.37				
12/8/2016				1.3	1.29	1.69	
3/21/2017	0.33 (U)						0.526 (U)
3/22/2017		0.617 (U)	0.435 (U)	0.566 (U)	0.799 (U)		
3/23/2017						1.07	
7/11/2017	0.701 (U)		0.76 (U)				0.676 (U)
7/12/2017		0.674 (U)		0.856 (U)	0.4 (U)	0.849 (U)	
10/17/2017							0.201 (U)
10/18/2017	0.808 (U)	0.844 (U)	0.847 (U)	0.957	0.613 (U)		
10/19/2017						0.398 (U)	
2/20/2018	2.12						1.07 (U)
2/21/2018		0.842 (U)	0.373 (U)	1.4	0.736 (U)	1.03 (U)	
7/11/2018	0.232 (U)						0.825 (U)
7/12/2018		0.552 (U)	0.408 (U)			1.28 (U)	
9/12/2018	0.532 (U)						0.317 (U)
9/13/2018		0.662 (U)	0.472 (U)		0.708 (U)		
9/14/2018				1.16		0.74 (U)	
10/1/2019							0.953 (U)
10/2/2019	0.915 (U)	1 (U)	0.65 (U)	1.34 (U)			
10/3/2019					2.07	1.9	
3/24/2020							2.23
3/25/2020	0.694 (U)			0.385 (U)			
3/26/2020		0.863 (U)	0.522 (U)		1.05	1.66	

Time Series

Constituent: Combined Radium 226 + 228 (pCi/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	1.85						
9/1/2016							0.88 (U)
9/8/2016		1.41					
10/18/2016				0.0311 (U)	0.0333 (U)		
12/6/2016				0.301 (U)			
12/7/2016	0.844 (U)				0.507 (U)		0.179 (U)
12/8/2016		1.39				0.968 (U)	
3/21/2017	0.832 (U)			0.506 (U)			
3/22/2017		0.852 (U)					0.279 (U)
3/23/2017					0.378 (U)	0.444 (U)	
7/11/2017	0.824 (U)	1.04		0.0701 (U)	1.04		
7/12/2017						0.814 (U)	0.125 (U)
10/17/2017				0.412 (U)	0.779 (U)		
10/18/2017	1.19	0.678 (U)					
10/19/2017						0.748 (U)	0.329 (U)
2/20/2018	0.975 (U)			0.81 (U)	0.906 (U)		
2/21/2018		0.863 (U)				1.05 (U)	0.504 (U)
4/12/2018			0.774 (U)				
5/23/2018			0.301 (U)				
6/13/2018			0.508 (U)				
7/11/2018	1.29		1.66	0.749 (U)	0.505 (U)		
7/12/2018		1.42				0.751 (U)	0.188 (U)
9/12/2018			0.217 (U)	0.2 (U)			
9/13/2018	0.765 (U)	0.766 (U)			0.313 (U)		0.0542 (U)
9/14/2018						1.01 (U)	
10/4/2018			1.14			1.05	
10/24/2018			0.441 (U)				
9/10/2019	0.575 (U)						
10/1/2019					1.01 (U)		
10/2/2019		1.48	0.712 (U)	0.0883 (U)			
10/3/2019						1.62 (U)	1.37
3/24/2020			0.898 (U)				
3/25/2020	1.39	0.91 (U)		1.79	0.333 (U)		
3/26/2020						0.473 (U)	0.43 (U)

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							0.06 (J)
8/31/2016	0.13 (J)						
9/1/2016		0.06 (J)					
9/6/2016			0.09 (J)				
9/7/2016				0.03 (J)	0.12 (J)	0.15 (J)	
12/6/2016							0.06 (J)
12/7/2016	0.07 (J)	0.09 (J)	0.09 (J)				
12/8/2016				0.18 (J)	0.18 (J)	0.12 (J)	
3/21/2017	<0.3						0.004 (J)
3/22/2017		0.11 (J)	0.04 (J)	0.09 (J)	0.08 (J)		
3/23/2017						0.14 (J)	
7/11/2017	0.05 (J)		0.05 (J)				0.05 (J)
7/12/2017		0.23 (J)		0.21 (J)	0.17 (J)	0.07 (J)	
10/17/2017							<0.3
10/18/2017	0.11 (J)	0.19 (J)	0.04 (J)	0.24 (J)	0.06 (J)		
10/19/2017						<0.3	
2/20/2018	0.04 (J)						0.098 (J)
2/21/2018		0.093 (J)	<0.3	0.24 (J)	0.086 (J)	0.37	
7/11/2018	<0.3						<0.3
7/12/2018		<0.3	<0.3			0.17 (J)	
8/15/2018					<0.3		
8/16/2018				0.073 (J)			
9/12/2018	<0.3						0.034 (J)
9/13/2018		0.15 (J)	<0.3		<0.3		
9/14/2018				<0.3		<0.3	
3/26/2019							<0.3
3/27/2019	<0.3		<0.3		<0.3		
3/28/2019		0.1		0.15		0.074	
10/1/2019							0.062 (X)
10/2/2019	0.056 (X)	0.075 (X)	0.053 (X)	0.063 (X)			
10/3/2019					0.043 (X)	0.084 (X)	
3/24/2020							<0.3
3/25/2020	<0.3			<0.3			
3/26/2020		0.056 (J)	<0.3		<0.3	0.077 (J)	

Time Series

Constituent: Fluoride (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	0.13 (J)						
9/1/2016							<0.3
9/8/2016		0.25 (J)					
10/18/2016				0.16 (J)	0.11 (J)		
12/6/2016				0.15 (J)			
12/7/2016	0.13 (J)				0.07 (J)		0.15 (J)
12/8/2016		0.22 (J)				0.21 (J)	
3/21/2017	0.05 (J)			0.02 (J)			
3/22/2017		0.16 (J)					0.09 (J)
3/23/2017					<0.3	0.18 (J)	
7/11/2017	0.05 (J)	0.23 (J)		0.06 (J)	0.02 (J)		
7/12/2017						0.06 (J)	0.02 (J)
10/17/2017				0.05 (J)	<0.3		
10/18/2017	<0.3	0.28 (J)					
10/19/2017						<0.3	<0.3
2/20/2018	0.3 (J)			0.21 (J)	<0.3		
2/21/2018		0.29 (J)				0.039 (J)	0.045 (J)
4/12/2018			<0.3				
5/23/2018			0.063 (J)				
6/13/2018			0.11 (J)				
7/11/2018	0.077 (J)		<0.3	0.087 (J)	<0.3		
7/12/2018		0.21 (J)				<0.3	<0.3
8/17/2018			<0.3				
9/12/2018			0.093 (J)	0.049 (J)			
9/13/2018	<0.3	0.22 (J)			<0.3		<0.3
9/14/2018						<0.3	
10/4/2018			0.15 (J)			0.15 (J)	
10/24/2018			0.29 (J)				
3/26/2019				<0.3			
3/27/2019	<0.3	0.37	0.04		<0.3		
3/28/2019						<0.3	<0.3
9/10/2019	<0.3						
10/1/2019					0.042 (X)		
10/2/2019		0.16 (X)	0.11 (X)	0.057 (X)			
10/3/2019						0.06 (X)	0.041 (X)
3/24/2020			0.051 (J)				
3/25/2020	0.066 (J)	0.13 (J)		<0.3	<0.3		
3/26/2020						<0.3	<0.3

Time Series

Constituent: Lead (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							<0.005
8/31/2016	<0.005						
9/1/2016		<0.005					
9/6/2016			<0.005				
9/7/2016				<0.005	<0.005	<0.005	
12/6/2016							<0.005
12/7/2016	<0.005	<0.005	<0.005				
12/8/2016				<0.005	<0.005	<0.005	
3/21/2017	<0.005						<0.005
3/22/2017		5E-05 (J)	<0.005	<0.005	<0.005		
3/23/2017						<0.005	
7/11/2017	<0.005		<0.005				<0.005
7/12/2017		<0.005		<0.005	<0.005	<0.005	
10/17/2017							0.0001 (J)
10/18/2017	<0.005	<0.005	<0.005	<0.005	<0.005		
10/19/2017						<0.005	
2/20/2018	<0.005						<0.005
2/21/2018		<0.005	<0.005	<0.005	0.00043 (J)	<0.005	
7/11/2018	<0.005						<0.005
7/12/2018		<0.005	<0.005			<0.005	
8/15/2018					<0.005		
8/16/2018				<0.005			
9/12/2018	<0.005						<0.005
9/13/2018		<0.005	<0.005		<0.005		
9/14/2018				<0.005		<0.005	
10/1/2019							<0.005
10/2/2019	<0.005	<0.005	8.1E-05 (X)	<0.005			
10/3/2019					<0.005	<0.005	
3/24/2020							6.2E-05 (J)
3/25/2020	<0.005			<0.005			
3/26/2020		<0.005	<0.005		<0.005	<0.005	

Time Series

Constituent: Lead (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	<0.005						
9/1/2016							<0.005
9/8/2016		<0.005					
10/18/2016				<0.005	0.0001 (J)		
12/6/2016				<0.005			
12/7/2016	<0.005				<0.005		<0.005
12/8/2016		<0.005				<0.005	
3/21/2017	<0.005			<0.005			
3/22/2017		<0.005					<0.005
3/23/2017					0.0002 (J)	9E-05 (J)	
7/11/2017	<0.005	<0.005		<0.005	<0.005		
7/12/2017						<0.005	<0.005
10/17/2017				0.0005 (J)	7E-05 (J)		
10/18/2017	<0.005	<0.005					
10/19/2017						<0.005	<0.005
2/20/2018	<0.005			<0.005	<0.005		
2/21/2018		<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		
7/12/2018		<0.005				<0.005	<0.005
8/17/2018			<0.005				
9/12/2018			<0.005	<0.005			
9/13/2018	<0.005	<0.005			<0.005		<0.005
9/14/2018						<0.005	
10/4/2018			<0.005			<0.005	
10/24/2018			<0.005				
9/10/2019	<0.005						
10/1/2019					<0.005		
10/2/2019		<0.005	4.7E-05 (X)	8.1E-05 (X)			
10/3/2019						4.7E-05 (X)	<0.005
3/24/2020			<0.005				
3/25/2020	0.00015 (J)	<0.005		<0.005	<0.005		
3/26/2020						<0.005	<0.005

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							<0.03
8/31/2016	<0.03						
9/1/2016		<0.03					
9/6/2016			<0.03				
9/7/2016				<0.03	<0.03	0.0082 (J)	
12/6/2016							<0.03
12/7/2016	0.003 (J)	<0.03	<0.03				
12/8/2016				<0.03	<0.03	0.0061 (J)	
3/21/2017	<0.03						<0.03
3/22/2017		0.0011 (J)	<0.03	0.0021 (J)	0.0029 (J)		
3/23/2017						0.0122 (J)	
7/11/2017	<0.03		<0.03				<0.03
7/12/2017		<0.03		0.002 (J)	0.0024 (J)	0.013 (J)	
10/17/2017							<0.03
10/18/2017	<0.03	<0.03	<0.03	0.002 (J)	0.0027 (J)		
10/19/2017						0.013 (J)	
2/20/2018	<0.03						<0.03
2/21/2018		<0.03	<0.03	0.0022 (J)	0.0021 (J)	0.0085 (J)	
7/11/2018	<0.03						<0.03
7/12/2018		0.0012 (J)	<0.03			0.013 (J)	
8/15/2018					0.0027 (J)		
8/16/2018				0.0027 (J)			
9/12/2018	<0.03						<0.03
9/13/2018		0.0013 (J)	<0.03		0.0029 (J)		
9/14/2018				0.0025 (J)		0.018 (J)	
10/1/2019							<0.03
10/2/2019	<0.03	0.0013 (X)	<0.03	0.0024 (X)			
10/3/2019					0.0027 (X)	0.016 (X)	
3/24/2020							<0.03
3/25/2020	<0.03			0.003 (J)			
3/26/2020		0.0014 (J)	<0.03		0.0027 (J)	0.013 (J)	

Time Series

Constituent: Lithium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	<0.03						
9/1/2016							0.0022 (J)
9/8/2016		0.0038 (J)					
10/18/2016				<0.03	<0.03		
12/6/2016				<0.03			
12/7/2016	<0.03				<0.03		0.0023 (J)
12/8/2016		0.0038 (J)				<0.03	
3/21/2017	<0.03			<0.03			
3/22/2017		0.0068 (J)					0.0025 (J)
3/23/2017					<0.03	<0.03	
7/11/2017	<0.03	0.0059 (J)		<0.03	<0.03		
7/12/2017						<0.03	0.0033 (J)
10/17/2017				<0.03	<0.03		
10/18/2017	<0.03	0.0057 (J)					
10/19/2017						<0.03	<0.03
2/20/2018	<0.03			<0.03	<0.03		
2/21/2018		0.0063 (J)				<0.03	0.0034 (J)
4/12/2018			<0.03				
5/23/2018			<0.03				
6/13/2018			<0.03				
7/11/2018	<0.03		0.0011 (J)	<0.03	<0.03		
7/12/2018		0.0063 (J)				<0.03	0.0038 (J)
8/17/2018			0.0024 (J)				
9/12/2018			0.0025 (J)	<0.03			
9/13/2018	<0.03	0.0061 (J)			<0.03		0.0026 (J)
9/14/2018						<0.03	
10/4/2018			0.0021 (J)			<0.03	
10/24/2018			0.0021 (J)				
9/10/2019	<0.03						
10/1/2019					<0.03		
10/2/2019		0.0074 (X)	0.0016 (X)	<0.03			
10/3/2019						<0.03	0.0032 (X)
3/24/2020			0.0019 (J)				
3/25/2020	0.0011 (J)	0.0066 (J)		<0.03	<0.03		
3/26/2020						<0.03	0.0031 (J)

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							<0.0005
8/31/2016	<0.0005						
9/1/2016		<0.0005					
9/6/2016			<0.0005				
9/7/2016				<0.0005	<0.0005	<0.0005	
12/6/2016							<0.0005
12/7/2016	7E-05 (J)	<0.0005	<0.0005				
12/8/2016				<0.0005	<0.0005	<0.0005	
3/21/2017	<0.0005						<0.0005
3/22/2017		<0.0005	<0.0005	<0.0005	<0.0005		
3/23/2017						<0.0005	
7/11/2017	<0.0005		<0.0005				<0.0005
7/12/2017		<0.0005		<0.0005	<0.0005	<0.0005	
10/17/2017							<0.0005
10/18/2017	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005		
10/19/2017						<0.0005	
2/20/2018	<0.0005						<0.0005
2/21/2018		9.7E-05 (J)	6.8E-05 (J)	8.6E-05 (J)	5.7E-05 (J)	4.5E-05 (J)	
7/11/2018	<0.0005						<0.0005
7/12/2018		<0.0005	<0.0005			<0.0005	
8/15/2018					<0.0005		
8/16/2018				<0.0005			
9/12/2018	<0.0005						<0.0005
9/13/2018		<0.0005	<0.0005		<0.0005		
9/14/2018				<0.0005		<0.0005	

Time Series

Constituent: Mercury (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	<0.0005						
9/1/2016							<0.0005
9/8/2016		<0.0005					
10/18/2016				<0.0005	<0.0005		
12/6/2016				<0.0005			
12/7/2016	9E-05 (J)				<0.0005		6E-05 (J)
12/8/2016		<0.0005				<0.0005	
3/21/2017	<0.0005			<0.0005			
3/22/2017		<0.0005					<0.0005
3/23/2017					<0.0005	<0.0005	
7/11/2017	<0.0005	<0.0005		<0.0005	<0.0005		
7/12/2017						<0.0005	<0.0005
10/17/2017				<0.0005	<0.0005		
10/18/2017	<0.0005	<0.0005					
10/19/2017						<0.0005	<0.0005
2/20/2018	<0.0005			<0.0005	<0.0005		
2/21/2018		5.3E-05 (J)				4.3E-05 (J)	5.3E-05 (J)
4/12/2018			<0.0005				
5/23/2018			<0.0005				
6/13/2018			4.9E-05 (J)				
7/11/2018	<0.0005		<0.0005	<0.0005	<0.0005		
7/12/2018		<0.0005				<0.0005	<0.0005
8/17/2018			<0.0005				
9/12/2018			<0.0005	<0.0005			
9/13/2018	<0.0005	<0.0005			<0.0005		<0.0005
9/14/2018						4.1E-05 (J)	
10/4/2018			<0.0005			<0.0005	
10/24/2018			5.2E-05 (J)				

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							<0.01
8/31/2016	<0.01						
9/1/2016		<0.01					
9/6/2016			<0.01				
9/7/2016				<0.01	<0.01	0.0027 (J)	
12/6/2016							0.0019 (J)
12/7/2016	<0.01	<0.01	<0.01				
12/8/2016				<0.01	<0.01	0.0022 (J)	
3/21/2017	0.0005 (J)						0.0018 (J)
3/22/2017		0.0004 (J)	0.0004 (J)	0.0004 (J)	<0.01		
3/23/2017						0.0025 (J)	
7/11/2017	<0.01		<0.01				0.0018 (J)
7/12/2017		<0.01		<0.01	<0.01	0.0022 (J)	
10/17/2017							0.0016 (J)
10/18/2017	<0.01	<0.01	<0.01	<0.01	<0.01		
10/19/2017						0.0021 (J)	
2/20/2018	<0.01						<0.01
2/21/2018		<0.01	<0.01	<0.01	<0.01	<0.01	
7/11/2018	<0.01						<0.01
7/12/2018		<0.01	<0.01			0.0022 (J)	
8/15/2018					<0.01		
8/16/2018				<0.01			
9/12/2018	<0.01						<0.01
9/13/2018		<0.01	<0.01		<0.01		
9/14/2018				<0.01		0.0023 (J)	
10/1/2019							0.001 (X)
10/2/2019	<0.01	<0.01	<0.01	<0.01			
10/3/2019					<0.01	0.0024 (X)	
3/24/2020							0.001 (J)
3/25/2020	<0.01			<0.01			
3/26/2020		<0.01	<0.01		<0.01	0.0021 (J)	

Time Series

Constituent: Molybdenum (mg/L) Analysis Run 7/27/2020 10:17 AM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	<0.01						
9/1/2016							<0.01
9/8/2016		<0.01					
10/18/2016				<0.01	<0.01		
12/6/2016				<0.01			
12/7/2016	<0.01				<0.01		<0.01
12/8/2016		<0.01				<0.01	
3/21/2017	0.0006 (J)			0.0005 (J)			
3/22/2017		0.001 (J)					<0.01
3/23/2017					<0.01	<0.01	
7/11/2017	<0.01	<0.01		<0.01	<0.01		
7/12/2017						<0.01	<0.01
10/17/2017				<0.01	<0.01		
10/18/2017	<0.01	<0.01					
10/19/2017						<0.01	<0.01
2/20/2018	<0.01			<0.01	<0.01		
2/21/2018		<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		
7/12/2018		<0.01				<0.01	<0.01
8/17/2018			<0.01				
9/12/2018			<0.01	<0.01			
9/13/2018	<0.01	<0.01			<0.01		<0.01
9/14/2018						<0.01	
10/4/2018			<0.01			<0.01	
10/24/2018			<0.01				
9/10/2019	<0.01						
10/1/2019					<0.01		
10/2/2019		<0.01	<0.01	<0.01			
10/3/2019						<0.01	<0.01
3/24/2020			<0.01				
3/25/2020	0.0011 (J)	<0.01		<0.01	<0.01		
3/26/2020						<0.01	<0.01

Time Series

Constituent: pH (SU) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							7.67
8/31/2016	6.97						
9/1/2016		7.21					
9/6/2016			7.23				
9/7/2016				7.02	6.92	6.71	
12/6/2016							7.57
12/7/2016	6.85	7.13	7.3				
12/8/2016				6.95	6.9	6.61	
3/21/2017	7.04						7.54
3/22/2017		7.04	7.2	7.05	7		
3/23/2017						6.69	
7/11/2017	6.88		7.31				7.43
7/12/2017		7.09		7.06	6.95	6.69	
10/17/2017							7.7
10/18/2017	6.77	7.2	7.28	6.99		6.88	
10/19/2017						6.85	
2/20/2018	7.32 (D)						7.57
2/21/2018		7.11	7.1	6.95	6.89	6.66	
7/11/2018	7.12						7.48
7/12/2018		7.07	7.14	7.06	7.01	6.84	
8/15/2018					6.87		
8/16/2018				7.01			
9/12/2018	6.87						7.41
9/13/2018		7.01	7.08		6.86		
9/14/2018				6.83		6.76	
3/26/2019							7.49
3/27/2019	6.98		7.23		6.92		
3/28/2019		7.84		6.97		6.67	
10/1/2019							7.5
10/2/2019	6.96	7.22	7.22	6.99			
10/3/2019					6.78	6.93	
3/24/2020							7.79
3/25/2020	7.02			6.93			
3/26/2020		7.08	7.12		7.01	6.7	

Time Series

Constituent: pH (SU) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	6.75						
9/1/2016							7.07
9/8/2016		7.1					
10/4/2016						6.88	
10/5/2016						6.91	
10/17/2016					7.43		
10/18/2016				7.15	7.45		
12/6/2016				7.04			
12/7/2016	6.64				7.29		6.85
12/8/2016		6.98				6.86	
3/21/2017	6.73			7.01			
3/22/2017		7.16					6.99
3/23/2017					7.26	6.9	
7/11/2017	6.66	7.15		6.96	7.31	7.82 (o)	
7/12/2017						6.81	6.83
10/17/2017			7.61	7.31	7.29		
10/18/2017	6.73	7.09					
10/19/2017						6.86	6.91
2/20/2018	7.11				7.26		
2/21/2018		7.12				7.02	6.97
7/11/2018	7		9.48	7.26	7.39		
7/12/2018				7.01		6.82	6.85
9/12/2018			9.07	7.02			
9/13/2018	6.56	7.03			7.25		6.88
9/14/2018						6.75	
3/26/2019				7			
3/27/2019	6.75	7.08	8.76		7.42		
3/28/2019						6.96	6.96
9/10/2019	6.78						
10/1/2019					7.43		
10/2/2019		7.2	8.97	7.09			
10/3/2019						7.01	6.85
3/24/2020			8.57				
3/25/2020	6.84	7.01		7.15	7.23		
3/26/2020						7	7.12

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							<0.01
8/31/2016	0.0012 (J)						
9/1/2016		<0.01					
9/6/2016			<0.01				
9/7/2016				<0.01	<0.01	<0.01	
12/6/2016							<0.01
12/7/2016	<0.01	<0.01	<0.01				
12/8/2016				<0.01	<0.01	<0.01	
3/21/2017	<0.01						<0.01
3/22/2017		<0.01	<0.01	<0.01	<0.01		
3/23/2017						<0.01	
7/11/2017	<0.01		<0.01				<0.01
7/12/2017		<0.01		<0.01	<0.01	<0.01	
10/17/2017							<0.01
10/18/2017	<0.01	<0.01	<0.01	<0.01	<0.01		
10/19/2017						<0.01	
2/20/2018	<0.01						<0.01
2/21/2018		<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	
8/15/2018					<0.01		
8/16/2018				<0.01			
9/12/2018	<0.01						<0.01
9/13/2018		<0.01	<0.01		<0.01		
9/14/2018				<0.01		0.0015 (J)	
10/1/2019							<0.01
10/2/2019	0.0015 (X)	<0.01	<0.01	<0.01			
10/3/2019					<0.01	0.0034 (X)	
3/24/2020							<0.01
3/25/2020	<0.01			<0.01			
3/26/2020		<0.01	<0.01		<0.01	0.0016 (J)	

Time Series

Constituent: Selenium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	0.0014 (J)						
9/1/2016							<0.01
9/8/2016		<0.01					
10/18/2016				<0.01	<0.01		
12/6/2016				<0.01			
12/7/2016	<0.01				<0.01		<0.01
12/8/2016		<0.01				<0.01	
3/21/2017	<0.01			<0.01			
3/22/2017		<0.01					<0.01
3/23/2017					<0.01	<0.01	
7/11/2017	<0.01	<0.01		<0.01	<0.01		
7/12/2017						<0.01	<0.01
10/17/2017				<0.01	<0.01		
10/18/2017	<0.01	<0.01					
10/19/2017						<0.01	<0.01
2/20/2018	<0.01			<0.01	<0.01		
2/21/2018		<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		
7/12/2018		<0.01				<0.01	<0.01
8/17/2018			<0.01				
9/12/2018			<0.01	<0.01			
9/13/2018	<0.01	<0.01			<0.01		<0.01
9/14/2018						<0.01	
10/4/2018			<0.01			<0.01	
10/24/2018			<0.01				
9/10/2019	0.0018 (X)						
10/1/2019					<0.01		
10/2/2019		<0.01	<0.01	<0.01			
10/3/2019						<0.01	0.0017 (X)
3/24/2020			<0.01				
3/25/2020	0.003 (J)	<0.01		<0.01	<0.01		
3/26/2020						<0.01	<0.01

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							2.1
8/31/2016	4.1						
9/1/2016		73					
9/6/2016			49				
9/7/2016				99	96	87	
12/6/2016							2.4
12/7/2016	1.5	71	46				
12/8/2016				94	94	84	
3/21/2017	2						2.5
3/22/2017		80	53	100	95		
3/23/2017						90	
7/11/2017	2		52				2.6
7/12/2017		78		100	96	93	
10/17/2017							2.5
10/18/2017	4.2	82	58	100	99		
10/19/2017						92	
2/20/2018	2.4						2.3
2/21/2018		72.2	48.2	98.8	91.8	84.5	
7/11/2018	3.8						2.5
7/12/2018		80.5	48.8			84.9	
8/15/2018					101		
8/16/2018				111			
9/12/2018	4.3						2
9/13/2018		84.4	48.7		106		
9/14/2018				102		89.5	
3/26/2019							2.7
3/27/2019	8.2		46.5		111		
3/28/2019		90.3		94.7		83.5	
10/1/2019							2.8
10/2/2019	6.2	83	48.5	104			
10/3/2019					95.8	84.9	
3/24/2020							3
3/25/2020	11.9			92.4			
3/26/2020		83.6	43.5		91	84.9	

Time Series

Constituent: Sulfate (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	29						
9/1/2016							62
9/8/2016		48					
10/18/2016				2.2	2.3		
12/6/2016				6.1			
12/7/2016	24				1.9		57
12/8/2016		46				100	
3/21/2017	31			5.7			
3/22/2017		53					61
3/23/2017					1.7	100	
7/11/2017	37	51		4.8	1.8		
7/12/2017						97	53
10/17/2017				6.4	1.9		
10/18/2017	34	50					
10/19/2017						97	55
2/20/2018	34.7			5.2	2.1		
2/21/2018		46.8				93.6	52.1
4/12/2018			4.8 (J)				
5/23/2018			4.5				
6/13/2018			5.3				
7/11/2018	35.4		5.4	3.6	2		
7/12/2018		48.3				89.4	53.9
8/17/2018			4.5				
9/12/2018			4.4	2.7			
9/13/2018	37.4	42			2.1		67.5
9/14/2018						88.9	
10/4/2018			5.8			97.8	
10/24/2018			6.2				
3/26/2019				1.6			
3/27/2019	41.9	43.7	3.7		2.4		
3/28/2019						76.7	59.6
9/10/2019	45.1						
10/1/2019					2.2		
10/2/2019		43	4.1	1.6			
10/3/2019						72.1	59.6
3/24/2020			3.1				
3/25/2020	47	39.1		1.5	1.9		
3/26/2020						66.6	57.1

Time Series

Constituent: TDS (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							136
8/31/2016	344						
9/1/2016		284					
9/6/2016			257				
9/7/2016				392	415	508	
12/6/2016							207
12/7/2016	393	242	248				
12/8/2016				431	441	556	
3/21/2017	276						128
3/22/2017		332	304	456	469		
3/23/2017						482	
7/11/2017	263		265				138
7/12/2017		308		445	432	497	
10/17/2017							101
10/18/2017	261	275	240	349	368		
10/19/2017						448	
2/20/2018	295						138
2/21/2018		312	285	411	409	500	
7/11/2018	294						153
7/12/2018		337	285			523	
8/15/2018					422		
8/16/2018				415			
9/12/2018	286						146
9/13/2018		336	291		438		
9/14/2018				403		486	
3/26/2019							334
3/27/2019	281		277		408		
3/28/2019		337		420		378	
10/1/2019							146
10/2/2019	312	355	284	415			
10/3/2019					464	485	
3/24/2020							228
3/25/2020	330			408			
3/26/2020		330	286		415	440	

Time Series

Constituent: TDS (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	400						
9/1/2016							373
9/8/2016		293					
10/18/2016				264	152		
12/6/2016				299			
12/7/2016	406					214	433
12/8/2016		309				503 (o)	
3/21/2017	409			260			
3/22/2017		299					409
3/23/2017					165	430	
7/11/2017	414	301		244	162		
7/12/2017						438	374
10/17/2017				218	140		
10/18/2017	366	256					
10/19/2017						393	318
2/20/2018	429			264	163		
2/21/2018		297				435	367
4/12/2018			69				
5/23/2018			62				
6/13/2018			93				
7/11/2018	440		84	273	192		
7/12/2018		310				447	423
8/17/2018			115				
9/12/2018			97	252			
9/13/2018	448	307			192		394
9/14/2018						447	
10/4/2018			103			450	
10/24/2018			110				
3/26/2019				253			
3/27/2019	410	287	87		167		
3/28/2019						405	365
9/10/2019	420						
10/1/2019					187		
10/2/2019		312	95	263			
10/3/2019						414	405
3/24/2020			123				
3/25/2020	454	280		278	178		
3/26/2020						336	332

Time Series

Constituent: Thallium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-14	PZ-15	PZ-16	PZ-17	PZ-18	PZ-19	PZ-1D (bg)
8/30/2016							<0.001
8/31/2016	<0.001						
9/1/2016		<0.001					
9/6/2016			<0.001				
9/7/2016				<0.001	<0.001	<0.001	
12/6/2016							<0.001
12/7/2016	<0.001	<0.001	<0.001				
12/8/2016				<0.001	<0.001	0.0003 (J)	
3/21/2017	6E-05 (J)						<0.001
3/22/2017		<0.001	0.0002 (J)	<0.001	4E-05 (J)		
3/23/2017						0.0003 (J)	
7/11/2017	<0.001		0.0002 (J)				<0.001
7/12/2017		<0.001		<0.001	<0.001	0.0004 (J)	
10/17/2017							<0.001
10/18/2017	<0.001	<0.001	0.0002 (J)	<0.001	5E-05 (J)		
10/19/2017						0.0005 (J)	
2/20/2018	<0.001						<0.001
2/21/2018		<0.001	0.00018 (J)	<0.001	<0.001	0.00049 (J)	
7/11/2018	<0.001						<0.001
7/12/2018		<0.001	<0.001			0.00077 (J)	
8/15/2018					<0.001		
8/16/2018				<0.001			
9/12/2018	<0.001						<0.001
9/13/2018		<0.001	0.00017 (J)		<0.001		
9/14/2018				<0.001		0.00076 (J)	
10/1/2019							<0.001
10/2/2019	<0.001	0.00016 (X)	5.3E-05 (X)	0.00016 (X)			
10/3/2019					<0.001	0.00071 (X)	
3/24/2020							<0.001
3/25/2020	<0.001			0.0002 (J)			
3/26/2020		0.00014 (J)	<0.001		7.1E-05 (J)	0.00068 (J)	

Time Series

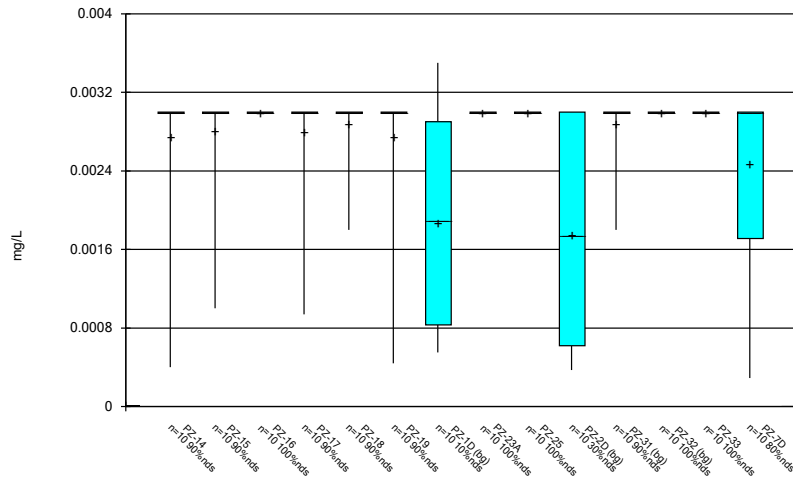
Constituent: Thallium (mg/L) Analysis Run 7/27/2020 10:17 AM

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-23A	PZ-25	PZ-2D (bg)	PZ-31 (bg)	PZ-32 (bg)	PZ-33	PZ-7D
8/31/2016	<0.001						
9/1/2016							<0.001
9/8/2016		<0.001					
10/18/2016				<0.001	<0.001		
12/6/2016				<0.001			
12/7/2016	0.0002 (J)				0.0002 (J)		<0.001
12/8/2016		<0.001				<0.001	
3/21/2017	0.0003 (J)			6E-05 (J)			
3/22/2017		<0.001					0.0002 (J)
3/23/2017					8E-05 (J)	0.0001 (J)	
7/11/2017	0.0002 (J)	<0.001		<0.001	7E-05 (J)		
7/12/2017						0.0001 (J)	0.0001 (J)
10/17/2017				<0.001	8E-05 (J)		
10/18/2017	0.0001 (J)	<0.001					
10/19/2017						0.0001 (J)	0.0001 (J)
2/20/2018	0.00026 (J)			<0.001	<0.001		
2/21/2018		<0.001				<0.001	<0.001
4/12/2018			<0.001				
5/23/2018			<0.001				
6/13/2018			<0.001				
7/11/2018	0.00018 (J)		<0.001	<0.001	<0.001		
7/12/2018		<0.001				<0.001	<0.001
8/17/2018			<0.001				
9/12/2018			<0.001	<0.001			
9/13/2018	<0.001	<0.001			<0.001		<0.001
9/14/2018						<0.001	
10/4/2018			<0.001			<0.001	
10/24/2018			0.00016 (J)				
9/10/2019	<0.001						
10/1/2019					<0.001		
10/2/2019		0.00024 (X)	<0.001	<0.001			
10/3/2019						0.00018 (X)	7.8E-05 (X)
3/24/2020			<0.001				
3/25/2020	0.00015 (J)	0.00037 (J)		<0.001	<0.001		
3/26/2020						0.00015 (J)	8.5E-05 (J)

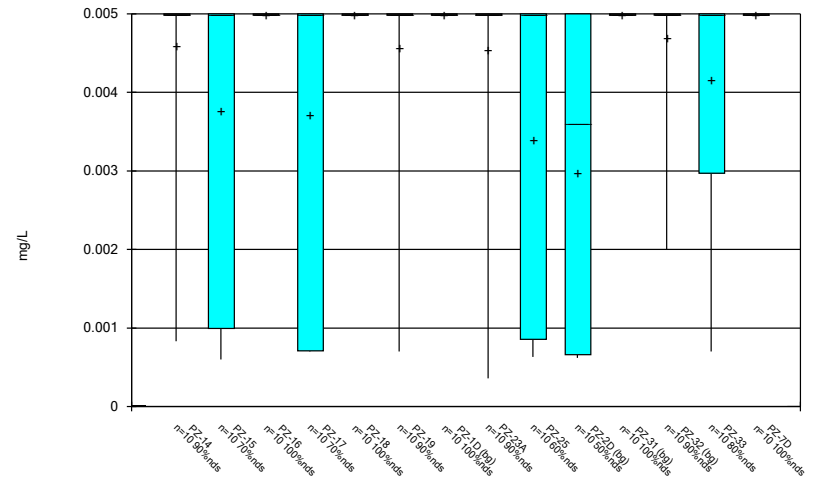
FIGURE B.

Box & Whiskers Plot



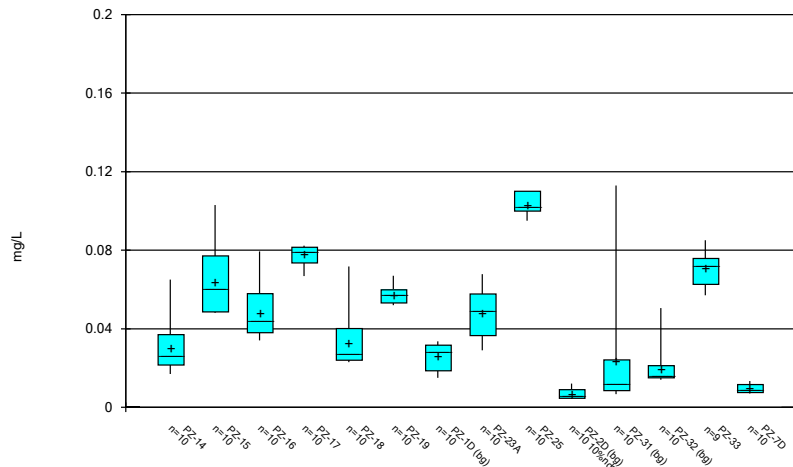
Constituent: Antimony Analysis Run 4/28/2020 4:05 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



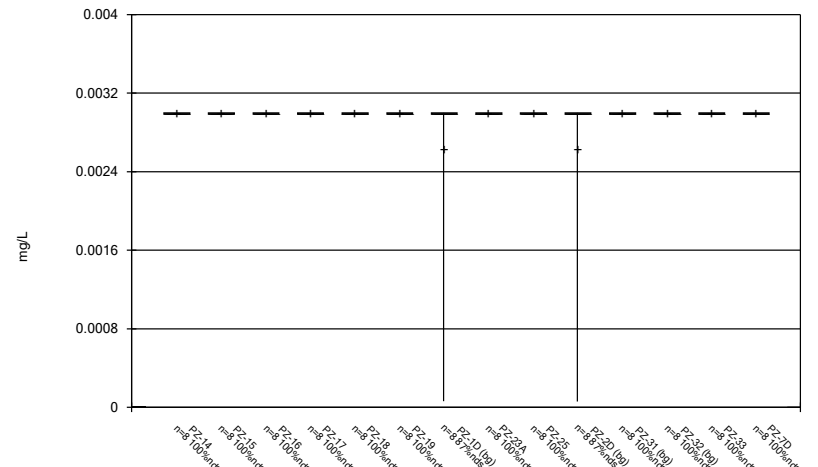
Constituent: Arsenic Analysis Run 4/28/2020 4:05 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



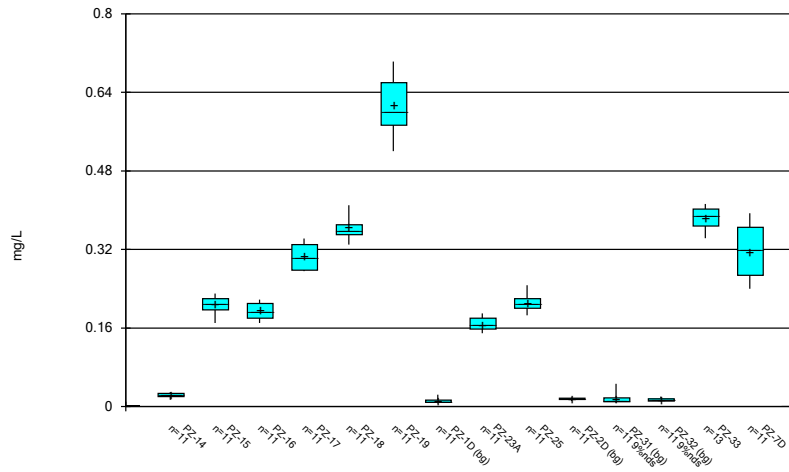
Constituent: Barium Analysis Run 4/28/2020 4:05 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



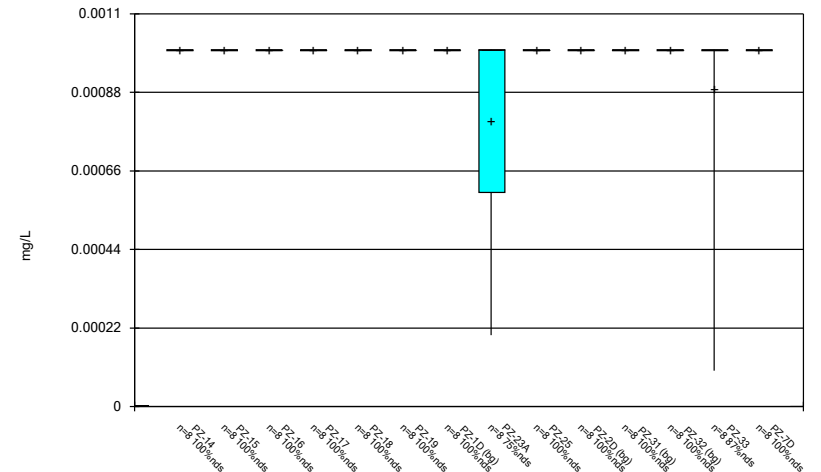
Constituent: Beryllium Analysis Run 4/28/2020 4:05 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



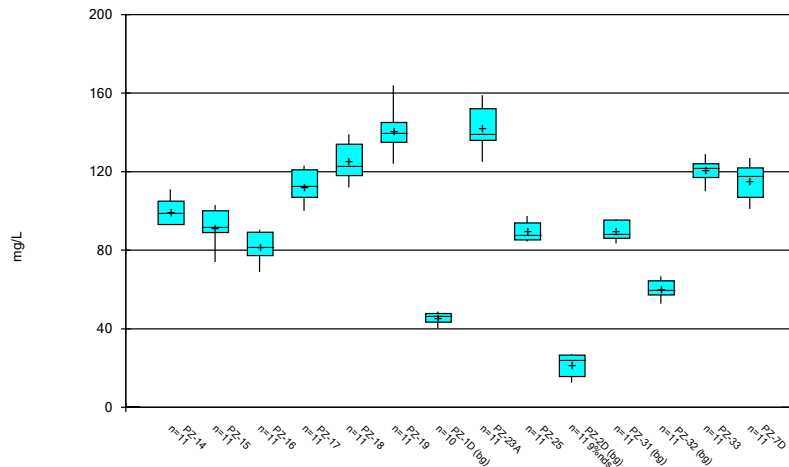
Constituent: Boron Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



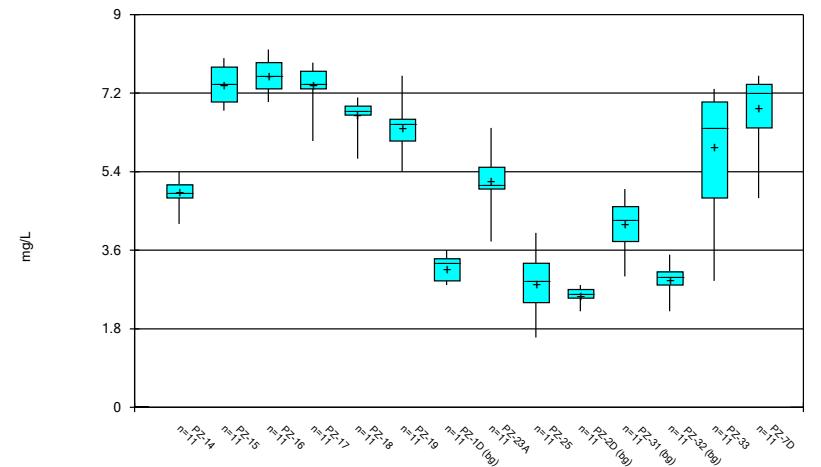
Constituent: Cadmium Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



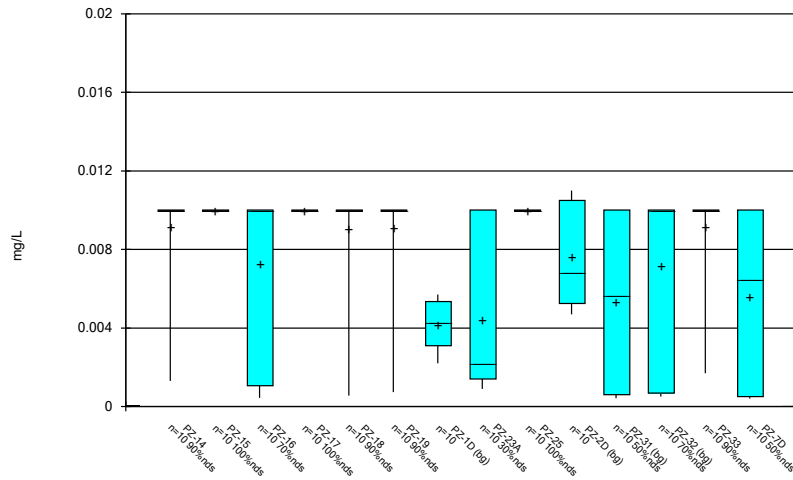
Constituent: Calcium Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



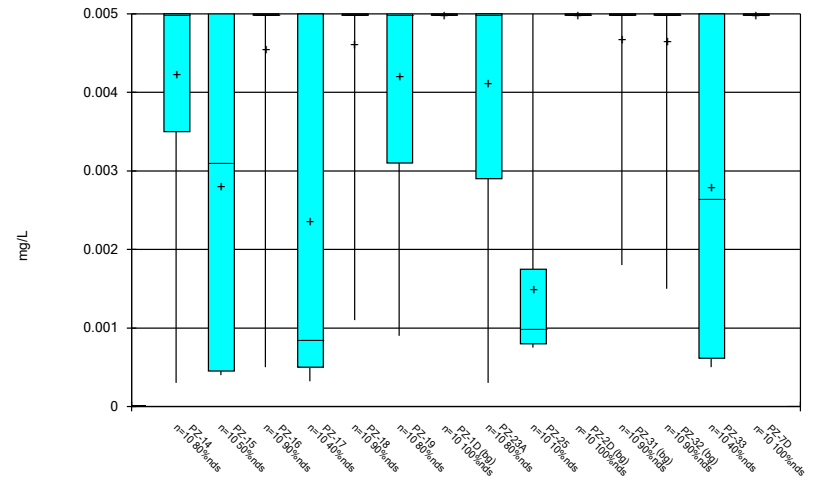
Constituent: Chloride Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



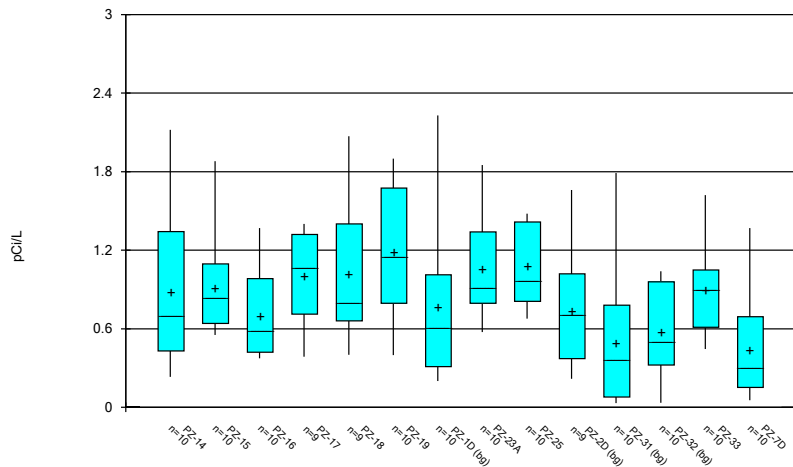
Constituent: Chromium Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



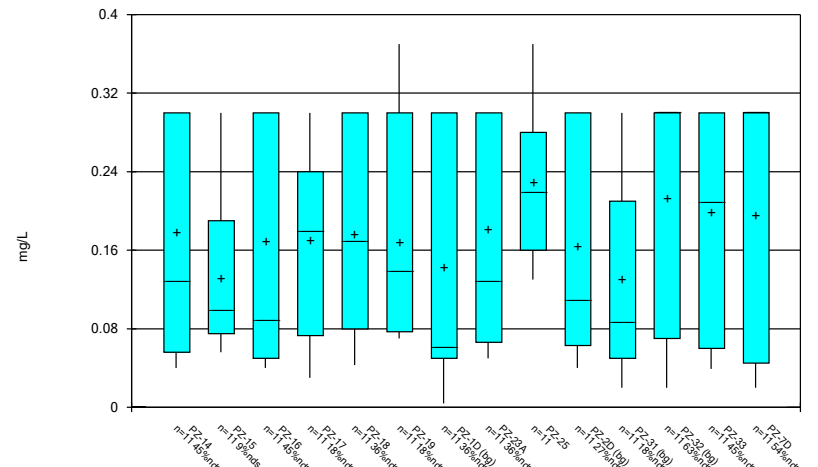
Constituent: Cobalt Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



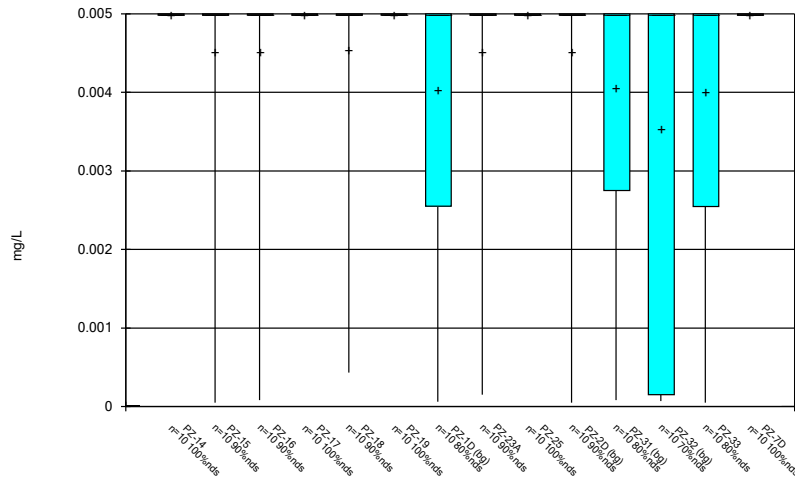
Constituent: Combined Radium 226 + 228 Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



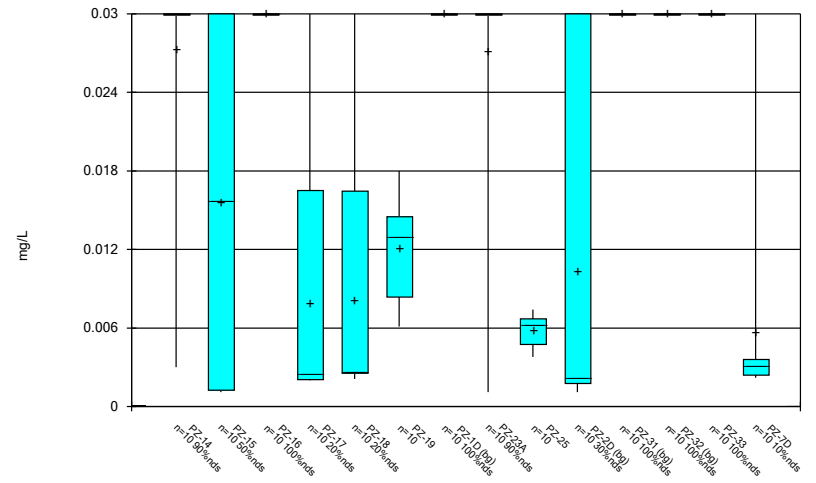
Constituent: Fluoride Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



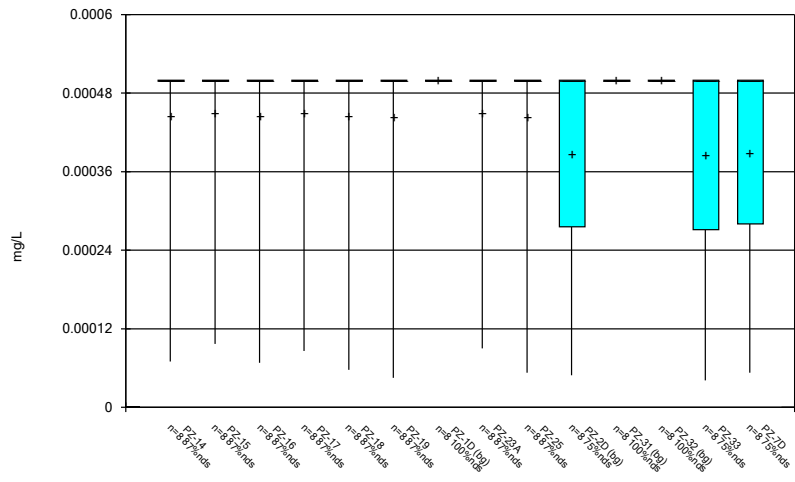
Constituent: Lead Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



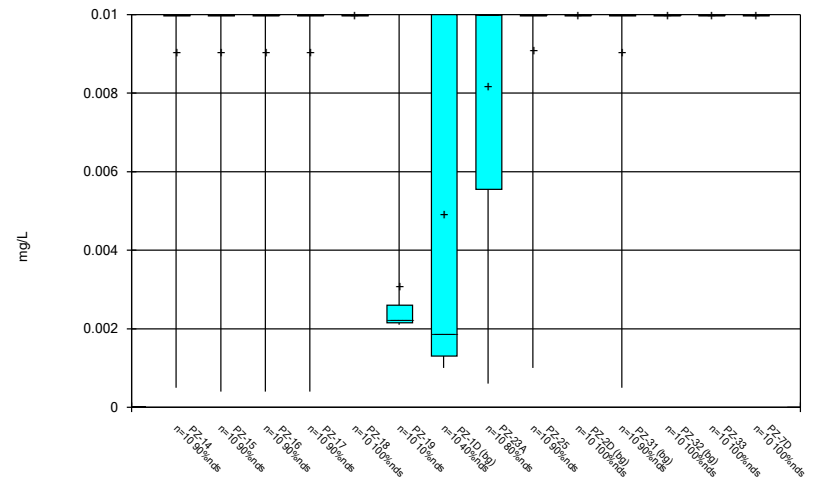
Constituent: Lithium Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot

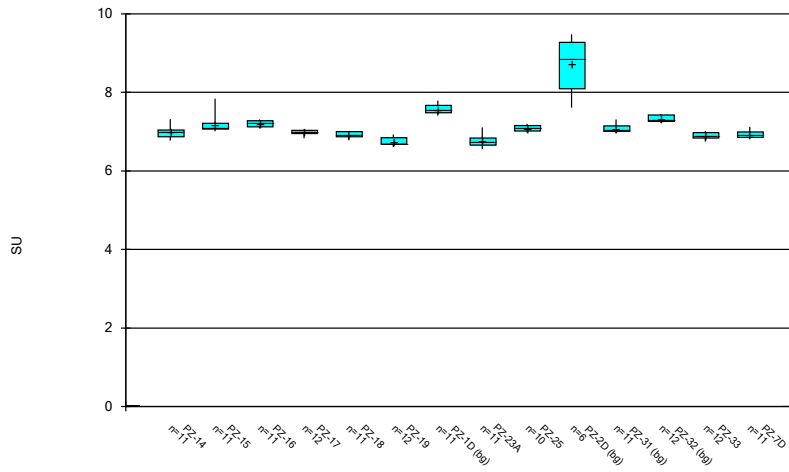


Constituent: Mercury Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot

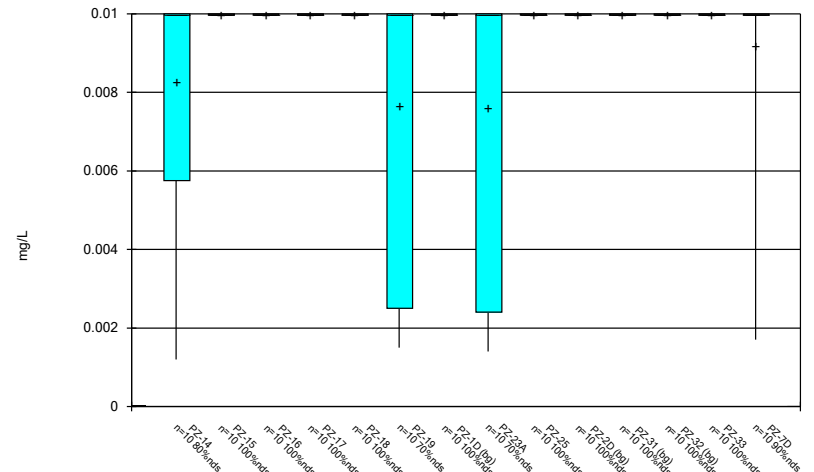


Box & Whiskers Plot



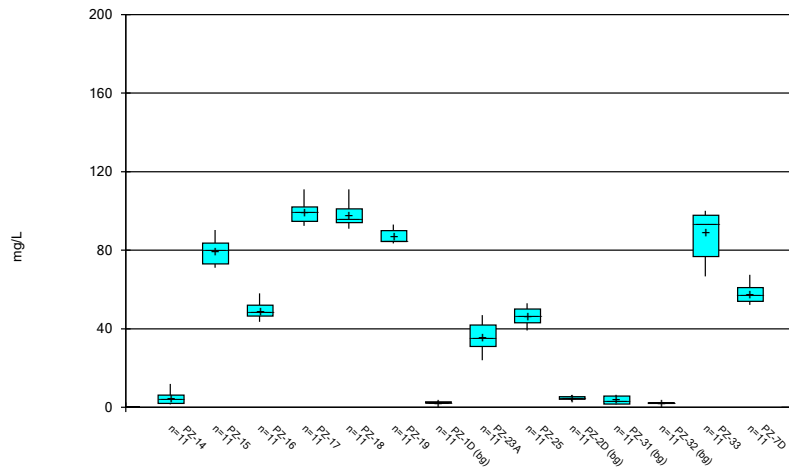
Constituent: pH Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



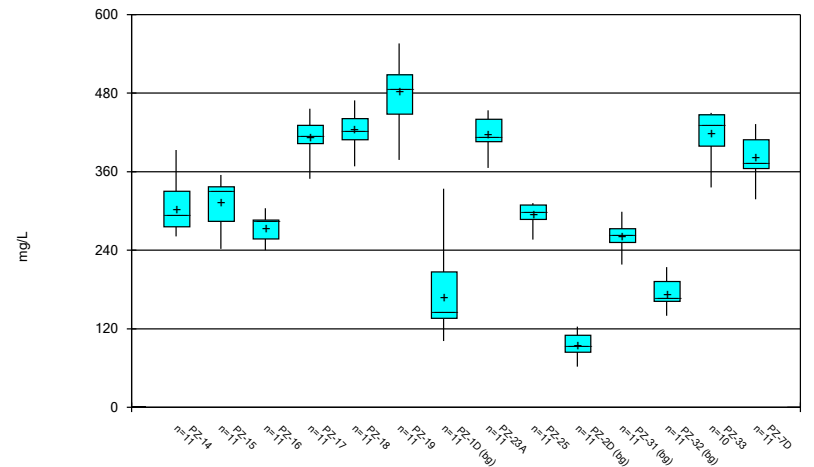
Constituent: Selenium Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



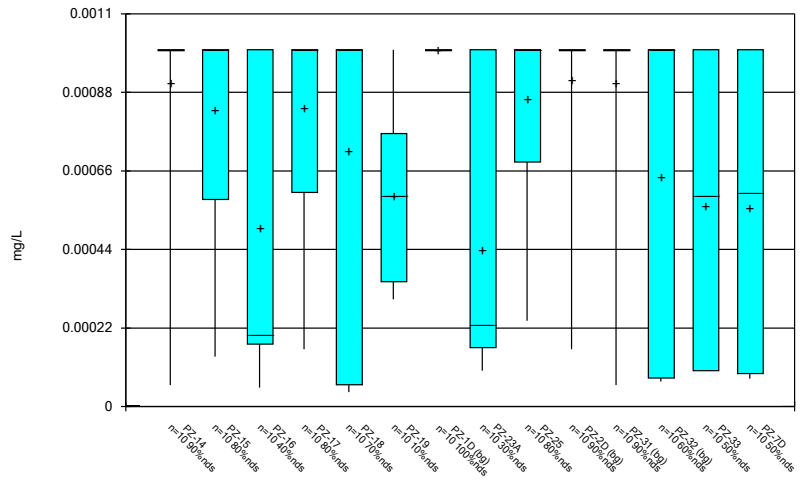
Constituent: Sulfate Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



Constituent: TDS Analysis Run 4/28/2020 4:06 PM
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Box & Whiskers Plot



Constituent: Thallium Analysis Run 4/28/2020 4:06 PM
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

FIGURE C.

Outlier Summary

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/27/2020, 3:14 PM

	PZ-33 Barium (mg/L)	PZ-1D Calcium (mg/L)	PZ-33 pH (SU)	PZ-33 TDS (mg/L)
12/8/2016	0.162 (o)			503 (o)
7/11/2017			7.82 (o)	
7/11/2018		65.3 (o)		

FIGURE D.

Interwell Prediction Limits Summary Table - Significant Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N Bg	Mean	Std. Dev.	%NDs	ND Adj.	Alpha	Method
Boron (mg/L)	PZ-15	0.0274	n/a	3/26/2020	0.21	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-16	0.0274	n/a	3/26/2020	0.19	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-17	0.0274	n/a	3/25/2020	0.33	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-18	0.0274	n/a	3/26/2020	0.36	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-19	0.0274	n/a	3/26/2020	0.6	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-23A	0.0274	n/a	3/25/2020	0.19	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-25	0.0274	n/a	3/25/2020	0.21	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-33	0.0274	n/a	3/26/2020	0.38	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-7D	0.0274	n/a	3/26/2020	0.24	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-17	107.4	n/a	3/25/2020	121	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-18	107.4	n/a	3/26/2020	138	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-19	107.4	n/a	3/26/2020	158	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-23A	107.4	n/a	3/25/2020	157	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-33	107.4	n/a	3/26/2020	122	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-7D	107.4	n/a	3/26/2020	122	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-15	4.77	n/a	3/26/2020	7	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-16	4.77	n/a	3/26/2020	7	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-17	4.77	n/a	3/25/2020	6.1	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-18	4.77	n/a	3/26/2020	5.7	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-19	4.77	n/a	3/26/2020	5.4	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-23A	4.77	n/a	3/25/2020	6.4	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-7D	4.77	n/a	3/26/2020	4.8	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
pH (SU)	PZ-17	9.48	6.96	3/25/2020	6.93	Yes	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-19	9.48	6.96	3/26/2020	6.7	Yes	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-23A	9.48	6.96	3/25/2020	6.84	Yes	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-14	6.4	n/a	3/25/2020	11.9	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-15	6.4	n/a	3/26/2020	83.6	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-16	6.4	n/a	3/26/2020	43.5	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-17	6.4	n/a	3/25/2020	92.4	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-18	6.4	n/a	3/26/2020	91	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-19	6.4	n/a	3/26/2020	84.9	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-23A	6.4	n/a	3/25/2020	47	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-25	6.4	n/a	3/25/2020	39.1	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-33	6.4	n/a	3/26/2020	66.6	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-7D	6.4	n/a	3/26/2020	57.1	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
TDS (mg/L)	PZ-14	317	n/a	3/25/2020	330	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-15	317	n/a	3/26/2020	330	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-17	317	n/a	3/25/2020	408	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-18	317	n/a	3/26/2020	415	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-19	317	n/a	3/26/2020	440	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-23A	317	n/a	3/25/2020	454	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-33	317	n/a	3/26/2020	336	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2	
TDS (mg/L)	PZ-7D	317	n/a	3/26/2020	332	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2	

Interwell Prediction Limits Summary Table - All Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg	N Bg	Mean	Std. Dev.	%NDs	ND Adj.	Alpha	Method
Boron (mg/L)	PZ-14	0.0274	n/a	3/25/2020	0.027	No	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-15	0.0274	n/a	3/26/2020	0.21	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-16	0.0274	n/a	3/26/2020	0.19	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-17	0.0274	n/a	3/25/2020	0.33	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-18	0.0274	n/a	3/26/2020	0.36	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-19	0.0274	n/a	3/26/2020	0.6	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-23A	0.0274	n/a	3/25/2020	0.19	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-25	0.0274	n/a	3/25/2020	0.21	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-33	0.0274	n/a	3/26/2020	0.38	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Boron (mg/L)	PZ-7D	0.0274	n/a	3/26/2020	0.24	Yes	44	-4.335	0.3594	4.545	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-14	107.4	n/a	3/25/2020	105	No	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-15	107.4	n/a	3/26/2020	103	No	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-16	107.4	n/a	3/26/2020	89.8	No	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-17	107.4	n/a	3/25/2020	121	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-18	107.4	n/a	3/26/2020	138	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-19	107.4	n/a	3/26/2020	158	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-23A	107.4	n/a	3/25/2020	157	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-25	107.4	n/a	3/25/2020	97.5	No	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-33	107.4	n/a	3/26/2020	122	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Calcium (mg/L)	PZ-7D	107.4	n/a	3/26/2020	122	Yes	43	54.51	25.72	2.326	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-14	4.77	n/a	3/25/2020	4.2	No	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-15	4.77	n/a	3/26/2020	7	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-16	4.77	n/a	3/26/2020	7	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-17	4.77	n/a	3/25/2020	6.1	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-18	4.77	n/a	3/26/2020	5.7	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-19	4.77	n/a	3/26/2020	5.4	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-23A	4.77	n/a	3/25/2020	6.4	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-25	4.77	n/a	3/25/2020	1.6	No	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-33	4.77	n/a	3/26/2020	2.9	No	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Chloride (mg/L)	PZ-7D	4.77	n/a	3/26/2020	4.8	Yes	44	1.781	0.1964	0	None	0.0007523	Param Inter 1 of 2	
Fluoride (mg/L)	PZ-14	0.3	n/a	3/25/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-15	0.3	n/a	3/26/2020	0.056	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-16	0.3	n/a	3/26/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-17	0.3	n/a	3/25/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-18	0.3	n/a	3/26/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-19	0.3	n/a	3/26/2020	0.077	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-23A	0.3	n/a	3/25/2020	0.066	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-25	0.3	n/a	3/25/2020	0.13	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-33	0.3	n/a	3/26/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
Fluoride (mg/L)	PZ-7D	0.3	n/a	3/26/2020	0.3ND	No	44	n/a	n/a	36.36	n/a	0.0009571	NP Inter (normality) 1 of 2	
pH (SU)	PZ-14	9.48	6.96	3/25/2020	7.02	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-15	9.48	6.96	3/26/2020	7.08	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-16	9.48	6.96	3/26/2020	7.12	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-17	9.48	6.96	3/25/2020	6.93	Yes	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-18	9.48	6.96	3/26/2020	7.01	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-19	9.48	6.96	3/26/2020	6.7	Yes	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-23A	9.48	6.96	3/25/2020	6.84	Yes	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-25	9.48	6.96	3/25/2020	7.01	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-33	9.48	6.96	3/26/2020	7	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
pH (SU)	PZ-7D	9.48	6.96	3/26/2020	7.12	No	40	n/a	n/a	0	n/a	0.002217	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-14	6.4	n/a	3/25/2020	11.9	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-15	6.4	n/a	3/26/2020	83.6	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-16	6.4	n/a	3/26/2020	43.5	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-17	6.4	n/a	3/25/2020	92.4	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	
Sulfate (mg/L)	PZ-18	6.4	n/a	3/26/2020	91	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2	

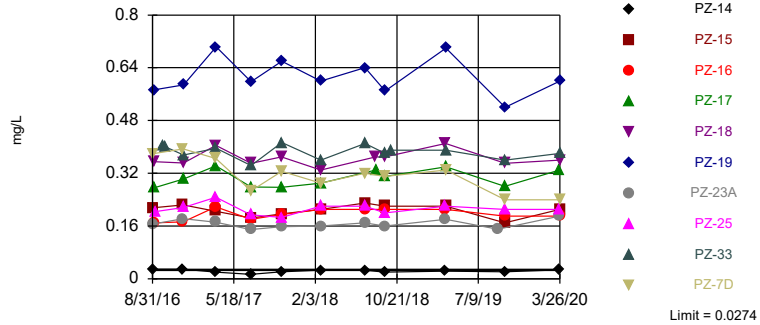
Interwell Prediction Limits Summary Table - All Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:10 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Alpha	Method
Sulfate (mg/L)	PZ-19	6.4	n/a	3/26/2020	84.9	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2
Sulfate (mg/L)	PZ-23A	6.4	n/a	3/25/2020	47	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2
Sulfate (mg/L)	PZ-25	6.4	n/a	3/25/2020	39.1	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2
Sulfate (mg/L)	PZ-33	6.4	n/a	3/26/2020	66.6	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2
Sulfate (mg/L)	PZ-7D	6.4	n/a	3/26/2020	57.1	Yes	44	n/a	n/a	0	n/a	0.0009571	NP Inter (normality) 1 of 2
TDS (mg/L)	PZ-14	317	n/a	3/25/2020	330	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-15	317	n/a	3/26/2020	330	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-16	317	n/a	3/26/2020	286	No	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-17	317	n/a	3/25/2020	408	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-18	317	n/a	3/26/2020	415	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-19	317	n/a	3/26/2020	440	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-23A	317	n/a	3/25/2020	454	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-25	317	n/a	3/25/2020	280	No	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-33	317	n/a	3/26/2020	336	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2
TDS (mg/L)	PZ-7D	317	n/a	3/26/2020	332	Yes	44	174.4	69.49	0	None	0.0007523	Param Inter 1 of 2

Exceeds Limit: PZ-15, PZ-16, PZ-17, PZ-18, PZ-19, PZ-23A, PZ-25, PZ-33, PZ-7D

Prediction Limit
Interwell Parametric

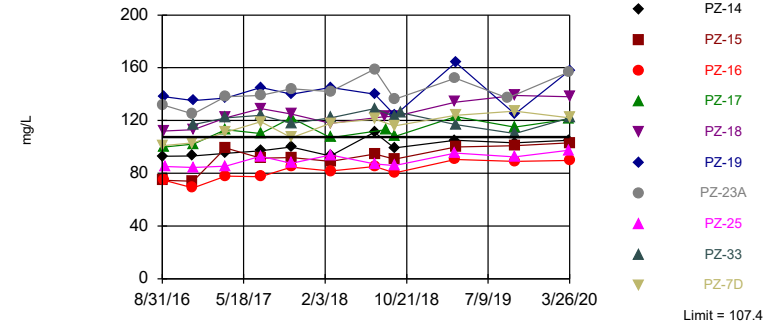


Background Data Summary (based on natural log transformation): Mean=-4.335, Std. Dev.=0.3594, n=44, 4.545% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9559, critical = 0.924. Kappa = 2.053 (c=7, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0007523. Comparing 10 points to limit.

Constituent: Boron Analysis Run 4/28/2020 4:08 PM View: Interwell
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Exceeds Limit: PZ-17, PZ-18, PZ-19, PZ-23A, PZ-33, PZ-7D

Prediction Limit
Interwell Parametric

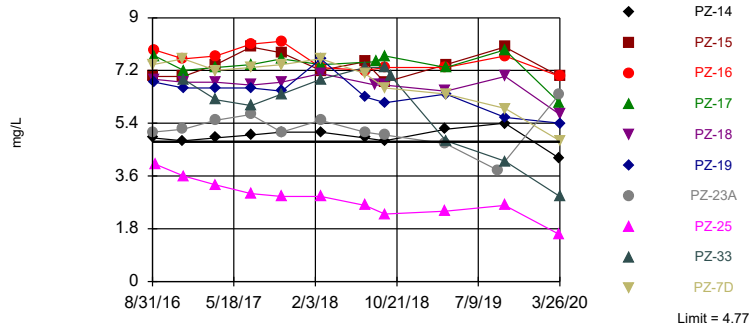


Background Data Summary: Mean=54.51, Std. Dev.=25.72, n=43, 2.326% NDs. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9254, critical = 0.923. Kappa = 2.056 (c=7, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0007523. Comparing 10 points to limit.

Constituent: Calcium Analysis Run 4/28/2020 4:08 PM View: Interwell
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Exceeds Limit: PZ-15, PZ-16, PZ-17, PZ-18, PZ-19, PZ-23A, PZ-7D

Prediction Limit
Interwell Parametric

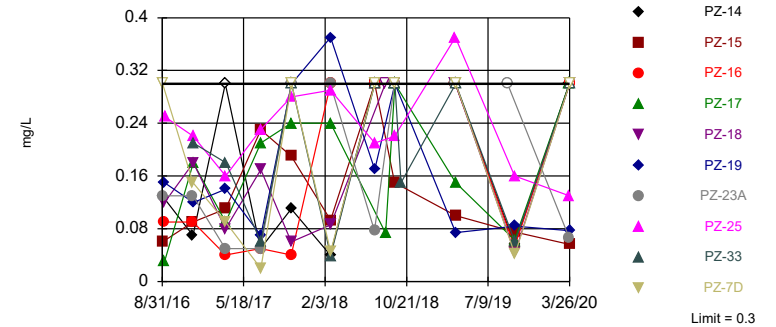


Background Data Summary (based on square root transformation): Mean=1.781, Std. Dev.=0.1964, n=44. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9367, critical = 0.924. Kappa = 2.053 (c=7, w=10, 1 of 2, event alpha = 0.05132). Report alpha = 0.007498. Individual comparison alpha = 0.0007523. Comparing 10 points to limit.

Constituent: Chloride Analysis Run 4/28/2020 4:08 PM View: Interwell
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Hollow symbols indicate censored values.
Within Limit

Prediction Limit
Interwell Non-parametric

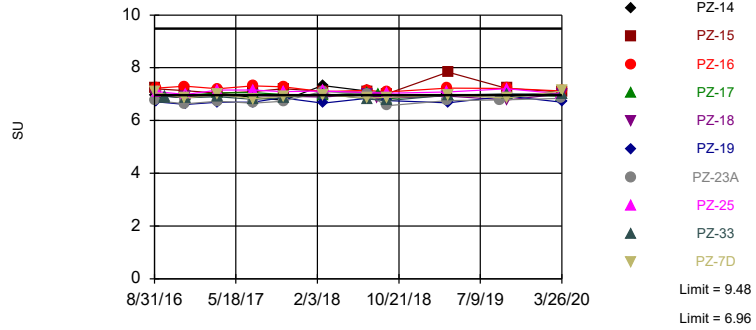


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. 36.36% NDs. Annual per-constituent alpha = 0.01897. Individual comparison alpha = 0.0009571 (1 of 2). Comparing 10 points to limit.

Constituent: Fluoride Analysis Run 4/28/2020 4:08 PM View: Interwell
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Exceeds Limits: PZ-17, PZ-19, PZ-23A

Prediction Limit
Interwell Non-parametric

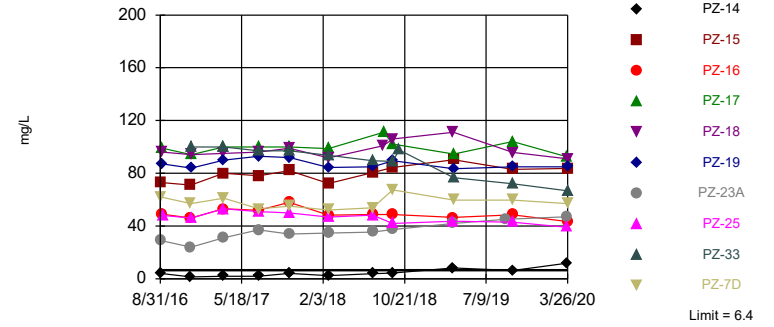


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limits are highest and lowest of 40 background values. Annual per-constituent alpha = 0.04388. Individual comparison alpha = 0.002217 (1 of 2). Comparing 10 points to limit.

Constituent: pH Analysis Run 4/28/2020 4:08 PM View: Interwell
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Exceeds Limit: PZ-14, PZ-15, PZ-16, PZ-17, PZ-18, PZ-19, PZ-23A, PZ-25, PZ-33, PZ-7D

Prediction Limit
Interwell Non-parametric

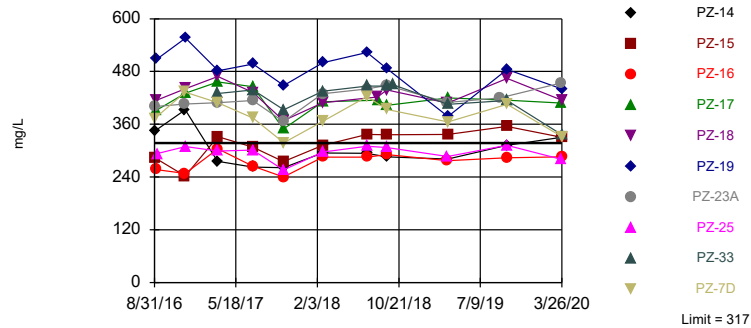


Non-parametric test used in lieu of parametric prediction limit because the Shapiro Wilk normality test showed the data to be non-normal at the 0.01 alpha level. Limit is highest of 44 background values. Annual per-constituent alpha = 0.01897. Individual comparison alpha = 0.0009571 (1 of 2). Comparing 10 points to limit.

Constituent: Sulfate Analysis Run 4/28/2020 4:08 PM View: Interwell
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Exceeds Limit: PZ-14, PZ-15, PZ-17, PZ-18, PZ-19, PZ-23A, PZ-33, PZ-7D

Prediction Limit
Interwell Parametric



Background Data Summary: Mean=174.4, Std. Dev.=69.49, n=44. Normality test: Shapiro Wilk @alpha = 0.01, calculated = 0.9502, critical = 0.924. Kappa = 2.053 (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: TDS Analysis Run 4/28/2020 4:08 PM View: Interwell
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-1D (bg)	PZ-14	PZ-23A	PZ-7D	PZ-15	PZ-16	PZ-18	PZ-19	PZ-17
8/30/2016	0.0132 (J)								
8/31/2016		0.0285 (J)	0.166						
9/1/2016				0.379	0.215				
9/6/2016						0.17			
9/7/2016							0.355	0.573	0.276
9/8/2016									
10/5/2016									
10/10/2016									
10/18/2016									
12/6/2016	0.0096 (J)								
12/7/2016		0.0292 (J)	0.182	0.394	0.224	0.173			
12/8/2016							0.351	0.588	0.303
3/21/2017	0.0082 (J)	0.0198 (J)	0.172						
3/22/2017				0.365	0.205	0.218	0.405		0.342
3/23/2017								0.703	
7/11/2017	0.0067 (J)	0.0137 (J)	0.149			0.18			
7/12/2017				0.267	0.184		0.35	0.598	0.278
10/17/2017	0.0083 (J)								
10/18/2017		0.0212 (J)	0.158		0.197	0.195	0.37		0.277
10/19/2017				0.326				0.66	
2/20/2018	0.024 (J)	0.026 (J)	0.16						
2/21/2018				0.29	0.21	0.21	0.33	0.6	0.29
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	0.017 (J)	0.026 (J)	0.17						
7/12/2018				0.32	0.23	0.21		0.64	
8/15/2018							0.37		
8/16/2018									0.33
8/17/2018									
9/12/2018	0.012 (J)	0.02 (J)							
9/13/2018			0.16	0.31	0.22	0.21	0.37		
9/14/2018								0.57	0.31
10/4/2018									
10/24/2018									
3/26/2019	0.0082								
3/27/2019		0.023	0.18			0.21	0.41		
3/28/2019				0.33	0.22			0.7	0.34
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	
3/24/2020	0.013 (J)								
3/25/2020		0.027 (J)	0.19						0.33
3/26/2020				0.24	0.21	0.19	0.36	0.6	

Prediction Limit

Constituent: Boron (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-25	PZ-33	PZ-31 (bg)	PZ-32 (bg)	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	0.204				
10/5/2016		0.404			
10/10/2016		0.401			
10/18/2016			0.0174 (J)	0.0156 (J)	
12/6/2016			0.0133 (J)		
12/7/2016				0.0157 (J)	
12/8/2016	0.216	0.375			
3/21/2017			0.0103 (J)		
3/22/2017	0.247				
3/23/2017		0.396		0.0103 (J)	
7/11/2017	0.194		<0.04	<0.04	
7/12/2017		0.343			
10/17/2017			0.0116 (J)	0.0142 (J)	
10/18/2017	0.186				
10/19/2017		0.413			
2/20/2018			0.046 (J)	0.011 (J)	
2/21/2018	0.22	0.36			
4/12/2018					0.016 (J)
5/23/2018					0.018 (J)
6/13/2018					0.014 (J)
7/11/2018			0.014 (J)	0.014 (J)	0.017 (J)
7/12/2018	0.22	0.41			
8/15/2018					
8/16/2018					
8/17/2018					0.015 (J)
9/12/2018			0.0098 (J)		0.013 (J)
9/13/2018	0.2			0.013 (J)	
9/14/2018		0.38			
10/4/2018		0.39			0.016 (J)
10/24/2018					0.018 (J)
3/26/2019			0.0076		
3/27/2019	0.22			0.012	0.016
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			
3/24/2020					0.015 (J)
3/25/2020	0.21		0.011 (J)	0.016 (J)	
3/26/2020		0.38			

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-1D (bg)	PZ-14	PZ-23A	PZ-7D	PZ-15	PZ-16	PZ-19	PZ-17	PZ-18
8/30/2016	40.4								
8/31/2016		92.9	132						
9/1/2016				101	74.8				
9/6/2016						74.6			
9/7/2016							138	100	112
9/8/2016									
10/18/2016									
12/6/2016	43.3								
12/7/2016		93.1	125	103	74	68.9			
12/8/2016							135	102	113
3/21/2017	44.1	95	138						
3/22/2017				111	99.3	77.8		113	122
3/23/2017							137		
7/11/2017	47.4	97.1	139			77.3			
7/12/2017				119	91.4		145	110	129
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				118	89	81.8	145	107	118
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	65.3 (o)	111	159						
7/12/2018				121	94.5	85.2	140		
8/15/2018									123
8/16/2018								113	
8/17/2018									
9/12/2018	46.6	99.3							
9/13/2018			136	116	90.8	80.2			123
9/14/2018							124	108	
10/4/2018									
10/24/2018									
3/26/2019	43.3								
3/27/2019		105	152			90.5			134
3/28/2019				124	100		164	123	
9/10/2019			137						
10/1/2019	46.8								
10/2/2019		103			101	89.1		115	
10/3/2019				127			125		139
3/24/2020	48								
3/25/2020		105	157					121	
3/26/2020				122	103	89.8	158		138

Prediction Limit

Constituent: Calcium (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	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	85.2				
10/18/2016		57.2	88.3		
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	59.7	86		
7/12/2017				124	
10/17/2017		64.9	91.6		
10/18/2017	87.6				
10/19/2017				118	
2/20/2018		64.1	86.5		
2/21/2018	93.9			122	
4/12/2018					<25
5/23/2018					17.6 (J)
6/13/2018					14.3
7/11/2018		60.4	95.4		15.6
7/12/2018	87.1			129	
8/15/2018					
8/16/2018					
8/17/2018					27
9/12/2018			86		26.9
9/13/2018	85.8	58.7			
9/14/2018				123	
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	
3/24/2020					26.5
3/25/2020	97.5	66.6	95.8		
3/26/2020				122	

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-1D (bg)	PZ-14	PZ-23A	PZ-7D	PZ-15	PZ-16	PZ-19	PZ-17	PZ-18
8/30/2016	3.1								
8/31/2016		4.9	5.1						
9/1/2016				7.4	7				
9/6/2016						7.9			
9/7/2016							6.8	7.7	6.9
9/8/2016									
10/18/2016									
12/6/2016	3.4								
12/7/2016		4.8	5.2	7.6	7	7.6			
12/8/2016							6.6	7.2	6.8
3/21/2017	2.9	4.9	5.5						
3/22/2017				7.2	7.4	7.7		7.3	6.8
3/23/2017							6.6		
7/11/2017	3.4	5	5.7			8.1			
7/12/2017				7.3	8		6.6	7.4	6.7
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				7.6	7.2	7.3	7.6	7.4	7.1
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	2.9	4.9	5.1						
7/12/2018				7.1	7.5	7.2	6.3		
8/15/2018									6.7
8/16/2018								7.5	
8/17/2018									
9/12/2018	2.8	4.8							
9/13/2018			5	6.6	6.8	7.3			6.7
9/14/2018							6.1	7.7	
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				6.4	7.4		6.4	7.3	
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			5.6		7
3/24/2020	2.8								
3/25/2020		4.2	6.4					6.1	
3/26/2020				4.8	7	7	5.4		5.7

Prediction Limit

Constituent: Chloride (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	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	4				
10/18/2016		3.5	4.5		
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	3.1	4.7		
7/12/2017				6	
10/17/2017		3	4.6		
10/18/2017	2.9				
10/19/2017				6.4	
2/20/2018		3	4.4		
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		2.8	4		2.6
7/12/2018	2.6			7.3	
8/15/2018					
8/16/2018					
8/17/2018					2.6
9/12/2018			3.7		2.3
9/13/2018	2.3	2.2			
9/14/2018				7.3	
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	
3/24/2020					2.2
3/25/2020	1.6	2.2	3		
3/26/2020				2.9	

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-1D (bg)	PZ-14	PZ-23A	PZ-7D	PZ-15	PZ-16	PZ-19	PZ-17	PZ-18
8/30/2016	0.06 (J)								
8/31/2016		0.13 (J)	0.13 (J)						
9/1/2016				<0.3	0.06 (J)				
9/6/2016						0.09 (J)			
9/7/2016							0.15 (J)	0.03 (J)	0.12 (J)
9/8/2016									
10/18/2016									
12/6/2016	0.06 (J)								
12/7/2016		0.07 (J)	0.13 (J)	0.15 (J)	0.09 (J)	0.09 (J)			
12/8/2016							0.12 (J)	0.18 (J)	0.18 (J)
3/21/2017	0.004 (J)	<0.3	0.05 (J)						
3/22/2017				0.09 (J)	0.11 (J)	0.04 (J)		0.09 (J)	0.08 (J)
3/23/2017							0.14 (J)		
7/11/2017	0.05 (J)	0.05 (J)	0.05 (J)			0.05 (J)			
7/12/2017				0.02 (J)	0.23 (J)		0.07 (J)	0.21 (J)	0.17 (J)
10/17/2017	<0.3								
10/18/2017		0.11 (J)	<0.3		0.19 (J)	0.04 (J)		0.24 (J)	0.06 (J)
10/19/2017				<0.3			<0.3		
2/20/2018	0.098 (J)	0.04 (J)	0.3 (J)						
2/21/2018				0.045 (J)	0.093 (J)	<0.3	0.37	0.24 (J)	0.086 (J)
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	<0.3	<0.3	0.077 (J)						
7/12/2018				<0.3	<0.3	<0.3	0.17 (J)		
8/15/2018									<0.3
8/16/2018								0.073 (J)	
8/17/2018									
9/12/2018	0.034 (J)	<0.3							
9/13/2018			<0.3	<0.3	0.15 (J)	<0.3			<0.3
9/14/2018							<0.3	<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		0.074	0.15	
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)			0.084 (X)		0.043 (X)
3/24/2020	<0.3								
3/25/2020		<0.3	0.066 (J)					<0.3	
3/26/2020				<0.3	0.056 (J)	<0.3	0.077 (J)		<0.3

Prediction Limit

Constituent: Fluoride (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	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 (J)				
10/18/2016		0.11 (J)	0.16 (J)		
12/6/2016			0.15 (J)		
12/7/2016		0.07 (J)			
12/8/2016	0.22 (J)			0.21 (J)	
3/21/2017			0.02 (J)		
3/22/2017	0.16 (J)				
3/23/2017		<0.3		0.18 (J)	
7/11/2017	0.23 (J)	0.02 (J)	0.06 (J)		
7/12/2017				0.06 (J)	
10/17/2017		<0.3	0.05 (J)		
10/18/2017	0.28 (J)				
10/19/2017				<0.3	
2/20/2018		<0.3	0.21 (J)		
2/21/2018	0.29 (J)			0.039 (J)	
4/12/2018					<0.3
5/23/2018					0.063 (J)
6/13/2018					0.11 (J)
7/11/2018		<0.3	0.087 (J)		<0.3
7/12/2018	0.21 (J)			<0.3	
8/15/2018					
8/16/2018					
8/17/2018					<0.3
9/12/2018			0.049 (J)		0.093 (J)
9/13/2018	0.22 (J)	<0.3			
9/14/2018				<0.3	
10/4/2018				0.15 (J)	0.15 (J)
10/24/2018					0.29 (J)
3/26/2019			<0.3		
3/27/2019	0.37	<0.3			0.04
3/28/2019				<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)	
3/24/2020					0.051 (J)
3/25/2020	0.13 (J)	<0.3	<0.3		
3/26/2020				<0.3	

Prediction Limit

Constituent: pH (SU) Analysis Run 4/28/2020 4:10 PM View: Interwell

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-1D (bg)	PZ-14	PZ-23A	PZ-7D	PZ-15	PZ-16	PZ-19	PZ-17	PZ-18
8/30/2016	7.67								
8/31/2016		6.97	6.75						
9/1/2016				7.07	7.21				
9/6/2016						7.23			
9/7/2016							6.71	7.02	6.92
9/8/2016									
10/4/2016									
10/5/2016									
10/17/2016									
10/18/2016									
12/6/2016	7.57								
12/7/2016		6.85	6.64	6.85	7.13	7.3			
12/8/2016							6.61	6.95	6.9
3/21/2017	7.54	7.04	6.73						
3/22/2017				6.99	7.04	7.2		7.05	7
3/23/2017							6.69		
7/11/2017	7.43	6.88	6.66			7.31			
7/12/2017				6.83	7.09		6.69	7.06	6.95
10/17/2017	7.7								
10/18/2017		6.77	6.73		7.2	7.28	6.88	6.99	
10/19/2017				6.91			6.85		
2/20/2018	7.57	7.32 (D)	7.11						
2/21/2018				6.97	7.11	7.1	6.66	6.95	6.89
7/11/2018	7.48	7.12	7						
7/12/2018				6.85	7.07	7.14	6.84	7.06	7.01
8/15/2018									6.87
8/16/2018								7.01	
9/12/2018	7.41	6.87							
9/13/2018			6.56	6.88	7.01	7.08			6.86
9/14/2018							6.76	6.83	
3/26/2019	7.49								
3/27/2019		6.98	6.75			7.23			6.92
3/28/2019				6.96	7.84		6.67	6.97	
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
3/24/2020	7.79								
3/25/2020		7.02	6.84					6.93	
3/26/2020				7.12	7.08	7.12	6.7		7.01

Prediction Limit

Constituent: pH (SU) Analysis Run 4/28/2020 4:10 PM View: Interwell
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-25	PZ-33	PZ-32 (bg)	PZ-31 (bg)	PZ-2D (bg)
8/30/2016					
8/31/2016					
9/1/2016					
9/6/2016					
9/7/2016					
9/8/2016	7.1				
10/4/2016		6.88			
10/5/2016		6.91			
10/17/2016			7.43		
10/18/2016			7.45	7.15	
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		6.9	7.26		
7/11/2017	7.15	7.82 (o)	7.31	6.96	
7/12/2017		6.81			
10/17/2017			7.29	7.31	7.61
10/18/2017	7.09				
10/19/2017		6.86			
2/20/2018			7.26		
2/21/2018	7.12	7.02			
7/11/2018			7.39	7.26	9.48
7/12/2018		6.82		7.01	
8/15/2018					
8/16/2018					
9/12/2018				7.02	9.07
9/13/2018	7.03		7.25		
9/14/2018		6.75			
3/26/2019				7	
3/27/2019	7.08		7.42		8.76
3/28/2019		6.96			
9/10/2019					
10/1/2019			7.43		
10/2/2019	7.2			7.09	8.97
10/3/2019		7.01			
3/24/2020					8.57
3/25/2020	7.01		7.23	7.15	
3/26/2020		7			

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-1D (bg)	PZ-14	PZ-23A	PZ-7D	PZ-15	PZ-16	PZ-19	PZ-17	PZ-18
8/30/2016	2.1								
8/31/2016		4.1	29						
9/1/2016				62	73				
9/6/2016						49			
9/7/2016							87	99	96
9/8/2016									
10/18/2016									
12/6/2016	2.4								
12/7/2016		1.5	24	57	71	46			
12/8/2016							84	94	94
3/21/2017	2.5	2	31						
3/22/2017				61	80	53		100	95
3/23/2017							90		
7/11/2017	2.6	2	37			52			
7/12/2017				53	78		93	100	96
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				52.1	72.2	48.2	84.5	98.8	91.8
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	2.5	3.8	35.4						
7/12/2018				53.9	80.5	48.8	84.9		
8/15/2018									101
8/16/2018								111	
8/17/2018									
9/12/2018	2	4.3							
9/13/2018			37.4	67.5	84.4	48.7			106
9/14/2018							89.5	102	
10/4/2018									
10/24/2018									
3/26/2019	2.7								
3/27/2019		8.2	41.9			46.5			111
3/28/2019				59.6	90.3		83.5	94.7	
9/10/2019			45.1						
10/1/2019	2.8								
10/2/2019		6.2			83	48.5		104	
10/3/2019				59.6			84.9		95.8
3/24/2020	3								
3/25/2020		11.9	47					92.4	
3/26/2020				57.1	83.6	43.5	84.9		91

Prediction Limit

Constituent: Sulfate (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	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	48				
10/18/2016		2.3	2.2		
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	1.8	4.8		
7/12/2017				97	
10/17/2017		1.9	6.4		
10/18/2017	50				
10/19/2017				97	
2/20/2018		2.1	5.2		
2/21/2018	46.8			93.6	
4/12/2018					4.8 (J)
5/23/2018					4.5
6/13/2018					5.3
7/11/2018		2	3.6		5.4
7/12/2018	48.3			89.4	
8/15/2018					
8/16/2018					
8/17/2018					4.5
9/12/2018			2.7		4.4
9/13/2018	42	2.1			
9/14/2018				88.9	
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	
3/24/2020					3.1
3/25/2020	39.1	1.9	1.5		
3/26/2020				66.6	

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	PZ-1D (bg)	PZ-14	PZ-23A	PZ-7D	PZ-15	PZ-16	PZ-19	PZ-17	PZ-18
8/30/2016	136								
8/31/2016		344	400						
9/1/2016				373	284				
9/6/2016						257			
9/7/2016							508	392	415
9/8/2016									
10/18/2016									
12/6/2016	207								
12/7/2016		393	406	433	242	248			
12/8/2016							556	431	441
3/21/2017	128	276	409						
3/22/2017				409	332	304		456	469
3/23/2017							482		
7/11/2017	138	263	414			265			
7/12/2017				374	308		497	445	432
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				367	312	285	500	411	409
4/12/2018									
5/23/2018									
6/13/2018									
7/11/2018	153	294	440						
7/12/2018				423	337	285	523		
8/15/2018									422
8/16/2018								415	
8/17/2018									
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		281	410			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
3/24/2020	228								
3/25/2020		330	454					408	
3/26/2020				332	330	286	440		415

Prediction Limit

Constituent: TDS (mg/L) Analysis Run 4/28/2020 4:10 PM View: Interwell
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

	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	293				
10/18/2016		152	264		
12/6/2016			299		
12/7/2016		214			
12/8/2016	309			503 (o)	
3/21/2017			260		
3/22/2017	299				
3/23/2017		165		430	
7/11/2017	301	162	244		
7/12/2017				438	
10/17/2017		140	218		
10/18/2017	256				
10/19/2017				393	
2/20/2018		163	264		
2/21/2018	297			435	
4/12/2018					69
5/23/2018					62
6/13/2018					93
7/11/2018		192	273		84
7/12/2018	310			447	
8/15/2018					
8/16/2018					
8/17/2018					115
9/12/2018			252		97
9/13/2018	307	192			
9/14/2018				447	
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	
3/24/2020					123
3/25/2020	280	178	278		
3/26/2020				336	

FIGURE E.

Interwell Parameters Trend Tests - PL Exceedances - Significant Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:14 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Calcium (mg/L)	PZ-18	6.257	36	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-7D	6.314	39	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-19	-0.3547	-38	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-7D	-0.5264	-37	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-14	1.801	38	34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-23A	5.318	47	34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-33	-9.928	-43	-34	Yes	11	0	n/a	n/a	0.01	NP

Interwell Parameters Trend Tests - PL Exceedances - All Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:14 PM

Constituent	Well	Slope	Calc.	Critical	Sig.	N	%NDs	Normality	Xform	Alpha	Method
Boron (mg/L)	PZ-15	-0.001402	-3	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-16	0.005149	12	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-17	0.009605	16	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-18	0	3	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-19	0	0	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-1D (bg)	-0.0001349	-6	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-23A	0.00215	4	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-25	0	1	34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-2D (bg)	-0.001174	-12	-34	No	11	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-31 (bg)	-0.001967	-21	-34	No	11	9.091	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-32 (bg)	-0.001365	-10	-34	No	11	9.091	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-33	-0.005599	-17	-43	No	13	0	n/a	n/a	0.01	NP
Boron (mg/L)	PZ-7D	-0.03718	-30	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-17	4.888	28	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-18	6.257	36	34	Yes	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-19	3.141	11	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-1D (bg)	1.295	17	30	No	10	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-23A	6.65	25	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-2D (bg)	6.396	21	34	No	11	9.091	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-31 (bg)	1.695	22	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-32 (bg)	2.068	21	34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-33	0	-1	-34	No	11	0	n/a	n/a	0.01	NP
Calcium (mg/L)	PZ-7D	6.314	39	34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-15	0	4	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-16	-0.1986	-21	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-17	0.04345	4	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-18	-0.1033	-21	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-19	-0.3547	-38	-34	Yes	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-1D (bg)	-0.04345	-9	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-23A	-0.1159	-13	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-2D (bg)	0	2	34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-31 (bg)	-0.4562	-34	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-32 (bg)	-0.2327	-24	-34	No	11	0	n/a	n/a	0.01	NP
Chloride (mg/L)	PZ-7D	-0.5264	-37	-34	Yes	11	0	n/a	n/a	0.01	NP
pH (SU)	PZ-17	-0.02417	-19	-38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	PZ-19	0.02514	11	38	No	12	0	n/a	n/a	0.01	NP
pH (SU)	PZ-1D (bg)	-0.02483	-6	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	PZ-23A	0.0338	15	34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	PZ-2D (bg)	-0.191	-3	-14	No	6	0	n/a	n/a	0.01	NP
pH (SU)	PZ-31 (bg)	0	-1	-34	No	11	0	n/a	n/a	0.01	NP
pH (SU)	PZ-32 (bg)	-0.0137	-15	-38	No	12	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-14	1.801	38	34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-15	3.476	33	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-16	-1.555	-21	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-17	0.3042	4	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-18	2.479	8	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-19	-0.6838	-10	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-1D (bg)	0.1534	26	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-23A	5.318	47	34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-25	-3.578	-31	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-2D (bg)	-0.8488	-16	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-31 (bg)	-1.437	-32	-34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-32 (bg)	0.0953	15	34	No	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-33	-9.928	-43	-34	Yes	11	0	n/a	n/a	0.01	NP
Sulfate (mg/L)	PZ-7D	-0.5524	-2	-34	No	11	0	n/a	n/a	0.01	NP

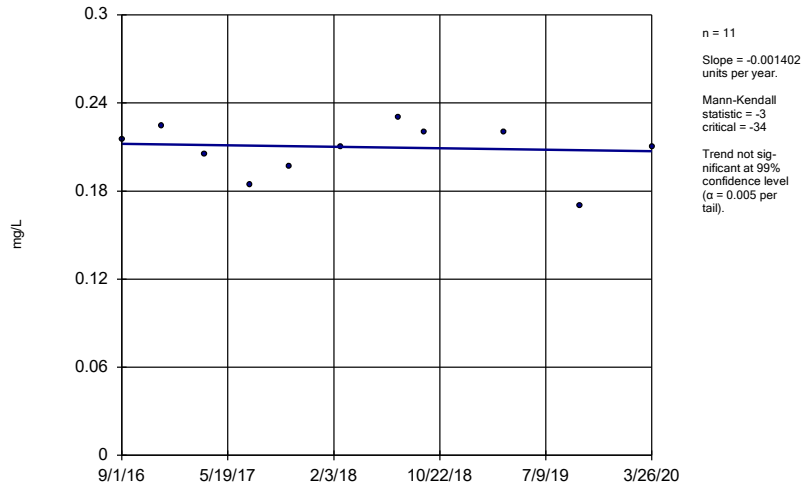
Interwell Parameters Trend Tests - PL Exceedances - All Results Page 2

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/28/2020, 4:14 PM

<u>Constituent</u>	<u>Well</u>	<u>Slope</u>	<u>Calc.</u>	<u>Critical</u>	<u>Sig.</u>	<u>N</u>	<u>%NDs</u>	<u>Normality</u>	<u>Xform</u>	<u>Alpha</u>	<u>Method</u>
TDS (mg/L)	PZ-14	2.48	1	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-15	21.13	30	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-17	-4.78	-6	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-18	-1.7	-4	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-19	-20.73	-23	-34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-1D (bg)	10.86	23	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-23A	16.26	33	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-2D (bg)	24.24	27	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-31 (bg)	1.184	2	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-32 (bg)	5.911	12	34	No	11	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-33	-6.32	-4	-30	No	10	0	n/a	n/a	0.01	NP
TDS (mg/L)	PZ-7D	-9.922	-13	-34	No	11	0	n/a	n/a	0.01	NP

Sen's Slope Estimator

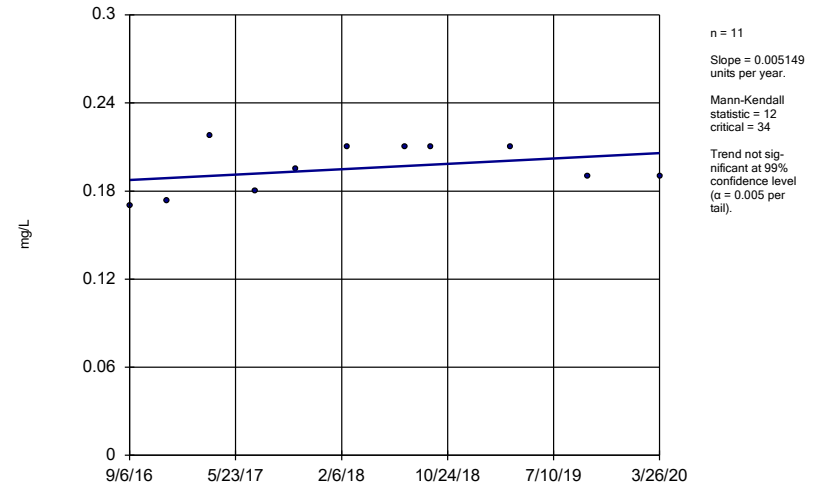
PZ-15



Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

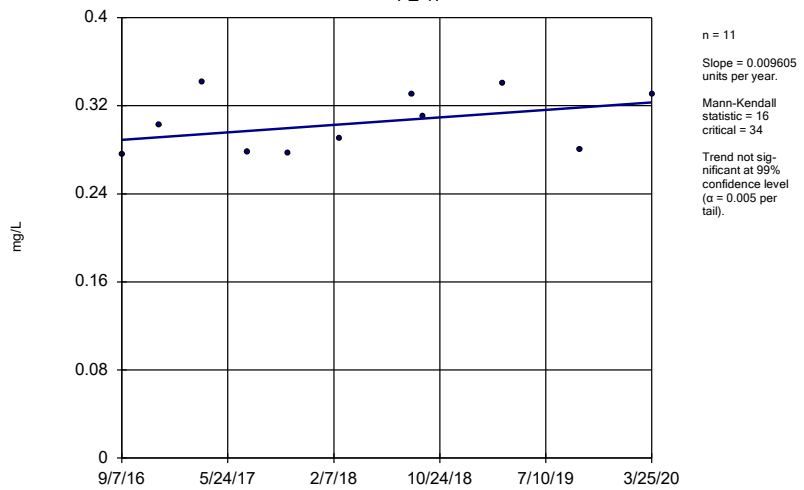
PZ-16



Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

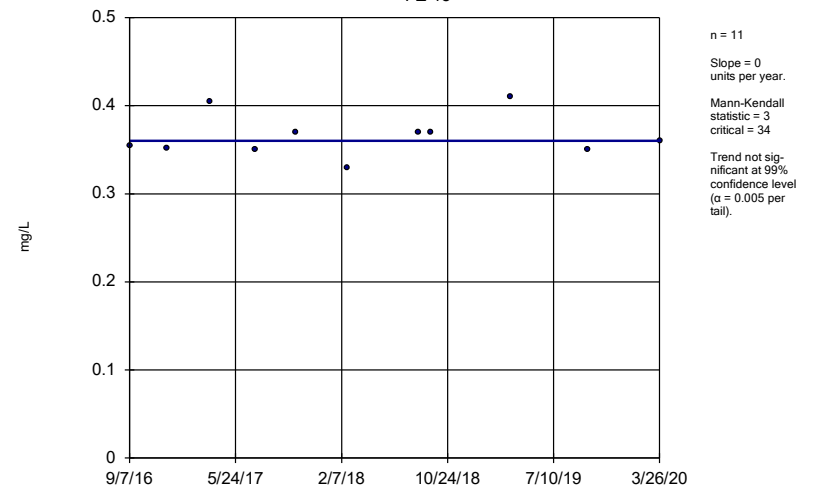
PZ-17



Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

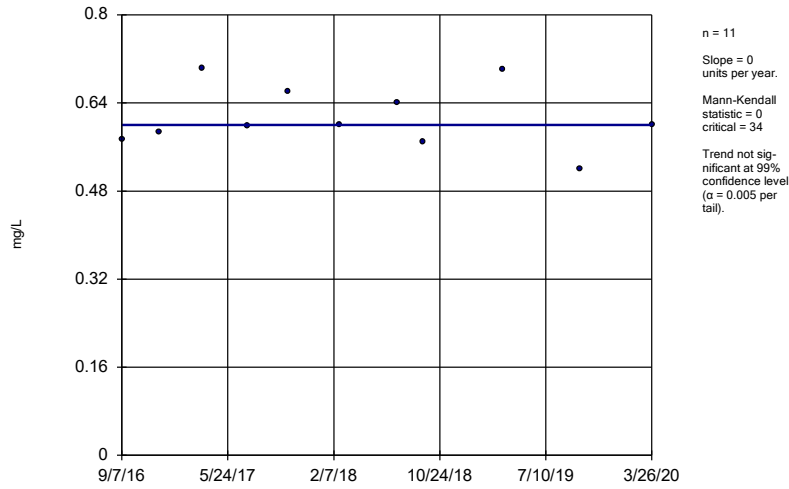
PZ-18



Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

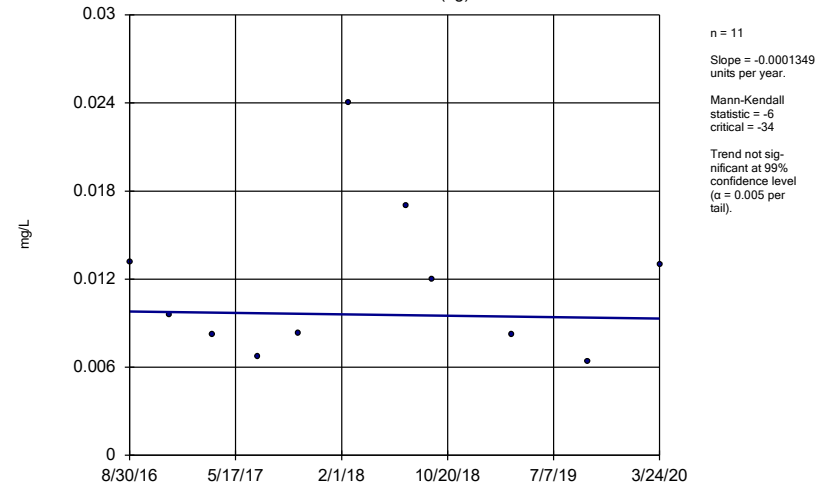
PZ-19



Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

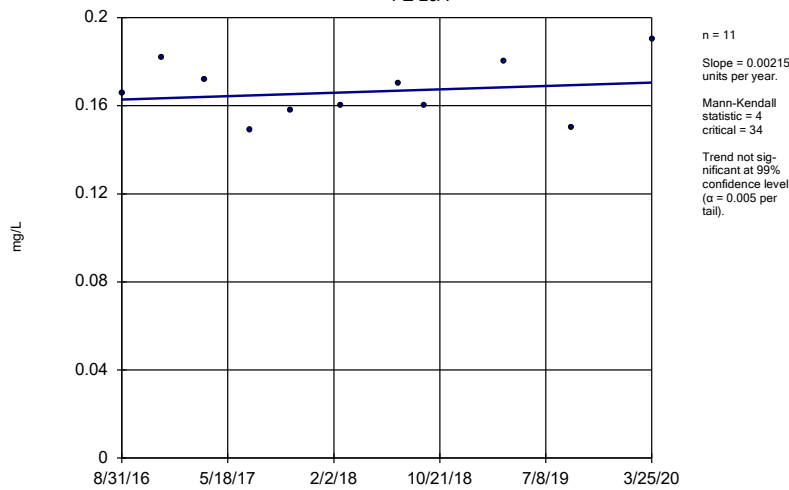
PZ-1D (bg)



Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

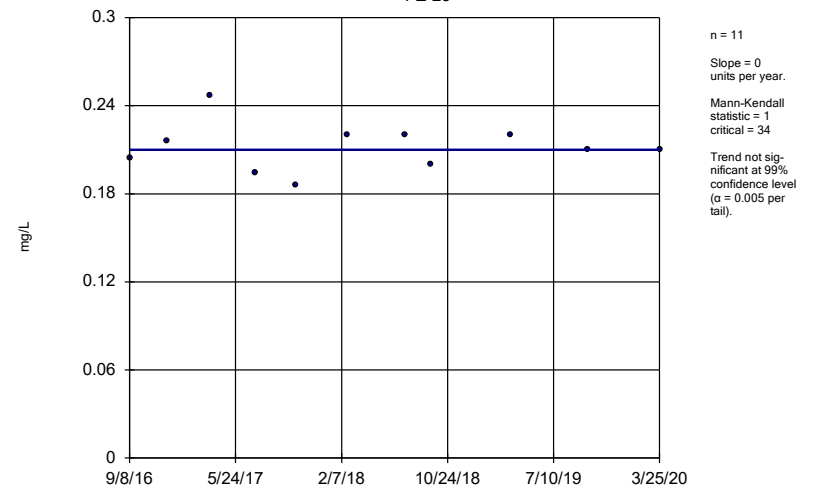
PZ-23A



Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

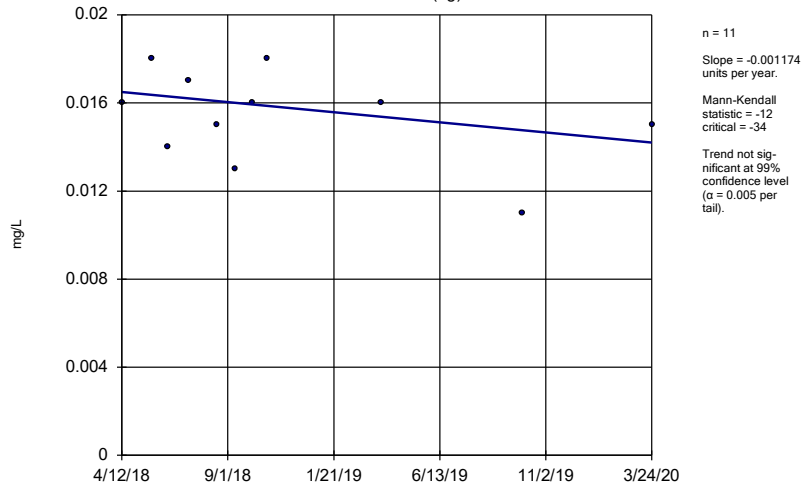
PZ-25



Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

PZ-2D (bg)

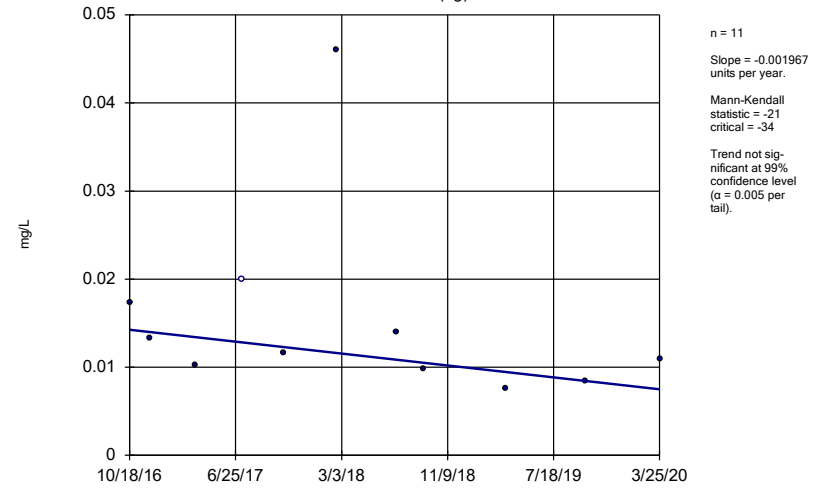


Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Hollow symbols indicate censored values.

Sen's Slope Estimator

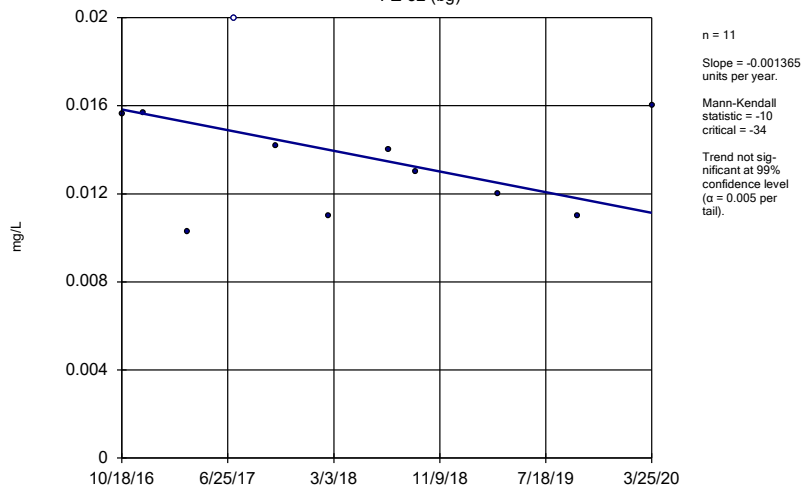
PZ-31 (bg)



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 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

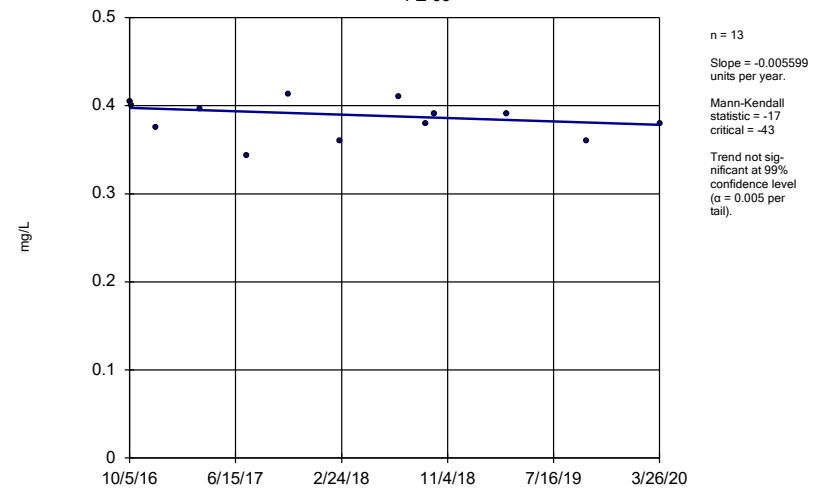
PZ-32 (bg)



Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

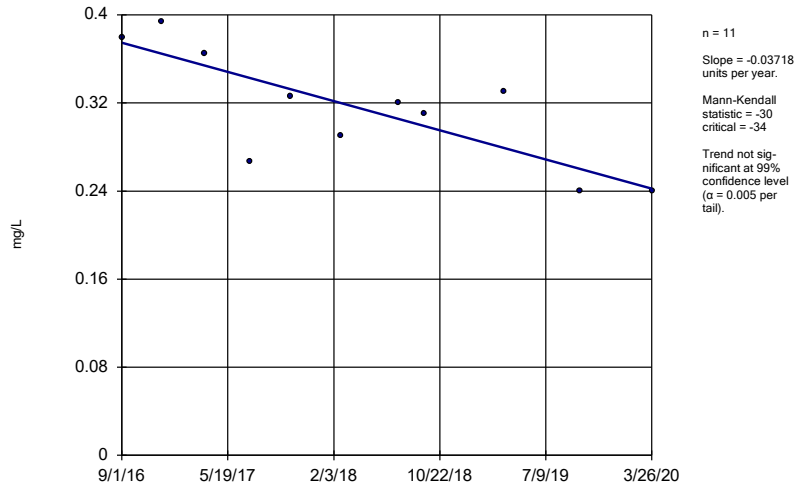
PZ-33



Constituent: Boron Analysis Run 4/28/2020 4:11 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

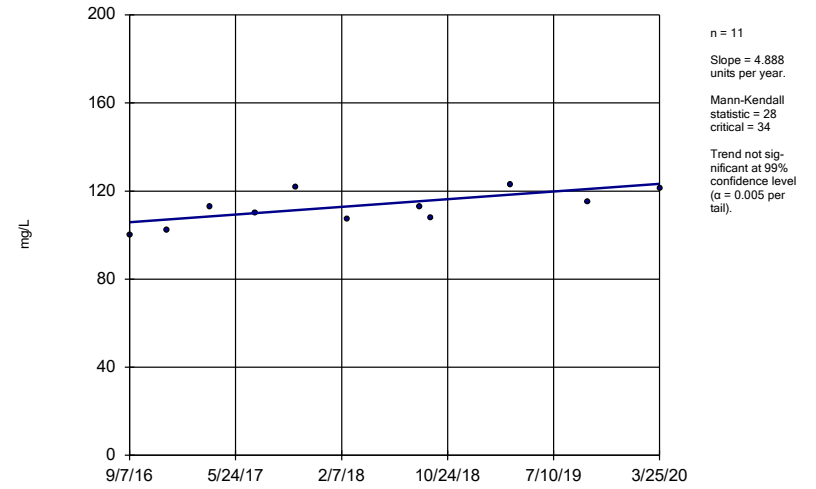
PZ-7D



Constituent: Boron Analysis Run 4/28/2020 4:12 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

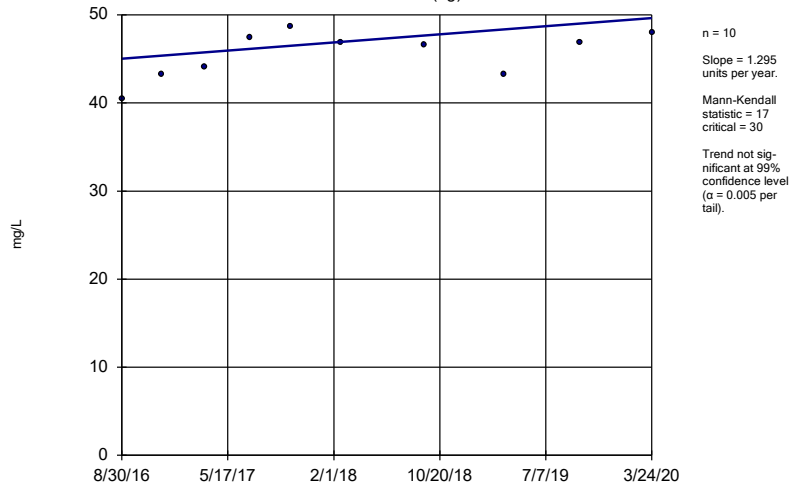
Sen's Slope Estimator

PZ-17



Sen's Slope Estimator

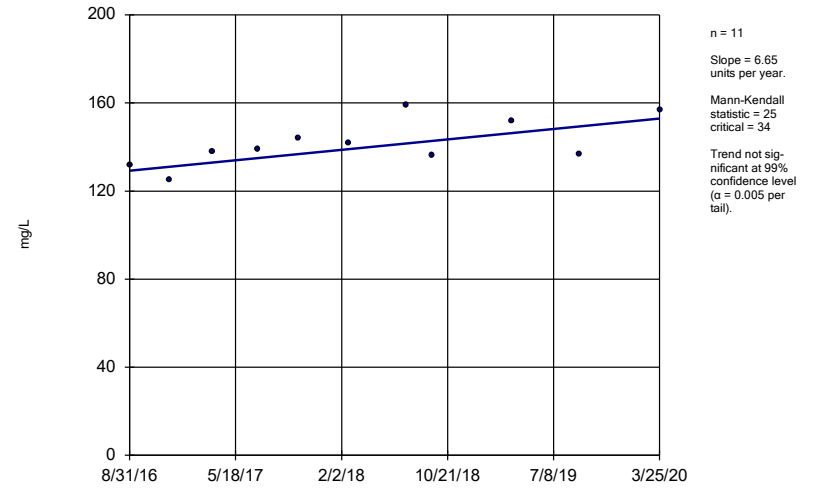
PZ-1D (bg)



Constituent: Calcium Analysis Run 4/28/2020 4:12 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

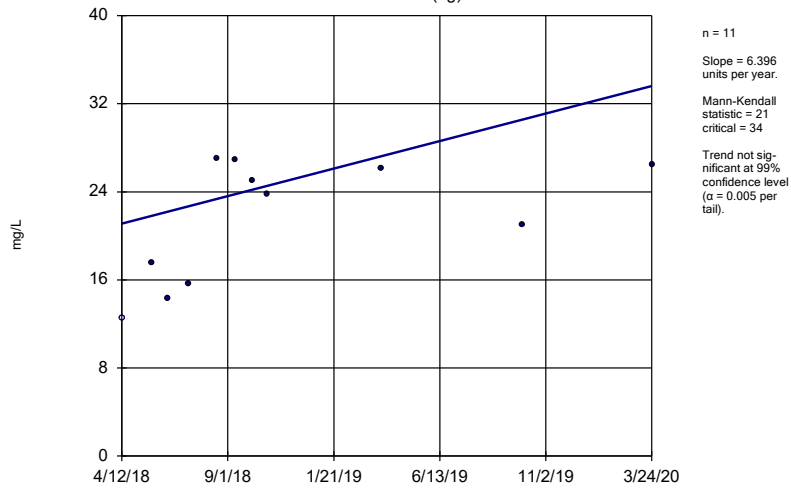
PZ-23A



Constituent: Calcium Analysis Run 4/28/2020 4:12 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

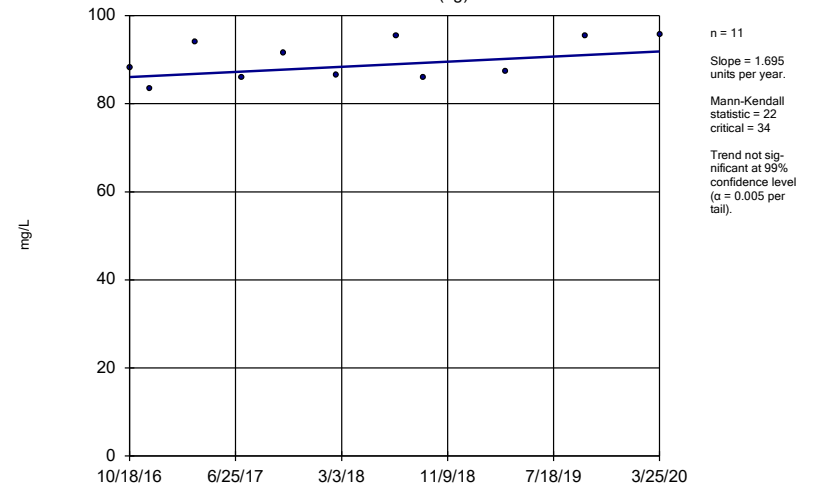
PZ-2D (bg)



Constituent: Calcium Analysis Run 4/28/2020 4:12 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

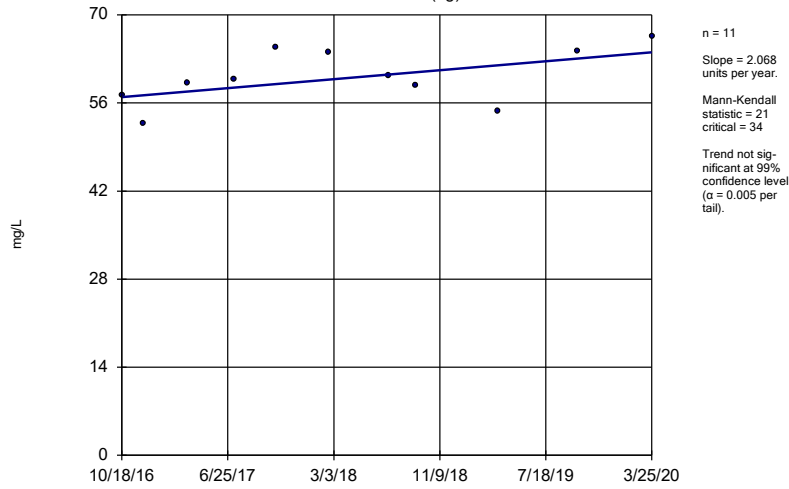
PZ-31 (bg)



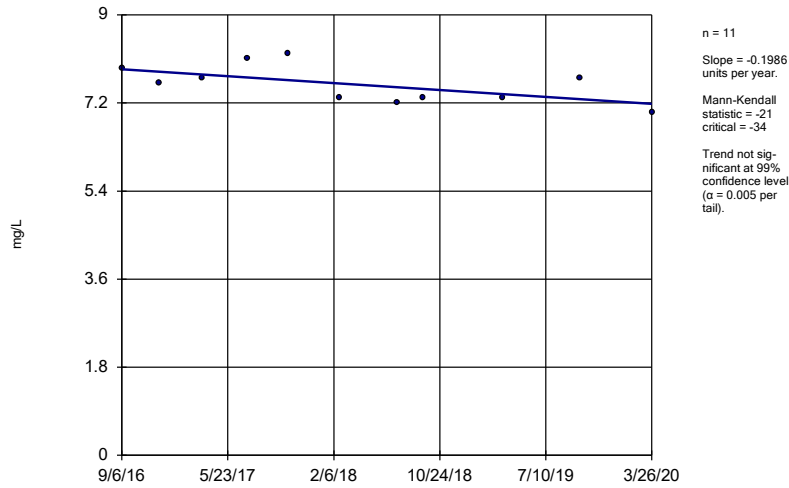
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 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

PZ-32 (bg)

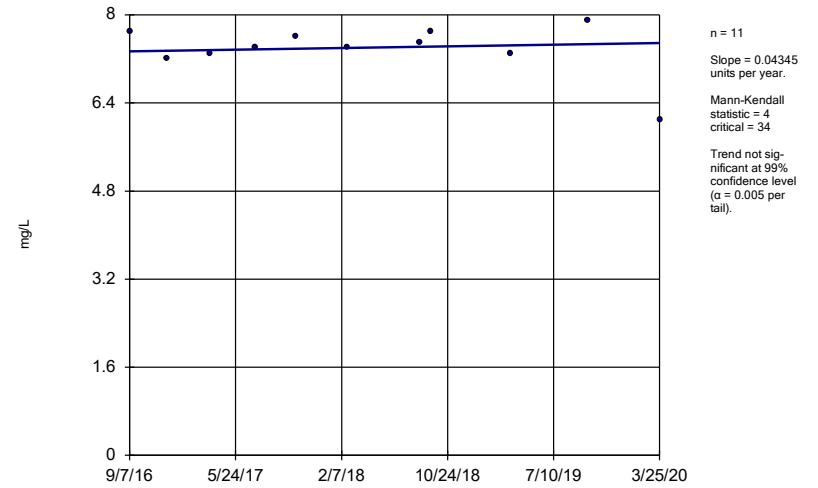


Sen's Slope Estimator
PZ-16



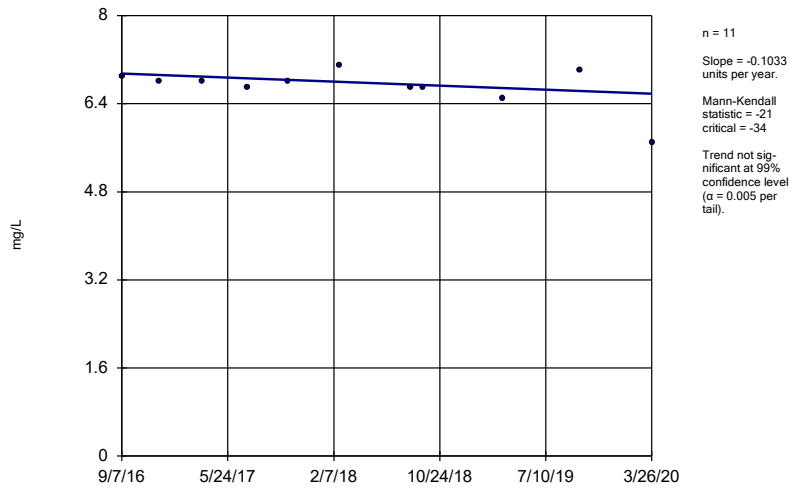
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-17



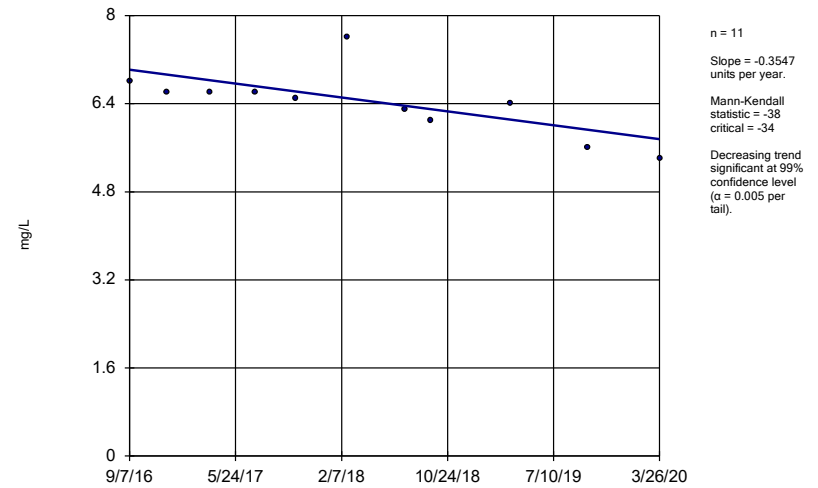
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-18



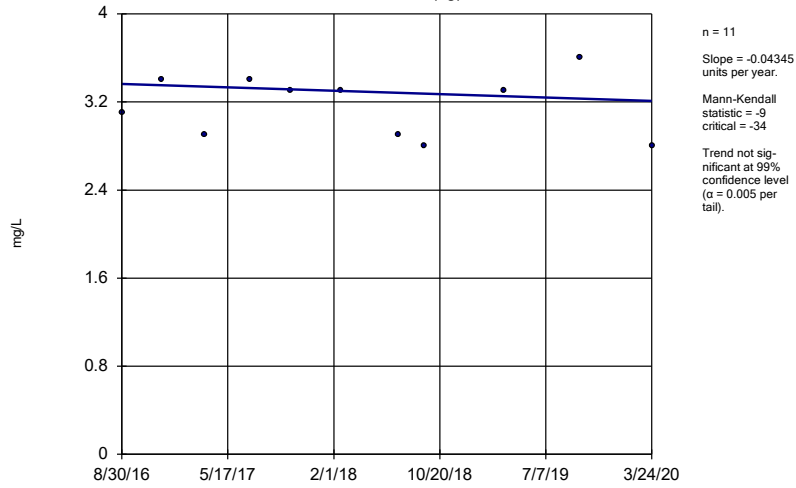
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-19



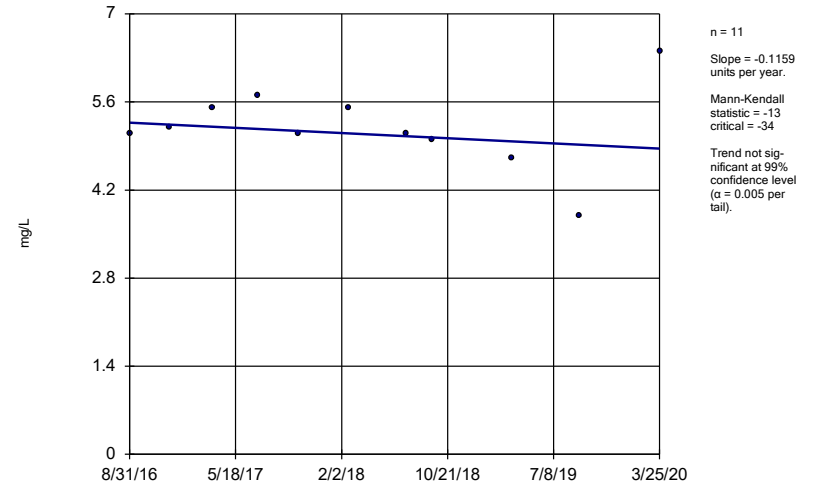
Constituent: Chloride Analysis Run 4/28/2020 4:12 PM View: Trend Tests
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-1D (bg)



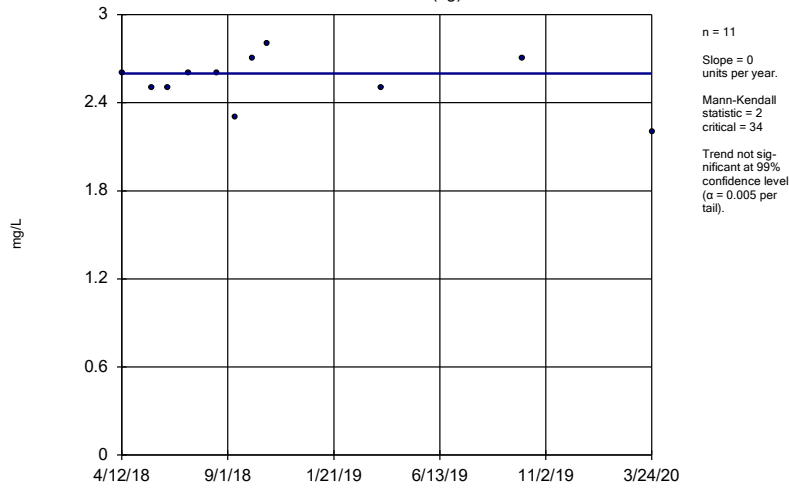
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-23A



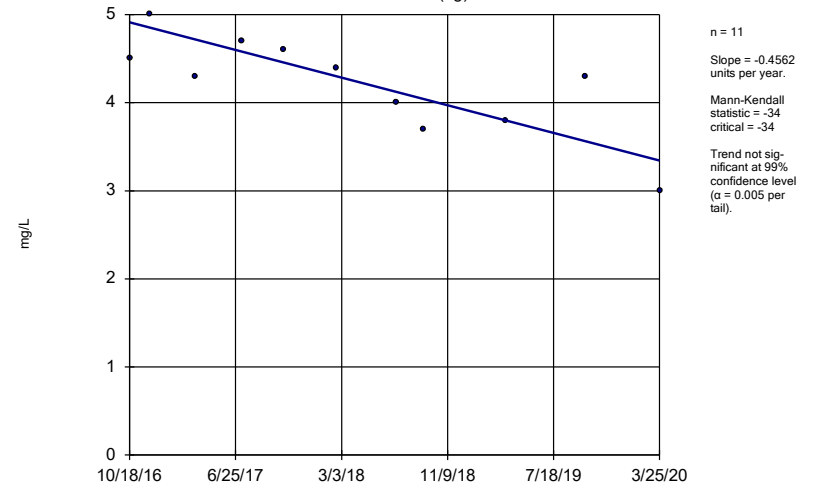
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-2D (bg)



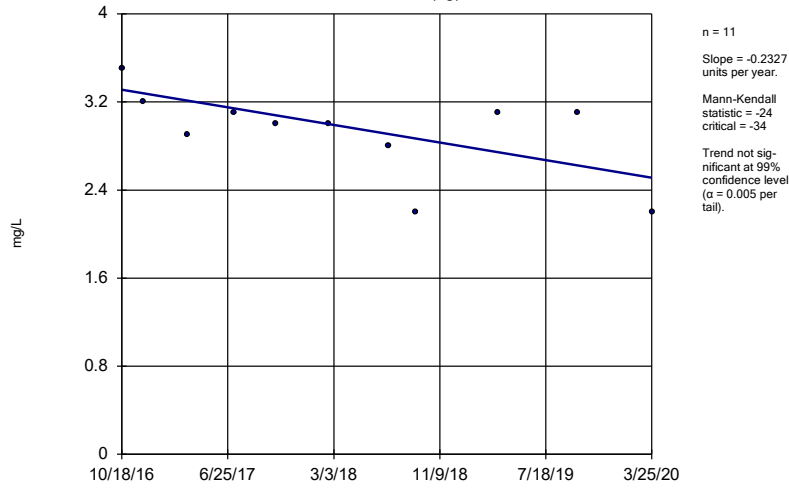
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-31 (bg)



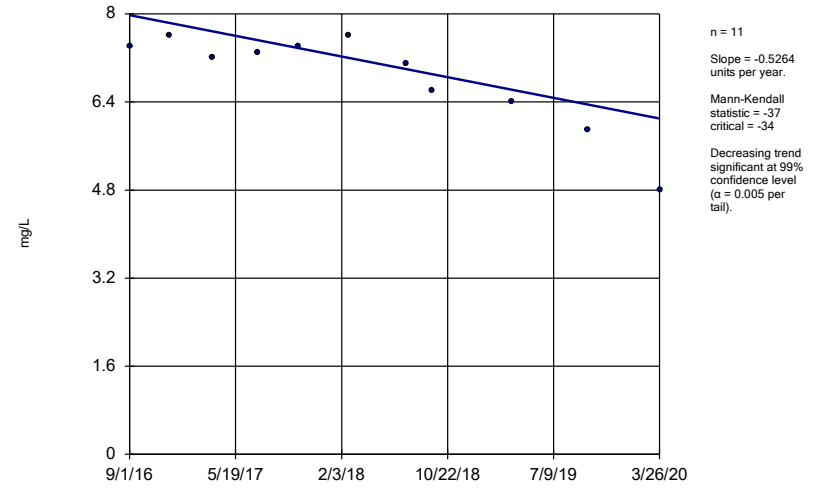
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-32 (bg)



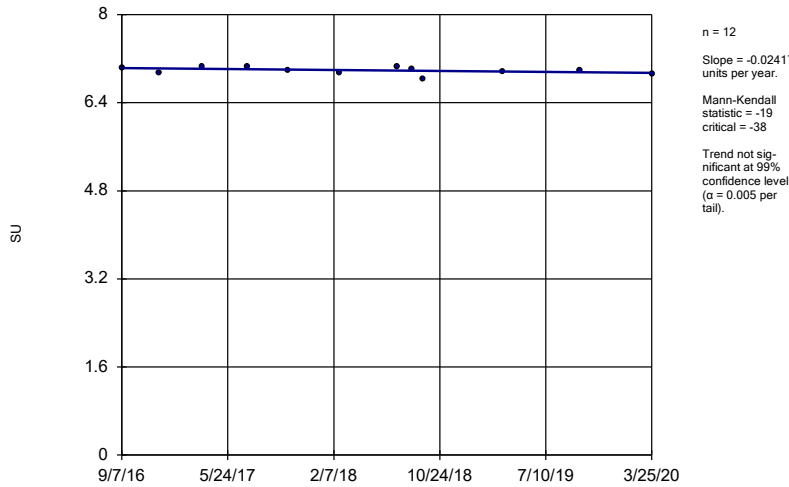
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-7D



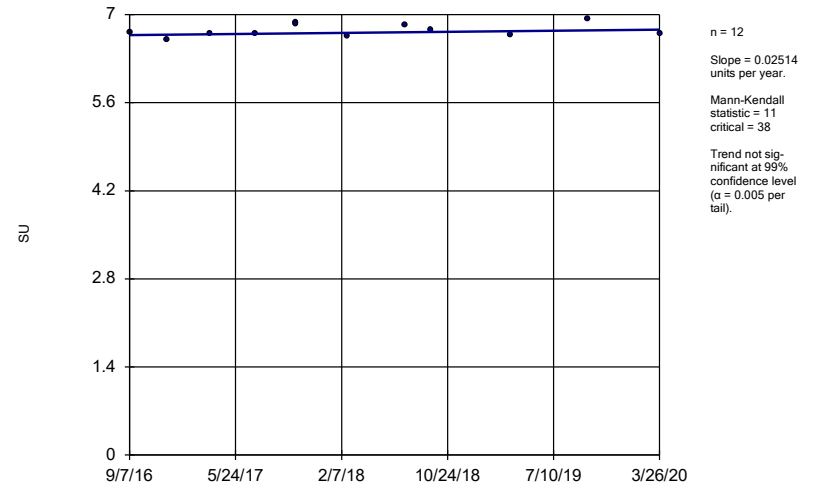
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-17



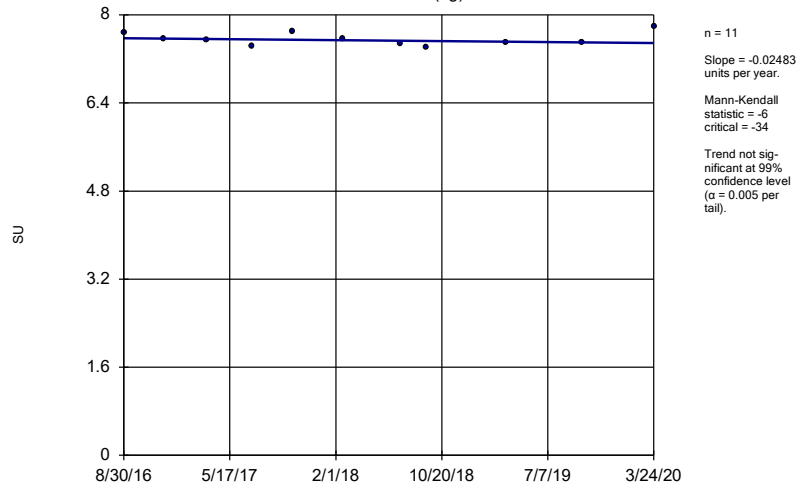
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-19



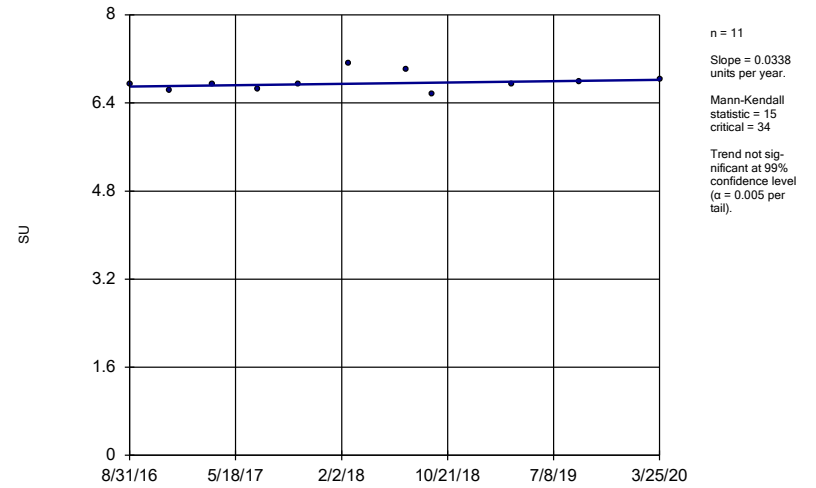
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-1D (bg)



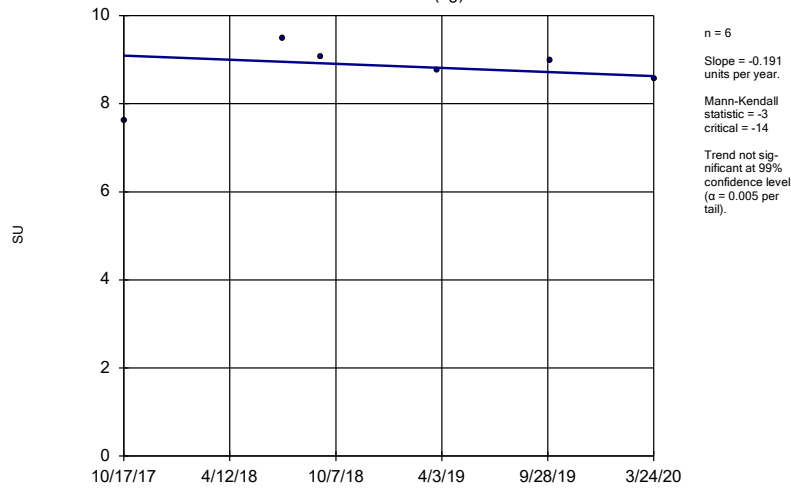
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-23A



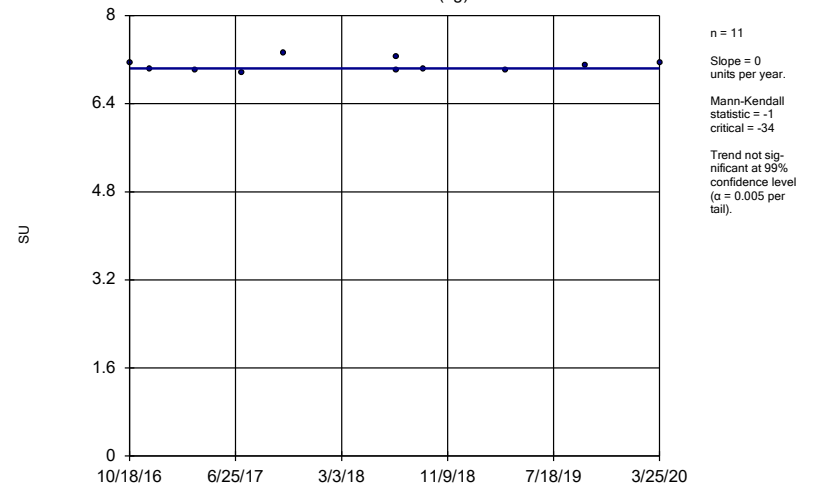
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-2D (bg)



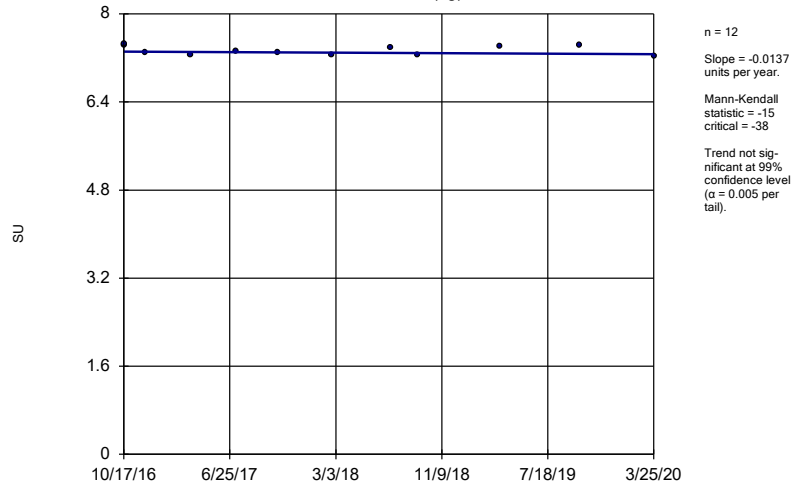
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-31 (bg)



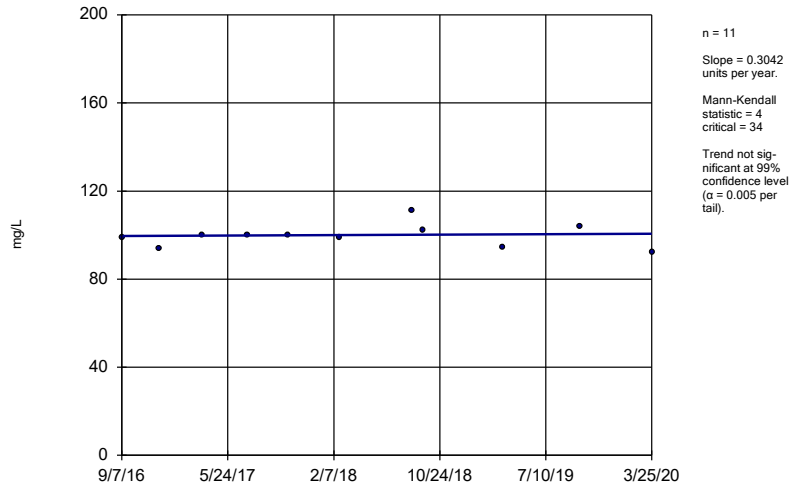
Constituent: pH Analysis Run 4/28/2020 4:12 PM View: Trend Tests
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator PZ-32 (bg)



Sen's Slope Estimator

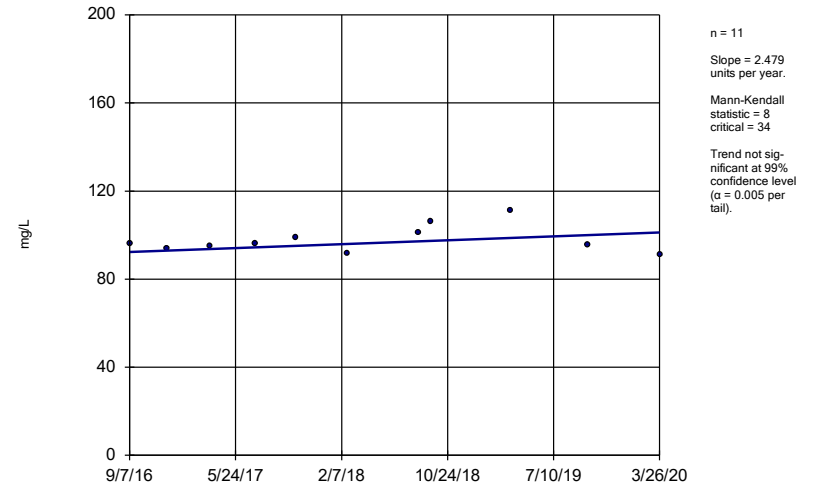
PZ-17



Constituent: Sulfate Analysis Run 4/28/2020 4:12 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

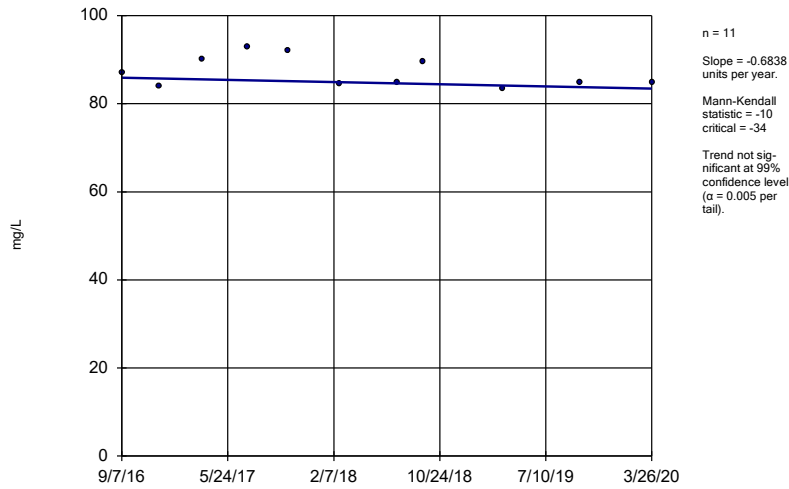
PZ-18



Constituent: Sulfate Analysis Run 4/28/2020 4:12 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

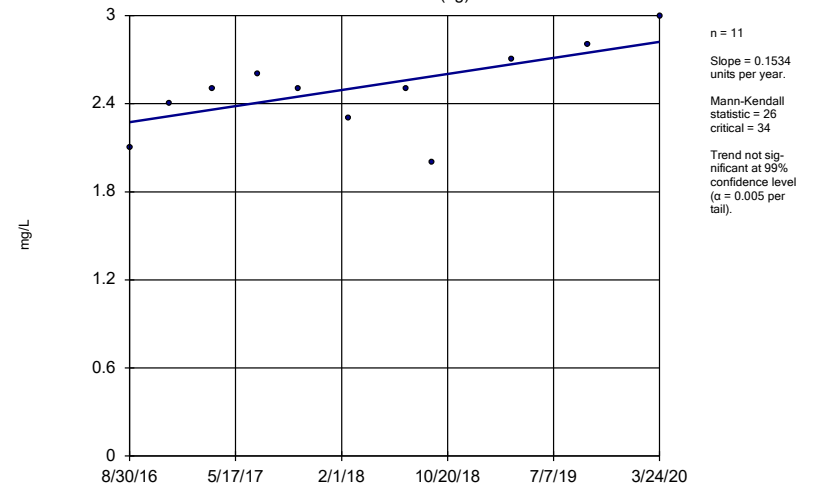
PZ-19



Constituent: Sulfate Analysis Run 4/28/2020 4:12 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

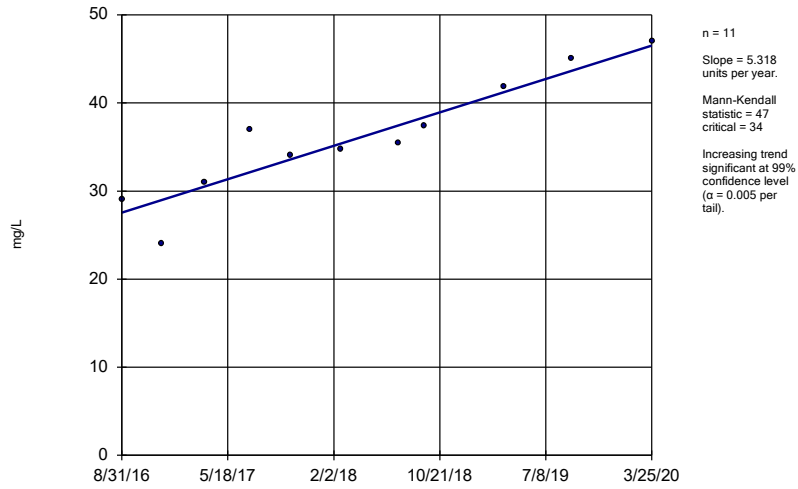
Sen's Slope Estimator

PZ-1D (bg)



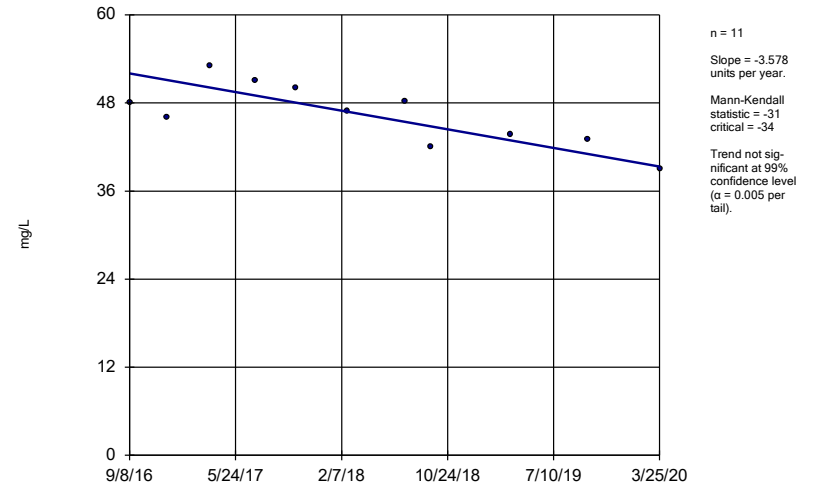
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 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-23A



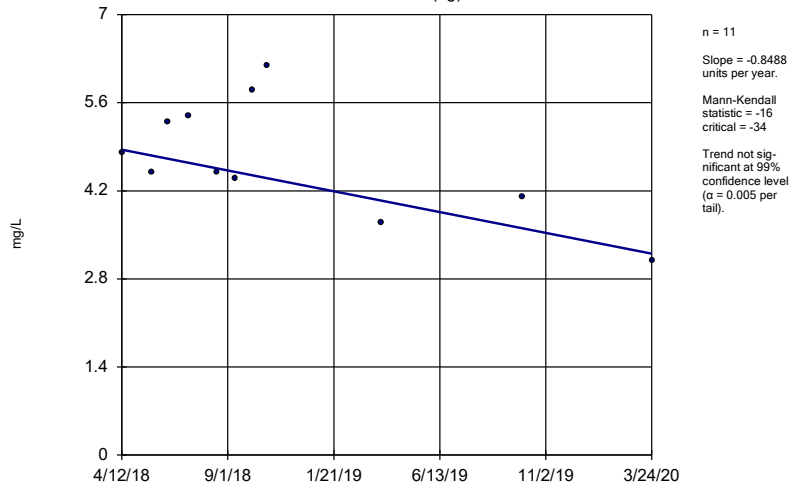
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-25



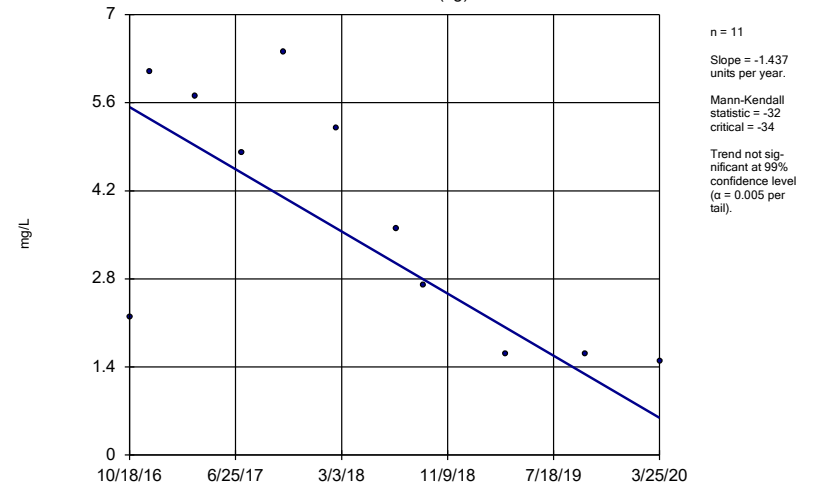
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-2D (bg)



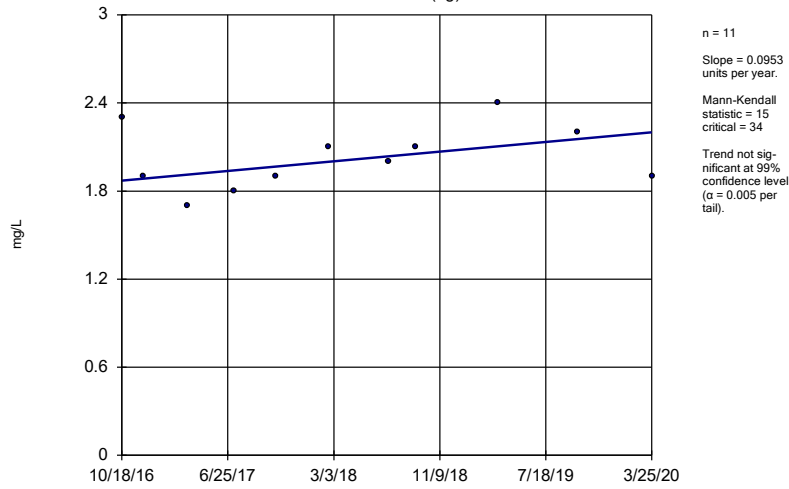
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-31 (bg)



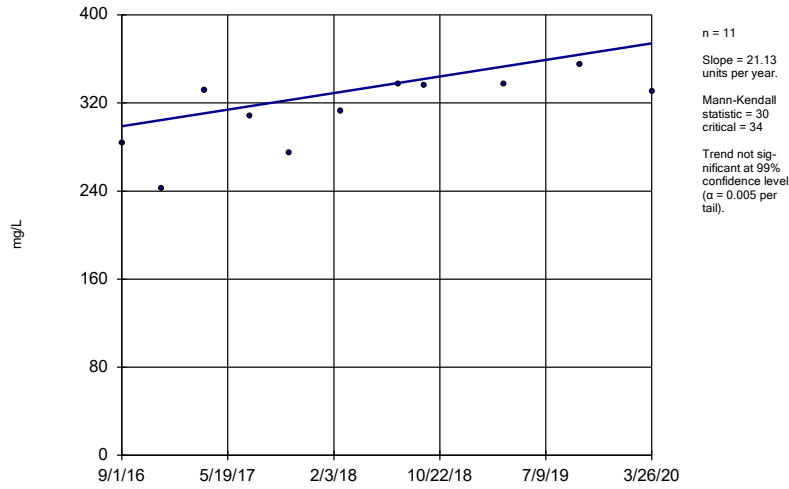
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-32 (bg)



Sen's Slope Estimator

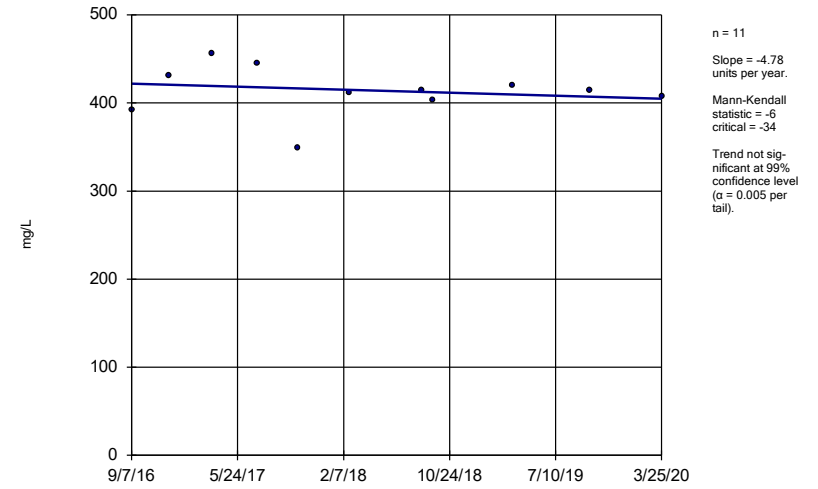
PZ-15



Constituent: TDS Analysis Run 4/28/2020 4:12 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

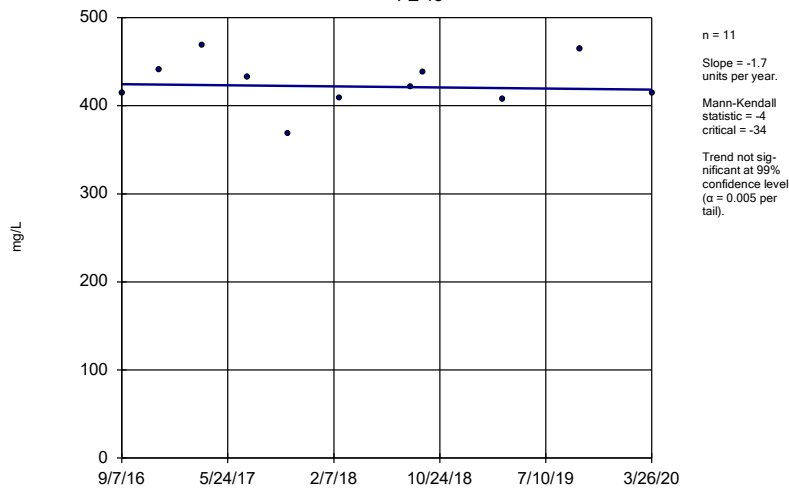
PZ-17



Constituent: TDS Analysis Run 4/28/2020 4:12 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator

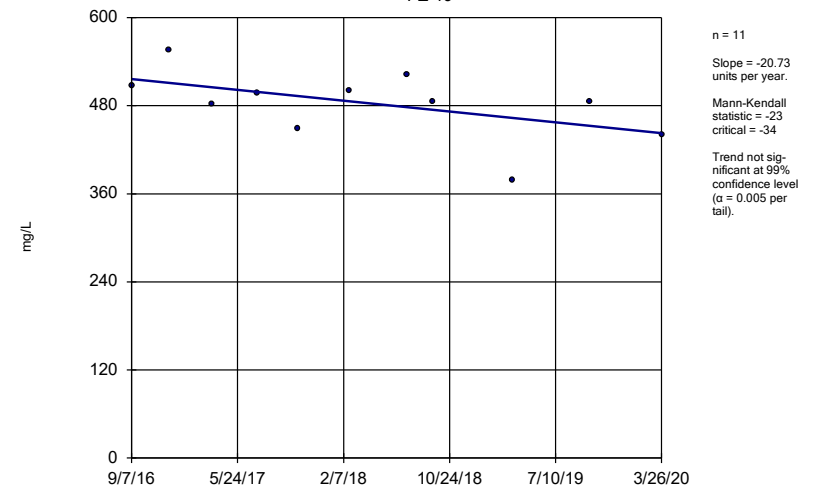
PZ-18



Constituent: TDS Analysis Run 4/28/2020 4:12 PM View: Trend Tests
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

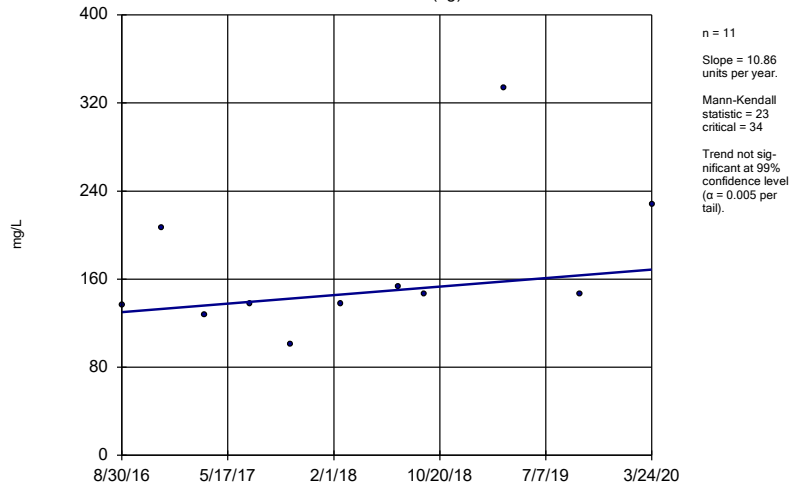
Sen's Slope Estimator

PZ-19



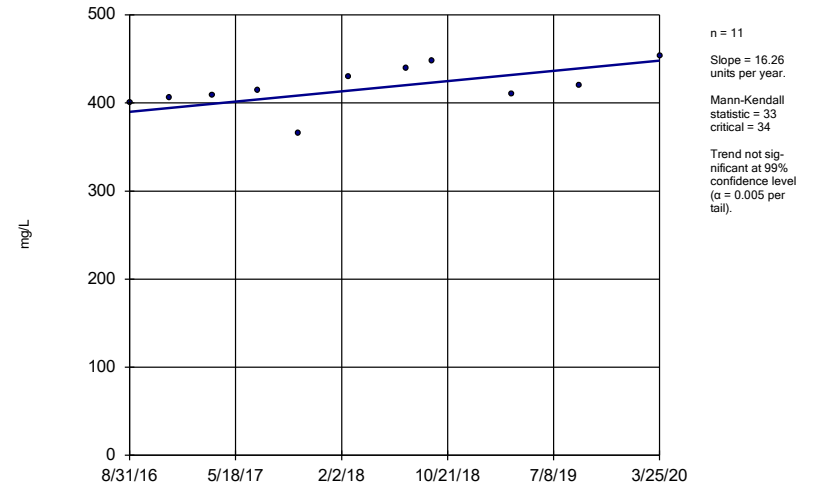
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 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-1D (bg)



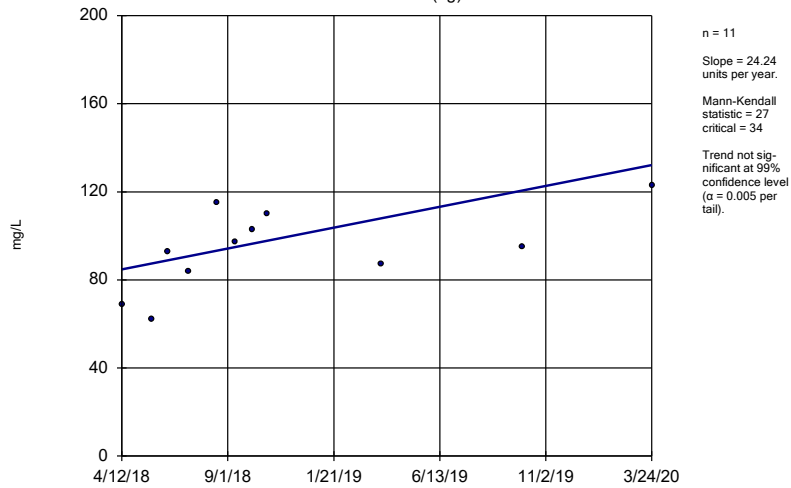
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-23A



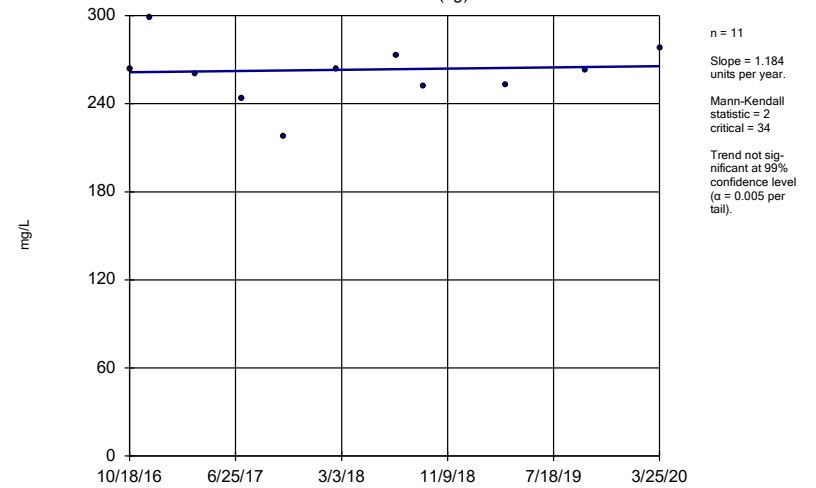
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-2D (bg)



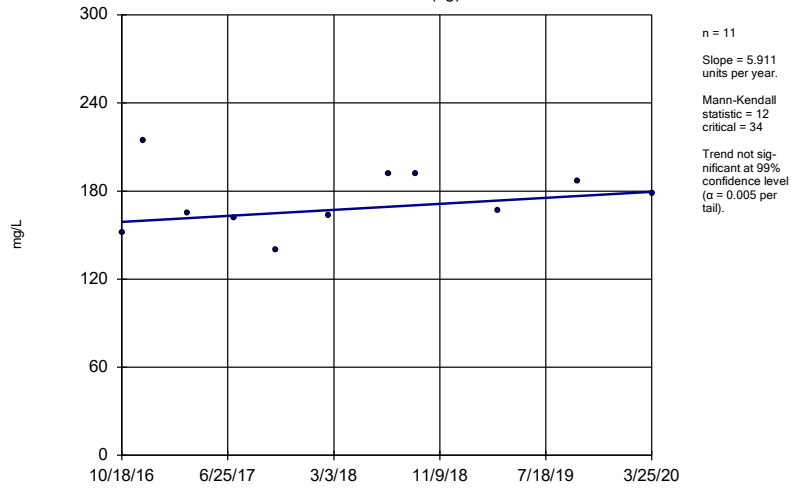
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Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-31 (bg)



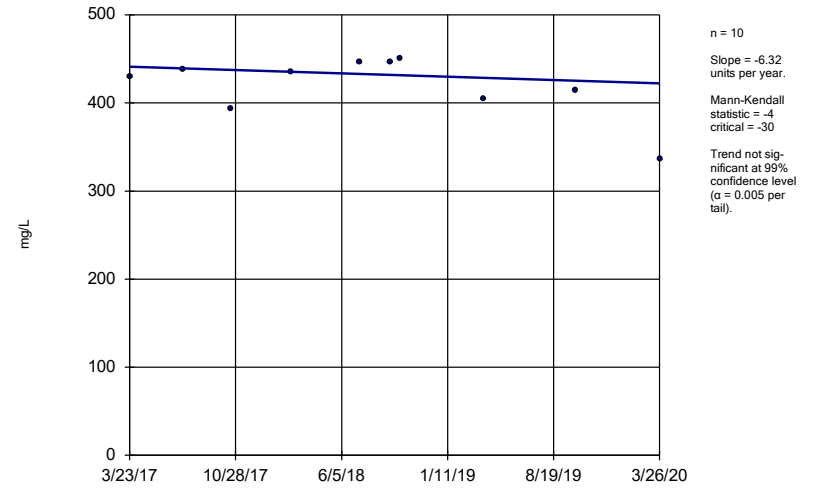
Constituent: TDS Analysis Run 4/28/2020 4:12 PM View: Trend Tests
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-32 (bg)



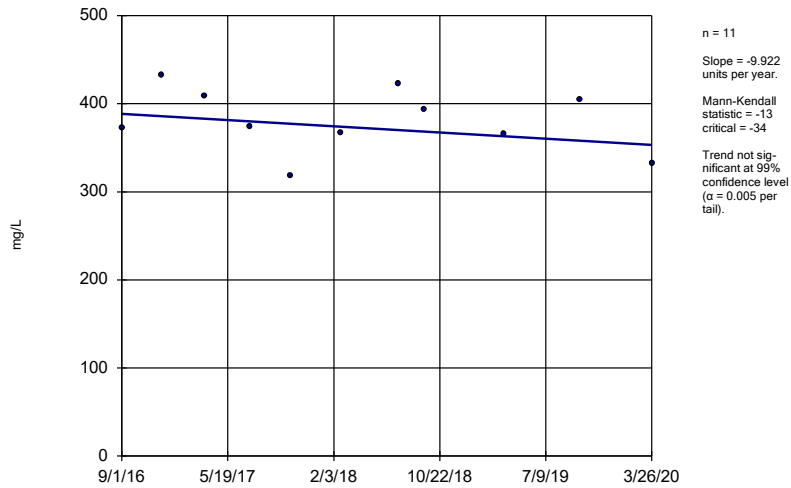
Constituent: TDS Analysis Run 4/28/2020 4:12 PM View: Trend Tests
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-33



Constituent: TDS Analysis Run 4/28/2020 4:12 PM View: Trend Tests
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Sen's Slope Estimator
PZ-7D



Constituent: TDS Analysis Run 4/28/2020 4:12 PM View: Trend Tests
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

FIGURE F.

Tolerance Limit Summary Table

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/27/2020, 2:30 PM

Constituent	Well	Upper Lim.	Lower Lim.	Date	Observ.	Sig.	Bg N	Bg Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	PZ-14	0.0035	n/a	3/25/2020	<0.003	No	40	n/a	n/a	57.5	n/a	n/a	0.1285	NP Inter(NDs)
Arsenic (mg/L)	PZ-14	0.005	n/a	3/25/2020	<0.005	No	40	n/a	n/a	85	n/a	n/a	0.1285	NP Inter(NDs)
Barium (mg/L)	PZ-14	0.06706	n/a	3/25/2020	0.021	No	40	-4.233	0.7198	2.5	None	ln(x)	0.05	Inter
Beryllium (mg/L)	PZ-14	0.003	n/a	9/12/2018	<0.003	No	32	n/a	n/a	93.75	n/a	n/a	0.1937	NP Inter(NDs)
Cadmium (mg/L)	PZ-14	0.001	n/a	9/12/2018	<0.001	No	32	n/a	n/a	100	n/a	n/a	0.1937	NP Inter(NDs)
Chromium (mg/L)	PZ-14	0.011	n/a	3/25/2020	0.0013	No	40	n/a	n/a	30	n/a	n/a	0.1285	NP Inter(normality)
Cobalt (mg/L)	PZ-14	0.005	n/a	3/25/2020	<0.005	No	40	n/a	n/a	95	n/a	n/a	0.1285	NP Inter(NDs)
Combined Radium 226 + 228 (pCi/L)	PZ-14	1.906	n/a	3/25/2020	0.694	No	39	0.745	0.2978	0	None	sqrt(x)	0.05	Inter
Fluoride (mg/L)	PZ-14	0.3	n/a	3/25/2020	<0.3	No	44	n/a	n/a	36.36	n/a	n/a	0.1047	NP Inter(normality)
Lead (mg/L)	PZ-14	0.005	n/a	3/25/2020	<0.005	No	40	n/a	n/a	80	n/a	n/a	0.1285	NP Inter(NDs)
Lithium (mg/L)	PZ-14	0.03	n/a	3/25/2020	<0.03	No	40	n/a	n/a	82.5	n/a	n/a	0.1285	NP Inter(NDs)
Mercury (mg/L)	PZ-14	0.0005	n/a	9/12/2018	<0.0005	No	32	n/a	n/a	93.75	n/a	n/a	0.1937	NP Inter(NDs)
Molybdenum (mg/L)	PZ-14	0.01	n/a	3/25/2020	<0.01	No	40	n/a	n/a	82.5	n/a	n/a	0.1285	NP Inter(NDs)
Selenium (mg/L)	PZ-14	0.01	n/a	3/25/2020	<0.01	No	40	n/a	n/a	100	n/a	n/a	0.1285	NP Inter(NDs)
Thallium (mg/L)	PZ-14	0.001	n/a	3/25/2020	<0.001	No	40	n/a	n/a	85	n/a	n/a	0.1285	NP Inter(NDs)

FIGURE G.

PLANT MITCHELL ASH POND GWPS TABLE			
Constituent Name	MCL	Background Limit	GWPS
Antimony, Total (mg/L)	0.006	0.0035	0.006
Arsenic, Total (mg/L)	0.01	0.005	0.01
Barium, Total (mg/L)	2	0.06706	2
Beryllium, Total (mg/L)	0.004	0.003	0.004
Cadmium, Total (mg/L)	0.005	0.001	0.005
Chromium, Total (mg/L)	0.1	0.011	0.1
Cobalt, Total (mg/L)		0.005	0.005
Combined Radium, Total (pCi/L)	5	1.906	5
Fluoride, Total (mg/L)	4	0.3	4
Lead, Total (mg/L)		0.005	0.005
Lithium, Total (mg/L)		0.03	0.03
Mercury, Total (mg/L)	0.002	0.0005	0.002
Molybdenum, Total (mg/L)		0.01	0.01
Selenium, Total (mg/L)	0.05	0.01	0.05
Thallium, Total (mg/L)	0.002	0.001	0.002

**Highlighted cells indicated Background is higher than MCLs.*

**MCL = Maximum Contaminant Level*

FIGURE H.

Confidence Intervals - All Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/29/2020, 2:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Antimony (mg/L)	PZ-14	0.003	0.003	0.006	No	10	0.00274	0.0008222	90	None	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-15	0.003	0.003	0.006	No	10	0.0028	0.0006325	90	None	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-17	0.003	0.003	0.006	No	10	0.002794	0.0006514	90	None	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-18	0.003	0.003	0.006	No	10	0.00288	0.0003795	90	None	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-19	0.003	0.003	0.006	No	10	0.002744	0.0008095	90	None	No	0.011	NP (NDs)
Antimony (mg/L)	PZ-7D	0.003	0.00042	0.006	No	10	0.002471	0.001116	80	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-14	0.005	0.005	0.01	No	10	0.004583	0.001319	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-15	0.005	0.00089	0.01	No	10	0.003759	0.002002	70	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-17	0.005	0.0007	0.01	No	10	0.003712	0.002074	70	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-19	0.005	0.005	0.01	No	10	0.00457	0.00136	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-23A	0.005	0.005	0.01	No	10	0.004536	0.001467	90	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-25	0.005	0.00071	0.01	No	10	0.003404	0.002079	60	None	No	0.011	NP (NDs)
Arsenic (mg/L)	PZ-33	0.005	0.00094	0.01	No	10	0.004164	0.001763	80	None	No	0.011	NP (NDs)
Barium (mg/L)	PZ-14	0.04126	0.01966	2	No	10	0.03059	0.01372	0	None	sqrt(x)	0.01	Param.
Barium (mg/L)	PZ-15	0.07946	0.04854	2	No	10	0.064	0.01733	0	None	No	0.01	Param.
Barium (mg/L)	PZ-16	0.0589	0.03664	2	No	10	0.04809	0.0145	0	None	ln(x)	0.01	Param.
Barium (mg/L)	PZ-17	0.08199	0.07307	2	No	10	0.07753	0.004999	0	None	No	0.01	Param.
Barium (mg/L)	PZ-18	0.0513	0.023	2	No	10	0.033	0.01588	0	None	No	0.011	NP (normality)
Barium (mg/L)	PZ-19	0.06138	0.0536	2	No	10	0.05749	0.004365	0	None	No	0.01	Param.
Barium (mg/L)	PZ-23A	0.05812	0.0369	2	No	10	0.04751	0.0119	0	None	No	0.01	Param.
Barium (mg/L)	PZ-25	0.1077	0.09846	2	No	10	0.1031	0.005177	0	None	No	0.01	Param.
Barium (mg/L)	PZ-33	0.07956	0.062	2	No	9	0.07078	0.009094	0	None	No	0.01	Param.
Barium (mg/L)	PZ-7D	0.01135	0.007668	2	No	10	0.00951	0.002065	0	None	No	0.01	Param.
Chromium (mg/L)	PZ-14	0.01	0.01	0.1	No	10	0.00913	0.002751	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-16	0.01	0.0008	0.1	No	10	0.007254	0.004426	70	None	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-18	0.01	0.01	0.1	No	10	0.009056	0.002985	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-19	0.01	0.01	0.1	No	10	0.009073	0.002931	90	None	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-23A	0.002763	0.001202	0.1	No	10	0.00443	0.003955	30	Kaplan-Meier	ln(x)	0.01	Param.
Chromium (mg/L)	PZ-33	0.01	0.01	0.1	No	10	0.00917	0.002625	90	Kaplan-Meier	No	0.011	NP (NDs)
Chromium (mg/L)	PZ-7D	0.01	0.0005	0.1	No	10	0.0056	0.004698	50	None	No	0.011	NP (normality)
Cobalt (mg/L)	PZ-14	0.005	0.002	0.005	No	10	0.00423	0.001672	80	None	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-15	0.005	0.0004	0.005	No	10	0.0028	0.00233	50	None	No	0.011	NP (normality)
Cobalt (mg/L)	PZ-16	0.005	0.005	0.005	No	10	0.00455	0.001423	90	None	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-17	0.005	0.0005	0.005	No	10	0.002362	0.002279	40	None	No	0.011	NP (normality)
Cobalt (mg/L)	PZ-18	0.005	0.005	0.005	No	10	0.00461	0.001233	90	None	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-19	0.005	0.0012	0.005	No	10	0.00421	0.001667	80	None	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-23A	0.005	0.0008	0.005	No	10	0.00411	0.00188	80	None	No	0.011	NP (NDs)
Cobalt (mg/L)	PZ-25	0.0018	0.0008	0.005	No	10	0.001495	0.001284	10	None	No	0.011	NP (normality)
Cobalt (mg/L)	PZ-33	0.005	0.00053	0.005	No	10	0.002783	0.002172	40	None	No	0.011	NP (normality)
Combined Radium 226 + 228 (pCi/L)	PZ-14	1.349	0.387	5	No	10	0.8774	0.6046	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-15	1.218	0.5998	5	No	10	0.9124	0.3901	0	None	sqrt(x)	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-16	0.9929	0.3985	5	No	10	0.6957	0.3332	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-17	1.341	0.6641	5	No	9	1.003	0.3507	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-18	1.525	0.514	5	No	9	1.02	0.5236	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-19	1.601	0.7663	5	No	10	1.184	0.4678	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-23A	1.391	0.7162	5	No	10	1.054	0.378	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-25	1.358	0.8034	5	No	10	1.081	0.311	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-33	1.194	0.5921	5	No	10	0.8928	0.3371	0	None	No	0.01	Param.
Combined Radium 226 + 228 (pCi/L)	PZ-7D	0.7284	0.1228	5	No	10	0.4338	0.4056	0	None	sqrt(x)	0.01	Param.
Fluoride (mg/L)	PZ-14	0.3	0.05	4	No	11	0.1778	0.1197	45.45	None	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-15	0.197	0.06736	4	No	11	0.1322	0.07779	9.091	None	No	0.01	Param.
Fluoride (mg/L)	PZ-16	0.3	0.04	4	No	11	0.1694	0.1262	45.45	None	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-17	0.1865	0.06896	4	No	11	0.1705	0.09621	18.18	Kaplan-Meier	No	0.01	Param.
Fluoride (mg/L)	PZ-18	0.1438	0.06382	4	No	11	0.1763	0.1064	36.36	Kaplan-Meier	sqrt(x)	0.01	Param.
Fluoride (mg/L)	PZ-19	0.188	0.07472	4	No	11	0.1686	0.1062	18.18	Kaplan-Meier	sqrt(x)	0.01	Param.

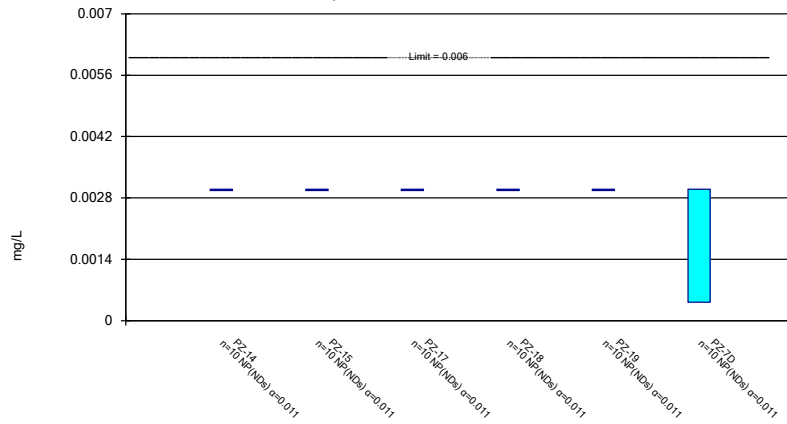
Confidence Intervals - All Results

Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR Printed 4/29/2020, 2:05 PM

Constituent	Well	Upper Lim.	Lower Lim.	Compliance	Sig.	N	Mean	Std. Dev.	%NDs	ND Adj.	Transform	Alpha	Method
Fluoride (mg/L)	PZ-23A	0.3	0.05	4	No	11	0.1821	0.1159	36.36	None	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-25	0.2859	0.1723	4	No	11	0.2291	0.06818	0	None	No	0.01	Param.
Fluoride (mg/L)	PZ-33	0.3	0.06	4	No	11	0.1999	0.1087	45.45	None	No	0.006	NP (normality)
Fluoride (mg/L)	PZ-7D	0.3	0.041	4	No	11	0.1951	0.1249	54.55	None	No	0.006	NP (NDs)
Lead (mg/L)	PZ-15	0.005	0.005	0.005	No	10	0.004505	0.001565	90	None	No	0.011	NP (NDs)
Lead (mg/L)	PZ-16	0.005	0.005	0.005	No	10	0.004508	0.001556	90	None	No	0.011	NP (NDs)
Lead (mg/L)	PZ-18	0.005	0.005	0.005	No	10	0.004543	0.001445	90	None	No	0.011	NP (NDs)
Lead (mg/L)	PZ-23A	0.005	0.005	0.005	No	10	0.004515	0.001534	90	None	No	0.011	NP (NDs)
Lead (mg/L)	PZ-33	0.005	0.00009	0.005	No	10	0.004014	0.002079	80	None	No	0.011	NP (NDs)
Lithium (mg/L)	PZ-14	0.03	0.03	0.03	No	10	0.0273	0.008538	90	None	No	0.011	NP (NDs)
Lithium (mg/L)	PZ-15	0.03	0.0012	0.03	No	10	0.01563	0.01515	50	None	No	0.011	NP (normality)
Lithium (mg/L)	PZ-17	0.03	0.002	0.03	No	10	0.00789	0.01166	20	None	No	0.011	NP (normality)
Lithium (mg/L)	PZ-18	0.03	0.0024	0.03	No	10	0.00811	0.01154	20	None	No	0.011	NP (normality)
Lithium (mg/L)	PZ-19	0.01532	0.008877	0.03	No	10	0.0121	0.003612	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-23A	0.03	0.03	0.03	No	10	0.02711	0.009139	90	None	No	0.011	NP (NDs)
Lithium (mg/L)	PZ-25	0.006932	0.004808	0.03	No	10	0.00587	0.001191	0	None	No	0.01	Param.
Lithium (mg/L)	PZ-7D	0.0038	0.0023	0.03	No	10	0.00564	0.008575	10	None	No	0.011	NP (normality)
Molybdenum (mg/L)	PZ-14	0.01	0.01	0.01	No	10	0.00905	0.003004	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-15	0.01	0.01	0.01	No	10	0.00904	0.003036	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-16	0.01	0.01	0.01	No	10	0.00904	0.003036	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-17	0.01	0.01	0.01	No	10	0.00904	0.003036	90	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-19	0.0027	0.0021	0.01	No	10	0.00307	0.002442	10	None	No	0.011	NP (normality)
Molybdenum (mg/L)	PZ-23A	0.01	0.0011	0.01	No	10	0.00817	0.00386	80	None	No	0.011	NP (NDs)
Molybdenum (mg/L)	PZ-25	0.01	0.01	0.01	No	10	0.0091	0.002846	90	None	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-14	0.01	0.0015	0.05	No	10	0.00827	0.003648	80	None	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-19	0.01	0.0016	0.05	No	10	0.00765	0.003817	70	None	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-23A	0.01	0.0018	0.05	No	10	0.00762	0.003852	70	None	No	0.011	NP (NDs)
Selenium (mg/L)	PZ-7D	0.01	0.01	0.05	No	10	0.00917	0.002625	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-14	0.001	0.001	0.002	No	10	0.000906	0.0002973	90	None	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-15	0.001	0.00016	0.002	No	10	0.00083	0.0003584	80	None	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-16	0.001	0.00017	0.002	No	10	0.0005003	0.0004322	40	None	No	0.011	NP (normality)
Thallium (mg/L)	PZ-17	0.001	0.0002	0.002	No	10	0.000836	0.0003459	80	None	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-18	0.001	0.00005	0.002	No	10	0.0007161	0.0004572	70	None	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-19	0.0007958	0.0003862	0.002	No	10	0.000591	0.0002296	10	None	No	0.01	Param.
Thallium (mg/L)	PZ-23A	0.0002469	0.0001296	0.002	No	10	0.000439	0.0003909	30	Kaplan-Meier	ln(x)	0.01	Param.
Thallium (mg/L)	PZ-25	0.001	0.00037	0.002	No	10	0.000861	0.0002946	80	Kaplan-Meier	No	0.011	NP (NDs)
Thallium (mg/L)	PZ-33	0.001	0.0001	0.002	No	10	0.000563	0.0004613	50	None	No	0.011	NP (normality)
Thallium (mg/L)	PZ-7D	0.001	0.000085	0.002	No	10	0.0005563	0.0004689	50	None	No	0.011	NP (normality)

Non-Parametric Confidence Interval

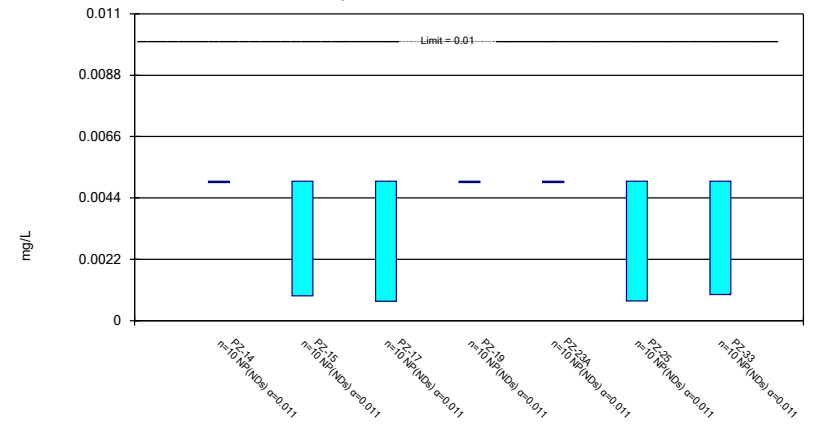
Compliance Limit is not exceeded.



Constituent: Antimony Analysis Run 4/29/2020 2:05 PM View: Appendix IV
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Non-Parametric Confidence Interval

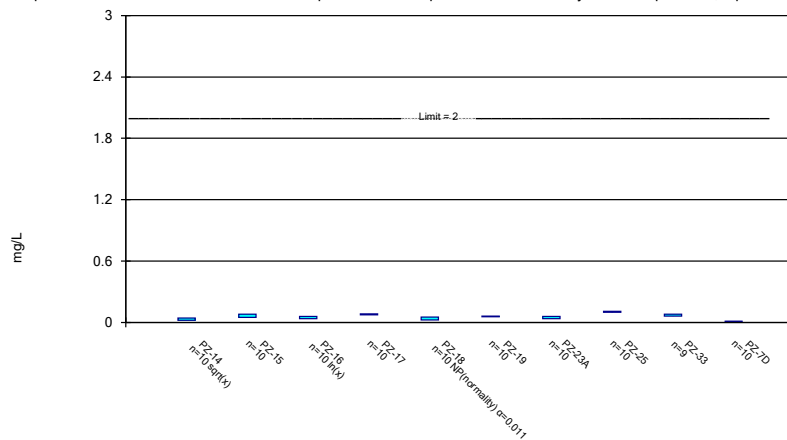
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Constituent: Arsenic Analysis Run 4/29/2020 2:05 PM View: Appendix IV
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Parametric and Non-Parametric (NP) Confidence Interval

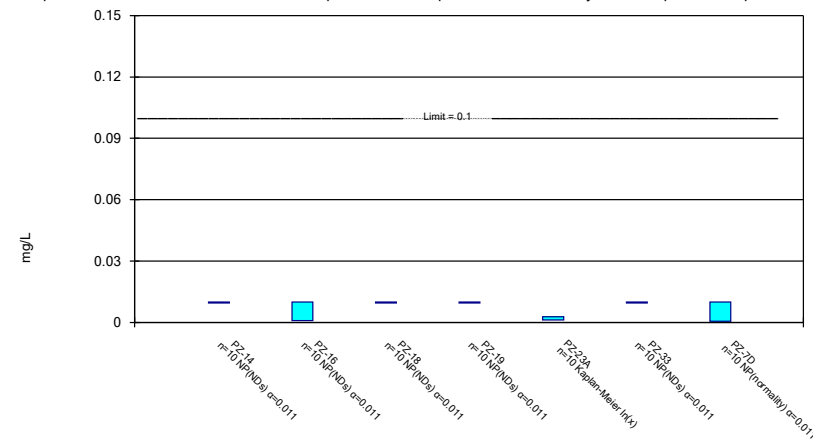
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Constituent: Barium Analysis Run 4/29/2020 2:05 PM View: Appendix IV
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Parametric and Non-Parametric (NP) Confidence Interval

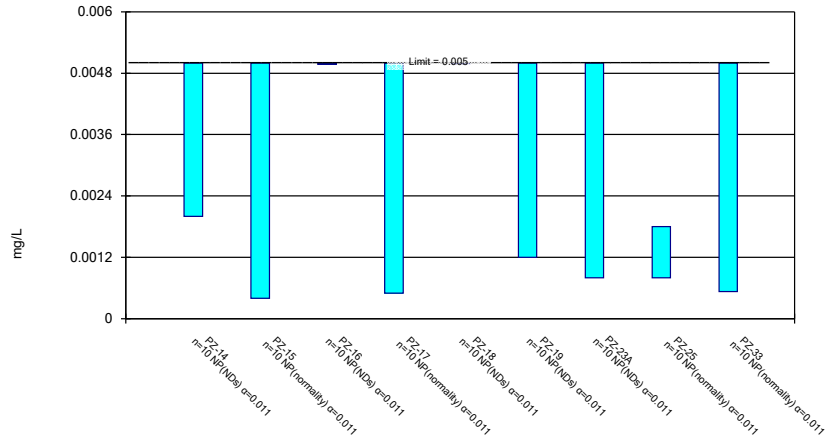
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Constituent: Chromium Analysis Run 4/29/2020 2:05 PM View: Appendix IV
 Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Non-Parametric Confidence Interval

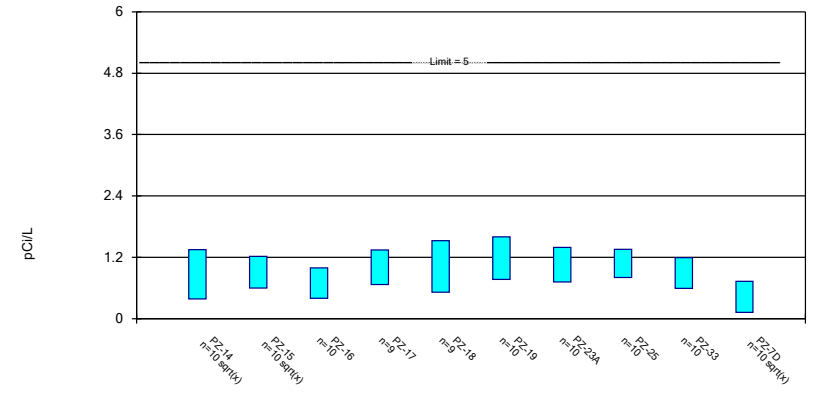
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Constituent: Cobalt Analysis Run 4/29/2020 2:05 PM View: Appendix IV
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Parametric Confidence Interval

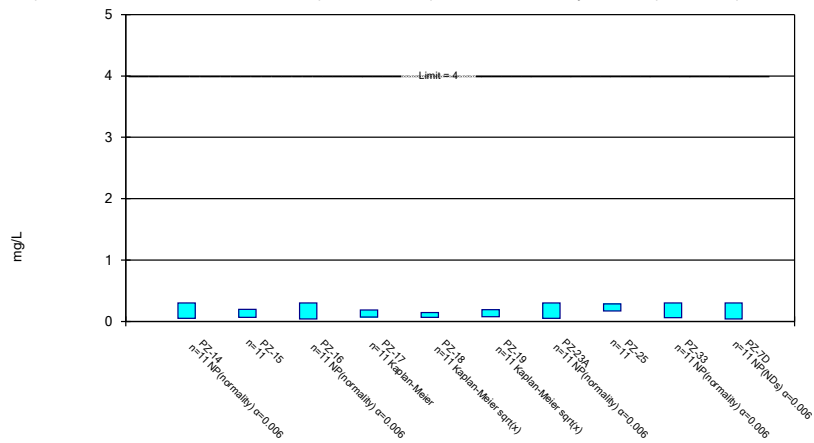
Compliance Limit is not exceeded. Per-well alpha = 0.01. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Combined Radium 226 + 228 Analysis Run 4/29/2020 2:05 PM View: Appendix IV
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Parametric and Non-Parametric (NP) Confidence Interval

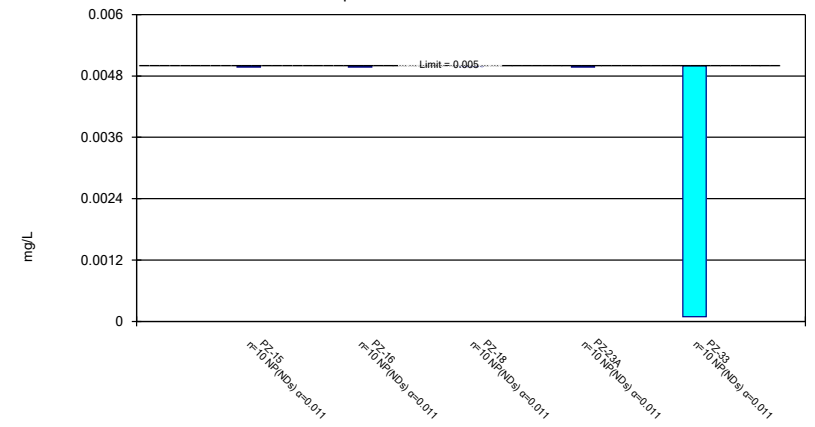
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Constituent: Fluoride Analysis Run 4/29/2020 2:05 PM View: Appendix IV
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Non-Parametric Confidence Interval

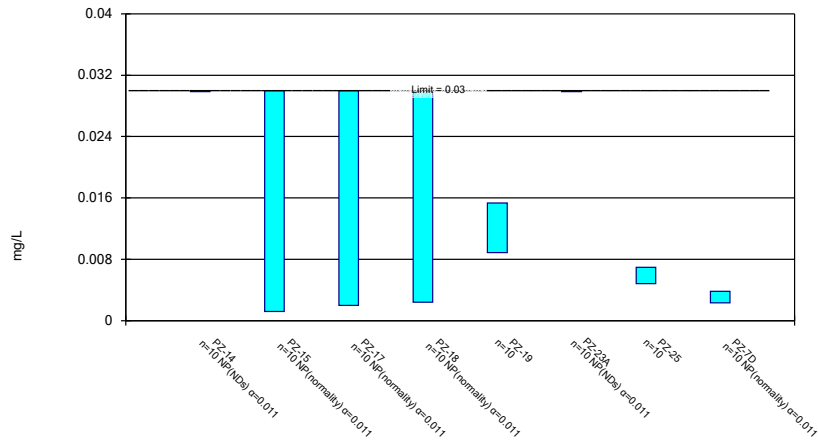
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Constituent: Lead Analysis Run 4/29/2020 2:05 PM View: Appendix IV
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Parametric and Non-Parametric (NP) Confidence Interval

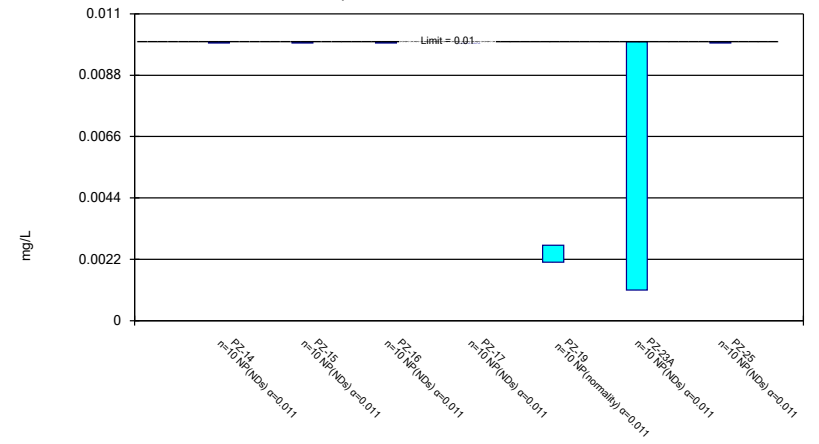
Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Lithium Analysis Run 4/29/2020 2:05 PM View: Appendix IV
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Non-Parametric Confidence Interval

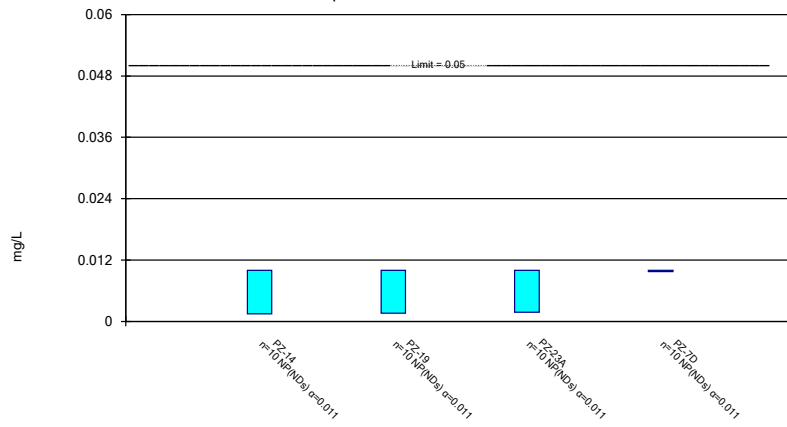
Compliance Limit is not exceeded.



Constituent: Molybdenum Analysis Run 4/29/2020 2:05 PM View: Appendix IV
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Non-Parametric Confidence Interval

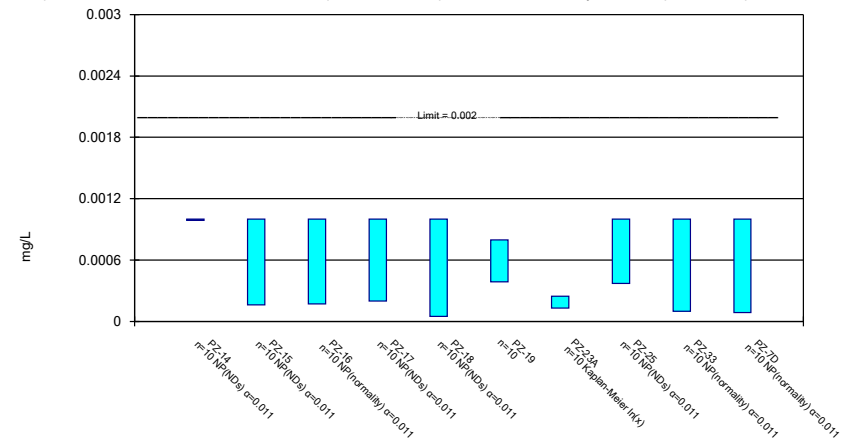
Compliance Limit is not exceeded.



Constituent: Selenium Analysis Run 4/29/2020 2:05 PM View: Appendix IV
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR

Parametric and Non-Parametric (NP) Confidence Interval

Compliance Limit is not exceeded. Per-well alpha = 0.01 except as noted. Normality Test: Shapiro Wilk, alpha based on n.



Constituent: Thallium Analysis Run 4/29/2020 2:05 PM View: Appendix IV
Plant Mitchell Client: Southern Company Data: Mitchell Ash Pond CCR